

The Impact of Virtual ESOL Endorsement Courses for In-service Educators During the COVID-19 Pandemic

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In the southeastern region of the United States, English Learners (ELs) present the fastest growing public school population. Therefore, in-service educators need to be specifically prepared to provide culturally and linguistically appropriate research-evidenced practices to support ELs within the content areas. The characteristics and impact of two graduate-level online courses for an endorsement in ESOL are shared. Based on described benefits and challenges, suggestions for future offerings are provided.

Introduction

Since the 1990s, the public school population in the southeastern region of the United States has changed drastically with a significant increase of nonnative speakers of English or *English Learners* (ELs) (Ariza & Coady, 2018). Southeastern Regional Association of Teacher Educators (SRATE) member states (SRATE, n.d.) saw a collective increase of 200% in the number of ELs from 2000 to 2018. As a result of this population shift, schools face a shortage of teachers of speakers of other languages (ESOL teachers) who are specifically trained to work with ELs (U.S. Department of Education, 2016). In addition, classroom teachers are insufficiently prepared to meet the needs of ELs through research-evidenced practices as required by federal law (Ariza & Coady, 2018; Hoover et al., 2016). To address this need, the state of Florida, for instance, requires each preservice and inservice teacher regardless of content area and licensure (i.e., special education) or grade level to attain an ESOL endorsement in order to teach in any public school (Ariza & Coady, 2018). The southeastern state in which the inservice teacher training

described here occurred has experienced an almost 900% increase of ELs between 2000 and 2018 (National Center for Education Statistics, 2021). In response to this growing challenge, the department of education in this southeastern state recently approved an optional ESOL endorsement for any classroom teacher (South Carolina State Board of Education, 2019, p. 35).

In an attempt to address this educational challenge, the educator preparation program at a midsize regional service institution in the southeast offered inservice teachers of all disciplines in three partner school districts with high percentages of ELs the opportunity to take the two courses required for the ESOL endorsement. Tuition and fees for the graduate-level courses were entirely funded through a federal grant awarded to the institution from the National Professional Development Program, which is administered by the Office of English Language Acquisition in the U.S. Department of Education (Johnson & Costner, 2016-2021).

In this article, readers are first introduced to the structure and content of the courses. Then information about the impact of these courses for course participants along with

instructor reflections on course design and delivery are shared.

Course Structure, Content, and Assignments

To begin, readers gain an understanding of how ESOL endorsement course participants acquired their knowledge about ELs in a virtual learning environment. Next, the course delivery model and content of the two courses are described. Assignment details provide readers insight into the variety of virtual learning experiences in which participants engaged.

Course Delivery Model and Design

In response to pandemic restrictions in 2020, both courses (one in Fall 2020; one in Spring 2021) were delivered in a 100% online format through the university's learning management system and supplemented by the use of other online tools and resources, including *YouTube* videos and *Flipgrid* ([www.https://infoflipgrid.com](https://infoflipgrid.com)). The latter provided opportunities for nonwritten dialog among participants. During the second course, two optional synchronous online meetings were held to provide preparatory practice for and clarification of assignments. Otherwise, both courses were asynchronous and participants were able to complete assignments at their own pace within each semester even though content was provided in "weekly" segments as a pacing guide.

Course Content

The first course was a prerequisite for the second course. It introduced participants to the basic characteristics, needs, and realities of ELs and their families; the laws that protect ELs; the learning theories behind culturally and linguistically appropriate instruction and assessment; and the challenges of English in the areas of phonics,

syntax, and vocabulary. The second course expanded participants' understanding and knowledge of how to address EL-specific challenges in areas such as listening and speaking comprehension, written and oral discourse, assessment of learner needs, design of research-evidenced intervention lessons, and diversity-sensitive communication with parents of ELs. An informal phonics assessment was also introduced, and participants learned how to use assessment results to design specific phonics-based lessons. Prior to the pandemic, the assessment and lesson planning was conducted through a field-based experience that included direct assessment of an EL and delivery of four lessons with a postassessment analysis of learner growth. Because of pandemic restrictions, which limited opportunities for contact with ELs for some participants, the approach in this course model involved only the design of the related research-evidenced lessons and no post assessment.

Course Assignments

Course assignments consisted of various virtual tasks that participants could complete individually or in pairs on their own time. All instructional and assessment content was based on research-evidenced best practice for ELs (August & Shanahan, 2007, Echevarria, et al, 2017, Ginns, et al., 2019). This content focused on student-engaging, multimodal, carefully structured, differentiated, and metacognitive language instruction (Birsh & Carraker, 2018; Bitter & White, 2011; Henry, 2010; Kieffer & Lesaux, 2012, Lesaux, 2015; Schneider & Kulmhofer, 2016). Similarly, equitable assessment practices broadened participants' skill sets and experiences of ways that allow ELs to demonstrate their gained knowledge in light of language and cultural differences (Farrell & Jacobs, 2020; Garcia & Kleifgen, 2018; Siegel, 2014). Both instructional and assessment practices

shared in the ESOL endorsement courses are in alignment with WIDA K-12 (WIDA, 2020) as well as TESOL K-12 (TESOL, 2006) and teacher education standards (TESOL, 2018).

Assignments included written *learning logs* with topic-specific prompts related to readings and viewings of selected videos and other resources on the topics of characteristics and demographics of ELs; language acquisition and acculturation challenges; characteristics of the English language with embedded challenges for ELs including phonics, syntax, and morphology; cultural differences in oral and written discourse; non-verbal and verbal challenges; family engagement; and second language teaching methods (Ariza & Coady, 2018). Other learning log topics addressed the differentiation of language acquisition and learning disabilities through culturally- and linguistically-sensitive multitiered systems of support (MTSS) practices (Hoover et al., 2016). These learning logs guided participants to focus on relevant aspects from their readings and prompted them to connect what they learned to their own classroom/school settings.

Additional reflective work included *Oral (Flipgrid) or written reflections* on article readings and video demonstrations (i.e., teaching demonstrations, explanations of linguistic concepts and terms). Various other *online engagements* ensured that participants reflected on relevance in their own settings such as using gestures and images, read-alouds, explicit, multimodal use of sentence structures, and grammar.

Participants also developed three resource and materials collections. They included an *icon collection* for classroom routines and content-specific instruction, a *collection of diversity-sensitive children's / adolescent literature* that contained varied readability levels and topics addressing diversity, and a collection of research-

evidenced *language enhancement games* that were described and supported with differentiable, teacher-ready, replicable materials.

Moreover, several *literacy skills awareness quizzes* ensured participants' knowledge of reading and spelling challenges of English (i.e., basic phonics facts; word division rules; syllable types; multimodal ways to teach prefixes, roots, and suffixes; spelling rules). Then, they viewed, analyzed, and reflected on two examples of a phonics-focused assessment with a middle and elementary school student. Based on these experiences, participants conducted *an assessment of an EL's phonics skills virtually or in person with a detailed written reflection*. Based on phonics assessment data, participants then wrote three lesson plans that modeled explicitly an approach to instruction that was carefully sequenced, multisensory, diversity sensitive, SIOP principles aligned, and phonics based (Ariza & Coady, 2018; Echevarria et al., 2017). Two lesson plans were based on the two assessment videos, and the third lesson was for the student assessed by the participant. Overall, this series of assignments across both courses during a full academic year linked new content knowledge of the English language with processes for individualized student assessment and data-based instructional design.

Research Methods

To gain insight into the impact of these six credit hours of ESOL endorsement work for the practicing teachers, 28 participants from three local districts who had completed both courses participated in a virtual, semistructured 30-minute focus group meeting facilitated by one or both of the instructors. Focus groups varied in size from two to nine participants. To identify benefits and challenges of the designed virtual course models and to contextualize participant

comments, instructors took field notes during the conversations. The instructors compared their notes immediately after each session (Charmaz & Belgrave, 2012; Emerson et al., 2011).

Participants

All 48 participants who had been enrolled in the two graduate-level ESOL endorsement courses were invited to participate in the focus group discussions following the university's IRB approval guidelines. Participants represented all three partner districts and consisted of four male and 24 female teachers, two of whom were nonnative speakers of English themselves. Elementary, middle, and high school levels were represented, as were all the academic core content areas (English language arts, mathematics, science, and social studies). Other educator roles included ESOL teacher (seeking full certification), foreign language teacher, high school assessment coordinator, school librarian, school psychologist, special education teacher, and literacy coach. Career spans in education ranged from three to 34 years.

Data Collection

At the end of the second virtual course, participants were invited to voluntarily participate in a postendorsement course discussion without any incentives. Of the 48 invited participants, 28 (58%) joined a virtual discussion group of two to nine participants each. Participants were ensured that the recording would be used only by the researchers for future analysis of the information shared by the group.

The following interview questions created a semistructured format for the 30-minute focus group sessions:

1. After going through both courses, what do you see as your most valuable take away? Why?

2. How has your teaching and assessment of students changed based on what you learned? Consider native and nonnative speakers of English.
3. How have these courses impacted the way you interact with ELs now in and outside of your classes, community included?

Analysis

In an effort to obtain unbiased, anonymous data analysis, the researchers (who are the authors of this article) conducted their analyses and theme coding of responses (Saldaña, 2016) using written interview transcripts that were generated automatically from captioning of the recorded interviews through the university's system. Each researcher conducted the theme analysis independently to gain some interrater reliability on theme identification and their importance (Belotto, 2018). The instructors' independent field notes served to validate the thematic analysis. The following section provides the results of the comparative analysis of identified overlapping themes.

Overall, the following seven themes emerged from participants' comments across all three questions: (a) revised and broadened view of the nature and complexity of reading and literacy tasks, (b) expanded confidence in applying research-evidenced strategies in any content area to enhance literacy skills, (c) increased confidence in differentiating and scaffolding instruction, (d) increased confidence in integrating literacy skills instruction into content areas, (e) increased confidence in assessing ELs' phonics needs, (f) increased abilities to understand and connect with ELs and their families, and (g) increased confidence in advocating for ELs. Multiple responses were associated with each theme. For the purpose of this article, only representative comments will be shared.

Theme (a), *a revised and broadened view of the nature and complexity of reading and*

literacy tasks, became apparent in several comments. A literacy expert with over 10 years of experience stated “it’s been a mind-blowing experience to narrow in on those gaps” that whole language instruction with authentic text use only, could not remediate. Another high school teacher pointed out that “it was like an eye opener, just to even see how bizarre some of our language is, like in the way that they have to be aware of. It’s not something I knew anything about.”

Regarding theme (b), many participants reflected on their *increased confidence in applying research-evidenced teaching strategies* that respected ELs’ sociocultural and linguistic needs. For instance, a high school mathematics teacher shared that she now has more specific strategies for working with her ELs, whereas she had previously relied on web-based translators. A co-teacher in an ESL class stressed that she thought she “had been doing a good job ...but now all the differentiation and participation strategies” enriched her teaching repertoire immensely. Furthermore, a veteran ELA middle school teacher stressed the versatility of the learned research-evidenced strategies by sharing that

...a lot of what we learned about multisensory approaches and scaffolding ...I incorporated a lot initially ...to support ELs. But I have also taken them to the PLC [Professional Learning Community]. Some of these strategies, we’ve actually incorporated them in all our English classrooms.

For theme (c), participants repeatedly stressed that they have gained a *better understanding of how to scaffold instruction for different learner needs*. One participant stated emphatically, “I find [myself] even unconsciously doing gestures and scaffolding in multisensory approaches. ...before, maybe I did it subconsciously, but now I’m aware of it. And I almost giggle to myself because...I know what I am doing now.”

In terms of theme (d), *increased confidence in integrating literacy instruction into the content areas* was also a frequently occurring realization. For instance, a high school mathematics teacher indicated that

it was interesting to figure out all these patterns [phonics concepts] and know why the children were choosing not to use like the big fancy math words because they couldn’t pronounce them, because they had no idea how to break words down. I’ve totally redone how I do vocab... I teach all my vocab as prefix and suffix words now...and group them together.

Additionally, a librarian stressed that she now teaches library vocabulary explicitly, something she had never assumed was needed prior to taking these courses. She added, “I now try to plan to always give children the opportunity to speak.” A high school social studies teacher also commented, “I found myself breaking down some of the words like ‘oh, do you know what this means? This prefix means...right there’...things like that that I hadn’t thought about before. And so [this course content has] given me intentionality.” Others felt comfortable using strategies like paraphrasing or providing different kinds of questions to engage ELs in productive dialog.

In the context of theme (e), *learning challenging phonics concepts and assessment strategies to identify EL learner needs*, participants also highlighted the benefits of conducting an actual phonics assessment with an EL. Benefits ranged from having an opportunity to get to know an EL better to being shocked by how many phonics concepts an EL might still struggle with while appearing to be a strong student. While challenging to initially learn the assessment procedures, participants came to realize that “especially in grading and looking at my [EL] students’ writing, knowing that some of the

mistakes that they're making are still developmental” is critical to understanding ELs’ needs.

For theme (f), *increased ability to understand and connect with ELs and their families*, participants described their growth in comments such as, “I feel like I have way more compassion and understanding... I am amazed at the amount of work that they [ELs] do on their own” (a high school English teacher) or “I go out of my comfort zone and connect with ELs that I don’t teach. I stand in the hallway between classes and [I] interact with them more” (elementary teacher).

In connection with theme (g), *advocating for ELs*, participants also felt more comfortable because of their newly-gained understanding of ELs’ realities and needs. As one high school assessment coordinator put it “...I’m so much more prepared to lead and guide teams and the conversations around these students...than I was before.” Others shared how they were advocating for ELs by teaching colleagues new strategies and realizations about ELs’ language acquisition and acculturation challenges, thereby effecting change in their overall school culture.

Benefits and Challenges of the Virtual Format

Participant responses and instructor field notes also identified general benefits and challenges with the virtual course experiences. Virtual design benefits included (a) synchronous sessions and oral dialog with peers via *Flipgrid*, (b) flexibility of assignment due dates and individualized learning pace throughout the course, (c) the instructors’ flexibility with due dates and revisions of work, and (d) course instructors’ quick responses to questions and their availability for individual meetings.

Challenges with the virtual course included both content- and pandemic-related issues. For one, participants worked at

different grade levels and in different content areas thus leading to a variety of needs to help their respective ELs. High school and middle school teachers required more explicit guidance than elementary/early childhood educators in terms of why they had to know about specific linguistic challenges of English beyond how to teach vocabulary. To address those different needs, video samples of both a middle school and elementary school student were provided, and assignments specifically addressed the value of the content for middle and high school levels. During synchronous sessions, specific middle and high school level questions were addressed. The course instructor shared examples from work with higher grade levels and from what other grades 6-12 educators in previous versions of these courses had done to incorporate course content and skills in their respective settings for ELs and other learners. In general, virtual course assignments were found to be more time consuming to create, complete, and grade, even when very short oral or written knowledge check points were used and students were allowed to work in pairs.

Implications

In short, four direct implications arose from these interview findings. First, the strategies participants learned are beneficial for all learners so that ELs do not feel singled out or targeted when they are implemented. Second, the strategies learned are applicable in all content areas and educational contexts such as libraries and administrative settings. Third, a solid understanding of the diverse sociocultural and linguistic needs of ELs positively impacts teacher-student-family interactions and increases advocacy for ELs. Finally, virtual learning experiences provide much needed flexibilities for participating educators who are professionally and personally challenged during the pandemic.

Moreover, these encouraging interview findings have implications for the teacher education profession at large. The following ideas first address suggestions for inservice teachers. Then implications are provided for preservice teacher preparation in research-evidenced practices with ELs.

Overall, providing inservice teachers in any content and licensure area and any grade level with ESOL-specific content, as presented in the two courses described, is highly beneficial and therefore crucial. This content can be shared in the form of professional development should graduate level credits not be an option. Collaboration with an educator preparation program can effectively assist in developing and delivering such professional development.

When a whole school or district decides to collectively pursue an ESOL endorsement, the entire school/district culture can be transformed. Such a transformation would result in more active engagement in equity and fair integration of ELs and their families. Training in sociocultural and academic needs of ELs can include administrators, secretaries, housekeeping staff, nurses, food service providers, paraprofessionals, bus drivers, and other support service personnel (psychologists, occupational/physical/speech therapists, social workers, resource officers, etc.). This can shift an entire district's quality and depth of EL inclusion (Brisk, 2008; Delgado-Gaitan, 2004, Johnson & Costner, 2016-2021; Staehr Fenner, 2014).

When this content is shared with preservice educators, they can address EL-needs with research-evidenced practices from the outset of their careers (Ariza & Coady, 2018; Hoover et al., 2016). Given the 200% increase of ELs in the southeastern region (U.S. Department of Education, 2016) and the 900% increase of ELs in the southeastern state in which the presented study took place (National Center for Education Statistics, 2021), it is paramount to

include preservice teachers in extensive preparation for working with ELs in order to transform the teacher workforce. This can be achieved in various ways. EL-specific components can be infused into preservice education courses and/or EL-specific courses, preferably with field experiences, could be required for all education majors (Nutta et al., 2012; Peker, 2019).

The institution at which this study took place has also established a preservice teacher requirement of one course focused on meeting the needs of ELs in public schools (for details, see Schneider, 2019). Currently, the educator preparation program at this university is working on permanently offering an optional ESOL endorsement for all education majors. At this point, some preservice teachers at this institution have completed two endorsement courses funded by a federal grant (Johnson & Costner, 2016-2021) after their required EL-focused course with a field experience. Several of them have provided the first author with positive feedback on the virtual endorsement courses. These comments suggest that engaging preservice teachers in virtual training with content similar to the graduate level ESOL endorsement courses is highly motivating and enriching. For instance, a special education major stated "everybody should take these courses- they make you want to work with ELs." Additionally, a middle level major with an English and science concentration shared "this [experience] has made me feel confident enough to want to teach English abroad." Such feedback is encouraging and needs to be explored further as an area for which there is little to no research available at the time of this writing.

Lastly, there are multiple implications of the virtual learning environment for EL-focused pre- and inservice teacher training, whether presented as professional development opportunities or regular college-credit courses (Lara-Alecia et al.,

2021). First, as participants in this study also voiced, an online asynchronous approach allows students to work and progress at their own pace as they are juggling multiple responsibilities. Given the realities of the ongoing COVID-19 pandemic, such struggles are magnified for both pre-and inservice educators. Second, virtual course participants have the freedom to work when it best fits their schedules and concentration abilities. In our experience, we learned that participants find their best times to work at all hours of the day and night during the week or on weekends. Third, virtual learning eliminates geographic restrictions. This means that EL- teacher preparation becomes possible in areas and to an extent that were previously unavailable with on-site course participation requirements. All three aspects contribute to attracting more participants who are eager to gain more confidence in working with ELs and their families.

Conclusion

This research project aimed at identifying the initial impact of a virtual ESOL endorsement training on experienced inservice educators in P-12 public school settings with a high population of ELs in the southeastern region of the United States. To this end, researchers posed three questions to small groups of course participants. They then analyzed responses using qualitative data analysis techniques (Belotto, 2018; Saldaña, 2016) and compared them with their own field notes (Emerson et al., 2011). Results indicated that this training impacted participants' shift toward research-evidenced and differentiated instruction and assessment of ELs and other students who struggle with academic content area tasks. Participants routinely noted that their understanding of ELs' needs had deepened, which empowered them as more effective advocates for ELs and their families.

To further validate the impact of the virtual endorsement courses, investigations need to continue with larger numbers of course completers across time. Moreover, to assess long-term effects of such ESOL endorsement work and determine the need for potential follow-up support, future surveys and focus group interviews implemented with various grade band-, content-, and role-specific groups will be of benefit.

Beyond the data discussed here, teacher participants and district representatives have repeatedly expressed their gratitude for the opportunity these courses have provided to help them expand their understanding of and appreciation for their ELs' cultures and build skills in EL inclusion. Course content and assignments helped participants become active advocates for diversity-sensitive instruction and sociocultural integration of ELs in the broader school-wide learning community—even during the seemingly constant upheavals and continuous stress of the pandemic. One participant comment highlights an essential goal of the ESOL endorsement: that teachers use research-evidenced, diversity-sensitive practices to work with “more intentionality” for their ELs.

References

- Ariza, E., & Coady, M. (2018). *Why TESOL? Theories & issues in teaching English to speakers of other languages in K-12 classrooms* (5th ed.). Kendall Hunt.
- August, D., & Shanahan, T. (2007). *Developing reading and writing in second language learners: Lessons from the Report of the National Literacy Panel on Language Minority Children and Youth*. Erlbaum.
- Belotto, M. (2018). Qualitative research: Managing the challenges of coding, interrater reliability and thematic

- analysis. *Qualitative Report*, 23(11), 2620-2633.
- Birsh, J., & Carraker, S. (2018). *Multisensory teaching of basic language skills*. Brookes.
- Bitter, G., & White, M. A. (2011). *Effects of explicit, multisensory, structured language arts instruction compared to conventional reading instruction*. Arizona State University.
- Brisk, M.E. (2008). *Language, culture and community in teacher education*. Lawrence Erlbaum Associates.
- Charmaz, K., & Belgrave, L. (2012). Qualitative interviewing and grounded theory analysis. In Gubrium, J. (Ed.), *The SAGE handbook of interview research: The complexity of the craft* (2nd ed., pp. 347–367). Sage.
- Delgado-Gaitan, C. (2004). *Involving Latino families in schools: Raising student achievement through home-school partnerships*. Corwin Press.
- Echevarria, J., Vogt, M. E., & Short, D. (2017). *Making content comprehensible for English learners: The SIOP model*. Pearson.
- Emerson, R., Fretz, R., & Shaw, L. (2011). *Writing ethnographic field notes* (2nd ed.). University of Chicago Press.
- Farrell, T.S. & Jacobs, G. M. (2020). *Essentials for successful English language teaching*. Bloomsbury Publishing.
- Garcia, O. & Kleifgen, J. A. (2018). *Educating emergent bilinguals. Policies, programs and practices for English learners*. Teachers College Press.
- Gianns, D. S., Joseph, L. M., Tanaka, M. L., & Quingqing, X. (2019). Supplemental phonological awareness and phonics instruction for Spanish-speaking English learners: Implications for school psychologists. *Contemporary School Psychology*, 23, 101–111.
- <https://doi.org/10.1007/s40688-018-00216-x>
- Henry, M. (2010). *Unlocking literacy. Effective decoding and spelling instruction*. Brookes.
- Hoover, J., Baca, L., & Klingner, J. (2016). *Why do English language learners struggle with reading? Distinguishing language acquisition from learning disabilities*. Corwin.
- Johnson, L. E., & Costner, K. M. (Co-directors) (2016-2021). *NETwork for leading education that values English learners (NExT LEVEL)* (Award No. T365Z160278) [Grant]. National Professional Development Program, Office of English Language Acquisition, United States Department of Education.
- Kieffer, M. J., & Lesaux, N. K. (2012). Direct and indirect roles of morphological awareness in the English reading comprehension of native English, Spanish, Filipino, and Vietnamese speakers. *Language Learning: A Journal of Research in Language Studies*, 62(4), 1170-1204.
- <https://doi.org/10.1111/j.1467-9922.2012.00722.x>
- Lara-Alecio, R., Tang, S., Sutton-Jones, K. L., Irby, B. J., Tong, F., Jimenez, D. D., & Villarreal, E. G. (2021). Teachers' pedagogical and content knowledge after participation in virtual professional development. *International Journal of Virtual and Personal Learning Environments (IJVPLE)*, 11(1), 64-86. <http://doi.org/10.4018/IJVPLE.2021010105>
- Lesaux, N. (2015). Reading development among English learners. In C. McDonald Connor, & P. McCardle (Eds.), *Advances in reading intervention: Research to practice to research* (pp. 155-166). Brookes.
- National Center for Education Statistics (NCES). (2021). *Fast facts: English*

- learners by state, 2000-2018*. U.S. Department of Education, NCES. <https://nces.ed.gov/fastfacts/display.asp?id-96>
- Nutta, J.W., Mokhtari, K., & Strelbel, C. (Eds.) (2012). *Preparing every teacher to reach English learners: A practical guide for teacher educators*. Harvard Education Press.
- Peker, H. (2019). Effectiveness of pre-service teacher education programs: ESOL Endorsement or infusion?. *Journal of Narrative and Language Studies*, 7(13), 259–269. <https://nalans.com/index.php/nalans/article/view/178>
- Saldaña, J. (2016). *The coding manual for qualitative researchers* (3rd ed.). Sage.
- Schneider, E. (2019). Impact of a field-based English language learner-focused teacher education course. *Southeastern Regional Association of Teacher Educators*, 28(1), 43-51.
- Schneider, E. & Kulmhofer, A. (2016). Helping struggling learners of English as an additional language succeed with interactive, multisensory structured strategies. *Brazilian English Language Teacher Journal*, 7(1), 3-25. <http://dx.doi.org/10.15448/2178-3640.2016.1.23215>
- Siegel, M. (2014). Developing preservice teachers' expertise in equitable assessment of English learners. *Journal of Science Teacher Education*, 25(3), 289-308. DOI: [10.1007/s10972-013-9365-9](https://doi.org/10.1007/s10972-013-9365-9)
- South Carolina State Board of Education. (2019, September). *Guidelines and requirements for adding certification fields and endorsements*. Retrieved from <https://ed.sc.gov/educators/certification/certification-legislation-and-policy/certification-regulations/add-on-guidelines/>
- Southeastern Regional Association of Teacher Educators (SRATE). (n.d.). SRATE Southeastern Regional Association of Teacher Educators. <https://www.srate.org/>
- Staehr Fenner, D. (2014). *Advocating for English learners. A guide for educators*. TESOL International Association; Corwin Press.
- TESOL International Association. (2006). *PreK-12 English language proficiency standards*. TESOL Press.
- TESOL International Association. (2018). *Standards for initial pre-K-12 teacher preparation programs*. TESOL International Association.
- U.S. Department of Education, Office of Postsecondary Education. (2016). *Teacher shortage areas, nationwide listing 1990-91 through 2016-2017*. Retrieved from <http://www2.ed.gov/about/offices/list/ope/pol/tsa.doc>.
- WIDA. (2020). *WIDA English language development standards framework, 2020 edition: Kindergarten–grade 12*. Board of Regents of the University of Wisconsin System.

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