Teachers of Culturally and Linguistically Diverse Students and Effective Professional Development: A Critical Review of Research

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Introduction

Student populations continue to become increasingly linguistically and culturally diverse (Mitchel, 2020; National Center for Education Statistics, 2020b, 2021a, 2021b). In the United States, for example, in 2018 culturally and linguistically diverse (CLD) students comprised 10.2% of the population, this was an increase from 9.2% in 2010 and 8.1% in 2000. This means that the number of students increased from around 3.5 million CLD students in 2000 to 5 million in 2018 (National Center for Education Statistics, 2021a; National Center for Education Statistics, Common Core of Data (CCD), 2020a).

In order to provide quality education to this population, it is critical that teachers are provided the training and professional development; such professional development needs to be effective to impact students (de Jong & Harper, 2005). Researchers agree that an effective professional development program has five elements: content focus, active learning, coherence, duration, and collective participation (Darling-Hammond et al., 2017; Desimone, 2009; Fischer et al., 2019; Moon et al., 2014; Russell et al., 2009; Wayne et al., 2008). Some research has shown that when these factors are present, professional development can be just as effective when presented in non-traditional formats such as online sessions or through asynchronous platforms (Dede et al., 2009; Russell et al., 2009; Surrette & Johnson, 2015; Yoon et al., 2020). Online professional development can bring opportunities teachers who would normally be limited to attending professional developments in their local areas due to time and/or the cost of travelling, and more recently because of necessary social distancing measures (Bowen et al., 2014; Dede et al., 2009).

This literature review examines the need for professional development and pre-service training for teachers of CLD students, and what platforms and factors are needed for effective
professional development. First, there is a brief summary of literature that explains why professional development is needed for teachers to support CLD students and reduce the number of over and under identification of CLD students in special education programs. Next, professional development is examined in two parts: research-supported recommendations for effective professional development, and a justification for both synchronous and asynchronous online professional development as an effective mode of providing professional development for teachers.

**Terminology**

The term *culturally and linguistically diverse* (CLD) refers to those students who are non-English proficient, limited-English proficient, or come from homes where English is not the primary language of communication (Gonzalez et al., 2011). Educators, policy makers, and researchers may refer to other common terms that have similar meanings. Designations such as “language minority,” “multilingual learners,” “English learners,” “English language learners,” “English language acquisition” or “English as a second language” all have a similar meaning (Rhodes et al., 2005). Some labels are preferred by certain institutions or scholars; some terms have fallen out of favor because of their implied limitations (e.g., English as a Second Language/ESL, which assumes the learner only knows one language prior to learning English; Ortmeier-Hooper, 2008). For this review, I use the term *Culturally and Linguistically Diverse* (CLD) students. There are occasions where quoted research uses a different term, but the fundamental meaning is the same.
Why Teachers of Culturally and Linguistically Diverse Students Need Professional Development

*Teachers are Underprepared*

When teachers complete effective PD courses, students benefit (e.g., Awada & Gutiérrez-Colón, 2017; Darling-Hammond et al., 2017; Fischer et al., 2018; Garet et al., 2001; Yoon et al., 2020).

The teacher’s role in creating inclusive learning environments is essential, for the inclusive environments tremendously depend on having the teacher’s knowledge, dispositions, cooperation, potentials, and attitudes. Research showed that teachers’ perceptions of inclusion and awareness of the obstacles in establishing the inclusive learning environments are critical. (Awada & Gutiérrez-Colón, 2017, p. 50)

Despite this growing and substantial population of five million CLD students (National Center for Education Statistics, 2021a), research showed that many teachers are not knowledgeable about best practices of teaching CLD students (Brown & Doolittle, 2008; Ferlis & Xu, 2016). This trend has not improved: in 2021, the National Center for Education Statistics reported that on average, 41% of teachers have taken one or more courses regarding teaching CLD students and teachers who have been teaching longer are less prepared to teach CLD students: “60% of the newest teachers had taken courses on teaching students who are LEP or ELLs compared to 14% of teachers who had been teaching the longest” (National Center for Educational Statistics at IES, 2021a).

Teachers are central to the education process. Teachers of CLD students, therefore, need to be informed about instruction that considers culture and language when instructing diverse students (de Jong & Harper, 2005). Teachers of CLD students need to know evidence-based
instruction that is “specifically designed for teaching ELLs” (Xu & Drame, 2008, p. 310). Both elementary classroom teachers and secondary content teachers need to understand that teaching CLD students is more than just “good teaching” (Harper & de Jong, 2004; He et al., 2011). When CLD students are placed in mainstream classrooms, they need teachers who are trained specifically for working with diverse learners (de Jong & Harper, 2005; Fernandez & Inserra, 2013). “There is a need for mainstream teachers to be trained on all aspects of acculturation along with understanding the difference between acculturation versus assimilation” (Fernandez & Inserra, 2013, p. 12). Considering this lack of teacher preparedness, training for working with CLD students is essential (National Center for Education Statistics, 2020a).

Overwhelmingly, it has been found that effective teacher preparation in college and ongoing professional development are among the most beneficial practices for supporting CLD students (e.g., Awada & Gutiérrez-Colón, 2017; Brown & Doolittle, 2008; Fernandez & Inserra, 2013; Garet et al., 2001; Gay, 2002; Kamps et al., 2007; Nguyen, 2012; Oh et al., 2017; Orosco & O'Connor, 2014; Sullivan, 2011; Wang & Woolf, 2015; Zetlin et al., 2011). Through professional development (PD), teachers can gain a deeper understanding and incorporate new strategies into instruction (Jacobs et al., 2011). According to Fischer et al. (2018): “…findings indicate that teachers’ PD participation can directly influence the enactment of instructional practices in the classroom” (p. 114). While the details of university preparation programs are beyond the scope of this literature review, universities that have programs that prepare teachers to work with CLD students are a “vital component of the pathway that will lead to optimal ELL outcomes” (Zetlin et al., 2011, p. 69). When teachers are instructed on how to teach students from a variety of cultures, linguistic backgrounds and learning styles through university course work or through professional development students are better supported (de Jong & Harper,
Unfortunately, most schools do not provide this type of professional development and there is an urgent need to examine professional practices that impact CLD students (Fernandez & Inserra, 2013; Nguyen, 2012; Oh et al., 2017).

Teachers with knowledge, skills and expertise on differentiation, English language acquisition, acculturation and assimilation are better equipped to support diverse learners and avoid mistaking language acquisition for a learning disability (Aristizabal, 2018; Awada & Gutiérrez-Colón, 2017; Fernandez & Inserra, 2013; Nguyen, 2012). “[A]ll educators must be knowledgeable in first and second language acquisition principles and culturally responsive pedagogy as well as have access to specialists who are well-trained in differentiating cultural and linguistic differences from disabilities” (Kamps et al., 2007, p. 66). More generally, “to be successful with ELLs, however, teachers need to draw on established principles of second language learning….a teacher who has ELLs in his or her class is best equipped to teach them if he or she has knowledge of some key principles of second language learning” (Lucas et al., 2008, p. 362).

These recommendations should be applied to both elementary teachers, who are the primary contact for students throughout the day and secondary teachers and also who need to recognize the language demands of their content area which can often go unnoticed by mainstream and content area teachers. Additionally, “most teachers (and particularly secondary-level math, science, or social studies teachers) are not accustomed to thinking of themselves as language teachers” (Harper & de Jong, 2004, p. 156). After a three-year study to improve educator expertise to support student language development through teacher professional development, Heineke et al. (2019) found that because of professional development, teachers were more likely to integrate cultural and linguistic backgrounds of students into lessons and
were more aware of linguistic biases in curricula. They also noted that teachers started integrating best practices in their teaching such as funds of knowledge interviews and “attending to academic language in classroom instruction” (Heineke et al., 2019, p. 69).

**Improving Practice Through Improving Teacher Self-Efficacy**

Self-efficacy is a future-oriented belief about the level of competence a person expects that one is capable of and has been shown to have a direct impact on student achievement (Bandura, 1997; Durgunoglu & Hughes, 2010; Paneque & Barbetta, 2006; Tschannen-Moran & McMaster, 2009; Yuan & Kim, 2014; Zee & Koomen, 2016). PDs can help teachers increase self-efficacy, which can improve student achievement (Darling-Hammond et al., 2017; Zee & Koomen, 2016). “Collaborative and job-embedded PD can be a source of efficacy and confidence for teachers and can result in widespread improvement within and beyond the school level” (Darling-Hammond et al., 2017, p. vi). Research has shown that teachers who are highly efficacious are more likely to engage in continued learning, try to improve practice by trying new things, be more inclusive (Melinen et al., 2013; Yuan & Kim, 2014), have better classroom management skills (Melinen et al., 2013; Zee & Koomen, 2016), have better relationships with parents (Paneque & Barbetta, 2006).

**Reducing Misidentification in Special Education Programs**

**Under-Representation in Special Education.** CLD students are both under- and overrepresented in special education, but in general, CLD students are more likely to be underrepresented in grades 2 and under (Morgan & Farkas, 2016; Samson & Lesaux, 2009; Wagner et al., 2005). A learning disability might go undetected because teachers may perceive reading struggles simply as English language development (Xu & Drame, 2008). It is important to identify the difference because reading problems become much harder to overcome over time.
When a student with a learning disability is not identified until upper elementary school, it becomes progressively more difficult to close the gap in both background and conceptual knowledge due to text being less accessible for these students than those without reading difficulties or those who are native English speakers (Samson & Lesaux, 2009).

**Over-Representation in Special Education.** It has also been found that starting around Grade 3, CLD students are overidentified for special education (Samson & Lesaux, 2009). Often language learning can have similar characteristics to a learning disability (Chu & Flores, 2011; Samson & Lesaux, 2009; Sullivan; 2011) and it is not easy to determine if a CLD student has a language deficit or a learning disability (Fernandez & Inserra, 2013). According to Swanson et al. (2020), “these confounds are due in part to attributing difficulties in second-language acquisition and reading or math achievement to the same cognitive processes as found in children with learning disabilities” (p. 293). This is complicated primarily because the support students receive in special education is not necessarily the type of support CLD students need: “ELLs… need culturally and linguistically appropriate instruction no matter the educational setting” (Brown & Doolittle, 2008, p. 66). Special education should not be used as an alternative option for a lack of English language instruction and can be “detrimental” to CLD students (Sullivan, 2011, p. 33).

**Assessment.** The Response to Intervention model has been beneficial for struggling students (Awada & Gutiérrez-Colón, 2017; Ferrer et al., 2010; Haager, 2007), but teachers need training regarding decision making for appropriate placement (Brown & Doolittle, 2008; Xu & Drame, 2008). Many of the interventions have not been normed or tested on a linguistically diverse population, which can perpetuate the potential that CLD students will not respond to
these methods therefore resulting in inaccurate support or placement in special education (Brown & Doolittle, 2008). Interventions, progress monitoring measures, and other assessments are typically given in English even when some students are still developing English proficiency. Due to this common practice, it is vital to train teachers to recognize how to interpret results and recognize when results may not be valid (Xu & Drame, 2008).

**Research Supported Recommendations for Effective Professional Development**

PD is continuing education for teachers. Specifically, activities that provide teachers and other stakeholders with the “knowledge and skills necessary to enable students to succeed in the core academic subjects and to meet challenging State academic standards” (Every Student Succeeds Act, 2015, para. 4). PD can take a variety of forms: workshops, in school training, informal discussions, conferences, social media, courses, observation, mentoring, reflecting on actual lessons, curriculum development and so on (Desimone, 2009; Parsons et al., 2019). Traditionally, PD has been offered either in schools or local school districts in face-to-face meetings and workshops (Dana et al., 2013; Surrette & Johnson, 2015). In recent years with increasing access to the internet and especially with the necessary distancing measures due to the COVID19 global pandemic, more PD opportunities have become available online (Hartshorne et al., 2020).

Researchers are clear about what constitutes “effective” professional development (Darling-Hammond et al., 2017; Desimone, 2009; Garet et al., 2001; He et al., 2011; Lawless & Pellegrino, 2007; Moon et al., 2014; Russell et al., 2009; Wayne et al., 2008). At its core, high quality PD has the following five components: (a) content-focused, (b) incorporates active learning, (c) supports collaboration and collective participation, (d) coherent, (e) sustained duration (Darling-Hammond et al., 2017; Desimone, 2009; Garet et al., 2001). For outcomes of
PD to have a positive effect on students, it has to be meaningful and more than a one-day workshop in a subject area that teachers are not interested in (Darling-Hammond et al., 2017; Every Student Succeeds Act, 2015); teachers are more invested in PD programs when they know that the purpose of what is being taught aligns with their teaching role (Dana et al., 2013; Moon et al., 2014; Surrette & Johnson, 2015). When these essential elements are present in PD courses, teachers are more invested, have more opportunities to engage in sustained practice of concepts they are learning about, there is a greater positive impact on student achievement (Darling-Hammond et al., 2017; Garet et al., 2001; Yoon et al., 2020).

One example of effective PD in practice is illustrated in a 2011 study by He et al. Researchers worked with a group of teachers to implement an effective PD for teachers of CLD students. The PD aimed to “enhance their understanding of language and cultural domains in teaching and be equipped with skills to effectively integrate this knowledge into their daily interactions with ESL students” (He et al., 2011, p. 4). The study included of a collaborative group of nine CLD teachers and 13 classroom teachers. This topic was determined through a needs assessment, making it coherent and content-focused. The teachers met for an extended duration of a total of 46 contact hours over a year. During the PD, teachers were engaged in active learning through discussions and through interacting with the community outside of school. Researchers found that “the positive feedback from teachers and enhancement in ESL student English proficient test scores are encouraging results that indicate the effectiveness of the first-year professional development sessions” (He et al., 2011, p. 14).

In addition to the five essential components, there are actions and structures that can improve delivery of PD. Facilitators should make sure that participants can use what they are learning in ways that are practical can be embedded in day-to-day teaching fitting with the needs
of their students (Darling-Hammond et al., 2017; Garet et al., 2001; Moon et al., 2014; Russell et al., 2009). Further, there should be an opportunity for guidance for participants; collective knowledge and collaboration should be encouraged, and facilitators should provide modeling and coaching when available (Garet et al., 2001; Russell et al., 2009). Finally, PD should have an expectation of teacher reflection and provide time and structure for it (Desimone, 2009; Powell & Bodur, 2019). It should be noted that for teachers of CLD students, culturally relevant practices must be considered in addition to the content being covered (Ferlis & Xu, 2016; Heineke et al., 2019; Jacobs et al., 2011). “Within professional development, there needs to be a balance between focusing on strategies and reflecting on beliefs and assumptions about culturally and linguistically diverse students” (Jacobs et al., 2011, p. 510).

**Effective and Efficient: Online Professional Development**

**Benefits of Online Professional Development**

Traditionally, PD has been offered in face-to-face meetings or workshops, but with the increasing availability and quality of internet access online PD (OPD) has become a desirable, and at times necessary, option for many people (Parsons et al., 2019). Even outside of the required social distancing precautions of the COVID19 pandemic, having PD options online eliminates barriers such as cost and time of traveling to another location; increases options of topics and available experts and allows teachers to engage when it fits into their busy schedule (Dede et al., 2009; Parsons et al., 2019; Powell & Bodur, 2019; Russell et al., 2009; Yoon et al., 2020).

OPD has been found to be just as effective as face-to-face PD (Moon et al., 2014; Surrette & Johnson, 2015) and can take a variety of forms. For example, “online PD can be synchronous, where learning happens in real time, asynchronous, where teachers engage in their
learning on their own time, or a hybrid of both synchronous and asynchronous” (Parsons et al., 2019, p. 34). OPD can offer participants benefits beyond in-person meetings by weaving elements of best practices of PD for a sustained duration, rather than a one-off meeting or workshop (Darling-Hammond et al., 2017). Further, OPD can provide access to experts and topics all over the world, instead of limiting teachers to what is offered locally (Dede et al., 2009; Russell et al., 2009; Uzuner Smith, 2014). OPD also allows for ongoing work-embedded practice of new skills and knowledge (Dede et al., 2009; Parsons et al., 2019; Russell et al., 2009) and increased agency by allowing participants to set their own pace and access materials during flexible hours (Dede et al., 2009; Parsons et al., 2019; Uzuner Smith, 2014; Yoon et al., 2020).

Recommendation for Effective Online Professional Development

Online professional development should have the fundamental elements that are essential for face-to-face PD as previously covered: content focused, active learning, collaborative, coherent and for a sustained duration (Darling-Hammond et al., 2017; Desimone, 2009; Garet et al., 2001); however, both synchronous and asynchronous OPD have additional necessary components for participants to be successful, that is to improve their teaching practice and increase student achievement. It is important that participants feel a sense of connection and engagement which are specifically outlined in Garrison’s Community of Inquiry framework, explored in the next section (Garrison & Arbaugh, 2007). It is also important that facilitators provide clear structure, guidance, and sufficient time for reflection (Powell & Bodur, 2019; Russell et al., 2009).

Just as with face-to-face PD workshops and classes, OPD needs facilitators to consider the engagement of the participants. Instructors should help guide thoughtful dialog, pose engaging questions, and provide explicit structure (Powell & Bodur, 2019; Russell et al., 2009).
Additionally, creating a sense of community, collective identity and a climate for open communication and trust are essential for promoting learning in online settings (Booth, 2012; Garrison & Arbaugh, 2007).

**Community of Inquiry and Online Professional Development.** In 2002, Garrison proposed the “Community of Inquiry” (COI) approach to online learning. “The COI framework is a process model of learning in online and blended environments where the social construction of knowledge is made nontrivial by the separation of course participants in time and space” (Swan, 2019, p. 58). In other words, a course designed using the COI framework integrates teacher presence, student presence and peer-to-peer connections and trust (Garrison & Cleveland-Innes, 2005). Since the creation of COI, researchers have established that including this framework in creating online courses is beneficial to learners (Castellanos-Reyes, 2020; Kebritchi et al., 2017; Kumi-Yeboah et al., 2018).

**Teacher Presence.** In the COI framework, teaching presence is considered the instructor’s “ability to design and direct cognitive and social processes within the online educational experience” (Dana et al., 2013, p. 256) and it is comprised of three parts: designing, facilitating, and instructing the course (Fiock, 2020). These factors are needed for creating and sustaining the connections between participants in the class (Garrison & Cleveland-Innes, 2005; Kebritchi et al., 2017) and participant to facilitator connections which have been shown to increase participant satisfaction (Jaggars & Xu, 2016).

**Cognitive (Student/Participant) Presence.** Participants need to be meaningfully engaged with the PD to benefit from it; however, what this looks like is not always consistent (Garrison & Cleveland-Innes, 2005):
Meaningful engagement does not simply correspond to sending lots of messages. It may mean that a student is engaged vicariously by following the discussion, reflecting on the discourse, and actively constructing meaning individually. Ideally, interaction would be required to confirm understanding. However, students may be cognitively present while not interacting or engaged overtly. This reveals another challenge in understanding the qualitative nature of interaction in an online context. (p. 144)

Instructors are influential guides in creating cognitive presence (Booth, 2012), but researchers have found that peer-to-peer connection also can lead to student presence: “Increased sociability of course participants lead to increased interaction, therefore implying that social presence is necessary for the development of cognitive presence” (Garrison & Arbaugh, 2007, p. 160).

**Peer-to-Peer Connection and Trust.** In the OPD setting, creating trust and a sense of community are important for participant learning (Calderon & Sood, 2020; Garrison & Arbaugh, 2007; Garrison & Cleveland-Innes, 2005; Jaggars & Xu, 2016; Kebritchi et al., 2017; Yoon et al., 2020). This engagement can be in the form of discussions, positive feedback and encouragement, constructive criticism and/or engaging peers in conversations (Calderon & Sood, 2020). Yoon et al. (2020) found that participants considered peer relationships to be of particular importance to increasing their confidence in engaging in OPD. These participants especially depend on the facilitator and structure of the PD courses to establish communication and trust because they are not necessarily otherwise interacting with their peers, especially if the OPD has participants from a variety of schools and locations (Kumi–Yeboah et al., 2018).

Substantial evidence exists to support the importance of social presence, student interaction and teacher presences in online learning environments. Settings in which students and teacher establish social presence, in which teachers interact with students
and support them in a variety of ways, and in which student participation is high, are likely sites for student learning and student satisfaction. (p. 217)

**Asynchronous Versus Synchronous for Professional Development**

There are three formats for offering OPD: Asynchronous, synchronous, and blended. Asynchronous occurs when participants engage at times when they choose, synchronous learning is when participants engage together at the same time and blended uses a combination of the two (Parsons et al., 2019). Some researchers have concluded that there are benefits and limitations to both platforms but there is no statistically significant difference in learning outcomes between synchronous and asynchronous PD (Bowen et al., 2014; Figlio et al., 2013; Fishman et al., 2013).

**Benefits and Limitations of Asynchronous Professional Development**

Asynchronous OPD is primarily beneficial for the flexibility it offers teachers and the time it allows for deep thinking and reflection (Dede et al., 2009; Hrastinski, 2008; Russell et al., 2009; Torun, 2013): “because online programs can store written records of teacher conversations, and because teachers can participate in group discussion asynchronously, OPD allows teachers to contribute ideas when they are ready and to be more reflective in their written comments” (Russell et al., 2009, p. 445). Furthermore, when instruction and discussion happen asynchronously, a library of materials is built and participants can view the videos and dialoged responses multiple times (Dede et al., 2009; Fishman et al., 2013; Russell et al., 2009; Torun, 2013).

While some studies found that there were limitations to asynchronous learning, none of them had findings that were statistically significant (Fishman et al., 2013). The primary limitation to asynchronous learning was the absence of a sense of community (Figlio et al., 2013; Garrison & Arbaugh, 2007; Hrastinski, 2008) and though there were no statistical differences in
measured outcomes, participants reported missing the collegiality that can accompany synchronous discussions (Fishman et al., 2013; Garrison & Arbaugh, 2007; Hrastinski, 2008). This can be remedied through careful planning and facilitation by the instructor (Fiock, 2020).

In the end, due to the minimal differences in outcomes, it can be argued that asynchronous PD is a more beneficial platform than synchronous learning. Fishman et al. (2013), explained:

You only have to spend as much time as you need. There is no “break time” built into online PD; one moves as fast as one wants to. Because we found no relationship between amount of time teachers spend on online PD and our outcome measure, we conclude that teachers who completed online PD more rapidly required less time to benefit from materials (p. 435).

Conclusion

As student populations become more diverse, the need for CLD teacher training is necessary for all teachers (Brown & Doolittle, 2008; de Jong & Harper, 2005; Ferlis & Xu, 2016; Mitchel, 2020; National Center for Education Statistics, 2020b, 2021a, 2021b; Xu & Drame, 2008). Teachers of CLD students need training for best practices targeted to the specific needs of cultural and linguistic diversity in order to support their specific needs (Fernandez & Inserra, 2013; Nguyen, 2012; Oh et al., 2017) and avoid misidentification in special education (Fernandez & Inserra, 2013; Morgan & Farkas, 2016; Swanson et al., 2020). Research has established what makes effective PD and recently this has expanded to best practices for online PD as well (e.g., Darling-Hammond et al., 2017; Desimone, 2009; Fischer et al., 2018; Moon et al., 2014; Russell et al., 2009; Surrette & Johnson, 2015; Wayne et al., 2008; Yoon et al., 2020). Elements such as student engagement, connections between teachers and students as well as trust
among participants should be included in design and implementation of OPD (Booth, 2012; Garrison & Arbaugh, 2007; Powell & Bodur, 2019; Russell et al., 2009). Extending PD opportunities to virtual platforms allows for those teachers who continue to practice social distancing measures due to COVID19, and those who are limited due to time and cost of travel even when travel itself is unrestricted (Dede et al., 2009; Parsons et al., 2019; Powell & Bodur, 2019; Russell et al., 2009; Yoon et al., 2020). Of the options for OPD, researchers have concluded that asynchronous and synchronous options have similar learning outcomes (Bowen et al., 2014; Figlio et al., 2013; Fishman et al., 2013), and that because of the flexibility and participant agency, asynchronous is likely a more desirable option for many.
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