

# Chapter 5

## Mainstreamed Deaf/ HH Students' Online Learning in K–12: Challenges, Opportunities, and Solutions

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### **ABSTRACT**

*The population of deaf/hard of hearing students attending mainstream K-12 programs continues to increase in both the US and UK, with almost 85% reported in mainstrems. With COVID-19, schools shut-down, and social distancing efforts, K-12 programs turned to online teaching. Online teaching changes both the role of the teacher and the parents. A case that is unique in the new changing roles of online teaching is that of deaf students. Education of D/HH students involves the use of English and American Sign Language (ASL). Most families with D/HH students do lack ASL competency and cannot communicate with D/HH students. This chapter gives into cognizance language barriers and academic performance when discussing mainstreamed D/HH students' online teaching. The author discusses the challenges and proposes possible solutions to improve online teaching for this population.*

### **INTRODUCTION**

The population of Deaf/Hard of Hearing students attending mainstream K-12 programs continues to increase in both the US and UK, with almost 85% reported in mainstream programs (Berry, 2017; U.S. Department of Education, 2015). With Covid-19, school shut-downs, and social distancing efforts, K-12 programs turned to online teaching. Online teaching changes both the role of the teachers and the parents. Teachers and parents need to work closely together and are more like co-teachers (Frey, 2005;

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Tucker, 2010). Teachers are no longer the primary instructors. Parents' and family members' roles in the online-learning K-12 experience is that of mentor, team player, co-instructor, and coach (Hasler-Waters et al., 2017; Pew Research Center, 2020; Smith et al., 2016).

In trying to understand the ongoing online learning situation, increasing research focuses on how public education attends to each diverse student's learning needs. Parents' and family members' new roles in online teaching can be challenging when students come from homes that speak languages other than English (LOTE). Some parents' English proficiency is at the level of what Cummins described as Basic Interpersonal Communication Skills (BICS) when the level required is Cognitive Academic Language Proficiency (CALP). BICS refers to the language necessary for daily living and informal social interactions (Cummins, 2008). On the other hand, CALP relates to the language required to understand and discuss content in the classroom (Cummins, 2008). Parents without CALP in English face challenges helping their children understand academic concepts or complete assignments. Several parents use their English BICS to undertake their new roles in online teaching.

A case that is unique in the new changing roles of online teaching is that of Deaf students in mainstream programs who use sign language for communication. Education of these D/HH students involves the use of English and American Sign Language (ASL). D/HH students in mainstream programs have access to ASL interpreters or deaf education teachers who use ASL. Research indicates that 90-95% of D/HH children's parents are hearing non-users of ASL (Marschark, 2007; Mitchell & Karchmer, 2004). Hence, most parents experience communication challenges with their D/HH children during daily conversation, and most D/HH children miss participating in family conversations. Additionally, some D/HH students are from families where English is not the home language, and parents have limited English proficiency skills (Cannon & Luckner, 2016; Musyoka & Adeoye, 2020). Thus in some homes, the percentage of the two languages, ASL and English, used in D/HH students' education are unknown. Hence, parents with D/HH children may experience unique challenges in their new roles in the online teaching and learning process.

Due to language barriers, deaf students are left with limited support from parents or other family members and more often depend on reading and completing assignments independently. Research in the US indicates no change on previous reports that showed most D/HH students graduate from high school reading at a 4th-grade level with only 7–10% of deaf high school graduates reading at the seventh-grade level or above (Allen, 1994; Cawthon, 2004; Traxler, 2000; Wilbur, 2000). Also, math performance is lower than expected from grade level hearing peers (Kritzer, 2009; Marschark et al., 2015; Mitchell, 2008; Traxler, 2000).

This chapter gives into cognizance language barriers and academic performance when discussing mainstreamed D/HH students' online learning. The author discusses the challenges and proposes possible solutions to improve online teaching for this population.

## **K-12 ONLINE LEARNING**

The 21<sup>st</sup> century has seen a steady growth in K-12 online learning (Archambault & Kennedy, 2014; Borup et al., 2015; Dessoiff, 2009; Farmer & West, 2019; Gemin et al., 2015). There are two terms used interchangeably when referring to online learning: online learning and virtual learning. According to Hasler-Waters, Barbour and Menchaca (2014), K-12 online learning refers to all learning activities occurring online. On the other hand, "virtual learning refers to supplemental programs that are offered

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