Establishment of American Sign Language Content Standards in Schools for the Deaf: The Early Innovators

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April 5, 2014

Paper presented at the Research on the Education of Deaf Persons SIG paper session, "Critical Issues in Deaf Education," of the American Educational Research Association annual meeting, Philadelphia, Pennsylvania.

Abstract

This inquiry was guided by neo-institutional and organizational change theory, particularly as they pertain to legitimation of innovations. This qualitative case study interprets the reflections offered by the leadership team of deaf education researchers and school professionals who developed national K-12 ASL content standards with funding from the Laurent Clerc National Deaf Education Center during 2011 and 2012. Interviews were used to explore participants' perceptions of the organizational change processes through which intentional ASL pedagogy and the concurrently developing national K-12 ASL standards were implemented in four schools for the deaf. Their responses fit into five themes: Constructing ASL legitimacy; implementation resources; personnel demands; expectations and training; and English-ASL equality. Theoretical and practical implications are addressed.

Establishment of American Sign Language Content Standards in Schools for the Deaf: The Early Innovators

Guided by the conceptual structure of neo-institutional and organizational change theory, this qualitative case study interprets the reflections offered by the leadership team of deaf education researchers and school professionals who developed national K–12 American Sign Language (ASL) content standards under the auspices of a grant administered by the Laurent Clerc National Deaf Education Center during the 2011 and 2012 calendar years. This study focuses on one aspect of how leaders in schools for the deaf are engaging in a struggle against the domination of English-only deaf education, namely, implementation of the National K-12 ASL Content Standards Project at four adoptions sites. We identify how school leaders might further this sort of bilingual-bicultural innovation and explore the prospect for making national K-12 ASL content standards and intentional ASL pedagogy—a genuine program of ASL *primary* language curriculum, instruction, and assessment—an enduring feature of schools for the deaf.

ASL's Status Problem

The National K-12 ASL Content Standards Project is an innovative attempt to rework institutional processes for efficacious and socially just deaf education (see Gale, 2000, p. 266). This national effort to reform deaf education brings to the fore three problems: (a) language status, (b) curriculum and standards, and (c) how to reorganize for equality.

1. There is a disconnect between how ambivalently ASL is regarded in schools for the deaf as a first or primary language for deaf students and its status in hearing schools and colleges as equal to any other second language for American hearing students.

2. Typically, deaf students are not explicitly instructed in ASL language and literacy (no curriculum). But even when they do receive instruction, prior to the project studied here, no standards had been developed for what constitutes a thorough education in ASL (no K–12 articulated content standards).
3. Because K–12 ASL curriculum and content standards are a recent innovation, prior to this study, there was little information or ability to widely share insights about how to reorganize the educational program in schools for the deaf to grant ASL equal status in the curriculum.

These three issues pertaining to the linguistic and cultural status of ASL in American schools and colleges, particularly schools for the deaf, have deep historical roots.

We begin with a cursory overview of the "history, tradition, culture, and idiosyncratic institutional configurations" (Meyer & Rowan, 2006, p. 8) of deaf education. Otherwise, the introduction of ASL curriculum, pedagogy, and content standards being studied here may not be recognized as part of a long-term battle over the place of ASL in deaf education. Table 1 shows the shifting presence of ASL in the curriculum, instruction, and social interactions of deaf education over the last two centuries, and indicates when ASL began to have a place in hearing students' education over this same period (for an elaborated discussion, see Warshaw, 2013). Leading up to this study, questions about which methods of communication to use in the classroom for deaf and hard of hearing children were—and remain—heatedly debated (e.g., Brill, 1974; Lane, 1984, 1992; Moores, 2010; Nover & Ruiz, 1994). Historically, the movement for spoken-English-only dominance so radically and thoroughly deinstitutionalized sign language instruction that nearly a century passed before oral education was abandoned in the

1970s (see the second through fourth rows of Table 1). It wasn't until the 1990s that ASL made its way back into the schools for the deaf (Clary, 2004).

[Table 1 about here]

At the same time that the legitimacy of ASL was being reestablished in schools for the deaf, the larger field of K-12 education was undergoing significant changes. Standards and accountability became the dominant themes of reform. The last two reauthorizations of the Elementary and Secondary Education Act (ESEA) and the Individuals with Disabilities Education Act (IDEA), which occurred during the 1990s and 2000s, are now being felt in schools for the deaf (see Cawthon, 2004, 2007, 2011; Johnson & Mitchell, 2008; Qi & Mitchell, 2012). Attention to the "achievement gap" between the mainstream or dominant class of students (typically, white, wealthy, and a native English speaker) and the segregated, marginalized, or minoritized class of students (typically, people of color, in poverty poor, or learning English as a second or other language) now includes the long-established disparity between deaf and hearing students (e.g., Qi & Mitchell, 2012; more generally, see, e.g., Timar & Maxwell-Jolly, 2012).

However, amidst the increased emphasis on the importance of sign language in deaf education (e.g., Crockett & Yell, 2008; Siegel, 2006), and the constant proliferation of academic content standards, there were no K-12 American Sign Language (ASL) content standards or a corresponding standards-based curriculum prior to the project that motivated this study. Though ASL use and evidence of its instructional efficacy were increasing over the last quarter of a century (e.g., Chamberlain, Morford, & Mayberry, 2000; Cummins, 2006; Prinz & Strong, 1998; Strong & Prinz, 1997), it rarely had a place in the formal curriculum (e.g., see Strong, 1995). Now, we have a first and major effort at providing standards to guide ASL primary language instruction and assessment.

In early 2010 the Clerc Center announced that "given the importance of being able to assess students' ASL skills by comparing them against a sequence of national K-12 ASL content standards, the development of such standards is a key component of helping deaf students become fluent in both ASL and English" (Clerc Center, 2011, press release). The Clerc Center issued a nationwide request for proposals to form a team to develop a set of national K-12 ASL content standards. The K-12 ASL Content Standards Consortium won the two-year contract and work began in June of 2011 in Chicago, Illinois.

Research Question

The overarching research question used to guide this study was: What are the perceptions of the ASL and deaf education researchers and educators who were tasked with developing the national K-12 ASL content standards regarding their experiences with supporting implementation of the standards in conjunction with intentional ASL pedagogy in schools for the deaf? The goal is to provide a descriptive account, rather than a broadly generalizable result, that captures the understanding of participants' experiences in order to understand whether the organizational changes taking place may be leading the field of deaf education to a new formal structure of operation.

Our work here was motivated by the first author's experiences as a Deaf person sharing in the responsibility of leading this change process. By reporting the findings from this study of the implementation of K–12 ASL content standards at four different schools for the deaf, including the one at which the first author worked, we hope to empower other deaf education leaders to overcome the historically and pedagogically inequitable learning environment that has hindered the academic and personal achievements of deaf students for far too long (see Warshaw, 2013).

Theoretical Framework

Bringing national ASL K–12 content standards to deaf education represents a profound change in conceptualizing and actualizing the place of ASL in the curriculum. This is an effort to transform the mindset and culture of schools for the deaf, as well as of parents and stakeholders. The uncertain and difficult work or cultural transformation depends on establishing the legitimacy of the proposed reform. Suchman (1995) explained the legitimacy challenges of cultural transformation.

> When innovators depart from the norms of the cultural environment (both within and between organizations), leadership for change will include demands for new explanations of how organizational life and work must function and respond to identified needs; entrepreneurship to recruit followers or disciples to promulgate these explanations and advocate for change; constructing and advertising a new image for the organization to raise its profile; insisting that the new way of organizing is morally righteous, worthy of honor and respect; and collective action to popularize (make comprehensible) and standardize (promote the taken-for-grantedness of) organizational innovation so that it may be readily mimicked by other relevant organizations in the environment. (pp. 591–593)

Both to accomplish the work in which the first author remains engaged—the subject of this study—and to reflect upon its progress and status, we drew on the new institutionalism in organizational theory to frame an understanding of what it means to develop, implement, and promulgate standards for a second primary language curriculum in K–12 deaf education—to accomplish organizational change at its cultural core. As Meyer and Rowan identify (2006), "the purpose of an institutional analysis is to tell us why—out of [the] stupendous variety of feasible forms—this or that particular one is actually 'selected' and whose interests might be best served by that selected arrangement" (p. 4). As was discussed in reference to Table 1, "An Incomplete History of the Status of ASL … in American K-16 Education," the motives and interests leading up to the present study of curriculum innovation are various and long-contested and were formed

within an institutional context providing a particular array of affordances and constraints (Meyer & Rowan, 2006, p. 10).

Institutionalization of Organizational Change

But cultural transformation has yet to occur. This study comes at a time of early consideration—ASL pedagogy and content standards are being adopted experimentally, not comprehensively. So, we must distinguish among the concepts of organizational change, the establishment of new rules and structures within individual organizations, and institutionalization. In education, organizational change happens at the smallest unit of analysis, typically the school or district, and refers to any marked distinction in adopted policy or practice (e.g., Fullan, 2007). Establishment requires time and persistence within the adopting unit, whereas institutionalization requires establishment across units of similar type.

From the neo-institutional perspective, institutionalization describes a potentially fragile process by which social expectations of appropriate organizational forms and behaviors take on a rule-like status in social thought and action, creating and perpetuating social structures (Berger & Luckman, 1967; Oliver, 1992; Tolbert & Zucker, 1996). Institutionalization need not be synonymous with cultural transformation, though it is in this case. Institutionalization can be thought of as occurring in phases and comes about through legitimation, where pragmatic, moral, and cognitive schemes are deployed to develop a generalized perception of organizational credibility and continuity (see Suchman, 1995). Since legitimacy is required at every phase of the institutionalization process and centers our analysis of findings, we address it next.

Legitimacy. Legitimacy has been defined as a "generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions" (Suchman, 1995, p. 579). Though it may be

established locally, legitimacy's source is found "beyond the boundaries of an individual organization in supraorganizational beliefs about social reality that are widely held (or, at least, held by powerful actors)" (Johnson, Dowd, & Ridgeway, 2006, p. 59). New players or advocates for new practices in an organization may find themselves struggling with existing institutional structures because radical innovations have not yet acquired legitimacy (Aldrich & Fiol, 1994; Lounsbury & Glynn, 2001; Zimmerman & Zeitz, 2002; Zott & Huy, 2007). Of particular significance to this study, legitimacy ratifies guidelines and expectations for the activities of organizations adopting specific policies or practices (Jepperson, 1991; Suchman 1995). That is, once judged to be legitimate, K–12 ASL content standards become capable of bestowing benefits to the schools for the deaf in which they have been adopted.

Legitimacy is critical to such hallmarks of the new institutionalism as taken-for-grantedness and the transition from explicit arguments, efforts, and accounts for new requirements, organizational forms, or other innovations to implicit justification evidenced by the absence of public contest or debate (Johnson et al., 2006, p. 59). In this study of organizational change in schools for the deaf, no one can take for granted that the new K–12 ASL content standards effectively inform and guide a program of curriculum and instruction in ASL (literacy and language arts). Explicit efforts and arguments are required to bring these standards into schools for the deaf, and accounts must be rendered to justify actions and outcomes. That is, legitimation of the national K–12 ASL content standards is a prerequisite to any eventual institutionalization.

Organizational legitimacy is not simply a unitary construct, a status that comes in only one form. Suchman (1995) has proposed three distinct types: pragmatic, moral, and cognitive. *Pragmatic legitimacy* is comprised of "exchange, influence, interest, and character" (Deephouse

& Suchman, 2008, p. 52). This is the kind of legitimacy leaders develop through entrepreneurship and image construction. The pragmatics of exchange have to do with the value the organization or services can provide and operate on the basis of constituent self-interests that may, in the extreme, become entrenched power-dependence relations. Alternatively, rather than be drawn into exchanges, organizations can strategically incorporate constituent influence and interests to strengthen the organization's perceived—if not real—commitment to ensuring constituents' well being. Finally, character references the personified image, reputation, or disposition of the organization, which offers general covering for any single mistake, error, or shortcoming (due to what is called *dispositional legitimacy*).

With respect to the pragmatic legitimacy in this study, the implementation sites are all either state-funded schools for the deaf (two in California and one in Indiana) or operate with sufficient fiscal autonomy (one in Massachusetts) as to not depend on exchange for legitimacy. However, these schools have taken and continue to take seriously the interests and influence of parents, the Deaf community, and the full range of school employees and volunteers (see also, Strong, 1995). Finally, two of the four schools (Indiana School for the Deaf and The Learning Center for the Deaf) were leaders in the move toward ASL-English bilingual/bicultural (Bi-Bi) education that began in the mid-1980s (Nover & Ruiz, 1994; Strong, 1995); a third became a program development leader in the mid-1990s (California School for the Deaf, Fremont; see Strong, 1995); and the fourth implemented its Bi-Bi program in 2004 (California School for the Deaf, Riverside) before taking on the National K–12 ASL Content Standards Project. This history conferred substantial dispositional legitimacy on the project team.

Moral legitimacy is comprised of "consequences, procedures, persons, and structures" (Deephouse & Suchman, 2008, p. 52).[1] One basis for moral justification is consequences or achieved ends; success confers legitimacy, and failure delegitimizes a position, practice, or policy, if not the entire organization. Morally righteous leadership can also be found in procedural justice (Bies, 2005; Colquitt et al., 2013; Tyler, 2006); fair procedures confer legitimacy.[2] Akin to charismatic leadership, individual persons can establish or represent the moral basis for legitimacy. Finally, the manner in which an organization is structured—its whole array of procedures, processes, practices, arrangements, and so forth—can serve as a moral basis for legitimacy when its structure is recognized as identical to what counts as the right or appropriate way to organize for the particular business in which it is engaged.

Because of the innovative character of the project, neither consequential nor structural legitimacy was available to the participating schools (except structural insofar as all of the general organizational form before implementation remained nearly identical following implementation). Leadership in the field of Bi-Bi programming and energetic and compelling personalities making up the project leadership team could certainly serve as the basis for personal legitimacy in all participating schools, but these school leaders' personal legitimacy must be established. The design of this study, described in the next section, provides an opportunity to verify whether personal legitimacy was operative. On matters of procedure, all four schools had established and been consistent with processes that were open to and included constituent voice and communication that provided accounts of what was taking place and why particular decisions were made. Moreover, the work of the project team prior to implementation,

[1] When meant to be analytically distinct from cognitive legitimacy, *normative legitimacy* is synonymous with moral legitimacy.

[2] Keep in mind that, at the same time, persons can redefine what is worthy, whether conduct is neutral or biased, compassionate or calloused, whether goals serve self-interested individuals or the organization, and so on.

as well as the initiative of the Clerc Center that led to the call for the project in the first place, had been built on an open, fair, and actively engaged process that systematically solicited external input and regularly communicated full accounts of project developments. Nonetheless, we cannot take for granted that this perception was shared by everyone involved in project leadership, so we will rely on the testimony of study participants to confirm whether procedural legitimacy was in place.

Cognitive legitimacy is comprised of "predictability, plausibility, inevitability, and permanence" (Deephouse & Suchman, 2008, p. 52). This is the kind of legitimacy leaders develop through new explanations. Predictability and plausibility have to do with whether organizational structures and behaviors are comprehensible. Being able to draw analogies to well-known models—both by the organizational actors providing internal accounts to one another and to the environmental field in which organizations are embedded—establishes plausibility. Moreover, such mapping onto cultural exemplars provides implicit assurance because typical behavior is not only familiar but also predictable, especially when the real and encountered experience with the organization fits the model or exemplar claimed. Inevitability and permanence are difficult cognitive schemata to activate, but they are the essence of taken-for-grantedness. Organizations that give the appearance of inevitability or permanence to themselves or to aspects of the way they behave or are structured confers unquestionable legitimacy.

Because nothing is inevitable or permanent about the novel set of national K–12 ASL content standards that were implemented, and no definitive movement with established momentum was taken in this direction, taken-for-grantedness was not a possibility leading up to the project studied here. Plausibility was proffered and sufficiently compelling to attract the four

schools for the deaf to respond to the Clerc Center's RFP, and they were able to make the case to their organization and local constituencies well enough to proceed. Nonetheless, the matter of predictability remains the subject of this inquiry. Whether this project is sufficiently comprehensible to grant it cognitive legitimacy must be learned from the participant interviews described and reported in the subsequent sections.

The institutionalization process. This study focuses almost exclusively on the first of three phases of institutionalization because it fits the circumstances of this study. Berger and Luckman (1967) refer to the first phase as *habitualization*, which follows the introduction of new structures or innovations to individual organizations. It ends when there is sustained and permanent establishment of new rules and structure within individual organizations following incorporation of the change and is called *pre-institutionalization* by Tolbert and Zucker (1996, pp. 181-182). This constitutes the legitimation of innovation (of newly incorporated structure).

In this study, the K-12 ASL content standards are a new way to structure curriculum. However, they are being adopted on the basis of internal political receptivity rather than motivated by a developing social consensus. Using the language of "managing legitimacy" (Suchman, 1995), these innovative standards did not come with a record of success, reliable and formalized operations to mimic, or otherwise have a reputation to establish legitimacy. A team of innovators (researchers and educators) heeded the call of the Laurent Clerc National Deaf Education Center (Clerc Center) for the development, implementation and, hopefully, promulgation of a responsive, professional, and productive set of standards to achieve the goal of full ASL-English biliteracy among students in schools for the deaf.

For the sake of completeness, we note that the process of institutionalization further includes diffusion and widespread adoption—the *semi-institutionalization* phase—in which

legitimacy has a precedent. Finally, common, steady, and permanent acceptance of new structures, rules, or configurations across the field of comparable organizations—the *full-institutionalization* phase—establishes legitimacy for the entire organizational field (Tolbert & Zucker, 1996). The idea of a fad, whereby nearly all relevant organizations adopt a change but do not sustain and make that change permanent, contrasts with full-institutionalization; fads are semi-institutional (Greenwood, Suddaby, & Hinings, 2002).

Organizational change then institutionalization. Other theoretical perspectives attend to the inter- and intra-organizational changes that have strong affinity with neo-institutional theory. From the perspective of the diffusion of innovation tradition (e.g., Rogers, 1962; Wejnert, 2002), this is a study of organizational innovators, those with a "venturesome" disposition who look to outside networks for potentially radical ideas (Rogers, 2003, p. 280). And, from the organizational change in schools tradition, the timeframe for this study captured the implementation (Fullan, 2007) or transformation (Duffy, 2010) phase of school system change. That is, we observed schools that were beyond the initiation phase (Fullan, 2007), during which preparation and envisioning take place (Duffy, 2010), but changes had not been in place so long that they had been firmly established. The choice of wording in this last statement is necessary because the organizational change tradition would use the term institutionalization (e.g., Fullan, 2007) to describe what Berger and Luckmann (1967) termed habitualization and what Tolbert and Zucker (1996) have called pre-institutionalization. For conceptual clarity, it is important to emphasize that full-institutionalization is observed across the entire organizational field (here, all or nearly all schools for the deaf), whereas habitualization and legitimation within a small subset of comparable organizations is the end of pre-institutionalization.

Simultaneous deinstitutionalization. Another central theoretical concern raised by Meyer and Rowan (2006) is that our inquiry seeks to understand "what the latitude and the limits are that we confront [when] we [attempt] to change the existing institutional order" (p. 4). The suppression of ASL is no longer the order of the day in schools for the deaf, but English-only language and literacy instruction remains the modus operandi. Intentional ASL pedagogy and content standards represent a fundamental change, if not threat, to the existing institutional order. Pursuing this study from a neo-institutional perspective, we attended to "how people actively construct meaning within institutionalized settings through language and other symbolic representations" (Meyer & Rowan, 2006, p. 6). We looked for indications of both the deinstitutionalization (Oliver, 1992) of English-only curriculum and pre-institutionalization of an ASL-English bilingual-bicultural curriculum replete with standards for both ASL and English content articulated across the K–12 developmental grade range. That is, in applying Oliver's (1992) identification of how political, functional, and social pressures lead to a variety of intra-organizational factors predicting deinstitutionalization of the existing institutional order, we looked for indicators that K–12 ASL content standards pose legitimate challenges to taken-for-granted notions of ASL as merely instrumental to learning English, provide increased technical specificity for ASL pedagogy, advance the interests and beliefs of Deaf educators about the dignity and necessity of ASL fluency, highlight the differential role of schools for the deaf in the field of deaf education, and provide hope for a meaningful response to inadequate student performance on accountability measures.

Further, we intend to make use of the findings from this study to assess progress through and prospects for full-institutionalization of K–12 ASL curriculum and content standards throughout the field of deaf education organized in the form of schools for the deaf. That is, the

new institutionalism provides the theoretical tools to not only interpret what has been observed thus far, but also speculate on future prospects by articulating the "mechanisms that structure institutional change, including not only interest-based conflict and power struggles but also mechanisms of social learning and experimentation" (Meyer & Rowan, 2006, p. 10). Transforming the mindset and culture of schools for the deaf—including parents and stakeholders—is a social, psychological, and political undertaking that, we believe, becomes tractable because of the theoretical and empirical insights of the new institutionalism in education.

Introducing a Novel Curriculum

In addition to theoretical insight and extrapolation from work in the neo-institutional organizational change traditions, we draw upon a limited research base addressing academic standards development for novel or original curricula in American K–12 education. Although the late 1980s through the early 1990s was a period during which voluntary national standards were developed for nearly all of the established curricular disciplines (e.g., Collins, 1997; Milner, 1997; Ravitch, 1995; Siegfried & Meszaros, 1998), which started with the well-known *Curriculum and Evaluation Standards for School Mathematics* of the National Council of Teachers of Mathematics (1989), no novel or original development took place—no new subject matters were created or introduced. What went into attempts to affect the shape and form of existing curricula identified by the National Education Goals Panel, and the accompanying instructional and assessment changes required to realize the ensuing curricular innovations, is well documented, especially as a national- or state-level phenomenon. However, much less in known about implementing genuinely novel curricular innovations like bringing ASL to the center of K–12 curriculum in individual schools for the deaf.

District- and state-level adoption and implementation of new subject matter curriculum are the most appropriate analog for this study of organizational change. Schools for the deaf are like districts because they are pre-K through grade 12 institutions that are divided into schools (typically, early-intervention/preschool, elementary, middle, and high), each with its own administrator, as well as having a superintendent and board for the entire institution. Though less so, they are like state-level organizations in that employees at schools for the deaf are employed by the state, they serve all (or, when a state has more than one school for the deaf, a large regional segment of) children in the state, and their superintendent may have to be appointed by the governor or another executive agency of the state. As a consequence of this governance structure and other formal organizational features, bringing national K-12 ASL content standards and intentional pedagogy to schools for the deaf is best informed by what little there is in the way of research on the development and implementation of genuinely new subject matter curriculum and instruction at the district and state levels.

During the 1990s, and into the 2000s, national technology standards were developed and genuinely novel curricula were implemented in several countries (also Bungum, 2006; Dugger, 2001; Finger & Houguet, 2009; Ginns, Norton, McRobbie, & Davis, 2007; Jones, Harlow, & Cowie, 2004; Layton, 1995; Solomon & Hall, 1996; Wilson & Harris, 2003; see multiple chapters in De Vries & Mottier, 2006). Though some sort of industrial arts or technology education programs were typically in place at the secondary level, technology curriculum and standards were a genuine subject matter innovation at the primary level. Except for the USA, where no official national curriculum exists, such standards were not voluntary because they were integral to national curriculum legislation or other mandates. Nonetheless, all of the challenges associated with curriculum implementation were present in these largely centrally

planned initiatives. New curriculum issues that required attention across the various countries included need for and development of an overview of progress through and levels of the curriculum, including objectives and learning outcomes; teachers' pedagogy and pedagogical content knowledge; publications and other informational resources that would facilitate teachers' learning about and engagement with the curriculum; appropriate instructional materials, including software and videos; guidance and tools for subject-specific planning and assessment, including interpreted examples of student performances from learning activities and assessments; teacher buy-in (acceptance of and enthusiasm for change); a system of support for teacher learning and professional development (need-specific more than general professional development), including collegial networks; a reliable funding stream; appropriate equipment, facilities, and other physical resources; competent, consistent, and persistent administrative leadership; ways to integrate the new curriculum with existing curriculum (or trim existing requirements), especially at the primary level; and additional time for teacher learning and planning.

In the USA, mandates and centrally planned initiatives typically originate at the state level. Loveland (2004) studied the case of Florida, which promoted but neither mandated nor formally incorporated the International Technology Education Association's (2000) *Standards for Technology Literacy* at the time of the study. Consistent with some of the points identified previously, in Florida, curricular innovation success was promoted by teacher collegiality and networking, especially where there was low district support. Support from state and district leadership, particularly in the form of teacher in-service training, as well as provision of standards-based curriculum materials and opportunities to participate in pilot projects, encouraged implementation. An important subtlety was the importance of organizational

(district) size. In small districts that had few or a single technology education teacher(s), frequently, teachers were not networked outside of their local districts with other teachers or professional associations—no real or virtual critical mass of change agents—and implementation was very low in these cases. In summarizing his findings, Loveland (2004) emphasized two long-established points from the literature that remain germane to interpreting the Florida case: (a) "teacher networks, strong local capacity and will, and enabling teachers to implement change are still critical factors in implementing educational innovations"; and (b) "the use of innovations may require lengthy negotiation, planning, testing, and the establishment of support and consolidation" (p. 53). We expect these themes to emerge in the present study.

A district-level study by Johnson (1999) provided a detailed look at what goes into voluntarily adopting new curriculum standards. Though not innovative (new subject matter) in the same way as the technology education standards example, important insight and confirmation can be gained from study of the academic standards-setting process in the areas of state-level English Language Arts and mathematics in a large unified (K–12) public school district in Southern California. The important additional contribution from Johnson is the concept of commercialization. It is important because it sets the stage for reception—packages content, meaning, symbols, and values more or less effectively. Additionally, she highlights that having a history of innovativeness begets further innovation. Consistent with all that precedes this example, Johnson has affirmed that in the midst of an array of idiosyncratic features, traditions, and cultures in a local school district, as well as strong influence from its organizational field, adopting and implementing new curriculum standards depends on satisfying such political, functional, and social imperatives as legitimating a vision, satisfying stakeholders, creating a critical mass of competent and committed teachers and administrators, integrating innovation

into the larger view of the work of the organization, and implementing with sufficient pace, personnel, and resources to see the project through.

Methods

Now, we present the methods used in our investigation of radical curricular innovation in schools for the deaf. This study focused on the "essence of a shared experience" (Patton, 1990, p. 71) among Deaf Education researchers and educators during the development and implementation of national K–12 ASL content standards in a select few schools for the deaf, which is best suited to case study research methodology. Yin (2009) has explained that a qualitative case study is a preferred method of inquiry when: "(a) 'how' or 'why' questions are being posed; (b) the investigator has little control over events; and (c) the focus is on a contemporary phenomenon within a real-life context" (p. 2). Along these lines, we sought to understand how the reform of Deaf Education through ASL curriculum, instruction, and content standards was seen by those involved in it; we inquired about this contemporary reform in multiple schools for the deaf over which we had relatively little control in how events played out across the sites. This project was a multiple case study involving nine participants across four schools for the deaf and four research universities. The first author collected data from these few, yet diverse, cases and was able to consider the uniqueness of each participant's experience (Patton, 1980).

Role of the Researcher

For the duration of the study, the first author was a participant first and an observer second. Although researchers such as Gold (1958) have pointed to the risk of "going native" in a qualitative study involving interviews, this study posed no risk of "going native," because the first author was already a native to the study in being a member of the team from which all other

participants were drawn. The first author was an insider, not an outside observer; the second author was strictly an outside observer and not personally familiar with any of the participants except the first author.

Before becoming the researcher, the first author was a school administrator and project leader. Being an insider, the first author had full access to both Deaf Education researchers and educators and information that would most likely not be easily available to outside researchers due to issues of confidentiality. In this dual role, the first author was "very familiar with the culture, the informal structures of the organization, and how to get things done" (Roth, Shani, & Leary, 2007, p. 47).

The first author had to develop a method for systematically reflecting on her experiences and those of her project teammates. Following Creswell (1998), the first author attempted to set aside prejudgments by "*bracketing* [her] experiences . . . and relying on intuition, imagination, and universal structures to obtain a picture of the experience" (p. 134). In addition to having the second author to assist in this process of self-recognition of and reflection on her biases, the author asked the researchers from the Clerc Center's K–12 ASL standards project team to review transcripts of the video-recorded interview data.

Selection of Participants

Because this study focused on the implementation work by the committee that led the National K–12 ASL Content Standards Project, its entire membership was invited to participate.

Setting. The choice of setting was simplified by logistics because, at the time of the study, the first author was working with these participants—Deaf Education researchers and educators/administrators—serving on the national K–12 ASL Content Standards committee for at least two years. However, the participants were located throughout the country, and so the

setting for the interviews was remote. Videophone calls were made. The first author conducted participant interviews from her residence in Southern California to their residences at their respective locations.

Participants. We pursued ten participants—the first author was one of the eleven members of the National K–12 ASL Content Standards Project. One of the ten potential participants refused to participate, leaving a study population of nine. These expert practitioners, participants-in-action, were our informants for this inquiry (Flick, 2002; Hassard, 1991).

The 9 participants spanned the United States and Canada. Their ages ranged from 35 to 70 years. Each educator had 10 or more years of work experience in Deaf Education, and each researcher had 25 or more years of ASL-related experience. Three male participants who were working at schools for the deaf as educators/administrators: 1 in the northeast, 1 in the midwest, and 1 in the western region of the United States. The other 6 participants—4 females and two males—were working as researchers in the field of ASL and Deaf Education at universities across the United States. One of the 4 female researchers was located in Canada.

Recruitment Strategies. The executive director of the Laurent Clerc National Deaf Education Center served as the gatekeeper for all requests for access to participants for this research study, and he openly offered access to all without delay.

Inviting colleagues to participate in a research study has potential ethical challenges. Ethical considerations were acknowledged and integrated throughout this study prior to, during, and following recruitment. Subsequent to IRB approval, the first author contacted all members of the National K–12 ASL Content Standards Project team early in fall of 2012 to inform them of the purpose of the study and to obtain their informed consent. Semi-structured interviews were

scheduled with the nine consenting participants to take place between early October and mid-November of 2012.

Data Collection Procedures

Six questions were developed for the video-recorded semi-structured interview protocol and are as follows:

1. What have been your experiences with developing national K–12 ASL content standards?
2. What advice would you give to schools of the deaf with respect to the adoption of ASL standards?
3. What do you foresee as obstacles to establishing national ASL content standards in K–12 settings?
4. Why do you think intentional ASL pedagogy is necessary in schools for the deaf?
5. How would you describe ASL course offerings to deaf and hard of hearing students in K–12 settings?
6. Is there anything else you would like to add?

Recording procedures. Coded names were used throughout the data collection process, including on the transcribed interviews. Interviews ranged in length from 1 to 2 hours. Video recordings via IMCapture© captured this data. Immediately following the interviews, the first author translated data from ASL to written English and recorded written English field notes of reflections and observations. To provide timely results to the participants, copies of transcripts were immediately shared after the initial interview to ensure the accuracy and completeness of the data and observations. This process of *member checking* (Gall, Gall, & Borg, 2007; Merriam, 1998; Miles & Huberman, 1994) increases the credibility of the findings, allowing us to more accurately interpret each participant's meaning (Creswell, 2003).

Data Analysis

Following the qualitative data analysis approach of Miles and Huberman (1994), three linked processes were carried out: (a) data reduction, (b) data display, and (c) conclusion drawing/verification. The initial data reduction process coded, selected, and condensed material

on the basis of theoretical, as well as empirical, literature and an emerging conceptual framework. To organize and compress the display of data, a matrix display format, which arrays the relationship between themes identified and participant testimony in rows and columns, was chosen (see Miles & Huberman, p. 428). The outcome of the complete analysis is presented in the Results section.

Using an inductive analysis strategy (Marshall & Rossman, 2006; Patton, 2002) helped us avoid setting predetermined categories prior to in-depth interviews. Richards (2005) has introduced three ways of coding data to analyze research findings in qualitative studies:

> *Descriptive coding* is the sort of coding occurring in qualitative studies storage of information that *describes* a case. *Topic coding* is my term for coding that merely allocates passages to topics. It usually involves little interpretation . . . putting the data "where they belong," a sort of data disposal. *Analytic coding* refers to coding that comes from interpretation and reflection on meaning. (pp. 90–94)

Richards's (2005) three ways of coding were applied to the data. In the initial read, emergent themes were coded by going through the data, pulling out key phrases, and organizing them by topic, relevance to the research questions, and frequency. Once the initial themes were established, themes were independently color-coded in the transcripts by the first author and a trained and experienced colleague. The result was agreement on five themes, each with a set of subthemes; subthemes are hereafter referred to as *properties.* Credibility of the findings was strengthened through the use of theoretical sensitivity, which the authors developed by reviewing the extant research literature on Deaf Education and organizational change studies.

Constant-comparative analysis across cases was employed to make sure that the themes that originally emerged held up as appropriately relevant and salient. This work is schematically displayed in Table 2 for each participant. The presence of a particular theme or property within a participant's transcription is noted with an "X." (See Results section.)

After coding, winnowing, and further classifying the responses from transcriptions, to represent the data, key participant quotations were selected and, as necessary, summarized. They were then organized and presented according to the aforementioned emergent themes. Finally, the concepts were linked with interpretive experiences through a methodical cross-case analysis.

Trustworthiness of the Study

According to Guba and Lincoln (1989), if qualitative research is to be useful, then the study must adhere to standards of trustworthiness. The primary goal for establishing the trustworthiness of the results in a research study is credibility.

Credibility. Patton (2002) has identified three important elements upon which the credibility of this study depends:

1. Rigorous methods for doing fieldwork that yield high-quality data that are systematically analyzed with attention to trustworthiness;
2. The character of the researcher, which is dependent on training, experience, track record status, and presentation of self;
3. Philosophical belief in the value of qualitative inquiry, that is, a fundamental appreciation of naturalistic inquiry, qualitative methods, inductive analysis, purposeful sampling, and holistic thinking. (pp. 552–553)

On the first element, *credibility* was established by triangulating and verifying the data. From video-recorded interviews with individual participants, the same issues appeared, and themes emerged repetitively. Furthermore, the second author independently reviewed the transcriptions and was able to raise questions about whether the first author was being too subjective or too inclined to make the data fit her preferences, at the expense of recognizing what the data indicated.

For the second element, *credibility* was evident based on the first author's participation on the National K–12 ASL Content Standards Project team. Further, as a university-trained and credentialed Deaf Education teaching specialist and public school administrator with decades of

experience in the field, including posts at more than one school for the deaf, and subsequent hiring as Superintendent of the Illinois School for the Deaf, the first author was deeply familiar with the field across which the Project was implemented. Moreover, a qualified dissertation committee, chaired by the second author, supervised this work. And, returning to the first element, these opportunities provided ample time for the engagement necessary for collecting, triangulating, and verifying data needed for this study.

Finally, on the third element, we simplify testify to our philosophical beliefs being consistent with successful and meaningful qualitative inquiry. We defend this claim as consistent with our university training and professional practices as a Deaf Education teacher and administrator (in the case of the first author) and as a mainstream education teacher and Deaf Education and administration researcher (in the case of the second author). As must be true of any educator of deaf and hard of hearing children and youth, we approach each case on its own terms and make sense of all the information available in the particular institutional setting of a school for the deaf.

Additional data collection and analysis. Though the interviews are at the center of this study, the interpretation of some responses depended on both authors' knowledge and awareness of various documents and websites, particularly those of the Clerc Center and the four schools for the deaf, as well as the first author's personal history with the Project. The participants were not the sole sources of data for this study.

Results and Interpretations

Interviews with the National K-12 ASL Content Standards Project team leadership yielded five themes describing their perceptions of the development and implementation process in the four participating schools for the deaf. These themes, their properties, and whether

participants made statements indicating their awareness or endorsement of them are summarized in Table 2.

[Table 2 about here]

The first theme, *Constructing ASL Legitimacy*, identified the challenges faced by lack of support, particularly for ASL teachers, when it came to resources for instructional planning and student assessment. On the one hand, participants observed that they "started from scratch without any support" (M01 and M05). On the other hand, struggles led to local solutions when educators were able to "work collaboratively" (M03) or "with a group" (F03). Regardless of the sense of neglect or encouragement, particularly from outside of the school, their work was allowed to proceed and was pursued with vigor. Outside of the interview data, both authors were able to observe further and substantial entrepreneurial and image development effort toward pragmatic legitimacy.

Further, as a necessary testimony to developing moral legitimacy, one participant made sure to note what she believed was a positive consequence of the Project: a student's "writing skills improved significantly" following her discovery of ASL grammar rules (F02). Though this sort of statement represents an instrumental rationale for an ASL curriculum, writing excellence is an indicator of school success. And, nothing confers legitimacy like success.

The second theme, *Implementation Resources,* highlighted that the articulated content standards didn't accompany or come paired with an equally well-developed program of curriculum and instruction. There was a "lack of ASL resources" that contributed to deaf educators having a "poor attitude" (M01). Proprietary control interfered with gaining access to resources that were known to exist, for example: one participant (M05) hoped to "see Canada's recently published K-12 ASL curriculum but wasn't able to see it."

Legitimacy and resources go hand in hand, but this experiment in curriculum and standards innovation depended on resourcefulness rather than resource provisions. Only what each school's members had to draw upon (implement) provided them with instructional materials and strategies to elaborate and enact the standards-aligned curriculum in their respective settings. Additionally, the charisma and skill (personal legitimacy) of project team leaders rather than a mandate (procedural legitimacy) or established model (legitimacy from plausibility and predictability) helped to usher in change. There was no office within a state department of education mobilizing its staff and resources as part of a mandate or voluntary initiative. And, there was nothing to mimic or emulate, no materials to deploy or adapt, at least not within the bounds of cost and other access barriers (i.e., there might have been something in Canada, but nothing in the USA).

The third theme, *Personnel Demands*, highlighted the need for consistent and competent leadership from school administrators, qualified ASL teachers to deliver the standards-based curriculum, and appropriate expectations for the development of ASL skill, knowledge, and fluency among students. Project team members were concerned that "School administrators don't really understand or know the facts of language development in ASL and English" (F01). "Many deaf school leaders don't have a strong ASL linguistics background to understand and support intentional ASL pedagogy" (M02). Moreover, it is "difficult to find people in the USA with background in teaching ASL as a content course" (M03). "It is very difficult to develop ASL lessons because ASL teachers don't know which ASL skills are appropriate to expect for given developmental levels" (M05).

What is suggested, but not stated explicitly, is that there are too few people who are able to follow and work at the level of technical detail necessary to put together the complete ASL

package. The scope, sequence, and coordination of an ASL curriculum; the knowledge, skills, and abilities of ASL instruction; the form, interpretation, and appropriateness of ASL assessment; several participants perceived that a team that could effectively span and deliver on these demands was difficult, if not too hard, to come by. Since this is the technical core of the educational enterprise, and either staffing or managing it competently seemed a noteworthy challenge, questions of predictability (cognitive legitimacy) were quite serious.

The fourth theme, *Expectations and Training*, emphasized the need for introductory training for both the schools and their communities so the content standards and curriculum can be explained and appropriate expectations established. Through this means, "Parents and deaf people will understand how sophisticated to teach ASL" (M01). There was a need for implementation training that helps the whole school, not just teachers, become effective in delivering and supporting the ASL curriculum. Participant F04 shared that "school leaders need to understand the importance of offering ASL classes to deaf students; to provide school-wide training/workshops; and on-going training activities (at least four or five during the first year and three in the consecutive years)." Participant M05 also shared that "schools need to provide professional development training to understand the concept of ASL content standards." Finally, there was optimism for the prospect that the four study sites would become model schools that others can visit to learn about ASL content standards, curriculum, and instruction. Both Participants M01 and M02 suggested that other deaf schools "look at [the] four deaf schools as a model." Participant M04 shared that "there are only four model deaf schools in USA." Likewise, Participant F02 suggested that other deaf school leaders "look at these four model schools for the implementation of ASL classes and follow ASL standards."

Implied by these observations is the participants understand that moral (procedural) legitimacy will be facilitated through open procedures for communicating everything that is going on and planned. Further, implementation training will expand pragmatic (dispositional) legitimacy. Finally, there is a strong belief that this Project can create the cognitive legitimacy (predictability) that it lacked initially.

The fifth theme, *English-ASL Equality*, emphasized the equality of opportunity for personal, social, linguistic, and intellectual development that would accompany successful implementation of national K-12 ASL content standards and intentional pedagogy. Deaf students would experience ASL in the same way that hearing students experience English Language Arts. Participants M01 and M02 shared that "hearing students have the opportunity to take K–12 English classes," which is typically their primary language. Participant M03 shared that "deaf schools need to recognize if they offer K–12 English classes, then they need to offer K–12 ASL classes, too." Participant F04 explained that "hearing students need to learn and meet English Language Arts standards. It is same with ASL. We need to look at ASL standards and know what our deaf students need to learn in K–12 ASL classes."

Moreover, participants had clear ideas of how this would play out. Deaf students would transition from playful discovery and awareness of ASL as a linguistic object of study to sophistication and artistry through a developmental and articulated program. For example, Participant M05 shared:

> In grades K-2, deaf children need to have opportunities to play and explore their native language. In grades 3-5, they will start learning how to analyze, manipulate, and understand sign movements such as verbs and adjectives. In middle school, they will participate more in discussions, debates, and presentations. In high school, they will be involved heavily in analytical work to increase, change, and expand the concept of signing.

Participant F01 similarly shared:

> In K-2 levels, they play with language, learn how to use different signs or use the same handshapes, learn how to use ASL rhyming, learn basic skills of phonological level, and some basic ASL grammar rules following stories and games. For older deaf students, they will understand the register of informal and formal presentation skills. They will learn how to sign and present more clearly. Also, learn how to analyze other ASL signs through videos, etc.

Participant M03 believed that schools should "start with Kindergarten ASL classes to help them to read successfully in later years. They will learn sentence structures, vocabulary components (phonology, etc.), variety of genres to create stories in ASL, and ASL literacy." However, Participant M04 added, "ASL is not a magic pill for them to master English quickly. We need to give deaf children a lot of opportunities to play, analyze, and experience with their native language."

For all of the participants, who had conferred pragmatic legitimacy on the Project through their work with ASL-English bilingual/bicultural (Bi-Bi) education at their own sites (or, for researchers, collaborated in these earlier ventures), these responses indicate that, for them, the Project had unquestionable moral and cognitive legitimacy. All of the participants were, or least aspired to be, the kinds of innovators and leaders Suchman (1995, pp. 591-593; see p. 6 of this paper) said were required to see through the cultural transformation of an organization.

Recommendations for Research and Development

This study raises a number of important questions of both theoretical and practical significance. The theoretical questions, in particular, make clear that further research is required. At a minimum, continued monitoring is necessary. The practical questions revolve around the serious demand for further development to support what the National K–12 ASL Content Standards Project has started. To achieve the goals of this project, more must be done to deliver a commercial-like curriculum, instruction, and assessment package to schools implementing an ASL-centered bilingual deaf education program.

To elaborate on theoretical concerns, a potentially serious conflict may arise between the state-driven external force of the Common Core State Standards and their high-stakes assessments (for a UK example, see Halpin, Dickson, Power, Whitty, & Gewirtz, 2004), which are sure to inhibit ASL-centered innovations that only promise indirect means for and delayed improvement on accountability measures, and the yet-to-be-realized potential for the external force of professional associations (e.g., CEASD) to take up ASL-centered innovations. Further, questions exist regarding resource dependence and potentially unmet demands for technical specificity that threaten progress in the adoption of the national K–12 ASL content standards and intentional pedagogy. Without a well-articulated curriculum, instruction, and assessment package, this strategy is at risk of no longer being seen as plausible or structurally sound. These concerns make clear that the progress of implementation must be monitored, at minimum, to indentify by what means, if any, these theoretically specified demands are met.

In addition to making further inquiries of project team educators who continue to be involved in implementation at their sites, additional stakeholders must be interviewed or surveyed. Direct input from the students, teachers, parents, and other administrators about their experiences and perceptions should be pursued, as well as necessary follow-up evaluation research. The ability and motivation to continue must be assessed, as must basic outcomes germane to the ASL-centered bilingual program (e.g., student achievement in all subjects including ASL, attendance, graduation, parent satisfaction, achievement of hiring and training targets, etc.).

At the same time, a continuing cross-case study of organizational change is necessary to determining whether the theoretical framework guiding the current study continues to help make sense of the pace and progress of implementation. As with the monitoring and evaluation

research described in the previous paragraph, full insight about the completeness of organizational change theory for interpreting the course of implementation will require extending inquiries beyond the project team to multiple stakeholders in each of the schools for the deaf.

And, of course, additional cases must be added to the study if and when other schools for the deaf adopt and implement an ASL-centered bilingual deaf education program (i.e., one that takes up the national K–12 ASL content standards and intentional pedagogy). Part of the theoretical inquiry is to see the project past pre-institutionalization to full institutionalization, an effort that will require monitoring not just the original sites, but also all other schools for the deaf for signs of organizational change along the lines initiated by the National K–12 ASL Content Standards Project.

At the practical level, commercial-like products must be developed to sustain this innovation. No doubt, many schools for the deaf will be unwilling to start from scratch, whether they have the personnel and resources in place to do so. A highly detailed guide for instruction and lesson planning, with examples, assessment strategies, and instruments, must be developed to accompany the K–12 ASL curriculum promoted by the content standards. Videos, computer software, texts, and other instructional resources need to be developed and packaged with the instruction and assessment guides. Finally, guidelines for staff development must be included (e.g., frequency, duration, and organization of training, planning, and release time, as well as content and materials). Though these developments need to occur independently of any research agenda, even better would be a systematic program of research (or, at least, evaluation) to accompany this development agenda. This would help ensure the efficaciousness of materials and strategies.

Another practical concern is the matter of policy. Depending on the state, laws and regulations may make it difficult to adopt and implement an ASL-centered bilingual deaf education program. Two matters that need clear and non-contradictory places in the policy environment are the language status of ASL and the professional licensure standards for ASL teachers. In some states, it is not clear that ASL can have a legitimate and equal place alongside English. These ambiguities have to be resolved. And, even in states where ASL is recognized as a language in which students may legitimately receive instruction, the standards for who qualifies as an ASL teacher are not the kind that would be expected of someone who is doing primary language instruction. This conundrum means that the qualifications sought and certifications given do not necessarily line up well, if at all. And, regardless of whether enough universities are enrolling a sufficient number of students to train and certify the kinds of ASL teachers needed, policy must have a positive and proactive tone to signal a state-sanctioned demand for ASL teachers to institutions of higher education.

There are several limitations to this study. For example, this study period was rather short relative to the timescale for organizational change. It explored a very limited set of participants' perceptions and did so with a restricted subset of persons with interests relevant to adoption and implementation of K-12 ASL standards and pedagogy. Other limitations include the absence of fiscal and personnel assessments, no reporting of document analyses, and no anchoring in typical indicators of school outcomes.

Despite the present study's limitations, our results importantly add to the almost nonexistent research literature related to ASL instruction in bilingual deaf education programs. Clearly, there are practical implications for ASL teachers, ASL researchers, deaf educators, school leaders, health professionals and policymakers, most prominent among them being the

need for tremendous coordination and sharing of resources and expertise to see through this organizational change effort. Moreover, this study challenges ASL and deaf education researchers to expand their documentation of innovations and organizational change in schools for the deaf. Just how uniquely these institutions experience organizational change efforts is not really known. The effects of deinstitutionalization of English-based signing systems on organizational structures and practices in the schools for the deaf may be an important and fruitful area for additional organizational research.

Conclusions

Neo-institutional and organizational change theories provided powerful concepts for making sense of the Project leadership team's perceptions of standards implementation. We see that national K–12 ASL content standards and intentional ASL pedagogy remain a compelling alternative to the current model of English-dominated deaf education. Pragmatic and moral legitimacy are taking shape. And, with little evidence that historical patterns of deaf education practices, procedures, and policies reliably stimulate the kind of learning and growth sought for deaf and hard of hearing students, the program of standards and pedagogy has plausibility.

At the same time, K–12 ASL content standards and intentional pedagogy require substantial development to match the persuasive rhetoric used to argue for their adoption and implementation. The moral legitimacy of "success" is still absent, and the cognitive legitimacy of plausibility and predictability cannot be claimed unequivocally. Not only is there no clear evidence at this time that ASL-centered bilingual deaf education will have the achievement impacts claimed, but also there is no set of curriculum, instruction, and assessment guides and materials that can be delivered as a complete package to schools for the deaf that have adopted or intend to adopt the program. Nonetheless, substantially positive social learning and

experimentation are taking place in the four early innovator sites studied, which bodes well for organizational change in these sites, if not for full institutionalization across all comparable schools for the deaf.

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Table 1

An Incomplete History of the Status of ASL and English as Languages of Instruction, Social Interaction, and Formal Curriculum in American K-16 Education

	Deaf Education			Hearing Education
Year	Instruction	Social Interaction	Curriculum	Instruction/ Curriculum
1817[a]	Sign Language (evolved toward a common ASL)	Sign → ASL	English	English
1880[b]	Oral English	Enforced Oral English during school hours	English	English
1886	Fingerspelling[c] and Oral Education	Enforced Oral English during school hours	English	English
1970	Manually Coded English (MCE)[d]	ASL	English	English, with ASL and MCE as foreign or other
1980	MCE	ASL	English	English, with ASL[e] as foreign
1990	MCE and ASL/English[f] (Bi-Bi Approach)	ASL	English	English, with ASL as foreign
2008	MCE; Bi-Bi; ASL[g] and Bi-Bi	ASL	ASL[g] and English	English, with ASL as foreign

[a] Thomas Hopkins Gallaudet (hearing American) recruited Laurent Clerc (Deaf Frenchman) to make possible the first school for the deaf in Hartford, CT (Gannon, 1981). [b] Second International Congress on Education of the Deaf, Milan, Italy, declared "the incontestable superiority of speech over signs… and… the simultaneous use of speech and signs has the disadvantage of injuring speech, lipreading, and precision of ideas, [such] that the pure oral method ought to be preferred" (Moores, 2010, p. 309). [c] The term "fingerspelling" refers to Rochester Method communication mode by Zenas Westervelt. [d] There are multiple types of MCE: Signed English (SE), Seeing Essential English (SEE 1), Signing Exact English (SEE 2), Linguistics of Visual English (LOVE), and Simultaneous Communication (Sim-Com) (Nover & Ruiz, 1994). [e] Foreign language instruction for both elementary and secondary schools in 1980s (Jacobowitz, 2001). [f] Bilingual-Bicultural approach implemented at The Learning Center, Framingham, MA (Philip & Small, 1990). [g] Stand-alone ASL curriculum and instruction implemented at the four schools for the deaf in this study.

Table 2

Themes and Subthemes – Video-recorded Interview Analysis Summary

Themes and Properties	Participants								
	M01	M02	M03	M04	M05	F01	F02	F03	F04
Constructing ASL legitimacy									
Collaborative work			✓					✓	
Lack of support	✓				✓	✓			✓
ASL sophistication assists with writing English							✓		✓
Implementation resources									
Availability of current resources	✓				✓				
Resource development needed			✓					✓	
Personnel demands									
School leaders	✓	✓	✓	✓	✓	✓	✓		✓
Expectations of ASL signing skills								✓	
Qualified ASL Teachers	✓	✓	✓	✓	✓			✓	✓
Expectations and training									
School-wide training	✓								
Understand the national ASL standards					✓				✓
Innovative deaf schools as model	✓	✓		✓			✓		
English-ASL equality									
Provides the same opportunity as for hearing students in K–12 ELA	✓	✓	✓			✓	✓		✓
Components of K–12 ASL programs	✓	✓	✓	✓	✓	✓	✓	✓	✓
Increase metalinguistic awareness	✓	✓	✓						

Note: Participant codes have two parts, a letter for male or female (M or F), and an arbitrary number to distinguish each participant.