

EFL Education for the Visually Impaired in Japan: Data from Five Interviews

Educación EFL para personas con discapacidad visual en Japón: datos de cinco entrevistas

57

Educação EFL para deficientes visuais no Japão: dados de cinco entrevistas

James CARPENTER

<https://orcid.org/0000-0001-5029-9520>

Rikkyo University, Japan.

5063014@rikkyo.ac.jp

Received: 08/10/2019

Sent to peer review: 07/01/2020

Accepted by peers: 11/02/2020

Approved: 18/02/2020

DOI: 10.5294/laclil.2020.13.1.4

To reference this article (APA) / Para citar este artículo (APA) / Para citar este artigo (APA)
Carpenter, J. (2020). EFL Education for the Visually Impaired in Japan: Data from Five Interviews. *Latin American Journal of Content & Language Integrated Learning*, 13(1), 57-78.
<https://doi.org/10.5294/laclil.2020.13.1.4>

ABSTRACT. The educational research literature has promoted integrating students with disabilities into mainstream classrooms since the 1970s. In 2007, the Japanese government amended the School Educational Law, which has increased the number of educational opportunities available to students with disabilities. At the same time, the Japanese education system is, increasingly, following the global trend of promoting English as a foreign language (EFL) education at every level of the education system. There are approximately 1.64 million visually impaired people in Japan. Of these, an estimated 187,800 are blind. Even as the disability rights movement in Japan advances its agenda of barrier-free access, the processes through which blind students learn (and can be taught) foreign languages has not been well described within the broader educational community. In this paper, I will present the results of an interview study conducted with student and teacher participants at a school for the visually impaired in Japan. In this study, I sought to address two research foci: 1) what best practices can support teachers in conducting classes with visually impaired students; and 2) how visually impaired students relate to and engage with their EFL classes. Through my analysis of the interview data, I identified three core themes: a) the importance of targeted needs analysis; b) the centrality of braille for equity and access; and c) a tension between traditional educational support systems for visually impaired students in Japan, and what contemporary students increasingly need.

Keywords (Source: Unesco Thesaurus): blindness; braille; education of the blind; special needs education; language learning; language instruction; language teaching.

RESUMEN. La literatura de investigación en educación ha promovido la integración de los estudiantes con discapacidades en las aulas principales desde la década de 1970. En el año 2007, el gobierno japonés modificó la Ley de Educación Escolar, que ha aumentado la cantidad de oportunidades educativas disponibles para los estudiantes con discapacidades. Al mismo tiempo, el sistema educativo japonés sigue, cada vez más, la tendencia mundial de promover la educación en inglés como lengua extranjera (EFL) en todos los niveles del sistema educativo. Hay aproximadamente 1,64 millones de personas con discapacidad visual en Japón. De estas, se estima que unas 187,800 son ciegas. A pesar de que el movimiento por los derechos de las personas discapacitadas en Japón sigue avanzando en su plan de acceso sin barreras, los procesos a través de los cuales los estudiantes ciegos aprenden (y se les puede enseñar) idiomas extranjeros no se han descrito bien en la comunidad educativa general. En el presente artículo, presentaré los resultados de un estudio de entrevista realizado con estudiantes y profesores participantes en una escuela para discapacitados visuales en Japón. En el estudio, busqué abordar dos focos de investigación: 1) cuáles son las mejores prácticas que pueden ayudar a los maestros a realizar clases con estudiantes con discapacidad visual; y 2) cómo los estudiantes con discapacidad visual se relacionan con y participan en sus clases de EFL. A través de mi análisis de los datos de la entrevista, identifiqué tres temas centrales: a) la importancia del análisis de necesidades específicas; b) la centralidad del braille para la equidad y el acceso; y c) una tensión entre los sistemas tradicionales de apoyo educativo para estudiantes con discapacidad visual en Japón, y qué necesitan cada vez más los estudiantes contemporáneos.

Palabras clave (Fuente: tesauro de la Unesco): ceguera; braille; educación de ciegos; educación de invidentes; educación especial; enseñanza de idiomas; aprendizaje de lenguas.

RESUMO. A literatura de pesquisa educacional tem promovido a integração dos alunos com deficiências nas salas de aula convencionais desde a década de 1970. Em 2007, o governo japonês modificou a Lei de Educação Escolar, que aumentou o número de oportunidades educacionais disponíveis para os estudantes com deficiência. Ao mesmo tempo, o sistema educacional japonês segue cada vez mais a tendência global de promover o ensino de inglês como língua estrangeira (EFL) em todos os níveis do sistema educacional. Há aproximadamente 1,64 milhão de pessoas com deficiência visual no Japão. Cerca de 187.800 delas são cegos. Apesar do fato de o movimento pelos direitos das pessoas com deficiência no Japão continuar a avançar em seu plano de acesso sem barreiras, os processos pelos quais os alunos cegos aprendem (e podem ser ensinados) línguas estrangeiras ainda não foram bem descritos na comunidade educacional geral. Neste artigo, apresentarei os resultados de um estudo de entrevista realizado com alunos e professores participantes de uma escola para deficientes visuais no Japão. No estudo, procurei abordar dois focos de pesquisa: 1) quais são as melhores práticas que podem ajudar os professores a ministrar aulas com alunos com deficiência visual; e 2) como os alunos com deficiência visual se relacionam com e participam de suas aulas de EFL. Através da minha análise dos dados da entrevista, identifiquei três temas centrais: a) a importância da análise de necessidades específicas; b) a centralidade do braille para a equidade e o acesso; e c) uma tensão entre os sistemas tradicionais de apoio educacional para estudantes com deficiência visual no Japão e de que os estudantes contemporâneos precisam cada vez mais.

Palavras-chave (Fonte: tesauro da Unesco): cegueira; braille; educação cega; educação especial; ensino de línguas; aprendizagem de línguas.

The Japanese Ministry of Education, Culture, Sports, Science, and Technology (MEXT) continues to promote English as a Foreign Language (EFL) education across institutions and grade levels (MEXT, 2017). This includes adding EFL classes to elementary school curricula, increasing the number of such classes at the middle- and high-school level, and progressively “internationalizing universities.” Simultaneously, MEXT documents outline plans for the “promotion of special needs education,” which involves improving the quality of educational support for students with special needs and integrating these students into mainstream classes (MEXT, 2017). In Japan, there are approximately 1.64 million people with some form of visual impairment; of these, approximately 187,800 are legally blind (Yamada et al., 2010). Blind people have occupied a unique place in Japanese society because of their role in professional categories related to healing, massage, and music since the Edo Period (circa 1603) (Heyer, 2015). Since the Second World War, a generation of blind disability rights activists worked to establish a system of prefectural blind schools and universities, in part, to help blind individuals enter similar professions. Yet, the disability rights movement in Japan has gradually shifted away from these institutions (Heyer, 2015). Instead, the focus has shifted to equal access to public spaces and services, as well as integration into the “mainstream” education system. This new focus is reflected in the current MEXT (2017) documents.

The Cognitive Psychology of Visual Impairment

Conventional wisdom suggests that blind individuals develop their other senses in order to compensate for their blindness; some research has investigated how and to what extent this actually happens. In these studies, the most important variable appears to be categorical: At what age did the individual become blind? Individuals who are congenitally blind (i.e., blind from birth) or became blind early in life develop a greater degree of enhanced ability in their other senses than individuals who became blind later in life (Cattaneo & Vecchi, 2011). Whatever the degree of enhancement, there is evidence that vision plays the facilitative role of integrating information from the other

senses into mental “pictures” that represent our understanding (Röder et al., 2008). Without this, research suggests that early-blind individuals come to possess enhanced aural semantic processing capabilities, including the ability to understand ultra-fast synthetic speech (Röder et al., 2010). There is also evidence of an enhanced sense of touch, or tactile acuity, in early-blind individuals (Forster et al., 2007; Van Boven et al., 2000). In principle, these and related studies suggest that blindness is not an insurmountable obstacle to either perception or the acquisition of conceptual knowledge (Cattaneo & Vecchi, 2011).

Education for the Visually Impaired

The educational research literature has also concluded that blindness is not an obstacle to learning (Leung & Yeung, 2007). However, some assumed skills and knowledge must be taught to blind students explicitly; for example, social skills that are instantiated through body language and facial expression (Leung & Yeung, 2007). In addition, leveraging blind students’ enhanced sense of touch is a well-documented instructional strategy: Plastic models can be used to teach relative and comparative sizes (Hilton et al., 2012); a combination of braille text, thumb tacks, and rubber bands can be used to teach geometry concepts (Pritchard & Lamb, 2012); and teacher-made three-dimensional graphs can be used to teach economics concepts (Kugler & Andrews, 1996). In Japan, the use of real animal bones to teach biology concepts to blind students has been meticulously documented (Nagira, 2019).

EFL Learning for the Visually Impaired

All of the four macro-skills (listening, speaking, reading, and writing) appear to require some degree of differentiated instruction (Lewin-Jones & Hodgson, 2004); this includes speaking activities, because blind students do not intuitively understand how to position their bodies relative to their classmates during speaking tasks. In general, nor-

mally sighted classmates also need to be taught how to support their visually impaired classmates (Lewin-Jones & Hodgson, 2004). In addition to this, linking vocabulary and grammar concepts with movement may be useful for blind students (Conroy, 1999). Guinan (1997) has argued persuasively that braille literacy in the first language (L1) is necessary for L2 learning, as is the use of text-reading software and email communication for blind students who cannot read braille well (Malinová & Ludíková, 2017). Overall, a combination of well-developed L1 communication skills, braille literacy, and the availability of assistive technologies may serve as the foundation for L2 language learning for the blind (Guinan, 1997).

Learning as a dedicated communicative system

Young language learners have been found to recycle interactional features of teacher talk, including the teacher's intonation, instructional sequences, and gestures (Cekaite, 2006). A teacher's gaze, nods, pointing gestures, touch, and bodily contact represent different "interactional resources" that facilitate classroom learning (Kääntä, 2012). Similarly, students rely on the interactional resources of gaze, gesture, touch, bodily contact, and sensitivity to their classmates' spatial and visual fields when interacting with each other (Lee, 2017). Students and teachers make use of these interactional resources in different ways, depending on the instructional format (Cekaite, 2006). At the micro-level, learning may consist of "dedicated communicative systems" that follow systematic rules (Goodwin, 2017).

As MEXT (2017) continues to enact its expanded EFL learning policy, it is simultaneously promoting the integration of individuals with disabilities into mainstream classrooms. At present, the dedicated communicative systems that can facilitate the teaching of EFL to blind students remain under-researched and undefined. At the core of this issue is the inherent difficulty in identifying what blind students know and how they know it. For many normally sighted educators with little or no experience teaching blind students, it can be difficult to imagine how perception without vision can lead to conceptual knowledge (Edwards, 2012). Even as the disability rights movement in Japan advances its agenda of barrier-free access, the processes through which blind

students learn (and can be taught) foreign languages has not been well described within the broader educational community. In this paper, I will present the results of an interview study conducted with student and teacher-participants at a school for the visually impaired in Japan. This study used inductive and phenomenological qualitative research methods within the constructivist paradigm to investigate two research foci:

(1) What best practices can support teachers in conducting classes with visually impaired students?

(2) What challenges do visually impaired students face in relation to their educational goals?

Method

Field site

These interviews involved teachers and former students at a special needs school for the visually impaired (SVI) in Japan. Each of the 47 prefectures in Japan has a school for the visually impaired (Nagira, 2019). Those visually impaired students without any cognitive impairment who wish to attend a Japanese university compete to attend SVI from the middle- or high-school level (Nagira, 2019). SVI also has a university-level program, which prepares students to become massage therapists and acupuncturists (Nagira, 2019).

Participants

A variation of snowball sampling (Hatch, 2002) was used to recruit participants for this study. Initial contact was made through a personal friend of the researcher who was working in the university-level program at SVI. This personal friend, who also worked as a foreign language teacher at SVI, collaborated with the researcher to produce a list of five candidates familiar with language learning for the visually impaired; the names of the five participants given below have been

changed to pseudonyms. Two of the five interviews were with Hanae, a Japanese, female instructor from the university program. Two additional interviews were conducted with two recent graduates of both SVI's high school program and the university program. These two women were named Tomomi and Yukiko. Another interview was with Aomori, the director of the high school program. Hanae is normally sighted; Tomomi, Yukiko, and Aomori are totally blind.

Procedures

A semi-structured interview protocol was developed to focus the interview participants as much as possible around the research questions for this study (Wengraf, 2012), while offering the flexibility for the participants to feel comfortable freely expressing themselves (Spradley, 1979). Each interview lasted between 30 minutes to one hour. The interviews were conducted in a quiet corner of various cafes selected for the participants' convenience; each interview was audiotaped. The interviews with Hanae and Aomori were conducted separately in English. The interviews with Tomomi and Yukiko were conducted in Japanese, with the help of an interpreter. All of the data were transcribed by the researcher, and all transcriptions of Japanese words were confirmed with a native speaker of Japanese. Informed consent was obtained from all participants.

Data analysis

An iterative, inductive approach to data analysis (Hatch, 2002) was used to analyze field notes and interview transcripts in an effort to gain deeper insights into the data. The transcripts and field notes were uploaded to the ATLAS.ti 8 qualitative analysis software package. Using this software, significant, relevant and unique statements in the interview data were identified and assigned a category using a code (Saldana, 2013). Each of the statements that comprised each category were then compared, refined and, eventually, clustered into a smaller collection of categories or themes (Miles & Haberman, 1994). These themes are presented in the results section below. Wherever possible, these themes are depicted using long quotes from the interview data, with the goal of foregrounding the voice of the participants.

Results

The first research focus for this study was: What best practices can support teachers in conducting EFL classes with visually impaired students? Through the analysis of the interview data, two core themes were identified to address: a) the importance of targeted needs analysis, and b) the role of braille literacy. The second research focus was: What challenges do visually impaired students face in relation to their educational goals? Three core themes were identified to address this: a) the continued influence of professional categories for the visually impaired on their educational prospects, b) the effect of their teacher's professional background on their educational experience, and c) the limited benefits of special treatment in the classroom.

Educational needs

Needs analysis

Both Hanae and Aomori emphasized the importance of targeted needs analysis to assess a) the extent of a students' visual impairment, b) school and local resources available to assist the visually impaired student, and c) the learning skills that the student may already have. Table 1 below provides a synthesis of Hanae's responses.

Table 1. Hanae's recommendations for teaching visually impaired students

Needs Analysis
Determine what tools (i.e., Sense braille Machine, text reading software) the student has been trained to use.
Determine if the student was blind from birth or became blind later in life.
Materials Preparation
Analyze classroom materials to determine how many graphs or pictures need to be captioned.
Where possible, build activities around audio input, with a lot of speaking practice.
Determine the resources that are available through the school itself.
Determine if any school support staff can read and write in braille.

Determine if there are student volunteers available to help prepare materials?
Gather information from the local <i>nijinokai</i> (虹の会)—a kind of disability resources center operating in most cities and wards in Tokyo.
Student Skills
Students must be trained to move around the campus independently.
Visually impaired students—especially blind students—have an aptitude for pronunciation, and so this is a useful starting point.

Source: Own elaboration.

As Table 1 indicates, Hanae's responses echoed two important points mentioned in the research literature. First, that the availability of assistive tools and technologies determines possible methods of instruction (Leung & Young, 2009). Second, determining whether or not students can read and write in braille is also important (Malinovska & Ludikova, 2017). Finally, successfully teaching visually impaired students necessarily involves training them to become independent (Lewis-Jones & Hodgson, 2004).

Assistive technologies

Aomori expressed a perspective quite similar to Hanae's; Aomori, however, is blind, and was himself a student at SVI. His interview provided some key insights into the forces that guide education for the visually impaired in Japan. Our interview covered four major themes: a) barriers to access, b) braille, c) career prospects, and d) the education system. Table 2 below gives a short synthesis of my research notes from this interview.

Table 2. Aomori recommendations for teaching visually impaired students

Barriers to Access
Braille versions of standardized English tests (i.e., TOEFL, TOEIC) require a doctor's report, and a three- to four-month waiting period.
E-learning programs and online materials that supplement modern textbooks are incompatible with screen reading software.
Braille
For blind students, all class materials should be prepared in braille.
Tests should not include photos or complicated graphics.
Teachers in blind schools usually transcribe English textbooks into braille.

In SVI, 50% of students read braille, while 50% have low vision and, therefore, use large print.
English Education
Some years ago, many blind students focused on English, because of the belief that foreign language study was more accessible to the blind.
Now, science fields have become more popular.
About 20% of students from SVI will eventually study abroad.
Of these, some students work in developing countries as activists for blind people.
The Education System
There is one blind school in each of the 47 prefectures in Japan.
At the elementary school level, there are only one or two students in each grade.
Medical developments have cured many diseases that once caused blindness.
SVI is the national school, and so students who wish to attend a regular university usually enroll at SVI first.
There are 16 students per grade in the SVI high school.
At the middle-school level, students learn to read and write braille using a slate and stylus.
From the high-school level, students learn to use the braille Sense machine, and text reading software on their computers.
80% to 90% of SVI high-school graduates attend regular universities.

Source: Own elaboration.

Table 2 indicates the level of specialized knowledge and the practical challenges that blind students face as they navigate their education. In terms of English education, Aomori emphasized that, while on the surface it may appear that teaching a foreign language to the visually impaired is not very different from teaching the normally sighted, the reality is that changes in educational practices (i.e., the increased use of educational technologies, blind students of the current generations' increasing interest in science) require an ongoing evaluation of the kinds of support blind students receive. Barriers to access remain for visually impaired students today. Many textbooks in general, and EFL textbooks in particular, increasingly use graphics and images. Aomori emphasized that these graphic enhancements are often impossible to convert into braille, and the quality of the students'

experience of the textbook suffers as a result. Similarly, both of the student participants referred to their own use of screen-reading software as high school and university students. Hanae echoed this, acknowledging that “I heard that now more and more visually impaired people are less learning braille because of computers. They don’t need, they just listen and type usual characters. So, some people cannot read braille.” Yet, Aomori pointed out that the online supplemental materials that typically accompany many current textbooks cannot be read by screen-reading software.

Tools and instruction

To successfully integrate blind students into mainstream classes, teaching practices must be compatible with the tools that blind students use. In this way, something approximating equal access to classroom input is possible. Of the different assistive technologies mentioned in my interview data, the most salient was the braille sense machine. Figure 1 below is a picture of this machine.

Figure 1. Braille sense machine

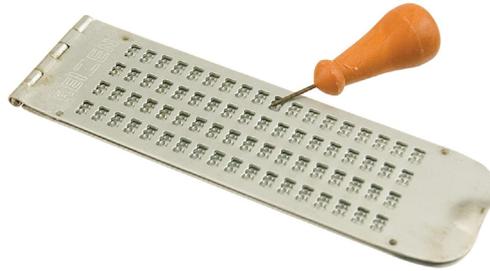


Source: HIMS Inc (2020). https://hims-inc.com/wp-content/uploads/2017/12/Braille_view_U2_01-1.jpg

The braille sense machine allows students to upload various file formats and converts the text into braille. The text can then be read using the raised bumps on the trackpad. Hanae stressed that this technology is essential for high school students at SVI; so essential that the school, through funding from the Japanese government, makes a few units of this machine available to rent for students without the money to pay for their own. Aomori also emphasized, however, that middle school students at SVI are required first to learn to write braille by

hand using a slate and stylus, so that the students can gain a tactile sense of “two-dimensional objects.” Figure 2 below is a picture of a slate and stylus.

Figure 2. Slate and stylus



Source: Maxi aids (n.d.).

To use the slate and stylus, students affix thick, braille paper to a special kind of clipboard (not shown) and attach the slate to the side of the clipboard. Students can slide the slate up and down the side of the clipboard as they write; the stylus is inserted into the holes in the squares. Each square contains six dots arranged in vertical columns of three. The stylus punches the braille characters into the paper, which appear as raised bumps on the opposite side of the paper; students can proofread what they have written by lifting up the paper and feeling the backside with their free hand.

While visually impaired students can have a variety of individual needs—similar to all students—, certain kinds of targeted needs analysis and the availability of assistive tools are essential. Of the assistive tools available, some innovations such as screen reading software can be helpful; however, the participants in this dataset all emphasized that materials in braille, either written by hand or read through the braille sense machine, is the most basic and essential need for blind students studying English.

The role of braille

Initially, my interviews with the student participants about their learning experiences as blind students was discouraging. Both students described learning activities in their EFL classes that, while involving

braille materials, were almost indistinguishable from the sorts of activities conducted in my regular EFL classes. Hanae, however, emphasized that both interview participants were in the position to experience their EFL classes in such an ordinary way precisely because of a foundation of study skills and hard work. This foundation makes adult blind EFL learners appear very similar to normally sighted learners.

Hanae vividly contrasted both types of learners. She said that, in junior high school, “You really have to teach English in braille, right? But... to students who have already learned those things, so we don’t teach anything special besides English.” Adult students, in other words, have potentially already learned basic skills—including how to read English in braille, and potentially how to use other assistive technologies to help them learn. At SVI, English braille is taught to students in middle school; however, the goal of this instruction is, primarily, so that students can pass the English portion of the SVI high school entrance exam. Because MEXT (2017) requires that English be included in high-school curricula, and an English section is a consistent feature of university entrance exams, the necessity of braille literacy at SVI is, in part, interrelated with Japan’s overall language policy.

In addition, there are different braille systems for different languages and school subjects (Nagira, 2019). English braille has evolved from a collection of similar systems into a generally agreed upon standard form: Unified English Braille (UEB) (BANA, 2016). Typically, English braille is taught initially using an uncontracted form, which spells out each word letter by letter; students then learn a contracted form, which uses abbreviations for common English sounds (D’Andrea, 2009). Even if a student masters these different systems, the average speed for braille readers remains between 80 to 100 words per minute. Blind students at SVI learn to read English braille with the ultimate goal of reading and writing fluently using contracted braille. Hanae describes typing uncontracted braille on a computer in this way:

if you [write] *station*, maybe the computer says *station*, not *s-t-a-t-i-o-n*...I wrote English in braille I need to turn the shortened form on or shortened form off, and sometimes, if the shortened form is on, I type *st* and suddenly *station*, so...“*st*” is shortened form of “*station*”.

Learning all of the contracted braille forms (i.e., the “*st*” in “*station*” is a single character in contracted braille) is essential for braille litera-

cy. The most current version of the Braille Sense machine can convert the language of English texts into contracted braille (HIMS Inc., 2020).

Despite SVI's emphasis on braille literacy, both Hanae and Aomori acknowledged that the current generation of blind students resist studying braille seriously. This resistance may be part of a world-wide trend: beginning in the mid-twentieth century, braille literacy has been steadily declining (National Federation of the Blind, 1993). Hanae emphasized that many students in the university program prefer to use screen-reading software to listen to the content of a text instead of reading in braille; automatic speech recognition software also allows blind individuals to control mobile devices using spoken commands, and haptic technology allows them to get information from these same devices using both auditory and tactile icons. Csapo et al. (2015) provide a comprehensive overview of these and other assistive technologies for the visually impaired.

Educational challenges

Professional categories

Much of the interview data from the two student participants emphasized issues particular to blind individuals' experiences in society. At first, both Tomomi and Yukiko contrasted their experiences in the Japanese education system up to high school. At first, Tomomi attended mainstream classes at her local elementary school, even as her sight failed, and even though there was little educational support for her. She entered SVI later in her school career because she

wanted to be a teacher, and thought about what subject should I teach... to be a science teacher for the blind people, is... is rare... so then at the maybe high school [I] came to know that there is an occupation called acupuncturist... so now [I] became acupuncture teacher.

Yukiko, on the other hand, attended both her prefectural blind school and later SVI for her entire career as a student. Yet, she resisted becoming too involved with acupuncture and massage because "it sounds so 'job for blind.'"

Hanae described the long history of teaching the blind to become acupuncturists or massage therapists in Japan. She said that blind

people have been massage therapists since the Edo period (1603 to 1866AD). Hanae then described the civil rights activism that still goes on in support of blind people in Japan. Hanae is currently a member of the *nihon ryouka kyoin renmei* (日本理療科教員連盟), a blind teachers association. This association is currently protesting a unique change to a portion of the Japanese labor law. Hanae explained that

The government decided that... some acupuncture therapist[y]... [is] not good for blind acupuncturists... the government tried to change the law, to give [normally sighted] acupuncturists can do something, but blind acupuncturists believe that if... the more normal acupuncturists can do work in many areas that makes blind acupuncturists lose their job.

In other words, the *nihon ryouka kyoin renmei* is fighting against a government proposal to add new treatment practices to the massage and acupuncture therapist license. According to Hanae, these new treatment practices cannot be performed easily by blind therapists, which has led the government to consider awarding separate licenses to blind therapists and normally sighted therapists. The blind teachers association sees this legislation as a threat to their students' competitiveness, and every Friday they visit the national government building to protest.

Both of the student participants seemed to obliquely suggest that the education system in Japan for the visual impaired encourages students to enter "jobs for blind" like acupuncture and massage. Recent legislative victories for disability activists in Japan (i.e., Heyer, 2015) may lead to changes in this situation.

Teacher background

Both of the student participants made explicit reference to the kinds of training they felt helped them live a functional a life; in particular, both described mobility training: how to navigate new places, and how to ask for help. Tomomi explained that

[we] have to use sound or smell or touch of the door, every sense except vision... that kind of training [we] received at the blind school. Maybe [Yukiko] is better because she is blind from the beginning so maybe her hearing or touching or sense of smell is strong.

This description also implies that blind individuals learn how to use their other senses to gain information about their environment. This is indicative of precisely the issue described in Guinan (1997): much of the literature on teaching foreign languages to the blind were written by language teaching professionals. In general, none of these studies contained detailed information about the kinds of training Yukiko and Tomomi described. Guinan noted that vision teachers and language teachers are trained with very different skill sets. Mobility training, and the use of multi-modal sense information is likely an important area of difference.

Special treatment

Hanae emphasized that while she, as a normally sighted teacher, often assumes that her blind students need extra support, her students often feel differently. She said,

I try to give them equal... stuff for those who can see and those who are totally blind: "Would you like me to translate those textbooks in Braille, or I can do that, I'll do my best to..." "Oh, sensei, no bother. Maybe we can just do with text data. We listen to our computers." "But don't you want to read with papers?" "Oh it's okay it's too much trouble for you, so don't bother..." that kind of attitude.

On one level, Hanae communicated that visually impaired students do not necessarily need or want special treatment—and that, in fact, the necessity of special treatment often reflects the perspective of the normally sighted teacher rather than that of the students themselves.

The student participants, however, both emphasized that an appropriate amount of support is still necessary for visually impaired students to complete the same work as their sighted peers. Both women emphasized the unique circumstances that make visually impaired students different. They emphasized the importance of braille, and especially contracted braille, in order to be effective learners of English. They also emphasized that, although braille is a complete writing system, it is not available in most places in Tokyo, and so even though visually impaired people have more access to things than they did before, basic necessities like shopping are still impossible without help. Tomomi was particularly passionate in her description of life as a blind woman in Tokyo. She said that she appreciated the Tokyo government's

attempts to build special paths so that blind people can feel where they are going with their white canes; however, these paths do not go everywhere, and so blind people still cannot travel freely and feel safe.

Discussion

This interview data offered useful insight into my first research question (what best practices can support teachers in conducting classes with visually impaired students). First, a certain level of needs analysis to determine whether or not students can read braille or can use screen reading computer software or the Braille Sense machine is important for EFL teachers to plan instruction. Also, determining the nature of the student's visual impairment: Are they totally blind or just low vision students? If they are blind, were they blind from birth, or did they become blind later in life? The research literature confirms that visually impaired students learn well through touch (i.e., Kugler & Andrews, 1996; Hilton et al., 2012; Pritchard & Lamb, 2012). In all five interviews, the participants emphasized the importance of providing materials written in braille for totally blind students, or with enlarged print for low vision students.

This study also shed some light on the second research question (i.e., "What challenges do visually impaired students face in relation to their educational goals?"). Aomori emphasized that, while his generation of visually impaired students were more interested in learning foreign languages, science-based fields have recently become popular among his students. Aomori also said that more and more of his students are entering regular universities. Yukiko and Tomomi also reported that, when they were high-school students, the international club was very popular. This suggests that more visually impaired students are entering mainstream universities and becoming internationally aware. While Yukiko and Tomomi expressed a relatively apathetic attitude towards English, it would seem from the modest data presented in this study that visually impaired students are, in general, moving closer and closer toward mainstream access to English language education in Japan. This probably means that more visually impaired stu-

dents will take university level English classes and will likely have the chance to study abroad.

Yet, these students' EFL education is also situated in and shaped by the larger currents of Japanese society at large. Yukiko and Tomomi's experiences seemed to suggest that visually impaired students are tracked into professions that have traditionally been designated for the blind i.e., acupuncture and massage. Yet, more and more visually impaired students from SVI are entering mainstream universities, and this seems to suggest that there are more opportunities for visually impaired students in Japan than in the past. However, throughout the course of this project, these new opportunities were juxtaposed against the practical skills that visually impaired people need to function independently. Therefore, while the visually impaired community may be benefiting from the changes to Japanese law enacted in 2007, they are still motivated to protect themselves as a vulnerable population. This suggests an in-group and out-group dynamic that is likely very difficult to penetrate. As a result, some of the interview data presented in this study may more accurately reflect what the visually impaired community wants outsiders to know about their abilities: i.e., basically, there are no major differences.

However, Yukiko and Tomomi's description of their training and educational experiences provided a very different picture. Obviously, visually impaired students need special accommodations, and indeed, even with these special accommodations, living as a visually impaired person in Japan still has many challenges. From their perspective, the options for visually impaired people are still too limited in Japan.

Limitations of the Study

The unique perspectives in this data are also a weakness because data from five interviews is not sufficient to empirically ground the findings of this study. The information uncovered through these interviews can provide some insight into tools, techniques, and challenges specific to visually impaired students and their teachers; yet, this quantity of data is not enough to thickly describe the experiences of visually impaired EFL students in Japan. For that, more extensive, longitudinal data tri-

angulated from multiple sources (e.g., observations, video, document review, in addition to interviews) is needed.

Conclusions

The vast majority of research on visually impaired individuals in educational settings has, unsurprisingly, been conducted for the purpose of helping normally sighted individuals work with this population (Edwards, 2012). While such research is valuable, it has also tended to emphasize the voices of the normally sighted, and not those of visually impaired individuals themselves. The results of this study represent a modest attempt to both contribute to existing educational research literature on working with the visually impaired, while foregrounding the voices of some visually impaired educators and students.

On March 31, 2018, I contacted Hanae about some follow-up interviews. She told me that only one student had enrolled in SVI's massage and acupuncture college for the coming year. Aomori explained in his interview that, on one level, the number of visually impaired people is declining in Japan. This is because of demographics, but also because many diseases that historically have caused blindness can now be cured by modern medicine. However, on another level, it would seem that more and more visually impaired people are actively participating in mainstream Japanese society. To the extent that mainstream Japanese society continues to emphasize English language education, it is essential that visually impaired students be given the support that they need in their EFL classes.

References

- Braille Authority of North America. (2016). *Unified English braille*. <http://www.brailleauthority.org/ueb.html>
- Cattaneo, Z., & Vecchi, T. (2011). *Blind vision: The neuroscience of visual impairment*. Massachusetts Institute of Technology. <http://dx.doi.org/10.7551/mitpress/9780262015035.001.0001>

- Cekaite, A. (2006). *Getting started: Children's participation and language learning in an L2 classroom* (Doctoral dissertation). <http://liu.diva-portal.org/smash/record.jsf?pid=diva2%3A22401&dswid=-1653>
- Conroy, P. (1999). Total physical response: An instructional strategy for second-language learners who are visually impaired. *Journal of Visual Impairment & Blindness*, 93(5), 1–4. <https://doi.org/10.1177/0145482X9909300507>
- Csapo, A., Wersenyi, G., Nagy, H., & Stockman, T. (2015). A survey of assistive technologies and applications for blind users on mobile platforms: A review and foundation for research. *Journal of Multimodal User Interfaces*, 9(4), 275–286. <https://doi.org/10.1007/s12193-015-0182-7>
- D'Andrea, F. M. (2009). A history of instructional methods in uncontracted and contracted braille. *Journal of Visual Impairment & Blindness*, 103(10), 584–594. <https://doi.org/10.1177/0145482X0910301003>
- Edwards, T. (2012). Sensing the rhythms of everyday life: Temporal integration and tactile translation in the Seattle deaf-blind community. *Language in Society*, 41(1), 29–71. <https://doi.org/10.1017/S004740451100090X>
- Forster, B., Eardley, A. F., & Eimer, M. (2007). Altered tactile spatial attention in the early blind. *Brain Research*, 1131(1), 149–154. <https://doi.org/10.1016/j.brainres.2006.11.004>
- Goodwin, C. (2017). *Co-operative action (learning in doing): Social, cognitive, and computational perspectives*. Cambridge University Press. <https://doi.org/10.1017/9781139016735.021>
- Guinan, H. (1997). ESL for students with visual impairments. *Journal of Visual Impairment and Blindness*, 91(6). <https://www.afb.org/publications/jvib>
- Hatch, J. (2002). *Doing qualitative research in educational settings*. State University of New York Press.
- Heyer, K. (2015). *Rights enabled: The disability revolution, from the US, to Germany and Japan, to the United Nations*. University of Michigan Press. <http://dx.doi.org/10.3998/mpub.5946811>
- HIMS Inc. (2020). BrailleSense U2. <https://www.hims-inc.com/product/braille-sense-u2/>
- Hilton, A., Dole, S., Hilton, G., O'Brien, M., & Goos, M. (2012). Proportional reasoning and the visually impaired. *Mathematics Teaching in the Middle School*, 5, 286–291. <https://doi.org/10.5951/mathteach-midscho.18.5.0286>

- Japanese Ministry of Education, Culture, Sports, Science and Technology. (2017). *Measures based on the four basic policy directions*. <http://www.mext.go.jp/en/policy/education/lawandplan/title01/detail01/sdetail01/1373805.htm>
- Kääntä, L. (2012). Teachers' embodied allocations in instructional interaction. *Classroom Discourse*, 3(2), 166–186. <https://doi.org/10.1080/19463014.2012.716624>
- Kugler, P., & Andrews, K. (1996). Graphical analysis and the visually impaired in undergraduate economics courses. *Journal of Economic Education*, 27(3), 224–228. <https://doi.org/10.1080/00220485.1996.10844911>
- Lee, J. (2017). Multimodal turn allocation in ESL peer group discussions. *Social Semiotics*, 27(5), 671–692. <https://doi.org/10.1080/10350330.2016.1207353>
- Leung, S., & Yeung, P. (2007). Students with visual and perceptual difficulties. In S. N. Phillipson (Ed.), *Learning diversity in the Chinese classroom: Contexts and practice for students with special needs* (pp. 249–281). Hong Kong University Press. <http://dx.doi.org/10.5790/hongkong/9789622098725.001.0001>
- Lewin-Jones, J., & Hodgson, J. (2004). Differentiation strategies relating to the inclusion of a student with a severe visual impairment in higher education (modern foreign languages). *The British Journal of Visual Impairment*, 22(1), 32–36. <https://www.llas.ac.uk/resources/paper/2724.html>
- Malinovská, O., & Ludíková, L. (2017). ICT in teaching foreign languages to adult people with acquired severe visual impairment. *Procedia-Social and Behavioral Sciences*, 237, 311–318. <https://doi.org/10.1016/j.sbspro.2017.02.096>
- Maxiaids. (n.d.). Slate and stylus. <https://www.maxiaids.com/Media/Thumbs/0007/0007375-braille-slate-4-line-18-cell-pins-down-metal.jpg>
- Miles, M., & Huberman, A. (1994). *Qualitative data analysis: An expanded sourcebook* (2nd Ed.). Sage.
- Nagira, M. (2019). *Te de miru inochi*. Iwanami Shoten.
- National Federation of the Blind. (1993). Resolution 93-01. <http://courses.csail.mit.edu/PPAT/fall2011/labs/01/NFB-resolution.pdf>
- Pritchard, C., & Lamb, J. (2012). Teaching geometry to visually impaired students. *The Mathematics Teacher*, 106(1), 22–71. <https://doi.org/10.5951/mathteacher.106.1.0022>

- Röder, B., Demuth, L., Streb, J., & Rösler, F. (2010). Semantic and morpho-syntactic priming in auditory word recognition in congenitally blind adults. *Language and Cognitive Processes*, 18(1), 1–20. <https://doi.org/10.1080/01690960143000407>
- Röder, B., Föcker, J., Hötting, K., & Spence, C. (2008). Spatial coordinate systems for tactile spatial attention depend on developmental vision: Evidence from event-related potentials in sighted and congenitally blind adult humans. *European Journal of Neuroscience*, 28(3), 475–483. <https://doi.org/10.1111/j.1460-9568.2008.06352.x>
- Saldana, J. (2013). *The coding manual for qualitative researchers*. Sage. <https://doi.org/10.1108/QROM-08-2016-1408>
- Spradley, J. (1979). *The ethnographic interview*. Harcourt Brace Jovanovich.
- Van Boven, R. W., Hamilton, R. H., Kauffman, T., Keenan, J. P., & Pascual-Leone, A. (2000). Tactile spatial resolution in blind braille readers. *Neurology*, 54(12), 2230–2236. <http://www.ncbi.nlm.nih.gov/pubmed/10881245>
- Wengraf, T. (2012). *Qualitative research interviewing: Biographic narrative and semi-structured methods*. Sage. <https://doi.org/10.1002/hrdq.1054>
- Yamada, M., Hiratsuka, Y., Roberts, C. B., Pezzullo, M. L., Yates, K., Takano, S., Miyake, K., & Taylor, H. R. (2010). Prevalence of visual impairment in the adult Japanese population by cause and severity and future projections. *Ophthalmic Epidemiology*, 17(1), 50–57. <https://doi.org/10.3109/09286580903450346>