

# Japanese public library services for dyslexic children

**Hanae Ikeshita**   
Sagami Women's University, Japan

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## Abstract

In Japan, most public libraries do not provide sufficient easy-reading materials or offer reading facilities that are suitable for children with dyslexia. In contrast, in Europe, public libraries provide special facilities for children with reading disabilities, allowing them to see, read or listen to books in various ways. This study compares support services for children with reading disabilities at public libraries in Europe and Japan, focusing on support for children with dyslexia. Information was gathered through interviews with librarians. After interviewing European librarians working in children's libraries, we found that each of them runs events for children, where the children have the opportunity to discover books. Children were able to acquire knowledge through these events and pursue knowledge using these newly-discovered books. It is suggested that adopting the concept of the European children's library in Japanese libraries might give all Japanese children the opportunity to read more books.

## Keywords

Children's support service, dyslexia, easy-to-read, information accessibility, Japanese, public library

## Introduction

Dyslexia is the most common neurological learning disability. Children with dyslexia suffer from a phonological deficiency characterised by difficulties in associating phonemes with their corresponding graphemes or written symbols (Bradley and Bryant, 1978; Hulme and Snowling, 1992; Snowling, 1981). Dyslexia affects 80% of all individuals identified as learning disabled and an estimated 5%–17% of all children and adults in the United States (Shaywitz, 2003).

In Japan 4.5% of pupils struggle to learn; moreover, 2.4% of children find it difficult to read or write (Ministry of Education, Culture, Sports, Science and Technology (MEXT), 2012). Japanese is written using a mixture of three scripts: kanji, hiragana and katakana. Over the six years of primary school education in Japan, children are introduced to 1006 kanji characters, and Japanese children with dyslexia often struggle to read the kanji that they are expected to learn.

In 2006, the Basic Act on Education in Japan was partially amended to introduce a Special Needs Education system in Japan (Act No. 120 of 22 December 2006). The Special Needs Education system is provided in primary school (Ministry of Education, Culture, Sports, Science and Technology (MEXT), n.d.). This system support ensures that children with disabilities receive an adequate

education in accordance with their level of disability. Instruction is carried out in resource rooms, special classes and regular schools. In some programmes for children with disabilities, the children study in regular classes but may receive special instruction a few times a week.

Similar percentages of children with reading disabilities are found in Europe (see Table 1). In the Netherlands, according to the reports of Statistics Netherlands (Central Bureau voor de Statistiek, CBS) (2016), on average, the dyslexia rate for children aged 7–11 years was 8% from 2009 to 2015. It was higher for boys (9%) than girls (6%). In the Netherlands, about one in every five pupils needs specific assistance in primary school. The government introduced special education in 2009. Primary school education includes basic support at every school, extra supervision and individual development plans for pupils with dyslexia (Government of the Netherlands, 2015).

In Sweden, 5–8% of the population has dyslexia (Specialpedagogiska skolmyndigheten, 2012). On average, children are tested at 13 years old. Children with

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## Corresponding author:

Hanae Ikeshita, Department of Information and Media Studies, Faculty of Arts and Sciences, Sagami Women's University, 2-1-1 Bunkyo, Sagami-hara, Kanagawa, Minami-ku 252-0383, Japan.  
Email: [ikeshita\\_hanae@isc.sagami-wu.ac.jp](mailto:ikeshita_hanae@isc.sagami-wu.ac.jp)

**Table 1.** Services for children in European public libraries.

Countries	People with dyslexia	Services in public libraries
Denmark	6.5% of the population (Elbro et al., 1991)	<i>Lektiecafé</i> (Homework café)
Netherlands	8% of children aged 7–11 years (Statistics Netherlands (CBS), 2016)	<i>Makkelijk Lezen Plein</i> (Easy Reading Plaza, or ERP)
Norway	2.8% of all kindergarten students and 7.9% of all students receive special needs education (Norwegian Directorate for Education and Training, 2016)	Apple Library Public library for children aged 10–15 years
Sweden	5–8% of the population (Specialpedagogiska skolmyndigheten, 2012)	<i>Äppelhyllan</i> (Apple Shelf)

dyslexia in elementary school, compulsory school, special school or Sami (indigenous) school are entitled to special education support (Utbildningsdepartementet, 2010, Ch. 3, §7–9). Individual development programmes are developed for children with dyslexia as special support.

In Norway, 2.8% of all kindergarten students (7950 children) and 7.9% of all students receive special needs education (Norwegian Directorate for Education and Training, 2016). Municipal educational-psychological services are available to diagnose students with severe reading difficulties. Students with dyslexia who require additional assistance are entitled to special education (Utbildningsdepartementet, 2010, Ch. 5, §5–7).

In Denmark, approximately 6.5% of the population has reading difficulties (Elbro et al., 1991). Primary school students with dyslexia receive special help in reading. The Government of Denmark facilitates inclusive education and special needs education. Under this system, students with dyslexia who are in mainstream classes receive special education in one or more subjects as a supplement to general teaching, and special classes are organised for students with individual disabilities (Danish Ministry of Education, 2018).

Thus, in Europe, educational institutions include support systems for children with dyslexia. In addition, public libraries provide various easy-to-read books and events for all children. For example, in the Netherlands, most public libraries have a *Makkelijk Lezen Plein* (Easy Reading Plaza, or ERP) (ProBiblio, n.d.). Haarlem Library started the first ERP in 2002, and the concept is spreading across the country and to Belgium as well. The ERP is a special provision for children with reading difficulties, consisting of a reading environment tailored to allow them to see, read and listen to books in various ways. Through ERPs, public libraries successfully promote reading among children with reading disabilities (ProBiblio, n.d.).

Public libraries in Sweden also provide materials for children with dyslexia. This system is called *Äppelhyllan* (Apple Shelf), and it started in the National Library for the Handicapped Child in London, England. The first Apple Shelf was established at Härnösand Library in 1993. Since then, Apple Shelf has spread to most libraries in Sweden.

The Apple Shelf includes not only various books but also apps and games as the digital editions of printed books that provide for children with reading on the Internet.

In Norway, the 'Apple Library' project began in Tromsø Library in 2007 as a two-year project supported by the Norwegian Archive, Library and Museum Authority. The Norwegian Apple Library was inspired by neighbouring countries and the Swedish Apple Shelf. It offers an equal standard of public library service for all children. The Apple Library's media include sign language, Blissymbols (AAC: Augmentative & Alternative Communication by an ideographic writing system), braille, audio books, books with simple text and illustrations, and tactile books. Since 1 April 2016, the afterschool programme has offered a children's public library (*Biblio Toyen*) for children aged 10 to 15 years in Oslo, Norway. This library is entirely different from the concept of other public libraries as it is a place not only for reading, studying and meeting but also for creating using PCs, 3D printers and hand tools.

In Denmark, most libraries provide a *Lektiecafé* (Homework café), in which volunteers help children with their homework. This project began in 2005. In addition, public libraries may provide a package of a book, CD, DVD, puppet and toys about one story for parents and teachers. Children can learn to read using various media of books. In the new concept, the public library offers services for children. The librarians listen carefully to what children want and provide them with a comfortable space to read and learn.

In Japan, public librarians are allowed to create audiobook and e-book versions of paper books for children with dyslexia, under Article 37(2) of the Japanese Copyright Law (2009 revision) (Copyright Research and Information Centre (CRIC), n.d.). Japanese children with dyslexia are often able to read using e-books with audio or Digital Accessible Information System (DAISY) formats; however, not all public libraries in Japan have access to books in these formats, and even if they sometimes do, not very many are available. There are still very few public libraries in Japan providing services for children with reading disabilities. Further, although these books may be borrowed by people with visual impairment, developmental disabilities,

**Table 2.** The survey questionnaire.

Themes	Question items
The provision of easy-to-read books and its utilization	Do you think the number of library users has increased since you opened the children's section? How many books do you have in the children's section of your library? What criteria do you use to choose the books? Do you arrange books in the children's library such that they are easily accessible to dyslexic children? What are the kinds of books frequently borrowed?
Cooperation on children's reading between elementary schools and the library	Do you teach dyslexic children how to read the books in the ERP? Do you cooperate with elementary schools on helping children with dyslexia to read?
Future challenges of the public library	What is your view on the future of the public library?

dyslexia and similar conditions, they are rarely borrowed by people with dyslexia. Moreover, easy-reading materials are not found in one place but distributed in the library by their field. Most public libraries do not provide sufficient easy-reading materials or have reading facilities suitable for children with dyslexia. However, with the enforcement of the Act for Eliminating Discrimination against Persons with Disabilities in April 2016, public libraries are likely to have brought about changes for Japanese children with dyslexia. Under Article 5 of the law, Japanese children with dyslexia are also able to demand accessible versions of paper books from public libraries.

The purpose of this study is to investigate information accessibility for children with dyslexia in Japanese and European public libraries, compare the situations, and develop ways to improve Japanese public libraries regarding the best practices upheld by libraries in Europe (the Netherlands, Belgium and Scandinavian countries). In the present study, we focused on easy-to-read books and support services for children with dyslexia and considered how public libraries could support and connect with Japanese children with dyslexia; we targeted those libraries in Denmark, the Netherlands, Norway and Sweden where the library's best practices were in accordance with the Guidelines for Library Services to Persons with Dyslexia set by the International Federation of Library Associations and Institutions (IFLA, 2014).

## Methods

### Participants

In the study, participants were recruited by public libraries that offered children's support services or disabilities support services and consented to conduct the online survey. A total of 35 librarians (29 female and six male) participated in the study. There were 26 participants in Europe and nine in Japan. In the Netherlands and Belgium, eight participants worked for the education departments of public

libraries. Their public libraries had ERPs. In Norway, two participants worked for the children's library departments of public libraries in Oslo. One of their public libraries had an Apple library, while the others did not. In Sweden, five participants worked for the children's library departments of public libraries in Gothenburg. Their public libraries had Apple Shelf. Ten participants worked for the children's library departments of public libraries in the Netherlands. One participant worked for Consultant and the Danish Agency for Libraries and Media in the main Danish library. Five of their public libraries had Homework cafés.

In Japan, six participants worked in the children's departments, and three participants worked in the disabilities support department of public libraries.

Written informed consent was obtained from all of the participants. This study was approved by Sagami Women's University (No. 1505).

## Procedure

The librarians were interviewed about the challenges of maintaining support systems for children with dyslexia. They also filled out a survey. The open-ended interviews were carried out at the participants' libraries for an hour; the questions covered eight items (see Table 2). The survey consisted of three parts addressing the following themes: (1) provision of easy-to-read books and helping children with dyslexia in the public library, (2) cooperation on children's reading between elementary schools and the library, and (3) challenges for the future at the public library.

## Results

### *Support services of public libraries in the Netherlands and Belgium*

*Easy Reading Plazas (ERPs).* The number of books in the ERPs ranged from around 500 to around 800. The ERPs contained not only easy-to-read books but also CD-ROMs,

DVDs, DAISY and different materials accessible to everyone. The most popular books in the ERPs were the *Geronimo Stilton* series, a series of adventures of a mouse journalist, with many colours, different fonts and illustrations; the *Diary of a Wimpy Kid* series by Jeff Kinney; *Charlie and the Chocolate Factory*; and other books by Roald Dahl. Some children with reading problems liked books with special fonts for dyslexic children (Dyslexie Font, n.d.). According to the librarians, dyslexic children prefer paper books to e-books and do not read e-books.

The ERPs had books arranged so that dyslexic children could find them easily. Ways of arranging the books that were used in the ERPs were as follows:

- Books were identified with an ERP (*Makkelijk Lezen Plein*) sticker.
- Dyslexic children wanted to look at the books, browse through them and see them all.
- There was a special section of the floor in the ERP where the books were mainly presented such that one could see the front.
- Displaying the books cover on a low bookshelf made it easier for small children and dyslexic children to find the books.
- The books were set on a shelf that had been colour classified for each subject area.

We asked the librarians whether they cooperated with elementary schools to provide support for dyslexic children. The public libraries cooperated with local elementary schools. In the education department of the library, they had contact with the schools. In the schools, there were special teachers for dyslexic children who would sometimes come to the library and ask them to recommend books or to show children the ERP, and the library would do that for the children.

*Future challenges of the public library.* The librarians expressed the view that children with reading problems were not a special group anymore. The library could not provide many easy-to-read books to people with dyslexia, but it tried to give them places to read and reasons to come to the library to see other things. Moreover, they said the ERP was essential not only for dyslexic people but also for everyone because it was beautiful, simple and clean. The ERP's presentation of books was accepted as a suitable method in the library in that the presentation was attractive not only for children with difficulties in reading but also for adults. The future of the ERP was that it would be integrated with a standard collection. The libraries would like to work together with foundations and organisations locally.

Further, the librarians explained that the ERPs needed to work more with modern media. That is, they had to be modernised. For example, ERPs might make use of digital media. However, the librarians were concerned that

children with dyslexia are not able to read a text in a book format or on a screen. If they read a newspaper or an article on the computer, the problem of dyslexia remains.

Some librarians said that they wanted to do *Toneelles* with the ERP in the future. *Toneelles* is a performance where one takes on a role such as by acting in a play. This sort of activity is perfect for children with reading problems (Kindertheater De Toverknol, n.d.). The children could stand in front of the classroom, read and act out a play. They would receive applause from the audience as encouragement. Since *Toneelles* are different from the other books, it would be easy for parents and children to find them.

### *Support services of public libraries in Norway and Sweden*

*Apple Library (or Apple Shelf).* The Apple Library (or Apple Shelf) staff created categories of books and different media for the children, but they also had books on the disability for parents, siblings, teachers, and friends. The librarians were asked whether the number of Apple Shelves had increased in Norwegian and Sweden libraries. Norwegian librarians specified that the exact number of public libraries that continue to provide Apple libraries was unknown because the Apple Library was a two-year project from 2007 to 2009. Swedish librarians said that most Swedish public libraries included the Apple Shelf.

Librarians had made some categories with books, books that they had in the library but the library was too big to find one or two books, so they introduced that special shelf; they also used some unique signs; they used not only letters but also pictures of the ear and pictures of the eye, so it was easier to find. In the Apple Library, there are different ways for the child to get to know the story, such as by reading, hearing or feeling.

The Apple Shelves included signs in Swedish sign language as an augmentative communication for deaf people. The Swedish and Norwegian libraries had books translated into sign language. Further, the librarians made packages with, for example, a book and the same book on film or CD. The packages allowed children with reading disabilities to enjoy the same books as other children.

The librarians were asked whether any problems needed to be resolved in the Apple Library and their views on the future of the public library. Norwegian librarians said that the library had to follow the rest of society to keep in touch. Libraries are taking on a new role because the Norwegian library law was renewed in 2014. The librarians believed that the library was changing to a place where people not only read or borrow books but also meet and discuss knowledge.

*Digital media for children.* The Swedish librarians guessed that paper books would decrease in number as information becomes stored electronically. They hoped that libraries

would be more interactive, with time and space to see what young people want to do. However, the librarians also said that books would disappear because the process of learning to read for children requires adults reading the book. In many high schools, each student has a laptop computer or Google books. Librarians point out this problem with Google books: some Google books are not suitable for people with reading disabilities. However, the Swedish Agency for Accessible Media (MTM) provides the online service 'Legimus' for persons with reading impairments. Readers are able to read accessible media online using a website, iOS or Android app and DAISY online server. Legimus leaflets are available on the Apple Shelf for children, parents and teachers to take. In other media, the Pappas Apps guides parents and teachers to the best apps and games for children. The Pappas Apps is focused primarily on apps that are fun and educational for children. For instance, many children use the apps to learn Swedish or other languages.

Swedish librarians said the future was here and it was more important that we talk to children and young adults about their everyday lives. For example, they had programmes, lectures or discussions about video games and gender. The critical concept is communication with children for the future of libraries. In the future, public libraries are going to be meeting places where people come together, with Apple Shelf and with books in other languages. The librarians saw libraries coming together with music, theatre and movies.

*The new approach in Norwegian children's libraries.* The Biblio Tøyen opened for children aged 10 to 15 on 1 April 2016. The library was part of what is called the Deichman Library, which was the public library in Oslo. Until recently, the library was different from the concept of a children's library. The library has some class programmes and many books, DVDs and CDs. The books were not organised as they usually are in libraries: these books were summarised by each programme area. The books were placed in each section such that children could pick them as soon as they wanted to learn about the subject. For example, in the 3D printer section, there was a book on how to use a 3D printer.

The library also had various other different things children could do. In addition to books, it had 3D printers, computers, block games, board games, hand tools, paper crafts and a kitchen for cooking. Children played with electronic devices, made an all-paper town, drew, painted and decorated using different handicrafts and materials. Children designed their things and then printed them on 3D printers. The class programmes included a writing class, coding class, mathematics class and other classes taught by professional volunteers.

In the meeting spaces, children could sit and do their homework, play chess or cards, or have discussions. The lounges were very comfortable places. In addition, the

library hosted movie nights, concerts, lectures, films and theatre groups. The librarians mentioned that the library was not a place where children had to read. Instead, they just wanted children to come to the library. The librarians hoped that, even if the children only wanted to play computer games, listen to music or talk to friends, eventually, they would pick up a book.

The librarians mentioned that they wanted every child to visit at least once because the library is an exciting space where children can relax and engage in various activities. Further, it offers activities to increase children's knowledge and understanding of themselves. In particular, older children were identified as a target group in need of more outreach.

### *Support services of public libraries in Denmark*

In Denmark, there are many libraries for children, including young children. Children's libraries provide easy-to-read books that are colour-classified by reading level. Many books for children come with audio, which is available for download on the Internet.

The public libraries offer easy-reading books with CDs. There are also toys for children to play with to learn the alphabet. The libraries have different levels of books. The librarians in this study believe that it is essential to have non-fiction books and books on various subjects. The libraries also have books for parents and teachers on how to read with children. For example, there are fairy tale books that inform adult readers how to go through them with a child. There are also books especially for people who deal with bilingual children, as Denmark has a large number of immigrants.

*Birthday gift for two-year-olds.* The librarians tried to participate in the children's lives. For example, they sent children birthday cards for their second birthday. If the children and parents bring the postcard to the library, they receive a book and a CD. This gift encourages children to come to the library at an early age. Connecting children's families and the library is imperative.

*Wish library.* The concept of a wish library is listening carefully to what users want. The members of the children's library tried to introduce the shoes-free area, some toys, some sofas and tables for children to feel comfortable. The children are allowed to talk and eat, and there is a playful, cosy area for them. The librarians were concerned that Danish libraries were gradually becoming more like a self-service library system, and they wanted to do more for children.

*Homework café.* Homework café programmes provide Danish and mathematics instruction for children up to ninth grade and bilingual teaching for children in all grades. Sessions take place one or four times a week in the

afternoon at each library. The librarians help children find books that they can use for their assignments at all levels. However, some libraries could not continue offering homework cafés because of financial problems and a lack of volunteers, and because public schools also offer homework cafés.

**Summer book campaign.** Public library summer reading programmes have started summer book campaigns because students who read during the summer vacation are better able to maintain their reading skills. This type of programme was developed in the US. Danish public libraries emphasise that children should read books that they enjoy. They then write short book reviews on a joint website called 'biblo.dk'. When the children submit a certain number of reviews, they receive books as gifts.

**Accessible digital books.** Children with reading disabilities receive membership to Nota, a collection of accessible digital books for people with print disabilities. The collection consists of more than 50,000 audio books, e-books and Braille books. There, the children can access books either on sound or digital. Nota offers fiction and non-fiction, study books and school books (Nota, n.d.). Nota staff mentioned that they have their activities for dyslexic children, such as downloading and streaming books, a conference once a year, a gamification reading app; they have two newsletters: one for parents with dyslexic children and one for teachers of dyslexic children. Nota gives presentations for parents with dyslexic children. It also has a project with some libraries called DUO, where they facilitate meetings for students with dyslexia. They had a project with nine schools, where they tried to have an ambassador network, where a teacher would be the expert at the school on dyslexia.

We asked the librarians their views on the future of the public library. Even though the librarians were all part of the Copenhagen libraries, they were at very different libraries with different focuses. They mentioned that libraries should help ordinary people because there is information overload and public debate has mostly moved to the Internet, where people engage in discussions only with those who already agree with them. The library's obligation should be to serve as a platform for public debate. The libraries, especially in Denmark, are a considerable part of society and of democracy itself, but they are increasingly implementing self-service in all areas. The librarians expected that, in the future, they would be much more focused on doing projects in the city with schools, daycare centres, and a lot of other actors in the city. They would also help children with Internet search queries. Finally, the librarians identified that talking and asking questions were important things for children to do in public libraries.

## *Support services of public libraries in Japan*

**Services for children with reading disabilities.** The designated administrator system was introduced in Japanese libraries in 2003. In 2017, 530 of the 3292 public libraries nationwide introduced designated administrator systems from April 2005 to March 2017 (Japan Library Association, 2017). Three public libraries that introduced the designated administrator systems were included in the present study. Japanese public libraries using designated administrator systems have improved as places of recreation as well as to borrow books. For example, they have spaces to eat, drink and relax. However, these spaces are mostly geared toward adults.

Japanese public libraries carry out various events and activities; there are many events and activities for adults, for example, foreign languages, health, crafts, movie viewing. Most of the events for children are storytelling or book talk events; users are able to automatically borrow and return the books, and there is a lack of communication between librarians and users.

The study explored whether there was a change in the library users' requests after the enforcement of the Act for Eliminating Discrimination against Persons with Disabilities. The study results did not find any changes in the services for children with reading disabilities. At the present time, librarians lack sufficient knowledge about children with disabilities. Therefore, librarians stated that offering the services to children with reading disabilities is challenging. However, librarians are being trained through seminars to offer services for children with disabilities as well.

**Digital media for children with dyslexia.** The Japanese public libraries have multimedia DAISY, but many teachers or librarians do not know how to use it, and it is not popular. In some public libraries, librarians teach teachers or other librarians how to use multimedia DAISY; There are multimedia DAISY for children in libraries, but children with reading disabilities have trouble finding the books, because the books are not in one place such as ERP or Apple Shelf. Apart from multimedia DAISY, public libraries in Japan have few digital collections that could cater to the needs of children with such disabilities.

**Japanese Apple Shelf.** The concept of the Swedish Apple Shelf was adopted by the public library in Ogawa, Saitama in 2013. Similarly, the concept of Japanese Apple Shelf was introduced to the city libraries in Takanashi and Wako. The librarians of Ogawa and Takanashi were surveyed regarding this concept. Japanese Apple Shelf librarians categorised the books and various media for children. The media include large-print books, tactile books, books in braille, easy-to-read books, picture books made of cloth and Multimedia DAISY. The libraries also had books for

parents and teachers regarding disabilities. The Takanashi City Library provided reading rulers for children with dyslexia. The reading ruler allows readers with dyslexia to track their reading place in the book using coloured lines and to easily read books with a white background and black print which may otherwise prove to be a challenge. The reading rulers are coloured transparent plastic rulers with a tracking line for single lines or paragraphs and colour, for example, yellow, blue, green and purple, for changing the background of the white page to that of the coloured ruler.

In addition, the librarians conveyed their need for training to understand the challenges in offering services to children with reading disabilities.

The librarians were asked about their cooperation with elementary schools. Some libraries did not work well with elementary schools, but in libraries that cooperated, the librarians conducted events explaining services for the handicapped and sign language for school children.

*Future challenges for the public library.* Librarians wish to increase enlightenment activities to add special materials for children with disabilities and to encourage the local people to favour the disabled. Japanese public libraries conduct many storytelling events, but librarians wish to support parents and children to enable preschoolers to acquire reading habits to help with problems when facing the challenges of moving to reading children's books. The library focuses on communicating with users to better understand them and the kinds of materials needed to serve the children better. Librarians claim that many children use the library as a regional information centre. Moreover, there are many children of different nationalities; therefore, librarians wish to introduce multilingual multimedia DAISY in libraries as well as electronic libraries to facilitate the availability of electronic books that can be read anytime, anywhere.

## Discussion

Public libraries in the Netherlands, Belgium and Scandinavian countries provided sufficient easy-reading materials as well as reading facilities suitable for all children, including children with dyslexia. There were many kinds of books for dyslexic people and children with reading problems. ERPs and the Apple Shelf are designed with all children in view, and it was found that children like books to be placed in front for easy and quick visibility, and for books to have stickers for easy identification of their subject matter. Librarians carefully selected books with simple language, clear layouts, appealing covers and attractive content. They also cooperated with and supported elementary schools and teachers, as well as children and their parents. Librarians, therefore, perceive ERPs or Apple Shelves as effective at encouraging the reading habit in children. However, there are diverse views among librarians. The study results also suggest that public

libraries support and encourage reading and the joy of reading but feel that teaching children with reading disabilities is the schools' responsibility, and not the libraries'.

With regard to the provision of better service to children with dyslexia, the Japanese public library system is gradually improving. However, unlike the case with European public libraries, the concept of Apple Shelf in Japan is not regarded as a standard. It targets children with special needs, and not all children are in an easy-to-use environment.

As reported in 2004 (Japan Library Association Children Youth Committee, 2004), 43 of the 2571 public libraries in Japan provided services to children with print disabilities (including reading disabilities). Besides, in the present study, librarians cited difficulties in offering services to children with reading disabilities. Understanding on disability is lacking in Japan, and the recognition of reading disorders is still low.

At present, Japanese public libraries do appear to appreciate the importance of providing services to children with reading disabilities. Although public libraries are places where all children can access knowledge, libraries need to organize the corresponding material individually for enjoyable reading, by adopting some of the concepts used in public libraries in Europe. In addition, Denmark's concept of the wish library might help in understanding the needs of Japanese children with dyslexia. Libraries in Japan might be able to offer more opportunities to children to read books using various media. The concepts adopted in Europe to encourage reading habits in children might be applied to other Asian countries where the recognition of reading disability is low.

## Conclusion

Japanese libraries are very quiet compared with overseas libraries, and there are few places for communication. We have identified that communication with people and local communities is essential for children's development (Forsman, 2015), and it is, therefore, necessary for Japanese public libraries to provide places for communication. Children with reading disabilities might get opportunities to read books and acquire knowledge through communication with librarians.

The limitations of this study include failure to consider that children's services are not widespread in Japanese public libraries and the small sample size. Accordingly, further investigations are needed, involving more Japanese librarians to confirm our findings. Finally, in future studies, the author will consider ways to improve the reading environment of Japanese public libraries for children with dyslexia.

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## ORCID iD

Hanae Ikeshita  <https://orcid.org/0000-0001-6658-0341>

## References

- Bradley L and Bryant PE (1978) Difficulties in auditory organisation as a possible cause of reading backwardness. *Nature* 271(5647): 746–747.
- Copyright Research and Information Center (CRIC) (n.d.) Copyright law of Japan. (Oyama Yukifusa, Trans.). Available at: [http://www.cric.or.jp/english/clj/cl2.html#cl2\\_1+SS5](http://www.cric.or.jp/english/clj/cl2.html#cl2_1+SS5) (accessed 21 March 2018).
- Danish Ministry of Education (2018) Additional information: Learn more about the Folkeskole's structure, possibilities and parents' role. Available at: <http://eng.uvm.dk/primary-and-lower-secondary-education/the-folkeskole/additional-information> (accessed 21 August 2018).
- Dyslexie Font (n.d.) Dyslexie Font Home. Available at: <https://www.dyslexiefont.com/en/home/> (accessed 8 August 2018).
- Elbro C, Møller S and Nielsen EM (1991) *Danskers læsefærdigheder. En undersøgelse af 18–67-åriges læsning af dagligdags tekster. [Adult literacy in Denmark: A Study of 18–67-year olds' reading abilities with everyday texts.]* Copenhagen: Project Reading and the Ministry of Education.
- Forsman H (2015) Foster carers' experiences of a paired reading literacy intervention with looked-after children. *Child & Family Social Work* 22(1): 409–418.
- Government of the Netherlands (2015) Appropriate education at primary school: Primary education. Available at: <https://www.government.nl/topics/primary-education/contents/appropriate-education-at-primary-school> (accessed 1 March 2018).
- Hulme C and Snowling M (1992) Deficits in output phonology: An explanation of reading failure? *Cognitive Neuropsychology* 9(1): 47–72.
- International Federation of Library Associations and Institutions (2014) IFLA Guidelines for Library Services to Persons with Dyslexia – Revised and extended. Available at: [https://www.ifla.org/files/assets/lsn/publications/guidelines-for-library-services-to-persons-with-dyslexia\\_2014.pdf](https://www.ifla.org/files/assets/lsn/publications/guidelines-for-library-services-to-persons-with-dyslexia_2014.pdf) (accessed 10 December 2018).
- Japan Library Association (2017) *Reports about Public Libraries Managed by Designated Administrator System of 2015*. Available at: <http://www.jla.or.jp/Portals/0/images/committe/torikumi/sitei2017.pdf> (accessed 10 December 2018). [text in Japanese]
- Japan Library Association Children Youth Committee (2004) *Reports about Children's Services of Public Libraries 2003*. Tokyo: Japan Library Association. [text in Japanese]
- Kindertheater De Toverknol (n.d.) Kindertheater De Toverknol. Available at: <https://ww> (accessed 8 January 2019).
- Ministry of Education, Culture, Sports, Science and Technology (MEXT) (n.d.) Special Needs Education. Available at: <http://www.mext.go.jp/en/policy/education/elsec/title02/detail02/1373858.htm> (accessed 1 March 2018).
- Ministry of Education, Culture, Sports, Science and Technology (MEXT) (2012) *Tsujou no gakkyu ni zaiseki suru hatatsu shougai no kanousei no aru tokubetsu na kyoi-kuteki shien wo hitsuyou to suru jidou seito ni kansuru chousa kekka ni tsuite*. Available at: [http://www.mext.go.jp/a\\_menu/shotou/tokubetu/material/\\_icsFiles/afieldfile/2012/12/10/1328729\\_01.pdf](http://www.mext.go.jp/a_menu/shotou/tokubetu/material/_icsFiles/afieldfile/2012/12/10/1328729_01.pdf) (accessed 1 March 2018). [text in Japanese]
- Norwegian Directorate for Education and Training (2016) The education mirror 2016: Facts and analyses of kindergartens, primary and secondary education in Norway. Available at: [http://utdanningsspeilet.udir.no/2016/wp-content/uploads/2016/10/Utdanningsspeilet\\_2016\\_en.pdf](http://utdanningsspeilet.udir.no/2016/wp-content/uploads/2016/10/Utdanningsspeilet_2016_en.pdf) (accessed 1 March 2018).
- Nota (n.d.) English pages on Nota's Homepage. Available at: <https://nota.dk/om-nota/english> (accessed 12 March 2018).
- ProBiblio (n.d.) *Makkelijk Lezen Plein*. Available at: <http://www.makkelijklezenplein.nl> (accessed 12 March 2018).
- Shaywitz S (2003) *Overcoming Dyslexia: A New and Complete Science-Based Program for Reading Problems at any Level*. New York: Knopf
- Snowling M (1981) Phonemic deficits in developmental dyslexia. *Psychological Research* 43: 219–234.
- Specialpedagogiska skolmyndigheten (The National Agency for Special Needs Education) (2012) *Läs- och skrivsvårigheter/dyslexi* (Reading and writing difficulties /dyslexia). Available at: <https://www.spsm.se/funktionsned-sattningar/las-och-skrivsvarigheterdyslexi> (accessed 12 March 2018).
- Statistics Netherlands (CBS) (2016) Slightly more children diagnosed with dyslexia. Available at: <https://www.cbs.nl/en-gb/news/2016/40/slightly-more-children-diagnosed-with-dyslexia> (accessed 1 March 2018).
- Utbildningsdepartementet (Ministry of Education and Research) (2010) *Skollagen, SFS 2010:800*. (The Swedish Education Act, SFS 2010:800) Stockholm: Utbildningsdepartementet. Available at: [http://www.riksdagen.se/sv/dokument-lagar/dokument/svensk-forfattningssamling/skollag-2010800\\_sfs-2010-800](http://www.riksdagen.se/sv/dokument-lagar/dokument/svensk-forfattningssamling/skollag-2010800_sfs-2010-800) (accessed 12 March 2018).

## Author biography

Hanae Ikeshita is an associate professor at the Department of Information and Media Studies, Faculty of Arts and Sciences, Sagami Women's University. She received her PhD in Global Information and Telecommunication Studies from Waseda University in 2011. She has developed literacy-learning methods using stereoscopy for children with developmental dyslexia. Her recent research interests include accessible digital media, library design for dyslexic children and bilingual digital books for learning foreign languages for dyslexic children.