A comparative study of Japanese hearing-impaired students’ experiences and learning outcomes at mainstream and special schools

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Abstract

Inclusive education is becoming a hotly debated topic among education policy makers and researchers around the globe. In the recent years, some advocates of inclusive education are contending for disabled students’ rights to be included fully with their developing peers in the regular classrooms while other critics critique that current general education fails to meet their learning needs. Rather they champion for special education to be an essential core of the whole education system. Japan is also undergoing various educational reforms in keeping up with globalization education. The Japanese government is beginning to heed international calls to adopt more direct approach towards importance of inclusive education philosophy. Over time, inclusive education has prominently gained its tractions in some schools through various reforms such as better teacher trainings and tighter collaboration among educational stakeholders. This comparative research investigates the hearing impaired Japanese students’ experiences and learning outcomes at the mainstream and special schools, illuminating how their experiences and learning outcomes at two different schools differ from each other. It also investigates how the students perceive themselves at schools, what form of relationship they have established with their classmates and teachers and how their experiences and outcomes are shaped by the social-cultural milieus in Japan. This paper intends to bring to light the myriad views and unique experiences expressed through semi-structured interviews and questionnaires. The research concludes with some policy implications on reframing of Japanese education laws and policies to accommodate the needs of the students in different education settings. Finally detailed studies including policy makers’, parents’ and teachers’ perspectives over a long span of time are required to provide plausible dissimilar and contrasting views about education settings, thus presenting themselves more meaningful, holistic and robust analysis about inclusive education.

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1. Introduction

With the turn of 20th century in many developed countries, there is a trend towards the educational placement of students with special educational needs (SEN) in the regular schools and the inclusion of SEN students has been established as a “dominant policy in many countries” (Angelides et al., 2007, pg. 476). The country policy makers and school administrators called for implementation of a right education pathway for persons with SEN which should “reflect the values and objectives of the society in which they are embedded, including, inter alia, preparation for [disabled] students’ lives personally, socially and vocationally (Hyde et al., 2005, pg. 416).

According to Prakash (2012), the movement towards integration of students with SEN began to emerge in few countries in the late 1960s and 1970s and then it became a world-wide phenomenal movement from the 1980s to 1990s. More governments were openly displaying their supports for inclusion of persons with special needs in the regular schools. The reasons behind transformation in their attitudes are attributed to stronger scientific interest in disability, greater public awareness about the disabled’s human rights and greater vocal parental movement for their children with special needs (Mills, 1988). More federal governments legislate better provision for them by training more teachers, pumping federal funds to develop more resources and educating the public on the disabled’s needs and advocacy for disability rights (Smith, 2004). Gradually, inclusive education became a core nexus of society and disability education policies in many countries.

After the promulgation of Salamanca Framework1 in Spain in 1994, segregated education was shifting towards integration and then the most recently, inclusive education. As such, it became a subject of extensive research that set the prevailing tone for dialectic views about academic and social benefits associated with inclusive education for all students whether with or without disabilities (Jobe, et al., 1996). In this case, regular teachers develop their teaching pedagogies that are appropriate for all students while the support teachers provide differentiated support for students with special needs in the regular classroom (Stainback, S., and Stainback, W., 1992).

Researches show that inclusion of students in the regular classroom benefits students with SEN by enabling them to observe and emulate socially acceptable behaviours (Elkins, 1998) in the mainstream school settings. What’s more, the inclusion emerged from the situation where the issue of children with special needs being educated separately was interpreted as a violation of human rights and deprivation of learning opportunities (Mujis and Reynolds, 2002; Doherty, 2012). However, the critics of inclusive education voice their concerns that regular school could not provide adequate teacher trainings, personnel and administrative support for the students with SEN. They feel inclusion education could stymie their direct provision of special services to them (Lewis and Doorlag, 2003). Though inclusion is seen as a powerful stimulus to transform schools to embrace diversity and to assist children in realizing their potentials (Macbeath and Mortimore, 2001), there are some children whose needs may not be fully addressed in the mainstream settings (Doherty, 2012).

On April 1, 2016, the Japanese government enacted the law to prohibit any form of discrimination
against the disabled people (Ishizuka, 2016) and it is, in turn, to affirm Japan’s commitment to establish the domestic legal foundation which meets the requirements set out by U.N. Convention on the Rights of Persons with Disabilities (CRPD) which was officially ratified on January 20, 2014.

Prior to ratification of CRPD, the Ministry of Education, Culture, Sports, Science and Technology (MEXT) has tackled complex issues facing school placement of children with disabilities, including the change of school name from Special Education School to School for Special-Needs Education for the students with different kinds of disabilities. In 2011, MEXT issued their report that proposed an inclusive education system and amendment to the law to empower parents of child with special needs to decide the best placement option for their child at either special or regular school (MEXT, 2012).

According to the statistics from MEXT website², there were 104 hearing impaired schools in 2006 which showed a gradual decrease from 1990 and there is still no further update to the number of hearing impaired schools from 2006 till now. On the other hand, the number of School for Special-Needs Education is steadily climbing from 1013 in 2007 to 1080 in 2013 (Fig. 1).

Therefore, the key question lies in demonstrating the impacts of two different education settings on hearing impaired Japanese students’ learning outcomes and school experiences.

- In what way are the Japanese hearing impaired students’ experiences and learning outcomes at the mainstream school different from that at the special school?
- How do the Japanese hearing impaired students perceive themselves at the mainstream vs. special schools?
- What kind of relationships have they fostered with their classmates and teachers?

![Fig. 1: Number of schools in Japan](source: MEXT (2013). Adapted by author.)
2. LITERATURE

The issues of the hearing impaired students attending the special or mainstream schools remain a bone of contention till today among teachers, specialists, parents and hearing impaired students themselves (Lambropoulou, 1997). Given the technological advancement and increasing parental expectation, more hearing impaired students are apparently integrated into the mainstream schools (Powers, 2001). In spite of this, these views towards the benefits of placement of hearing impaired students are invariably partitioned between the mainstream and special schools (Foster et al., 2003) in terms of social integration and academic opportunities.

2.1 Social integration

It is widely believed that the natural hearing linguistic environment at mainstream schools provide a fertile ground for hearing impaired students to acquire necessary social skills for their healthy interaction with their hearing peers and teachers (Lynas, 1999; Powers, 2001) and to better develop their oral capabilities for acquisition of essential knowledge (Harrison, 1988). Further evidence surfaced by Hadjikakou (2002) show that with their ability to interact with their peers, the hearing impaired students could adapt socially and emotionally well to their mainstream school environments. Lambropoulou (1997) points out that the mainstream school environment helps them to invent vehicles for communication to survive in the world that is dominated by hearing peers.

On the other hand, Foster (1989), and Stewart and Kluwin (2001) counter that inclusion in the mainstream school could do hearing impaired students greater harm than previously thought. They discover that the hearing impaired students miss out on their opportunities for social interactions they would have enjoyed more at their special schools. Their hearing difficulties have limited their full-range participation in mainstream classes and they often feel emotionally and physically withdrawn from their hearing classmates (Jarvis, 2002).

2.2 Academic opportunities

Harrison (1988) contends that such mainstream environment could provide better access to richer curriculum for them to expand their learning scope. The evidences support that the hearing impaired students at mainstream schools have apparently better academic achievement than their counterparts who attended special schools (Moores and Kluwin, 1986; Powers, 2001). In contrast, Lambropoulou (1997) found that there was no difference in their learning outcomes between hearing impaired students at mainstream and special schools.

3. RESEARCH DESIGN

Two theories: Contact theory (Allport, 1954) and Social Identity theory (Tajfel and Turner, 1986) underpin this study. Allport postulates that any positive interaction between different groups of people would lead to the reduction of prejudices, wrongful representative and bigotry against certain people (in this context, people with disabilities). Some evidences point out that in the context of
inclusive education, greater degrees of contact with students with disabilities could nurture inclusive academic and social environment to increase contact experience. Likewise, Social Identity theory posits that every individual derives his/her identity and associated meaning from his/her group membership which is based on two groups: **in-group** (‘us’ group) and **out-group** (‘them’ group). In this context, the hearing impaired students identify themselves as a group with their common identity and sign language and they often view themselves more favorably than other groups.

In the field of inclusive education, these two theories: Contact theory and Social Identity theory are utilized to examine how hearing students’ experiences and learning outcomes at mainstream and special schools differ from each other and how the differences affect their social relationship with their peers and social identities.

### 3.1 Procedures

Japanese formal letters were posted to the principals from the deaf and mainstream schools in Tokyo to request their permission for the research and to assist to recruit Japanese hearing impaired students. All 71 student participants agreed to participate in this research and they were assured of complete anonymity. Data were collected within a 7-day period. Each semi-structured interview session lasted about 30 minutes and all notes were taken during and immediately after each interview. Four students from both deaf and mainstream schools were randomly selected by school teachers without any specific criteria as long as he or she was hearing impaired. Responses from them were analysed using thematic analysis technique which identified major themes and classified similar responses into groups (Boyatzis, 1998). Semi-structured interviews were carried out to follow up on quantitative results to further understand ‘why’ and ‘how’ the students displayed their perceptions towards their school placements.

### 3.2 Instruments

Data were gathered through a Japanese questionnaire that inquired about Japanese hearing impaired students’ family backgrounds, academic results and their school experiences. Students were asked to respond to 4 main items related to their perception about their communication skills, self-identities, learning support and social inclusion(Appendix 1). Respondents were required to answer 15 items based on a 5-point Likert scale: Strongly disagree (1), Disagree (2), Neutral (3), Agree (4), or Strongly agree (5). Negatively worded items were reverse coded. In order to enhance the reliability of the questionnaire, the author made several references to well-tested questionnaires from research journals and made several necessary revisions based on the feedback from experts.

Next, semi-structured interview sessions with students were conducted in a quiet assigned room and this mainly discussed on their school experiences ranging from academic performances to their previous school experiences. As the author is himself hearing-impaired and he is fluent in Japanese sign language (JSL), he could easily communicate with them in JSL.
3.3 Limitations

The author acknowledged that due to the small sample size especially from the mainstream school, the findings should be examined tentatively. Access to student participants is rather limited as involvement of any subject with special needs in this research is considered as highly sensitive.

4. RESULTS

4.1 Quantitative Results

Of the total cohort of 71 survey respondents, 51 students studied at the special schools while 20 students studied at mainstream schools. The questionnaire instrument is found to be reliable for both groups of students (Cronbach’s alpha \( \alpha = .767 \)) (Nunnaly, 1978). This section is divided into different subsections that summarize the questionnaire results: demographic background, modes of communication, perceptions towards their communication with their peers and learning supports, self-identities and social inclusion.

4.1.1 Demographic background

All student participants were in the age range of 12 to 15 years old with 60% male and 40% female at mainstream school and 47% male and 53% female at special school. Most students in mainstream school had mild hearing loss while the majority of students from special school had profound hearing loss (Table 1).

<table>
<thead>
<tr>
<th>Demographic Variables</th>
<th>Mainstream School (n = 20)</th>
<th>Special School (n = 51)</th>
<th>Total (71)</th>
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</thead>
<tbody>
<tr>
<td>A) Gender</td>
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<td>Male</td>
<td>12</td>
<td>24</td>
<td>36</td>
</tr>
<tr>
<td>Female</td>
<td>8</td>
<td>27</td>
<td>35</td>
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<tr>
<td>B) Degree of hearing loss</td>
<td></td>
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<tr>
<td>Profound</td>
<td>9</td>
<td>30</td>
<td>39</td>
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<tr>
<td>Severe</td>
<td>4</td>
<td>10</td>
<td>14</td>
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<tr>
<td>Mild</td>
<td>7</td>
<td>7</td>
<td>14</td>
</tr>
<tr>
<td>C) Wearing hearing devices</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hearing aids/cochlear implant</td>
<td>17</td>
<td>44</td>
<td>61</td>
</tr>
<tr>
<td>Can hear little</td>
<td>3</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Never use hearing devices</td>
<td>-</td>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>

Table 1: Demographic background of Japanese hearing impaired students

Note: Compiled by the author.

4.1.2 Japanese hearing impaired students’ learning outcomes

Independent sample t-tests were executed to investigate the differences in mean values in Japanese, English and Mathematics scores between the special and mainstream schools (Table 2). The results were found to be statistically non-significantly different between two groups of students.
for Japanese, English and Mathematics observed scores, $t_{japanese}(68) = 1.110, p_{japanese} > .05, d_{japanese} = -0.29$; $t_{english}(68) = .784, p_{english} > .05, d_{english} = -0.21$; $t_{mathematics}(68) = .671, p_{japanese} > .05, d_{japanese} = -0.18$. The size of these effects as indexed by Cohen’s (1988) coefficient $d$ did not exceed the convention for a large effect size ($d = .80$). However, it should be noted that in all instances, the average academic performances indicated average and less-than-average performances.

### 4.1.3 Communication skills

Independent samples $t$-tests were again undertaken to compare their perceptions about their communication skills between mainstream and special schools (Table 3). The only significant difference between mainstream and special school was their communication with their classmates during the class discussion. Those students from mainstream schools faced more problems of understanding their classmates than those from special schools $t(69) = 3.502, p < .05, d = -1.17$.

### Table 2: Mainstream and special students’ academic performances

<table>
<thead>
<tr>
<th>Items</th>
<th>Mainstream School</th>
<th>Special School</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$M$</td>
<td>$SD$</td>
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<tr>
<td>Japanese scores</td>
<td>3.00</td>
<td>1.17</td>
</tr>
<tr>
<td>English scores</td>
<td>2.90</td>
<td>1.17</td>
</tr>
<tr>
<td>Mathematics scores</td>
<td>2.90</td>
<td>1.21</td>
</tr>
</tbody>
</table>

Note: Mean responses range from 1 (Poor); 2 (Weak); 3 (Average); 4 (Good); and 5 (Excellent). *$p < .05$.

### Table 3: Perceptions about their communication skills

<table>
<thead>
<tr>
<th>Items</th>
<th>Mainstream (n = 20)</th>
<th>Special (n = 51)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I think I can understand what my teacher is saying or signing</td>
<td>3.80 0.95</td>
<td>3.90 1.01</td>
</tr>
<tr>
<td>I think I can understand what my classmates are saying or signing</td>
<td>3.95 0.95</td>
<td>3.84 1.05</td>
</tr>
<tr>
<td>During class discussions, I think I can understand what my classmates are saying or signing</td>
<td>3.81 0.5</td>
<td>4.75 1.02</td>
</tr>
</tbody>
</table>

Note: *$p < .05$.

### 4.1.4 Learning supports

In regards for their perceptions towards their learning supports at their schools, more students from mainstream school significantly felt that they needed more learning supports than that of special school $t(69) = -2.456, p < .05, d = 1.65$ (Table 4). It implies that the mainstream school did not provide adequate learning supports for their learning needs.
4.1.5 Self-identity

Students were asked to respond to the four items about their self-identities at their schools. More students from mainstream school significantly asserted themselves as hard of hearing persons: \( t(68) = 3.01, p < .05, d = 0.77 \), unlike special school students who ascertained their deaf identity \( t(68) = -1.68, p < .05, d = -0.99 \). Lastly, more students from special schools reported to be more significantly happier to be deaf \( t(68) = -1.676, p < .05, d = -0.48 \) (Table 5).

<table>
<thead>
<tr>
<th>Items</th>
<th>Mainstream (n = 20)</th>
<th>Special (n = 51)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I want my teacher to speak or sign slowly in the Classroom</td>
<td>2.42 1.17</td>
<td>2.08 1.29 0.28</td>
</tr>
<tr>
<td>I want more learning supports at my school e.g. interpreter, note-takers.</td>
<td>2.98 0.50</td>
<td>1.25 1.40 1.65*</td>
</tr>
</tbody>
</table>

Note: *\( p < .05 \).

Table 4: Perceptions about learning supports

4.1.6 Social inclusion

The last part of the questionnaire asked about their social inclusion whether they often felt lonely at school or they had experienced any bullying incidents before (Table 6). Compared to other items, the feedback about bullying and feeling of loneliness were relatively lower and it could be because the respondents were unsure whether they agreed with these statements. Nevertheless, mainstream students reported significantly that they often felt lonelier \( t(68) = -2.768, p < .05, d = 0.86 \) and they also experienced bullying or teasing incidents before \( t(68) = -3.124, p < .05, d = 0.85 \) as compared with the special students. However, students from special schools reported significantly that they felt more comfortable with their hearing impaired classmates at their schools \( t(68) = -2.185, p < .05, d = -0.57 \).
4.2 Qualitative Results

The quantitative findings focus on students’ perceptions of their personal experiences that come in the form of communication, self-identity and social inclusion at schools. How do you feel about the learning support at school? Do you often feel lonely at school? Do you communicate with a lot of your friends – hearing and hearing-impaired friends? These questions were raised through qualitative interviews with 2 hearing impaired students each from mainstream and special schools. Semi-structured interviews were conducted to supplement the quantitative findings with real-life evidences. Their responses to the questions were recorded on the notebook and coded for recurring patterns and emerging themes (Bogdan and Biklen, 1992).

4.2.1 Marginalization at mainstream school

Both interviews with mainstream students mentioned the marginalization and social exclusion from their classmates at schools. They often experienced bouts of loneliness in their classrooms and even during the club activities. Also, they felt that they were not fully included in the class discussions.

*Admittedly, I feel lonely... and it looks even lonelier if I attend separate classroom. It sometimes makes me feel that my only friend is my support teacher and I do not have many close friends.* – Male student (Mainstream), Grade 6.

At the mainstream schools, special needs classrooms are established to accommodate the special needs of students. Usually, children with mild disabilities are taught the same curriculum as the regular schools but they receive special courses depending on the type of disabilities. For non-academic subjects e.g. music or physical education classes, the students with special needs have their opportunities to interact with their classmates. In spite of these measures in place, some students groused about the separate placement as they felt that they were unfairly discriminated.

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**Table 6: Social inclusion**

<table>
<thead>
<tr>
<th>Items</th>
<th>Mainstream (n = 20)</th>
<th>Special (n = 51)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I enjoy meeting my friends during club activities</td>
<td>3.32 1.42</td>
<td>3.76 1.23</td>
</tr>
<tr>
<td>I feel more comfortable with my hearing-impaired classmates at my school.</td>
<td>3.32 1.42</td>
<td>4.10 1.30</td>
</tr>
<tr>
<td>I often feel lonely.</td>
<td>2.01 0.50</td>
<td>1.25 1.15</td>
</tr>
<tr>
<td>Due to my hearing impairment, I have been bullied or teased before at school.</td>
<td>2.15 0.50</td>
<td>1.25 1.42</td>
</tr>
</tbody>
</table>

Note: *p < .05.
At my (mainstream) school, I really hated the feeling of being placed in a separate classroom as it made me feel so different from other people. All my classmates knew that ‘that’ classroom only belonged to me and they sometimes laughed at me every time I went there alone. – Female student (Mainstream), Grade 7.

On the other hand, students from special school felt that they were not socially excluded and they were able to communicate easily with their classmates through sign language. Every teacher, including the principal knew sign language and it helped to create greater rapport among them easily. While visiting the special school, students were seen approaching their teachers along the corridor without any deference or fear of authority. They also appreciated that their self-esteem improved with their abilities to communicate with their classmates and teachers.

During the football training, there were many hearing people yelling at each other and I could not hear them well. People tried to call my name but I could not hear them. Since that day, they refused to pass the ball to me as they did not want to lose the game! However, at this school, I had so much fun playing with my friends. – Male (Special), Grade 9.

Some students shared about their past experiences at the mainstream schools before they were transferred to the special schools. They could recall that they were marginalized as they could not communicate effectively with their hearing classmates. Their hearing loss and communication barriers had inhibited their social relationships with them and it eventually resulted in social isolation from them.

I could not pronounce words very well and many of my classmates commented that I spoke with weird sounds. They could not understand me. – Female (Special), Grade 8.

4.2.2 Learning support

Earlier, the empirical findings demonstrated that the mainstream students were more likely to request for their learning supports in the classrooms. Based on that, the author probed further into this issue to find out to what extent the schools provided support for them. It revealed that the mainstream school did not provide adequate support for all subjects. One female student highlighted that she could only receive limited support in few, not all, subjects during after-school remedial classes.

After school, I attend separate classroom with one teacher who only teaches me Mathematics. Even in the normal classroom, I could not catch up at all as it is so hard to lipread my teacher who is facing the blackboard all the time. – Female student (Mainstream), Grade 7.
During the class discussion, their classmates talked in such an incoherent and impromptu manner that the hearing impaired students found it hard to catch up. Oftentimes, they could not participate fully in the class discussions and they felt that they were unable to contribute their ideas to the discussion. As such, their self-esteem suffered and they could not feel the sense of belonging within their groups.

In the normal classroom especially during the group work discussion, I always have a problem with discussing with my hearing classmates. They spoke so fast that I could not lipread them. At times, I felt lost and useless (yaku tata nai). – Male student (Mainstream), Grade 6.

On the contrary, many students from special schools acknowledged that they received a lot of quality in-class support and they felt that they did not have much difficulty in understanding their lessons.

I felt I had no problem in understanding my lessons. All teachers knew sign language and it is easy for me to catch up with lessons. – Female (Special), Grade 8.

4.2.3 Richer curriculum at mainstream school

Interviews with some students who had prior experience of studying at their mainstream school before being transferred to special school revealed an interesting finding that the mainstream school provided a richer curriculum, thus creating more opportunities for their learning.

I felt that the deaf school lessons were too easy for me, very slow as compared to my previous mainstream school. The pace of teaching was...sort of too slow for me. – Male (Special), Grade 9.

On the other hand, the interviewee from mainstream school felt that the learning pace at her mainstream school was much quicker and she could not keep up with classmates.

It is quite tough to cope with so many things to be learnt in my class. My teachers couldn’t really slow down for me and I have so many things to catch up. – Female student (Mainstream), Grade 7.

5. DISCUSSION

This research asks three key questions: 1) how were their learning outcomes different between mainstream and special schools; 2) how did they perceive themselves at both schools; and 3) what kind of relationships did they forge with their peers at both schools.
Based on the quantitative research findings, there is no significant difference in the literacy and numeracy achievements of hearing-impaired students between mainstream and special schools. This is supported by the similar researches carried out by several researchers i.e. Norwich and Kelly (2005), Kluwin and Moores (1985) and Mertens and Kluwin (1986). There is no apparent evidence to prove that the hearing-impaired students at mainstream school could outperform students from special school.

Although there is no empirical evidence to show the difference in their academic performances, narrative findings show that the curriculum at the mainstream school is found to be richer in content and the students could benefit themselves with greater scope of learning. According to Allen and Osborn (1984), Kluwin and Moores (1985) and Powers (2001), those students with special needs who were transferred from the mainstream to special schools agreed that the teaching quality at special schools were found to be substandard, teachers’ expectation of students with special needs were lower and teaching curriculum was not challenging enough.

Both qualitative and quantitative findings equally support that students at the mainstream school receive significantly less learning support than special schools. This argument is further augmented by the qualitative finding that hearing impaired students at mainstream school expressed strongly that they wished to have more learning supports. Previous similar studies carried out by Cheng and Hui (2007) and Poon-McBrayer (2002) supported these findings on their perception towards learning supports at schools.

Second, the quantitative findings reveal that hearing impaired students at the special schools assert themselves as they are the hearing-impaired persons unlike their counterparts from the mainstream school. Nikolaraizi (2007) conducted the ethnographic studies on the identity type on both groups of hearing impaired and hard of hearing people. He found that many hard of hearing persons felt differently from hearing impaired persons as they had their residual hearings and the hard of hearing identity was found to be in the combined form of deaf-hearing components (Vesey and Wilson, 2003).

Last, we also look at how different school placement could potentially marginalize the hearing impaired students from the classroom. Analysis of survey data reveal that students at the mainstream schools tend to feel more socially excluded from classroom in which according to the quantitative findings, mainstream students often felt lonely and they also experienced some bullying or teasing incidents. Again, the interviews with students from mainstream schools confirm this finding that they felt lonely and socially excluded from their social activities. Even few students who were transferred from mainstream to special school confirmed that they had some unpleasant experiences of social exclusion at previous mainstream schools. According to Angelides and Aravi (2007), many of them were socially disenfranchised from their classmates and teachers due to the communication barriers and many teachers were not well-trained to deal with them.
6. CONCLUSION

Various views and experiences shared by hearing impaired students lead to several key conclusions. First, the mainstream schools provide more learning opportunities as the research findings support that mainstream schools could offer richer learning opportunities for all students. However, considering this group of students with special needs, there is a need for teachers to adopt differentiated approaches to structure their teaching pedagogies to tailor to the individual needs of students rather than adopting a “one size fits all” teaching approach.

Second, there is an imperative need to reform teacher education for all pre- and in-service teachers to be ready for the new era of inclusive education. Based on the current situation, it clearly delineates that many teachers are not well-equipped with professional knowledge and skills to deal with students with special needs. To supply more inclusive-ready teachers, the teaching trainings need to underpin the core philosophy of inclusive education and the teaching colleges need to restructure the teaching undergraduate and postgraduate programmes to prepare them well for future-ready inclusive schools. The Japanese government and MEXT must continuously challenge an age-old status quo by implementing necessary bold reforms to current educational systems and openly supporting the legal rights of students with special needs in the mainstream schools (Nagano and Weinberg, 2012).

Instead of viewing special schools as being irrelevant and obsolete, the Japanese government needs to ensure that the special schools provide their supplementary supports for the mainstream schools. In this way, the hearing impaired students could equally benefit from best of both worlds.

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Endnotes
1 Salamanca framework addressed the need to reform school education to ensure every student of unique ability is schooled together.
2 http://www.mext.go.jp/english/statistics/

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In Philipson, Shane N. (Ed.). Learning Diversity in the Chinese Classroom. Contexts and practice for students with special needs. Hong Kong University Press.


Lambropoulou, B. (1997). Oi apopseis kai oi empeiries ton kofon mathiton apo ti foitisi tous e sxoleia eidikis kai genikis ekpaideusis [View and experiences of deaf students from their attendance in special and mainstream schools]. Sygxroni Ekpaideysi, 93, 60-69.


Appendix 1. Questionnaire for hearing impaired students

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Unsure</th>
<th>Agree</th>
<th>Strongly Agree</th>
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Source: Richardson et al, 2010. Adapted by author.