Use of Multilayered Reflection in Analysis of Japanese Special Educators' Everyday Teaching of Children with Autism Spectrum Disorders

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ABSTRACT

Qualitative cross-cultural research on the education of children with autism spectrum disorders (ASDs) has offered an alternative way to examine the presence of cultural values in the teaching of children with their social difficulties. In a focus group study, three special educators in Japan and Australia respectively discussed their ideas about ASDs, teaching of children with ASDs in their small special needs classes, and the outcomes that they valued. While the "teacher talk" of the Australian teachers spoke directly to evidence-based practice in English language literature, the group discussion of the Japanese teachers required prompting and spoke to cultural meanings that did not translate well into English. Analysis of the Japanese transcript required a multistep, multiphase process of reflection beyond translation issues anticipated in the original design of the study that involved innovative interrogation of the English-language transcript and cross-checking of subjective and objective interpretation.

Keywords: reflection; focus group; teacher practice; cultural context; children with ASDs.

INTRODUCTION

It has been recognized recently that qualitative researchers from one culture who venture to investigate social practices in other countries may learn about different ways of acting that are not visible to them within their own cultural boundaries (e.g., Beauchamp & Beauchamp, 2013; Fox, Majhanovich, & Gök, 2012; Rodríguez, Rodríguez, & Mojica, 2012). Practices focused on teaching interpersonal relationships to persons with autism spectrum disorders (ASDs) have offered scientifically promising interventions for their impaired social interactions (Bohlander, Orlich, & Varley, 2012; Simpson, Myles, & Ganz, 2008). However, in the USA and related English-language countries, the amount and quality of research within the naturalistic conditions and long-term goals of such intervention have been unable to compete with the strong evidence-based recommendation of practices oriented to individual skill-building (e.g., Odom, Boyd, Hall, & Hume, 2010) and its pervasive influence on specialist teacher preparation (Barnhill, Polloway, & Sumutka, 2011). This North American lens on practice for children with ASDs has permeated teacher education in Australian universities and has made some inroads into Japan. However, it has not

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replaced traditional Japanese values about regular education and established collaborative teaching practices. It was considered, therefore, that a qualitative cross-cultural study might help to bridge the research-to-practice gap in understanding the everyday challenges of teaching the increasing numbers of children with ASDs within group settings.

There have been few cross-cultural studies about how special educators teach children with autism spectrum disorders (ASDs) in their classrooms (Daley, 2002; Kikkawa & Bryer, 2012). One study indicated that everyday practices used by teachers in the USA often involved the promising practice of social skills teaching that did not have a scientific recommendation (Burns & Ysseldyke, 2009). Moreover, some cross-cultural research has suggested that preferred ways of teaching children with ASDs in modern Asian education systems may embrace culturally specific perceptions of socially related skills and abilities (e.g., Chen & French, 2008; Lewis et al., 2009; Matson et al., 2012). Hence, cultural valuing of particular skills and abilities in these children may have encouraged special educators to engage in ways of teaching consistent with those values.

In education, absent evidence-based practice, culturally resonant principles and values have often motivated teachers to improve the quality of teaching and its reach to children with diverse educational needs (Kemmis, 2009). Cultural influences on teacher practice that have been deeply embedded in daily activities may not be consciously available to practitioners within that culture, because “almost every aspect of the teaching and learning process is culturally influenced” (Friend, 2005, p. 87). For example, teachers’ decisions about what is important to learn or how learning is best accomplished and assessed, have been strongly influenced by value, which has been identified as one of critical elements of culture (Banks, 2006).

Akkerman and Bakker (2011) argued that challenges from contextual differences are common in any qualitative research and may allow new learning to occur. For example, Callingham (2012) highlighted the benefits from Asian mathematic classroom teaching to Australian classroom practice. Kikkawa and Bryer (2012) argued that qualitative cross-cultural researchers need an inter-cultural lens to “see and think in plural directions to and from one perspective to another” (p. 278): To the extent that an intracultural lens cannot differentiate between aspects of practice arising from children’ needs, best practice, and cultural values (Suzuki, 2009), it cannot offer a perspective on what aspects of teacher practice cross borders and become globally influential and what aspects do not.

Japanese educational values

In an early comparison of Japanese and American education, Sato and McLaughlin (1992) suggested that teachers’ role and responsibilities are products of the cultures in which they are embedded. They stated that Japanese traditional emphasis on “whole-person” education (e.g., Cummings, 1980; Stevenson, 1991) extended teachers’ responsibilities outside the school boundaries. The Japanese ideal for education broadened teachers’ routine responsibilities for the physical, mental, moral, and social development of children. Sarkar Arani and Matoba (2006) confirmed the busy, tiring, and stressful nature of teaching and the pervasive habit of working well beyond school hours in Japan dating from at least the 1980s.

Moreover, cooperation among children has been an established cultural feature of regular Japanese schooling (e.g., Baris-Sanders, 1997; Lewis, 1995): Teachers have engaged and empowered their children by using cooperative group activities for learning, collective child effort for school events, and positive peer pressure for classroom discipline. Recent government research also indicated this emphasis on using groups for teaching children with developmental disabilities in regular education classrooms (e.g., Wakui, 2011).

ISSN 1839-9053

Furthermore, collaborative reflection among teachers has been viewed as an enduring feature of Japanese education (e.g., Kriewaldt, 2012). Primary school teachers have also collaboratively reflected on and evaluated children' learning and relationships (Matoba & Sarkar Arani, 2006; Sarkar Arani & Matoba, 2006). Individual teachers have used reflection to encourage children's understanding of their learning (Lewis, 1995). Examples of children's reflection have included "sakubun" (i.e., children's essay or diary about their feelings and understandings), "hansei-bun" (i.e., children's feedback about their learning and attitude), or "gakkyuu-nisshi" (i.e., lead children's classroom diary about today's events, taken in turns). In English speaking countries, teachers, groups of teachers, and schools have used reflection to explore their awareness of their teaching practices and to seek improvement in their teaching (e.g., Barnett & O'Mahony, 2006; Cohen, 1999; Davis, 2006; Larrivee, 2008).

Researchers have used reflection-on-action to transform their research into practice. Roulston et al. (2008) argued that immediate, dynamic, and continuing self-awareness is the basis for ongoing development of qualitative research expertise. There has been an emerging view that qualitative researchers need to be aware that their personal lens can influence their interpretation of findings and, thus, need to engage in critical reflection about their own position in research and about the assumptions they bring to their findings (e.g., Reynolds, 2011; Roulston et al., 2008). Moreover, Huy (2012) argued that qualitative researchers need to go beyond their rich descriptions of their data in order to spell out the specific gap in the literature and to explain how data have been collected, analysed, and used to extract conceptually meaningful findings.

The present paper outlines the reflective methodology created to analyse and interpret a Japanese transcript when a Japanese researcher conducted a focus group study of how special educators were actually teaching small classes of 4-6 children in primary school units in Japan and Australia respectively. This cross-cultural study was aimed to contribute to the body of knowledge about teaching of children with ASDs in classrooms and also explored whether these Japanese special educators employed in a unit with a small class were teaching in a using a socially distinctive approach to that in an ecologically similar Australian setting (Kikkawa & Bryer, 2012).

METHOD

In initial planning of this cross-cultural study of Japanese and Australian practice, a working description of teacher practice in each primary school unit was obtained from case study method, which opens up multiple variables too complex for either survey or experimental approaches (Stake, 2006; Yin, 2012). An intentional feature of the research design was qualitative reflection, which was considered sensitive to the numerous variables that may be related to culture (Brown & Rogers, 2003). Face-to-face discussion among colleagues in a unit was used to generate substantive content of the teachers' verbally expressed views, opinions, experiences, and attitudes on children with ASDs (Berg & Lune, 2012). Moreover, focus group interactions and exchanges among the teachers could help to qualify opinions, deepen reflections (Liamputtong, 2011; Morgan, 2002), conceptualise shared issues during joint deliberation (Wibeck, Dahlgren, & Oberg, 2007), and generally provide a collaborative climate for discussion in Japan.

Japanese Site and Teacher Participants

The Japanese site chosen for this study was a unit of special education classes (i.e., Yougo gakkyu) at an elementary school attached to a national university. The researcher graduated from the undergraduate teaching program at this Japanese university and undertook practicum at this school. The host university was a national institution, leading provider of teacher education in its prefecture, and a long-term partner of the participating school. Ethical clearance for the study was obtained in Australia, and the

ISSN 1839-9053

support of the special education professor encouraged the school, unit, and teachers to consent to the study. Special education staff at the school comprised a head teacher, three classroom teachers, and a part-time special education teacher for three multiage educational classes (viz., Yougo gakkyu), which were divided into Years 1-2 [Yougo 1 (ichi) kumi], Years 3-4 [Yougo 2 (ni) kumi], and Years 5-6 [Yougo 3 (san) kumi]. Mostly, each special classroom teacher managed a class alone. Sometimes, teachers worked together with all children with special needs (e.g., music, physical education). Children with ASDs and other disabilities were excluded from regular classrooms and remained within their classes, but they had frequent interactions with typically developed children for daily nonacademic routines (e.g., cleaning classrooms and playtime) and for special occasions (e.g., cultural festivals and sport days).

The criteria for each teacher's participation in the focus group were (a) at least one year's experience in teaching children with ASDs and (b) availability and willingness to participate in the focus group. The two males and one female shared two main characteristics: (a) experience in teaching regular schools before starting their teaching for special education and (b) bachelor degrees for regular schools and additional graduate training in special education. In contrast, their Australian counterparts typically gained an undergraduate degree in special education and worked only with special classes.

Materials and Procedure

Two phases of planned reflection targeting interview design and interpretation in the first reflective process were focused on facilitating intercultural communication with the special educators. That is, the practitioners in the focus groups were asked to reflect on the practice, and the facilitator reflected on her experience after the session. In Phase 1, the questions were framed within an established model for teacher reflection on practice (Bain, Ballantyne, Mills, & Lester, 2002) that scaffolds discussion through initial descriptions of practice, to emotional processing of immediate events and related experiential context, to cognitive analysis of critical aspects of practice and future issues.

Table 1 shows the structure of questions and prompts designed from a 5Rs template for teacher reflection in Phase 1. The sequence enabled them to express their interests and concerns by tapping into emotions and their longer-term connection to personal and professional history and then into their thoughts about their present and future practice. The 5Rs rating scale was developed to help preservice teachers improve reflective writing about aspects of their practice (Bain et al., 2002). Interposing of personal and interpersonal components of reflective questions between initial description and analysis and reframing of the topic encouraged learning from social-emotional experience (Cohen, 1999). The 5Rs have been used extensively in teacher education. Previous adaptations of the 5Rs rating scale to an oral format have helped Australian teachers to clarify semiconscious concerns and go on to reflect more explicitly and meaningfully on their practice (Bain et al., 2002).

This 5Rs template of reflective questioning was systematically applied to 10 simple questions (i.e., 5 for present practice and 5 for future perspectives on practice) that could be clearly understood in both focus groups. Review of the literature suggested a number of key questions about teacher role and practice in relation to ASDs. First, descriptive questions were designed in order to capture roles and responsibilities for teaching children with ASDs (Reporting). Challenges or successes relating to their practices were also designed to express perceived effectiveness of their teacher practice (Responding). Questions about their teacher training were designed as the significant context to understand their practice (Relating). Teacher support was targeted as the key issues relating to teacher practice for children with ASDs (Reasoning). Last, questions about the influence of government policy (i.e., at present and in the future) were designed to clarify important principles in teacher practice for children

ISSN 1839-9053

with ASDs (Reconstructing). For Questions 1-3 and 6-8, the facilitator was able to provide additional elaboration to prompt discussion as needed.

Table 1. *Focus Group Interview Questions about Teacher Practice*

Topic of Practice	Past-to-Present Emphasis of Topic *More focused on working with children with ASDs*	Present-to-Future Emphasis of Topic *More focused on improving teaching of children with ASDs*
Role and responsibility (Reporting)	①Describe features of ASDs that are important to you as a teacher. *Student context of teaching: What is it about the children that influences and affects your teaching?*	②Describe what guides your teaching of children with ASDs. *Teacher context of teaching: What influences how you work as a teacher, in addition to the children' needs?*
Assessment of effectiveness (Responding)	⑤What are you pleased about when you teach children with ASDs? *Positive feelings about work and children: What are you pleased about?*	④What are your difficulties or worries in teaching children with ASDs? *Negative feelings about work and children: What are your worries and difficulties?*
Assessment of professional development (Relating)	③How has your teaching of children with ASDs changed over time? *Over time, what changes have you made/experienced in your teaching of these children?* *Link/connect positive and negative feelings to changing practice*	⑥What strategies do you use to achieve favourable outcomes for children with ASDs? *How do you get good results and get improvements in your children?*
Training (Reasoning)	⑦How did your teacher training help prepare you to work with children with ASDs?	⑧How should teacher training help prepare teachers to work with children with ASDs?
Policy (Reconstructing)	⑨In broad terms, how has government policy affected your practice with children with ASDs?	⑩In the future, how do you expect that government policy will affect your practices?

Note. Numbering shows the order of facilitator questions during focus group sessions, and italicised text shows prompts available, as needed, to maintain the flow of conversation.

In Phase 2, the focus of reflection shifted to the researcher's reflections about the focus group session. There has been little work on researchers' reflection on focus group process and outcomes. Gallagher (1997), investigating the views of community-based consulting teachers about changing needs and responsibilities, recommended that researchers engage in a personal reflection immediately after a focus group session in order to document overall impressions about the interview. She reported that this reflection enables a researcher to document the main themes that emerge from the discussion, highlight contextual elements (e.g., overall tone and climate of the group discussion), and review field notes for noteworthy quotations. The facilitator implemented free-writing to document her feelings about the interview, first impression of her participants, and overall impressions during the session. For example, she recorded her struggle to encourage the Japanese to answer questions. They reported that the questions were difficult, and their first response was "It seems so difficult and I am afraid that I cannot answer." Whereas the Australian focus group did not require prompting to speak about any topic, the facilitator made extensive use of prompting with the Japanese teachers.

ISSN 1839-9053

Procedures for collecting and transcribing data were uneventful. The facilitator who had a special education qualification from the Japanese unit's host university and was undertaking postgraduate research in an Australian university, conducted both focus groups. Although the results of the Australian focus group discussion are not addressed in this paper, analysis and interpretation of the Australian transcript were transparent to the facilitator and the Australian research supervisor. A group of qualified and experienced Australian special educators working in a primary school unit provide a pilot trial of the set of questions and procedures to be used in Japan. International university students from Japan cross-translated questions back and forth to make sure that all teachers could readily understand each question (Hambleton & Kanjee, 1993). The Japanese teachers engaged in an active focus group discussion for approximately 90 minutes, and the session recordings with a MP3 player and a cassette tape recorder was transcribed into Japanese and subsequently translated into English.

Content Processing

All text was de-identified and transcribed into Word files. Each participant was allocated a code number (e.g., Japanese Teacher 1 = JT1) and allocated an assumed name. Audiotapes of focus group sessions were then deleted. Soon after each session, the researcher transcribed the interview text, and then translated the Japanese transcript into English, through cross-translation. Four volunteers with appropriate knowledge of both English and Japanese language checked the quality of parts of the translation. Transcriptions were then prepared for content analysis.

Reflective processing of content

It was at this point that the researchers were alerted to the presence of an invisible boundary. The Australian supervisor read the English transcript of the Japanese discussion but said to the facilitator that she could not understand what these Japanese teachers were saying about their practice. She initiated a process of ongoing line-by-line, question-by-question interrogation of the transcript, and the facilitator clarified the meaning of the teachers' talk and gave examples illustrating what they were talking about. Some words contained embedded meanings and interpretation of questions related to each cultural context, and it was discovered that Japanese has been described as a vague and indirect language, in which conversational meanings can be extracted from abstract references (Haugh, 2003). They realized that the facilitator's unconscious cultural lens on Japanese education allowed her to interpret the discussion and its transcript as a reasonable account because she understood the context within which the Japanese special educators spoke about their practice.

Table 2 shows the resulting six phases of reflection involving two additional processes (i.e., Process A, B, & C), and the procedures of each phase are detailed in Table 3. The problems in coding and analysis of the Japanese talk triggered the second process of subjective reflection. The two phases comprised interactive reflection (Phase 3, discussions between the facilitator and supervisor) and metareflection (Phase 4, facilitator's intercultural reflections about similarities and differences in the talk of the Japanese and Australian teachers). The need to complement and challenge the potentially subjective nature of the reflections in Process 2 triggered a third process of reflection that used Leximancer text analysis software (Smith, 2009) and its two phases of objective analysis. Phase 5 processing of transcripts generated automatic mapping of concepts and their relationships underlying the surface text, and Phase 6 text browsing of text contributing to mapped concepts confirmed objective interpretation by checking the alignment of automatically generated concepts with original transcript.

ISSN 1839-9053

Table 2. *Multilayered, Multiphased Reflections about the Japanese Focus Group Transcript*

Reflective Process		Phase	Purpose	Participants
A	Peri focus group	1. Research planning	Design questions for teacher reflection	Researcher and supervisors
		2. Personal reflection	Record key impression and personal observation	Researcher
B	Post focus group (subjective summary)	3. Interactive reflection	Clarify cultural meanings embedded in the Japanese transcript	Researcher and a supervisor
		4. Meta-reflection	Extract and summarise key points and examples of teacher practice	Researcher
C	Post focus group (objective summary)	5. Reflection on Leximancer maps	Obtain objective summaries of the transcript	Researcher and supervisors
		6. Confirmation of reflective interpretation	Examine interpretations of Phase 5 by relevant examples in the transcript	Researcher

Subjective analysis

Manual coding included the second reflective process to strengthen the transparency of intercultural interpretation and to arrive at a comparison of teacher practice in different cultural contexts. The facilitator's reflection was based in experience of the two systems: She was intimately familiar with the Japanese culture and with Japanese teachers who work with children with ASDs, and she lived in Australia for several years and had direct experience in working with an individual child with ASDs in an Australian school. Her knowledge of transcript content, methodological process, and additional awareness from her own experience and knowledge and her conversational interrogation by the supervisor informed her manual coding.

Content processing was applied to the Japanese and Australian transcripts (Creswell, 2012; Silverman, 2011) but was concentrated mostly on the Japanese transcript. Text was organised, coded, and analysed (Saldaña, 2009) in the two-stage open and axial coding recommended in qualitative data analysis (Creswell, 2012; Punch, 2005). At the third phase, themes in the Japanese and Australian transcripts, briefly noted in personal reflections, were articulated in several interactive reflection sessions between the Japanese facilitator and the Australian researcher. A set of conversations during the cross-cultural reflections was then transcribed, and the intercultural transcripts were coded with five colours for each of the 5Rs. This process helped identify emerging themes during the next phase, as the facilitator was able to see what is missing in the original transcript from the Australian supervisor's point of view.

The fourth reflective phase, meta-reflection on both original and intercultural transcripts, comprised manual summarising of data. Key points and examples for individual teachers in each group were extracted, and cultural group similarities and individual differences were tabled for each interview question by reviewing and comparing content with the researcher's reflection. The similarities of each teacher groups were then combined within another table (see Figure 1). In order to tease out cultural similarities and differences from teachers' responses, the facilitator reviewed colour-coded responses to questions including the respective points of view of participants and facilitator. Tables of similarities between the two groups of teachers, for each question, were established and then used to elaborate cultural differences in context, in order to clarify the meaning of content indicated in what Japanese teachers said and to generate direct comparison with what Australian teachers said. These cross-cultural summaries were then coded with the themes previously identified at Phase 3.

ISSN 1839-9053

Table 3. *Reflective Phases on Focus Group Interviews across the Research*

Phase	Title with Description	Participants	Process	Materials
Research Planning				
1	**5Rs Reflective Writing Scale**: Incorporated into design of questions	Researcher and a Supervisor	Questions designed in 5Rs framework so that teachers would not only describe their practice for students with ASDs but also discuss feelings or thoughts about the practice	♦ Table of Questions for focus group: Table 1 ♦ Prompt sheets ♦ Consent forms, Information sheets, and background information sheets ♦ Procedure sheets ♦ Personal reflection sheets
Conduct of Focus Groups				
2	**Personal Reflection**: Immediately following the conduct of each focus group session	Researcher	Immediate postsession reflection ♦ Record key impressions and personal observations from each session before data coding (i.e., feeling and reflection)	
Manual Coding of Focus Group Transcripts				
3	**Interactive Reflection**: On original Japanese focus group transcript to produce a review transcript ♦ Japanese focus group original transcript used to produce an intercultural transcript	Researcher and a Supervisor	Question by question with Japanesetranscript(translated from Japanese to English), researcher and a supervisor interrogated the data for meaning ♦ Explain what phrase meant in Japanese context ♦ Clarify and make a clear interpretation of what teachers said	♦ Transcriptions of discussion ♦ Translation of Japanese transcripts into English transcripts ♦ Transcriptions of Japanese intercultural talk ♦ Colour coding of Japanese intercultural transcripts within 5Rs framework
4	**Meta-Reflection on original and intercultural transcripts**: Part of teasing out similarities and differences of practices across two cases ♦ Australian focus group original transcript and Japanese intercultural transcript	Researcher	Question by question, examine intercultural and original transcript ♦ Extract key points and examples for individual teachers in each culture ♦ Summarise and reflect: The results are based on facilitator's interpretation ♦ Check objectivity by reviewing the original transcripts	♦ Tabular summary of each question for extraction of key points in Japanese teachers' talk ♦ Tabular summary of each question across two groups
Automatic Coding of Focus Group Transcripts: Leximancer Analysis				
5	**Reflection on Leximancer map**(Smith, 2005): Following the completion of Leximancer analysis	Researcher and Supervisors	Interpret the relationship of theme and concepts	♦ Leximancer maps ♦ Ranked concept lists for the group ♦ Table of manual coding for each concept by checking original transcripts of the focus group
6	**Confirmation of Reflective Interpretation**: Check examples in text of transcription	Researcher	Examine interpretations by relevant examples in transcripts	

ISSN 1839-9053

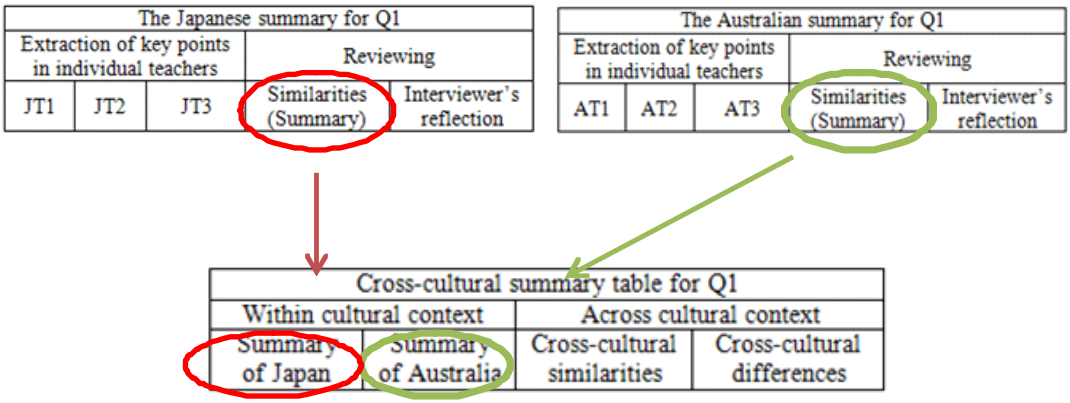

Figure 1. Process of making cross-cultural summary for interview question 1.

Objective analysis

Automatic content analysis with Leximancer 4 (Smith, 2009) of both transcripts provided a comprehensive overview of main conceptual themes (open coding) and their respective relationships (axial coding) within the holistic text environment (Dey, 1999). Semantic patterns in the text were displayed as a concept frequency list and as a visual 2-dimensionalised mapping of all relationships in the text. Size and darkness of dots showed concept frequency and centrality to the whole map, and distance between concepts showed their connectedness.

Phase 6 was used to confirm the consensus between manual analysis and the automatic Leximancer analysis. The value of the analysis was tested by manual browsing of text examples clustered together within automatic analysis. Stake (2006) suggested that analytic coding systems sometimes start too early to reduce complex phenomena to simple categories. Approximately 20% of concepts were tested by browsing examples from transcription texts through this phase.

RESULTS

Table 5, showing examples of the summaries finalised at the end of Phases 3-4 of manual coding process (Process B), demonstrates cross-culturally similar and different aspects of teaching children with ASDs. Because this paper is focused particularly on the Japanese findings, only some key points of the Australian findings are noted to highlight findings culturally specific to the Japanese teachers. Findings for the first and fourth interview questions show that sharing of some general aspects of teaching those children. That is, both groups considered individual children's needs and individual differences and organised environmental settings so that the children with ASDs feel secure and understand what is happening next. These groups were also concerned about the children's future and tried to help them prepare for it.

However, comparison of features among the Japanese teachers with those among the Australian teachers indicated cultural differences. The Australian teachers directly address ASD-specific issues and needs and highlighted behavioral issues and systematic assessment. In contrast, the Japanese teachers did not clearly articulate ASD-specific features and their teaching strategies. Instead, they discussed in detail their process of understanding individual children (Q1) and their efforts to communicate with and interact with children when discussing their practical difficulties and worries (Q4). They expressed great concern about the quality of their preparation to deal with practical everyday exchanges with the

ISSN 1839-9053

children (Q4). These findings were then cross-checked with the next phases of Leximancer analysis (Process C).

Table 5. *Examples of Tabular Summaries Extracted Though Phase 3-4*

Within Cultural Context : Summary of Japanese participants	Across Cultural Context	
	Cross-cultural similarities	Cross-cultural differences
Q1: Describe feature of ASDs that are important to you as a teacher.		
• JTs[a] are unable to describe "features of ASDs." • JTs talk about child's features instead. • JTs tell stories of individual children. • JTs try to understand features from their actual experience of children rather than from diagnosis. • JTs encourage children as general approach. • JTs talk about making good atmosphere, maintaining supportive environment, and building up warm relationships. • JTs tend to talk about individual needs.	• Both insist that children have individual needs and differences. • Both try to maintain school environments for children with ASDs.	• ATs[b] easily describe main features of ASDs. • ATs target main points that they are concerned about (i.e., behaviour, transitional issues, prevention strategies, and visual cues), whereas JTs do not talk clearly about their practice • Both understand children with ASDs through their direct experience, but ATs' understanding is based on data collection.
Q4: What are your difficulties or worries in teaching children with ASDs?		
• JTs are focused on child perspectives and elaborating them. • JTs talking about difficulties in communicating with these children, developing relationship, and preparing the learning situation. • Typically JTs and children are really focused on trying to do "right things" (morality). • JTs try to stay on routine, but it doesn't work well.	• Both are worried about children' future life.	• JTs tend to focus on difficulties in teaching these children, while ATs tend to talk about worries about children' lives. • JTs' difficulties are related to communicating, building up relationship, and preparing situation, whereas ATs' difficulties are related to children' behaviours and their effect on inclusion. • JTs try to stay on routine, but ATs admit that they can't always control the world. • ATs insist that they don't have enough support and that it makes situations worse for for children.

[a]JTs means the Japanese teachers, [b]ATs means the Australian teachers.

Leximancer can show what thesaurus items (i.e., words) contribute to a Leximancer Concept definition, which determines the frequency of co-occurrence between concepts (Smith, 2009). Table 6 shows the top 30 highest co-occurring items associated with one specific concept appearing to Leximancer Concept Map (i.e., "children"). It shows that, when the Japanese teachers talked about "children", they used similar words (e.g., children, child, students, student) and terms related to school environments and systems (e.g., schools, classrooms, class, regular, grade), their teaching strategies and focuses (e.g.,

ISSN 1839-9053

strategies, academic, trying, interact, interest, learning, perspectives, repeat), and others. However, the word of "ASD" was the 390th out of 394 listed as its Associated Thesaurus Items. It indicates that the Japanese teachers did not use the term, ASDs, when they talked about children with ASDs. This finding is aligned with the result from previous phases (i.e., personal reflection, manual coding).

Table 6. *Associated Thesaurus Items With "Children" Concept, Linked to Figure 2*

Rank	Word	Score
1	children	-10
2	students	9-10
3	child	8-9
4-6	schools, classrooms, good	7-8
7-9	class, regular, strategies,	6-7
10-17	academic, life, means, trying, interact, interest, tell, time	5-6
18-30	aspect, attend, correct, depending, grade, image, including, learning, looked, perspectives, repeat, student, variety	4.5-5

Moreover, Figure 2 demonstrates three emerging Leximancer themes of children, teaching, and information. The clustering of concepts and content examples generated by Leximancer analysis as well as by manual analysis for these themes indicated that the Japanese teachers talked about specific examples of individual children, rather than focusing on ASD-specific features, emphasised interactions and experiences guiding their teaching, and gathered information from parents to plan their practice. These findings were cross-checked with findings from previous phases by using a tabular summary. Additionally, concepts of "special" and "education" in contrast to regular education indicated their concerns about upcoming new policy of special needs education, which were also findings confirmed in the last phases.

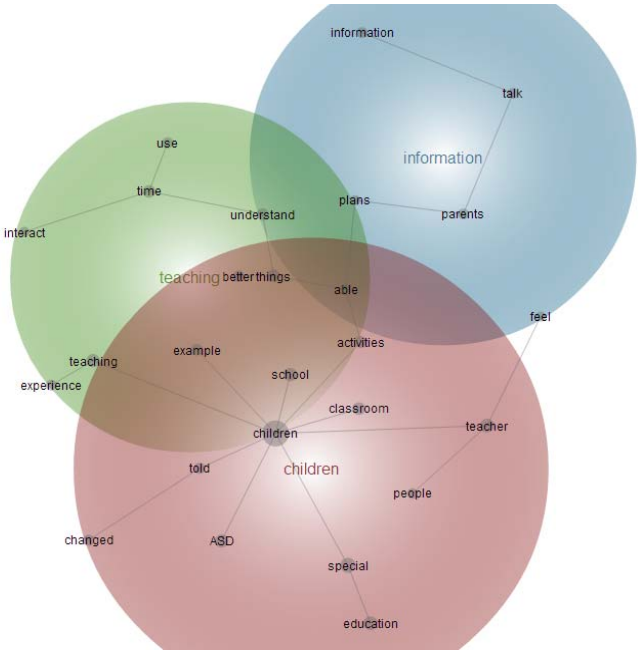

Figure 2. Three thematic clusters of concepts emerging from the Japanese focus group transcript.

ISSN 1839-9053

Figure 3 gives another example of a concept map created from a combination of the Japanese and Australian transcripts confirming the manual analysis finding of culturally specific practice. Speaker tagging of concept mapping revealed different focuses on “children” from Japanese teachers, Australian teachers, and focus group facilitator. That is, the Japanese teachers talked about a teaching process guided by their interactions with specific children in the school and classrooms, while the Australian teachers discussed their teaching practice as a means to resolve specific problem behaviours of children with ASDs.

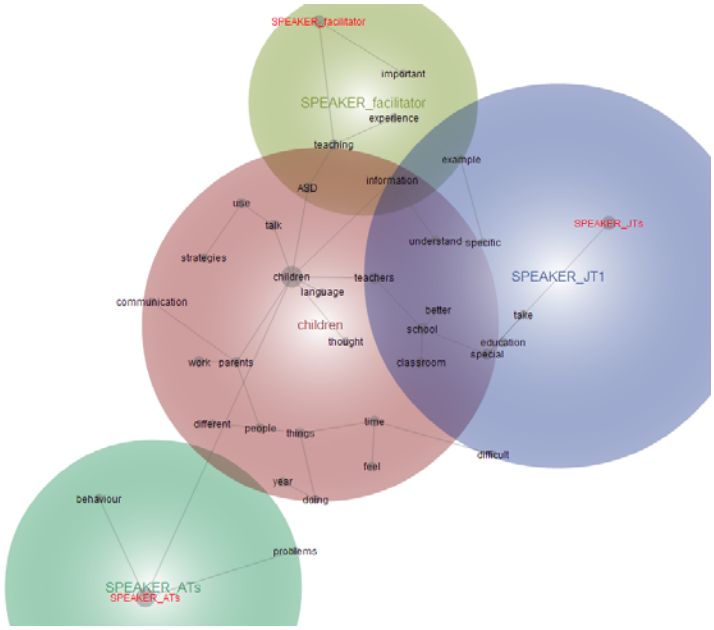

Figure 3. Speaker tagging of combined transcripts of the Japanese and Australian teachers.

Additionally, when speaker tags were used as a theme and the speaker concept was selected to reveal the most related words, ranked concepts from each teacher group confirmed that the most high likelihood words in the Japanese text were “take”, “difficult”, “education”, and “example”, while those were “behaviour” “problem”, “year”, and “different” in the Australian text. While Japanese teachers used the word, “difficult”, when interview questions were introduced or when they talked about teaching children with ASDs, the Australian teachers used the word, “different”, when they talked about individualised teaching strategies and different environments between home and school or between special and regular education classrooms. In addition, the facilitator encouraged teachers in the Japanese focus group to talk about their teaching experiences and important information regarding children with ASDs because, unlike the Australian teachers, they could not talk about their practice briefly and concisely. For example, the concept, “example”, overlapping the tagged Japanese and facilitator transcript analyses, indicates active prompting to talk about examples.

Table 7 summarises findings from each phase to provide an overview of findings through the multi-step, multiphase reflective process. These phases articulated embedded meanings of the key themes in focus group discussions, identified relationships among the themes, and confirmed reliable alignment of findings across multiple methods of reflection. Importantly, the researcher’s engagement in reflection throughout the analyses revealed the emerging themes that were articulated and identified throughout the reflective processes.

ISSN 1839-9053

Table 7. *Summary of Multiphase Findings about the Practice of the Japanese Special Educators*

Process	Emerging themes across a multi-step, multiphase reflective phase				
	Definition of teacher role	Perception of ASDs	Teacher practice	Factors in different approaches	Frame of disability
A[a]	• Extended outside school • Parental roles	• Less knowledge of ASDs	• Focus on individual children • Little success	• Less confidence • Always having problems	• No labelling in classrooms
B	• Worries about children inside and outside school • Observing children catching a bus or getting on a bus with them • Solving problems outside school • Highly responsible for children	• Individual differences over ASD features • No explicit language to explain their situation and children • Information from their direct experience, other people • Avoiding using any terms • Set of phenomena affecting children' learning situation and future, not ASDs per se • Experience first, information or knowledge second	• Interaction and encouragement • Building relationship • Maintaining environment • Strong home-school communication • Visual cues • Verbal cues • Clear schedule and explain: Preparing any changes • Staying routines with minimum changes • Individual planning • Small steps and preparing or set up situation • Child- and group-oriented • Activity- based	• Based on direct experience • Focused more on non-academic learning • Unclear feedback and evaluation • Adapting to each children's situation • Considering individual needs within group ("goodness of group") • Inductive process of developing practices • Focused on "right things" • Exclusion • Focused on children' happiness rather than learning outcomes • No useful training • Strict teacher employment system	
C	• Parents as important sources of gathering information	• The term, ASDs, was not associated with "children" concept: Japanese teachers tended not to talk about children in terms of ASDs	• Talking about specific examples of particular children (Individualised focus on children) • Using interactive strategies for children	• Current and future SNEU environment. • More likely to talk about process of how they interact with the children	• Focusing on individual differences

[a]Only Phase 2 was applied to Process A.

CONCLUSION

Qualitative cross-cultural study uncovered complex influences on daily practice in two modern educational systems and the cultural competence and sensitivity needed to reveal some of that

ISSN 1839-9053

complexity. The multilayer, multiphase reflections used in the present study indicated that cross-cultural researchers need to be prepared for systematic, deep, and detailed reflection to analyse and interpret textual data. Cultural values appeared in the way that Japanese special educators in this Japanese unit spoke about their everyday accounts of how they coped with children with ASDs within their small special education classes. Direct observation will be needed to check the fit between how the teachers talked and what they valued and what they did in their day-to-day actions in the classroom (Kemmis, 2009). Teachers response to actual needs of children and sharing of some communicative strategies for meeting those needs indicated that the needs of the children (e.g., visual and verbal cueing) constitute a bridges for crossing borders of practice but that many features of teaching specific to the Japanese group indicated that they approached their teaching in a qualitatively distinctive and inductive way (Have, 2004).

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