

Preschool Inclusion Placement in Taiwan

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Abstract

Despite the steady decline in birth rate in Taiwan, the number of special education children continues to increase, especially after the implementation of the Early Childhood Education and Care Act in 2012. The most significant increase was seen with placing special education preschoolers in inclusion classrooms. In particular, the number of students receiving itinerant services has grown the most dramatically, accompanied by a decrease in the number of students receiving special education programs delivered in regular classrooms. However, almost half of the counties and cities in Taiwan failed to deliver itinerant services to half of the special education students in their jurisdictions, which signals a shortage of special education support for regular early childhood teachers. The lack of clear guidelines in the current policies for preschool inclusion placement has also led to the neglect of special education inclusion students' right to appropriate education. Responding suggestions are discussed.

Keywords: preschool inclusion, placement, itinerant service, resource room

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Introduction

Despite the consistent low birth rate in Taiwan, the number of preschool special education students has increased over the years. According to the statistics published by Ministry of Education (2015), the number of preschool special education students increased by 32% from 9,350 in the school year of 2005 to 12,303 in the school year of 2011. The increase accelerated sharply after the implementation of the Early Childhood Education and Care Act in the school year of 2012, with the total number of preschool special education students reaching 15,389 in the school year of 2014. During the 10 years from 2005 to 2015, the number of preschool special education students grew by as much as 65%. Inclusion has also become the top schooling choice of more and more parents of preschool special education students. In the school year of 2014, 95.5% of the special education students were receiving inclusive education, which did not even include young children with special needs who turned down the application for subsidy lest a record of such application in the system might cast an unfavorable light on them.

However, educational placement is only the first step. What is more important is to provide special education children with subsequent guidance and support for their learning and development. Odom, Buysse, and Soukakou (2011) report that the term for preschool inclusion has evolved from preschool mainstreaming, reverse mainstreaming, and integrated special education to inclusion in the 1990s which later superseded all previous terms and continues to be used today. With the preschool mainstreaming model, special education children who are placed in regular classrooms must adapt to a learning environment where the education for typically-developing children is the mainstream. With the inclusion model, however, special education children are naturally integrated into the educational environment where their typically-developing peers participate (Hsu, 2006; Lieber et al., 1998; Stainback & Stainback, 1992). Support and service resources are then tailored to special education students' needs to realize the goal of individualized education (Stainback & Stainback, 1992). The intent behind this shift in terminology conveys the perspective that inclusion goes beyond placing special education students in regular classrooms and aims to nurture these students to become a member in larger social, community, and societal systems.

The joint announcement by the Division for Early Childhood (DEC) of the council for exceptional children of the US and the National Association for the Education of Young Children (NAEYC) defines high-quality inclusion as cultivating “a sense of belonging and membership, positive social relationships and friendships, and development and learning” (Division for Early Childhood/National Association for the Education of Young Children [DEC/NAEYC], 2009, p. 2). This definition highlights that placement in the least restrictive environment alone is not sufficient to deliver the goal of inclusion. Concrete and meaningful outcomes should rather be engagement, social acceptance, and friendships (Odom et al., 2011).

Hence, the current study attempts to analyze and compare the different inclusion placements implemented and services provided in counties and cities in Taiwan before and after the rollout of the Early Childhood Education and Care Act in order to understand how preschool special education is supported. The goal is to provide preschool education researchers and practitioners with a longitudinal and comprehensive understanding of the data published on the Special Education Transmit Net, so necessary support and reform can be more effectively carried out.

The Early Childhood Education and Care Act

Before the rollout of the Early Childhood Education and Care Act, the preschool education in Taiwan was characterized by a dual-track system: day care centers and kindergartens which were regulated by different government agencies such as the Education Bureau or the Social Affairs Bureau. Differences existed in areas such as registration protocol, rules and regulations, channels for teacher training and advanced study, curricula, and teaching consultation. Yet, the ages of preschoolers enrolled in day care centers and kindergartens did overlap. This not only led to a waste of resources but also reduced the effectiveness of education support services. In order to integrate resources and increase education quality, the Taiwanese government passed the Early Childhood Education and Care Act in 2011 and rolled it out in 2012. The Act covers preschoolers aged two up to the age when they are ready for primary school. Preschool personnel include principals, teachers, caregivers, and assistants working in the preschools (Early Childhood

Education and Care Act, 2018).

In terms of the teacher-student ratio, classrooms with eight or less preschoolers aged two and older but younger than three should be staffed with one caregiver and those with nine or more preschoolers should be staffed with two caregivers. Classrooms with 15 or less preschoolers aged three up to the age when they are eligible for enrollment in primary school should be staffed with one caregiver and those with 16 or more preschoolers should be staffed with two caregivers. Classrooms with preschoolers aged five up to the age when they are eligible for enrollment in primary school should be staffed with at least one certified preschool teacher.

Preschool assistants should account for no more than one third of the total caregiving personnel in the preschools. Even though the teacher-student ratios before and after the implementation of the Early Childhood Education and Care Act remained essentially the same, first-line regular preschool teachers faced a wider spread of age groups among special education students in the classroom since after the Act, preschools can enroll children aged as young as two.

Placement Types Related to Preschool Inclusion

There are three types of placement related to preschool inclusion as outlined on the Special Education Transmit Net: special education program delivered in the regular classroom, itinerant service, and resource room. Special Education Act (2014) defines special education itinerant service and resource room as follows, “all secondary schools and below shall support special education through 1) centralized special education classrooms, 2) distributed resource rooms, or 3) itinerant services” (para. 11). However, the Act contains no specifics on special education programs delivered in regular classrooms, “for students who are not placed in classrooms according to the first set of provisions in the above, all secondary schools and below shall design special education programs for delivery in regular classrooms and submit them to the government agency in charge for approval. The agency itself shall create rules which specify the requirements and processes for such approval” (Special Education Act, 2014, para. 11). Both distributed resource room and itinerant service are also detailed in the enforcement guidelines of the Special

Education Act. For the distributed resource room model, students' home room is in the regular classroom and students spend part of their day in the resource room receiving special education and related services. For the itinerant service model, students in their homes, institutes, or schools spend part of their day receiving special education and related services from special education itinerant teachers (Enforcement Rules of the Special Education Act, 2013). However, the enforcement guidelines do not contain any specifics pertaining to special education programs delivered in the regular classroom, noting merely that, "if needed, schools could resort to inter-school collaborations to support the cases" (para. 5).

Meanwhile, based on the degree of inclusion, Huang (2002) classifies preschool inclusion into total inclusion, partial inclusion, and resource inclusion. Total inclusion places special education children in regular classrooms so they can receive the same education as their typically-developing peers. Partial inclusion places special education children in preschool special education classrooms, and move them to regular classrooms only once a week or during certain class sessions. Other than the selected sessions spent in regular classrooms, these children still spend the majority of their time in special education classrooms. Resource inclusion places special education children in regular classrooms and move them to resource rooms to receive special education during certain class sessions. Hence, resource inclusion resembles the resource rooms outlined on the Special Education Transmit Net while total inclusion resembles providing special education programs or itinerant services in regular classrooms.

Early Childhood Special Education Programs Delivered in Regular Classrooms

How special education programs shall be implemented in regular classrooms and the scope of the programs are not yet clearly outlined in related rules and regulations at the national level in Taiwan. At the county and city levels, few specifics on service support for such programs are available, either. Let us take New Taipei City and Taichung City as examples – two of the few counties and cities which do provide some written definitions for this type of placement. The guidelines for placing special education children in public preschools issued by New Taipei City only includes a brief note that "professional support

shall be provided based on preschoolers' special needs" (New Taipei City Government, 2013, p. 1). In Taichung City, the descriptions for itinerant services and special education programs delivered in regular classrooms are essentially identical, with the only difference being whether itinerant services are provided. The city defines special education programs delivered in regular classrooms as: receiving special education support in regular classrooms (e.g. professional team, teacher assistant, special education program, and financial subsidy from the Ministry of Education, if qualified-based on the official document of the Ministry), without receiving the various itinerant services (Taichung City Government, 2015).

Yet, the literature finds regular preschool teachers are not equipped to create high-quality inclusive environments and really need appropriate special education support and other necessary supportive measures (Bredenkamp, 1993; Chung, 2002; Hsu, 2006; Liu & Tseng, 2012; Macy & Bricker, 2007; Wang, 2003).

Itinerant Services

Itinerant services are important in supporting regular preschool teachers to implement inclusion (Chen & Chung, 2010; Dinnebeil & McInerney, 2011; Hsu, 2006; Stainback & Stainback, 1992; Wang, 2001). Odom et al. (1999) described two main types of itinerant services. The first type involves special education itinerant teachers directly serving special education children. The teachers may remove children from regular classrooms or enter regular classrooms themselves to deliver individualized education plans. For the second type, special education itinerant teachers provide consultation services to key caretakers of special education children, instead. Although itinerant teachers also interact with the children, their main responsibility is to provide regular preschool teachers with consultation and support so these teachers can effectively guide special education children even during the absence of itinerant teachers. A large body of literature suggests that the natural environment in regular preschool classrooms can facilitate diverse interactions and provide learning opportunities for young children with special needs through, for instance, routines, activities, play time, and corner time (Bruder, 2001; Dunst, Trivette, Humphries, Raab, & Roper, 2001; Hull, Capone, Giangreco, & Ross-Allen, 1996; McWilliam, Wolery, & Odom,

2001; Wolery, Brashers, & Neitzel, 2002). In Taiwan, more preschool itinerant services are provided through the second model and delivered by special education teachers observing students in regular classrooms (Chen & Chung, 2010; Liu & Tseng, 2012; Wang, 2001). A consulting model has also been reported in the literature which is anchored on special education itinerant teachers providing regular classroom teachers with teaching suggestions and guidance. However, this model has not always yielded satisfactory outcomes because of the lack of harmonious interactions, a shared base of knowledge and experience, or the ability to engage in cross-disciplinary collaboration and communication between the special education and regular classroom teachers (Chung, 2002; Liu & Tseng, 2012; Wang, 2001; Wang & Shen, 2012b). The two parties frequently end up proceeding with their respective agenda and have no one to turn to when encountering problems.

Resource Rooms

For the placement type which uses resource rooms, special education children are placed in regular classrooms together with their typically-developing peers. The classroom curricula are not adjusted for the needs of special education students except that these students will be removed during certain sessions from the regular classroom to the resource room to receive special education in an isolated environment (i.e. resource rooms). If needed, special education teachers can engage themselves in collaborative teaching in the regular classroom or deploy teacher assistants, volunteers, interns, or special education teachers to assist while these students are in regular classrooms (Wang, 2003).

Method

The State of Early Childhood Special Education 2009-2014

The data analyzed in the current study were drawn from the statistics published by Ministry of Education (2015), which covered all 22 counties and cities in Taiwan. The Ministry of Education maintains the website and updates the data every month. This study

specifically drew the data that spanned three years before and after the launch of the Early Childhood Education and Care Act in 2012 (from 2009 to 2014). The latest administrative district map was used for this study which included six cities under the direct jurisdiction of the Executive Yuan (“Special Municipalities”) and 16 counties and cities under the jurisdiction of the councils within the Executive Yuan. Statistics collected for the cities which were later merged to form the Special Municipalities were also combined accordingly.

Results

Numbers of Special Education Students in Regular Preschools Before and After the Early Childhood Education and Care Act

According to statistics provided by the Ministry of the Interior (2016), the number of births in Taiwan has declined since 1997 and dropped from 326,002 in 1997 to 213,598 in 2015 – a reduction by one third, which demonstrated a pronounced trend of low birth rate. Yet, the total number of preschoolers with special needs increased from 11,405 in 2009 to 15,389 in 2014. Although the number of special education students in special education schools dropped from 216 in 2009 to 170 in 2014, the number of special education students in regular schools had increased. In fact, the numbers of special education students placed in centralized special education classrooms and in inclusion classrooms had both trended up (see Table 1).

Table 1. *The Numbers of Preschool Special Education Students Placed in Self-contained Special Education Classrooms and Non-Self-contained Special Education Classrooms*

Year	2009	2010	2011	2012	2013	2014
Self-contained	758	810	816	830	838	846
Non- Self-contained	10647	11341	11487	13196	14072	14543
Resource Room	179	132	92	128	100	134
Itinerant Service	3887	4366	5037	6446	8019	8567
Special Education Program Delivered in Regular Classrooms	6581	6843	6358	6622	5953	5842

In particular, the number of special education students not placed in centralized special education classrooms increased sharply to 13,196 in 2012 and 14,543 in 2014. In 2014, as much as 94.5% of preschool special education students in the country were placed in inclusion classrooms instead of centralized special education classrooms. Less than 1% of these students utilized resource rooms, 55.6% received itinerant services and 38% received special education programs delivered in regular classrooms.

Changes in the Numbers of Students Receiving Itinerant Services and Special Education Programs

The largest change was seen with the number of special education students receiving itinerant services, which increased by 4,680 from 2009 to 2014. The highest increases were seen in 2012 and 2013 of 1,409 and 1,573, respectively, after the rollout of the Early Childhood Education and Care Act (see Table 2).

Table 2. *Changes in the Numbers of Preschool Special Education Students Placed in Self-contained Classrooms and Non- Self-contained Classrooms 2009-2014*

Year	2009 ~2010	2010 ~2011	2011 ~2012	2012 ~2013	2013 ~2014	2009 ~2014
Self-contained	+52	+6	+14	+8	+8	+88(12%)
Non- Self-contained	+694	+146	+1709	+876	+471	+3896(37%)
Resource Room	-47	-40	+36	-28	+34	-45
Itinerant Service	+479	+671	+1409	+1573	+548	+4680
Special Education Program in Regular Classrooms	+262	-485	+264	-669	-111	-739

After the launch of the Act, the increase in itinerant services was most pronounced in Kaohsiung City and Keelung City, by more than 60%. In Tainan City, Changhua County, Chiayi City, and Penghu County, however, the total percentages of students receiving itinerant services actually dropped. The highest percentages of special education students receiving itinerant services were found in Kinmen County (97%), Miaoli County (91%), Pingtung County (89%), Taipei City (87%), and Nantou County (80%) (see Table 3).

As the result of the increased uptake of itinerant services, the numbers of students

Table 3. The Numbers and Percentages of Special Education Students Receiving Itinerant Services in Counties and Cities 2009-2014

	New Taipei City	Taichung City	Kaohsiung City	Taipei City	Tainan City	Taoyuan City	Changhua County	Yunlin County	Pingtung County	Miaoli County	Yilan County	Hsinchu City	Hualien County	Hsinchu County	Chiayi County	Nantou County	Chiayi City	Taitung County	Keelung City	Kimmen County	Penghu County	Liencyang County
2009	640	944	49	768	219	44	110	56	164	147	88	0	152	0	93	171	115	46	12	48	21	0
	34%	75%	5%	46%	28%	5%	14%	12%	37%	44%	24%	0%	52%	0%	41%	73%	67%	45%	9%	94%	30%	0%
2010	806	10-58	81	774	274	92	153	18	126	165	88	0	198	2	72	253	44	50	34	57	21	0
	40%	74%	8%	48%	33%	10%	19%	3%	29%	46%	32%	0%	58%	1%	34%	87%	26%	43%	26%	86%	29%	0
2011	754	11-32	188	11-01	306	141	193	53	124	356	94	0	206	14	26	134	11	98	27	70	9	0
	37%	71%	17%	76%	34%	16%	25%	10%	30%	85%	32%	0%	60%	6%	13%	54%	6%	74%	22%	80%	18%	0
2012	805	13-27	296	14-44	385	193	62	47	355	439	131	0	210	116	105	142	83	80	80	103	43	0
	36%	73%	23%	88%	38%	19%	7%	8%	77%	90%	32%	0%	61%	40%	35%	63%	49%	48%	56%	99%	67%	0%
2013	10-67	14-55	701	13-88	565	252	426	64	419	462	171	0	241	88	111	179	90	120	103	93	24	0
	45%	79%	46%	87%	50%	23%	41%	11%	87%	91%	38%	0%	68%	26%	36%	77%	43%	69%	73%	98%	44%	0%
2014	15-15	14-78	11-25	13-49	255	369	119	106	462	469	168	38	265	126	117	189	107	104	116	86	4	0
	60%	79%	65%	87%	22%	32%	11%	20%	89%	91%	42%	10%	74%	37%	38%	80%	48%	53%	77%	97%	9%	0%

* Percentage = Number of Special Education Students Receiving Itinerant Services / Total Number of Special Education Students in Regular Preschools

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Table 4. The Numbers and Percentages of Students Receiving Special Education Programs in Regular Classrooms in Counties and Cities 2009-2014

	New Taipei City	Taichung City	Kaohsiung City	Taipei City	Tainan City	Taoyuan City	Changhua County	Yunlin County	Pingtung County	Miaoli County	Yilan County	Hsinchu City	Hualien County	Hsinchu County	Chiayi County	Nantou County	Chiayi City	Taitung County	Keelung City	Kinmen County	Penghu County	Lienchiang County	
																							Number
2009	994	247	724	774	554	757	632	409	247	160	221	228	92	129	129	32	40	52	109	3	47	1	100%
2010	10-05	314	814	708	548	777	617	543	266	169	148	243	101	163	128	7	102	52	79	9	50	0	100%
2011	10-73	405	749	766	446	856	776	976	616	476	536	866	296	976	616	26	616	446	616	146	696	0	100%
2012	12-01	457	823	0	621	799	830	544	77	20	237	284	20-09	170	189	52	75	74	46	1	21	3	100%
2013	11-31	366	653	0	553	812	580	518	25	17	235	309	83	238	200	23	107	39	23	2	31	8	100%
2014	791	362	461	0	910	727	898	429	29	20	187	307	62	200	186	17	109	75	24	3	41	4	100%
	31%	19%	27%	0%	77%	62%	86%	80%	6%	4%	46%	83%	17%	59%	60%	7%	48%	38%	16%	3%	91%	100%	100%

*Percentage = Number of Students Receiving Special Education Programs in Regular Classrooms/Total Number of Special Education Students in Regular Preschools

receiving special education programs delivered in regular classrooms in these counties and cities dropped to single digits (see Table 4).

Meanwhile, the penetration rate of itinerant services in almost half of the counties and cities that provided these services was less than 50%, including, in ascending order, Lienchiang County (0%), Penghu County (9%), Hsinchu City (10%), Changhua County (11%), Yunlin County (20%), Tainan City (22%), Taoyuan City (32%), Hsinchu County (37%), Chiayi County (38%), Yilan County (42%), and Chiayi City (48%) (see Table 3).

Changes in Percentages Receiving Inclusion in the Six Special Municipalities

On December 25th, 2010, the status of five cities was upgraded and they became “Special Municipalities”: Taipei City, New Taipei City, Taichung City, Tainan City, and Kaohsiung City. On December 24th, 2014, Taoyuan City became the sixth Special Municipality. All the six special municipalities are under the direct jurisdiction of the Executive Yuan. The mayor (or other representatives designated by the mayor such as deputy mayor) of these cities could attend meetings held by the Executive Yuan and voice their opinions. Special Municipalities are conferred with more power and organizational, human, and financial resources than other counties and cities. These municipalities have also seen faster growing populations (Deng, 2015).

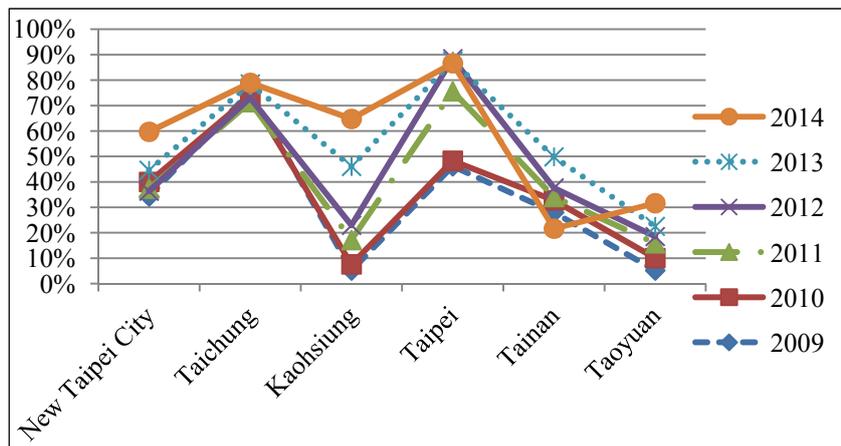


Figure 1. Changes in the Percentages of Preschool Special Education Students Receiving Itinerant Services in Six Special Municipalities 2009-2014

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Among the six Special Municipalities (see Figure 1), Taichung City had been delivering inclusion education since 2009 and seen the percentage of students receiving itinerant services remain steadily above 70%. In response to an increase in demand after the rollout of the Early Childhood Education and Care Act, Taipei City had also made significant strides and as much as 87% of special education students placed in regular preschools in the city were receiving itinerant services or supported by resource rooms in 2014, with 0% of special education students receiving special education programs delivered in regular classrooms (see Figure 2).

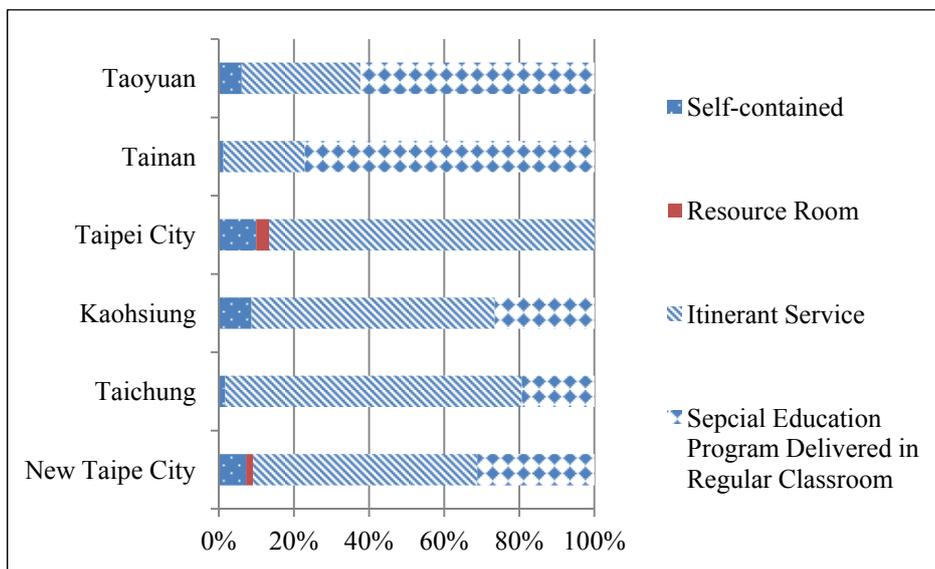


Figure 2. Types of Placement for Special Education Students in Regular Preschools in Six Special Municipalities in 2014

The percentages in New Taipei City and Kaohsiung City were also higher than 60% in 2013 and 2014. Meanwhile, the percentages of students receiving itinerant services in Tainan City and Taoyuan City still hovered around 20-30% (less than half of the preschool special education students).

Discussion

Challenges in Implementing Inclusion Before and After the Early Childhood Education and Care Act

In response to the trend of inclusion, more than 90% of special education children were enrolled in regular classrooms by 2014. Even though the teacher-student ratios before and after the implementation of the Early Childhood Education and Care Act remained essentially the same, first-line regular preschool teachers not only had to adapt to the demand and stress created by the new environment after the launch of the Act, but also faced inclusion-related challenges: 1) a wide spread of age groups among special education students in the classroom – after the Act, preschools can enroll children aged as young as two up to the age when they are eligible for enrollment in primary school; 2) a lack of administrative support and thus a larger workload for the preschool teachers due to the increased number of special education students in the classroom and the additional administrative processes required, for example, submitting applications (for young children with disabilities) for education subsidy, related specialists, temporary teaching assistants, insurance, itinerant teachers and assistive equipment as well as formulating individualized education plans and attending meetings; 3) insufficient knowledge about and capabilities to provide special education which deals with learning and behavioral problems of young children with special needs; 4) inability to respond to the needs of both special education children and those without disabilities; 5) insufficient related support and other necessary supportive measures; 6) problems with professional collaboration and teacher-parent communication; and 7) skepticism about or halfhearted acceptance of inclusion by other related personnel (Chiu & Wei, 2014; Chung, 2001; Hsu, 2001; Hsu, 2006; Kemp & Carter, 2005; Lee, 2014; Tsai, 2002; Wang, 2003; Wang & Shen, 2012b; Yu & Huang, 2014). The practitioner experience shared by Feng (2005) echoes these observations:

In general, teachers in regular classrooms seldom volunteer to accept children with special needs. The only administrative incentive that the total number of students in the classroom can be reduced by two is simply not enough to motivate teachers to willingly accept special education students. Hence, lotteries are drawn for student allotment, and teachers are usually not mentally prepared for these students (p. 45).

Recruiting a large number of teachers during a short period of time has also led to a major personnel shift and uneven quality of recruits, which deepens the challenges in training new recruits to acquire related professional knowledge and capabilities. Teachers' background can also affect the level of difficulty which they may experience. For example, first-time preschool inclusion teachers tend to experience more stress than those with some experience. Teachers in Southern Taiwan also experience more stress than those in Northern Taiwan (Chung, 2001; Wang & Shen, 2012b). Furthermore, parents often view preschool personnel as "babysitters – a role which any mother can fulfill" (Lee, 2014, p. 8). This perception has rendered preschool caregivers' role even less rewarding.

Be it itinerant service or resource room, if regular classroom teachers can receive appropriate support, not only their teaching experience and confidence but also their teaching effectiveness with special education children and these children's learning effectiveness will all increase (Dinnebeil, McInerney, & Hale, 2006; Wang, 2003; Wang & Shen, 2012a).

Changes in the Numbers of Students Placed in Inclusion Before and After the Early Childhood Education and Care Act

Despite the consistent low birth rate in recent years, the data from the Ministry of Education (2015) showed an increase of special education students placed in regular preschools. Except a few counties and cities where the trend had fluctuated somewhat (e.g. Taipei City), the majority of counties and cities had seen a steady growth of these students. In terms of placement, while the number of special education students placed in centralized special education schools slightly dropped, the number of preschool special education students placed in inclusion classrooms increased dramatically, with the sharpest increase taking place after the launch of the Early Childhood Education and Care Act 2012.

In particular, the number of inclusion special education students receiving itinerant services increased significantly after the rollout of the Act, which was also matched with a significant overall drop in the number of students supported by special education programs delivered in regular classrooms. However, the delivery of itinerant services varied greatly across counties and cities. Furthermore, in 2014, although more than half of the preschool

special education inclusion students in the country were supported by itinerant services, these services in almost half of the counties and cities failed to reach half of the inclusion students in their jurisdictions, which is indicative of a high percentage of regular preschool teachers yet to receive professional support for special education.

The delivery of itinerant services also varied among the six Special Municipalities, despite the richer resources available to these cities. While high percentages of special education students were receiving itinerant services in cities like Taichung, Taipei, New Taipei, and Kaohsiung (indicative of a high degree of compliance of the Early Childhood Education and Care Act), the percentages of students receiving itinerant services in Tainan City and Taoyuan City hovered around 20-30%, suggesting that more than two-thirds of the students were still receiving special education programs delivered in regular classrooms – again, an indicator of the lack of professional support of special education provided to the regular preschool teachers.

The current education policy does not contain any specific provisions related to ‘educational placement.’ The lack of clear definition and policy specifics in the Special Education Act (2014) which governs the delivery of special education programs in regular classrooms has created loopholes. Counties and cities can claim full compliance with existing policies by simply placing special education students in the same classroom with their typically-developing peers without necessarily providing them with professional special education support. Special education students merely share the same physical space with their typically-developing peers while their right to and interest in learning are neglected or they themselves become subjected to derogatory labels (Liu, 2003; Liu & Tseng, 2012).

Conclusion

Based on the results of this study, the first recommendation is to adopt a dual-track approach to clearly define the different types of services in support of preschool inclusion. The literature collected and research results compiled by the Early Childhood Research Institute on Inclusion (ECRII) from 1994 to 2000 of the Department of Education in the

U.S. and the National Professional Development Center on Inclusion (NPDCI) from 2006 to 2012 showed that although many different notions may be associated with preschool inclusion, the most essential is to help students build a sense of belonging as well as the ability to engage and fulfill their potential to the fullest extent in a diversified society. To deliver high-quality inclusion and the expected outcomes of the family and the children will require professional teaching, intervention, and support (Odom et al., 2011). To comply with the policy of “special education programs delivered in regular classrooms” (Enforcement Rules of the Special Education Act, 2013, para. 5) in the name only by placing special education students in regular classrooms without providing any professional special education support only amounts to a low-quality and ineffective intervention, which could even hinder families and children from reaping the fruits that they expect.

Although the number of special education students placed in preschool inclusion classrooms increased dramatically after the launch of the Act, the delivery of services varied greatly across counties and cities. Thus, what is urgently needed is to adopt a dual-track approach. At the national level, the Ministry of Education needs to outline the threshold specifications for “special education programs delivered in regular classrooms” by incorporating the specifics of distributed resource rooms and itinerant services which are enumerated in existing Enforcement Rules of the Special Education Act (2013, para. 5). At the local level, the agencies in charge in local governments should retain the autonomy to formulate the actual content, processes, and self-governing rules (Special Education Act, 2014) to deliver inclusion classroom programs. Furthermore, for the six Special Municipalities which have at their disposal even more organizational, human, and financial resources, it is critical to monitor closely how the related policies are implemented and how the allocation of educational resources is responding to the needs of the special education community.

Besides, it is important to assess how to effectively allocate special education personnel. Because of the personnel shortage, preschool inclusion placement has been implemented differently depending on the system that governs the implementation and the resources available (Liou, 2006). Some counties and cities rely on preschool special education teachers of the Education Department while others resort to preschool teachers and caregivers in private organizations or centers. Both models are also combined to deliver

itinerant services in some cases. How to integrate and ensure quality delivery of these different services would require additional research and further examination so solutions can be developed.

Additionally, how to capitalize on human resources such as certified or well-trained but unemployed teachers promises another source of solutions to address the problems. Meanwhile, although resource room placement accounts for less than 1% of the total inclusion and is currently the least prevalent service type, Wang (2003) proposed a service transformation by leveraging the on-site resource room to more effectively utilize the human resources available. As needed, special education teachers may participate in collaborative teaching in the regular classroom. Teacher assistants, volunteers, interns, or special education teachers may also be deployed to assist in teaching. This proposed solution differs from the conventional resource room placement which removes students from regular classrooms and places them in resource rooms only during selected class sessions and is worthy of further research and development as well as evaluation so human capital and additional resources can be more effectively utilized to optimize the special education support to preschool inclusion.

Limitations

In the meantime, interpretations of the results of the current study need to take into consideration the following research limitations. First, to address the shortage of special education personnel, except preschool special education teachers on the staff of the Education Department, counties and cities might have relied on teachers and caregivers in private organizations or development centers, or a combination of both to deliver itinerant services. As the research data was mainly sourced from the Special Education Transmit Net, the number of itinerant services in certain counties or cities might be underestimated because the private organizations providing such services could not be input to the Net's database. In addition, a small number of special education children might have been placed in classrooms without submitting applications for itinerant services yet, which could also lower the count.

Second, related literature has shown that itinerant services can be implemented quite

differently. However, given the limitations of the database, the current study could analyze only the types of placement but not to the level of the actual services delivered for a particular placement. Hence, future research could delve deeper into how to deliver itinerant services through effective interventions.

One such intervention particularly promising is the application of natural environment intervention to preschool inclusion (Copple & Bredekamp, 2009; Liu & Tseng, 2012; McWilliam et al., 2001). What is the most important for special education children is not the placement in a special environment but rather the receipt of specialized teaching. The ideal model is to blend the goal and teaching typical in the natural environment with specialized and individualized instructions tailored to special education children. Through the efforts of an interdisciplinary team, the special education teacher collaborates with the inclusion classroom teacher to design the curriculum and helps the inclusion room teacher implement the teaching plan (Carta, Atwater, Schwartz, & McConnell, 1991; Odom, 2000). Many scholars in the country have advocated for more utilization of natural environment intervention in preschool inclusion and related teacher training (Huang, 2002; Tsai, 2005). However, the mainstream delivery of itinerant services in Taiwan still revolves around special education teachers providing consultation based on the situations at hand, moving students out of the regular classroom, or working with the special education student one-on-one in the regular classroom. More research on and empirical application of natural environment intervention to preschool special education students is urgent.

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