國立政治大學教育學系碩士論文

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台灣與荷蘭輕度智能障礙中學生的個別化教育研究

Individualized Education For Mildly Mentally Impaired Secondary Education Students In Taiwan And The Netherlands

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台灣與荷蘭輕度智能障礙中學生的個別化教育研究

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摘要

近來教育的研究，特別是輕度智能障礙的研究有減少的趨勢。通常這一類的學生會合併其他高出現率的障別，而不同的研究認為這些障別會有不同的特質。本研究旨在著重中學階段輕度智能障礙學生尤其是個別化教育，因為學者專家共同指出這些學生需要個別化教育。台灣、荷蘭在中學階段與輕度智能障礙有關的政策也強調符合學生個別需求、興趣和能力，所以這兩個國家可以在個別化教育這一方面做比較。

本論文的目的將研究與比較以下兩方面： (1) 台灣與荷蘭在中學階段之個別輕度智能障礙學生有何全國教育政策；期許和需求與關於達成 (2) 兩國的學校與老師如何落實個別輕度智能障礙學生的教學。為達成此目的，研究者擬蒐集兩國相關教育政策資料，以及與學校主要成員進行深入的半結構訪談。在資料分析過程中，會著重在兩國的政策和個案學校特殊狀況。而後將相互比較兩國對輕度智能障礙學生之個別化教育政策與學校執行情況，能對兩國的輕度智能障礙學生的個別化教育有所了解。以增進兩國在此方面的相互學習與借鏡。

本研究指出在台灣和荷蘭個別化教育的歷程皆受到不同世界潮流的影響。最明顯的是現標準化本位改革在台灣已經成為一種趨勢，而學生導向的個別化教育計畫概念在荷蘭的學校個案是受到支持的。此外，在台灣教育政策和規範的訂定是由中央到地方，而在荷蘭教育方案的發展則由各校自行訂定。在個案學校的主要研究發現是，荷蘭個案在個別化教育歷程中被賦予比較多正式責任，而台灣個案相形之下較少。

此外，在台灣、荷蘭組成個別化教育的項目在個別的中學低年級和高年級相當不同，而兩國的中學個別化教育項目同時呈現相同與相異之處。該研究基於研究發現提出部分建議，並針對未來可能的研究提出建議。

【關鍵詞】個別化教育、輕度智能障礙、中等教育、台灣、荷蘭

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ABSTRACT

Research into education for, specifically, the mildly mentally impaired has in recent years decreased. Often this population of students is combined with other high incidence disabilities while significant differences in characteristics have been recognized. This research project, therefore, specifically focuses on the population of mildly mentally impaired students in secondary education and particularly individualized education, since there is a consensus among academics that this population of students has a need for a system that allows for individualized education. Policies regarding education for mildly mentally impaired in secondary education in both Taiwan and the Netherlands also stipulate a program tailored to a student's individual needs, interests and abilities and, thus, a level of comparability between these two countries is assured.

The purpose of this dissertation is to investigate and compare (1) the national policies for meeting the individual educational wishes and needs of mildly mentally impaired secondary education students in Taiwan and the Netherlands and (2) how these policies are implemented in high-quality school cases in both countries. To achieve this purpose, the researcher collected relevant policy documents and performed in-depth, semi-structured interviews with key staff members at the school cases. During the process of data analysis, due attention was given to the fact that both the countries' policies, as well as the school cases, are embedded in their own unique contexts. Upon analyzing the gathered data, a comparison of both countries' individualized education systems for mildly mentally impaired secondary education students was performed, highlighting similarities and differences.

The findings of this research project indicate that the process of individualizing education has been shaped by national cultures as well as different worldwide trends in both Taiwan and the Netherlands. Most notably, there has been a drive for standards-based reform

in Taiwan while in the Netherlands the concept of the student-led IEP has found an advocate in the school case researched. Furthermore, relevant educational policies and regulations are created and enforced in a top-down manner in Taiwan while the Netherlands shows elements of a bottom-up approach. Among the major findings from the school cases is that the Dutch case shows a student who is endowed with a greater degree of formal responsibility in the process of individualizing education than the Taiwanese counterparts at both the lower and upper level school cases. Furthermore, in both countries, individualized education at the lower and upper secondary education stages consists of different elements. The degree to which these elements are present in Taiwan and the Netherlands shows similarities and differences. This report concludes with recommendations based on the findings, and suggestions for possible future research are offered.

Keywords: individualized education, mild mental impairment, secondary education, Taiwan, the Netherlands

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Chapter 1 Introduction

1.1 Research Background and Motivation

This research project aims to investigate and compare the national policies for meeting the individual educational wishes and needs of mildly mentally impaired secondary education students in Taiwan and the Netherlands and how these policies are implemented in high-quality school cases in both countries.

While the diagnosis of mild mental impairment is one of the most frequently applied diagnoses of disability (one of the high incidence disabilities), "little current research is conducted on this population at the secondary level when considering curriculum and instructional environments" (Bouck, 2004, p. 368). This is in contrast to the past when "the field of mild mental retardation was described as being "center stage" in special education…[and] literature was replete with research and programmatic contributions that assessed educational programs for individuals with this disability as well as providing models for curriculum and instruction" (Polloway, 2006, p. 186). Researchers, therefore, believe that the field of research into mild mental impairment is becoming endangered (Bouck, 2005; Fujiura, 2003; Polloway, 2004). Bouck (2007) performed a review of *Education and Training in Developmental Disabilities*, which showed that between 1998 and 2005 only 13 studies explicitly referenced students with mild mental impairment. During that same timeframe, two appeared in *Exceptional Children* and six in *Journal of Special Education*. Often research on secondary education for students with mild mental impairment was combined with other categories. Most often, these other categories were learning disabilities and emotional impairments, as both are, together with mild mental impairment, high-incidence disabilities. However, research has indicated that there are cognitive differences between children with learning disabilities and mild mental impairment (Scott & Perou, 1993). Furthermore, based

on a review of eight studies examining the way students with learning disabilities and mild mental impairment learn with respect to the three instructional contexts of inductive reasoning tasks, guided inquiry, and relatively long-term academic interventions, Caffrey and Fuchs (2007) found that there were relevant differences between learning disabilities and mild mental impairment.

Similarly, there are also qualitative differences between individuals with mild impairment and ones with higher levels of impairment. While individuals with moderate and severe mental impairment are expected to require assisted care throughout their lives, the majority of individuals with mild impairment are expected to live independently or semi-independently and hold steady jobs. In an educational setting this means that while students with moderate to severe mental impairment may focus on studying employment, transportation, recreation, cooking, and social skills, "many children with milder forms of intellectual disabilities can learn basic academic skills as well" (Kauffman & Hung, 2009, p. 452). If these different outcomes are considered, it can be argued that there should be significant differences in educational programming (Bouck, 2004). Therefore, in research, "aggregating data for students with [mild mental impairment] with data for either [learning disabilities] or moderate and severe mental impairment makes effective, targeted, and informed decision making difficult" (Bouck, 2004, p. 368). If these data (those students diagnosed with mild mental impairment and other high incidence disabilities) are not segregated, the quality of research is affected and questions about the validity of findings can be raised. This researcher intends to make such segregation of data a foundational point of this research project.

The current debate about provision of education to mildly mentally impaired students could be broadly defined as a question of where to teach them (inclusive education or special schools) and what to teach them (access to the general curriculum or a functional curriculum

addressing the daily needs of this particular group of students). However, there is a consensus that this population of students, as well as other special needs students, has a need for a system that allows for individualized education. This entails tailoring education to a student's individual interests, strengths, weaknesses, or other educational needs. In recent years, research covering this issue, specifically applied to mildly mentally impaired students, has especially stressed the need for increased student involvement in the process of individualizing education.

At one level it is obvious that Taiwan and the Netherlands are two different countries, contrasting in, among other things, cultural orientation, levels of economic development, and, importantly, educational systems. Secondary education provision for the mildly mentally impaired therefore has different features in Taiwan and the Netherlands. While both countries try to achieve inclusion of this student population into mainstream education, the educational setting is very different.

In Taiwan, mildly mentally impaired students at the lower secondary education level mostly attend regular education classes while receiving additional special education services in a resource program. At the upper secondary education level, students attend a vocational program specially designed for them but situated inside a regular education school.

In the Netherlands, the mildly mentally impaired students in secondary education (lower and upper level) follow a program specifically designed for this population while also joining their regular education counterparts for vocational classes. The Netherlands has an educational system tracked according to academic ability, and the mildly mentally impaired follow the lowest of the four tracks. Although this track has special education features, it is still considered to be part of mainstream education. Since the mildly mentally impaired also join classes in the track directly above them, inclusion with students without special needs is achieved.

Educators of mildly mentally impaired students in both countries are required to ensure that the individual needs of these students are met when educating them. It is therefore interesting to see what the meaning of this common feature is in the context of both countries and how the process of individualizing education is achieved in these different educational settings.

Although the concept of 'best practices' is not a concept that travels across international borders easily, the findings are still put into the context of worldwide trends which are relevant to this research project. The reason for this is that both countries' policies have been shaped by some of these current trends. Nevertheless, both countries have unique circumstances which shape their particular educational programs and this particular context should also be taken into account. Therefore, the findings of this research project will seek to explore the current state of individualized education of mildly mentally impaired students within the historical, socio-economic, cultural, political, and demographic contexts of both countries.

The value of comparative studies in the field of education is that they help people understand their own educational system as well as that of another country (Fairbrother, 2005). This value is reflected in the fact that the World Council of Comparative Education Societies (WCCES), which was formed in 1970, now has 35 member societies spread across the world on six continents (WCCES, 2010). Especially in the era of globalisation, comparative education "should be reinvigorated as a vehicle to assist academics and practitioners to understand the changes around them" (Bray, 2003, p. 219). A comparative research project such as this can also encourage practitioners to appreciate their nations' education systems as well as to heighten their awareness of shortcomings (Bray, 2003).

The researcher is in the favourable position of having lived in both Taiwan and the Netherlands for extensive periods of time. While Dutch is his mother tongue, he has also

become sufficiently proficient with the Chinese language that the interviews needed for this research project, as well as the researching of documents (albeit with local support), were performed by the researcher himself in the native language of the countries researched. Considering these circumstances, it can therefore be argued that a comparative research project into the educational provision of these two countries has been a unique opportunity which does not present itself frequently.

1.2 Research Purpose

1. To research and compare national policies for meeting the individual educational needs of mildly mentally impaired students in the secondary education systems of Taiwan and the Netherlands
2. To investigate and compare the practical implementation of these national policies for meeting the individualized educational needs of mildly mentally impaired students in high-quality programs in specific Taiwanese and Dutch school cases

1.3 Research Questions

1. What are the national policies for meeting individual educational wishes and needs of mildly mentally impaired students in secondary education of Taiwan and the Netherlands?
2. What system, containing which tools, is present for individualizing education of mildly mentally impaired students in the Taiwanese and Dutch secondary school cases?
3. Who performs relevant tasks for individualizing education for mildly mentally impaired students in the Taiwanese and Dutch school cases?
4. When and how often these relevant tasks performed in the Taiwanese and Dutch school cases?
5. Where are relevant tasks performed in the Taiwanese and Dutch school cases?

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6. What are the methods, used by school staff members involved, for individualizing education for mildly mentally impaired students in the Taiwanese and Dutch school cases?
7. What is the rationale, of the Taiwanese and Dutch school cases' staff members involved, behind these methods for individualizing education for mildly mentally impaired students?
8. What are the practical outcomes of the methods used for individualizing education for mildly mentally impaired students in the Taiwanese and Dutch school cases?
9. What are the similarities and differences in Taiwanese and Dutch policies regarding individualizing education for mildly mentally impaired secondary education students, and what are similarities and differences in the implementation of these policies in the two countries' specific school cases?

1.4 Definitions of Terms

Individualized Education

This represents the formal and informal process of adapting secondary education to the individual interests, strengths, weaknesses, or other educational needs of the individual student. This process can be directed by, but is not limited to, such tools as the Individualized Education Program (IEP) as well as the Individual Transition Plan (ITP), or certain other student support tools.

Mild mental impairment

According to the American Association on Intellectual and Developmental Disabilities (AAIDD) (2002), mental impairment is a "disability characterized by significant limitations both in intellectual functioning and in adaptive behaviour, which covers many everyday social and practical skills. This disability originates before the age of 18."

The AAIDD (2002) assesses a mildly mentally impaired individual's intellectual functioning as being between two to three standard deviations from the mean, or equivalently within the IQ range of 50-55 to approximately 70 points, while also showing concurrent deficits in adaptive behaviour.

Mental impairment is also referred to as, among others, mental retardation, mental disability, mental deficiency, cognitive impairment, and, in the United Kingdom, as learning disability (British Institute of Learning Disabilities, 2009), although this should not be confused with the other, more commonly used, conception of learning disabilities (National Center for Learning Disabilities, 2009).

While both Taiwan and the Netherlands use definitions, for mildly mentally impaired students in education, based on the one provided by the AAIDD, it is important to note here that both countries use slightly different definitions. These definitions will be covered in detail in the following chapters.

Secondary Education

The term secondary education refers to the stage between the primary (or elementary) phase of education and higher education (or tertiary education).

1.5 Research Extent and Limitations

As is common with qualitative case studies, purposive sampling has been used for this research project. Therefore, the findings from this research project cannot be generalized to other schools in either country. These school cases are not typical examples but instead represent high-quality implementations of national policies.

The process of individualizing education for mildly mentally impaired students in secondary education involves a wide range of people. This research project intends to

investigate national policies and their subsequent implementations by relevant school staff members. This does not mean that the researcher considers the input of other parties in this process, including the students themselves, to be less significant. On the contrary, these parties' contributions could be pivotal to the process of individualizing education, and are deserving of attention. Nevertheless, as research projects are inevitably narrowed down to avoid data overload, interviewing these individuals is beyond the scope of this report.

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Chapter 2 Literature Review

This chapter will give an overview of the worldwide context of the "who" (mildly mentally impaired students), "where" (secondary educational program setting), the "what" (secondary education curriculum), and the "how" / "when" (individualizing education). This will be followed by a description of the Taiwanese and Dutch general context, the educational context, and the context of the mildly mentally impaired student population in both these countries' secondary education setting.

2.1 Educational Needs of Mildly Mentally Impaired Students

While in international researches, the term 'retardation' "remains the most commonly used referent at this time" (Polloway, 2006, p. 184), the term 'impairment' is also widely used. The researcher has opted to use the term 'impairment' as he believes it to have less negative associations than 'retardation'.

Mental impairment "generally refers to delayed intellectual growth and is manifested in inappropriate or immature reactions to one's environment and below average performance in the academic, psychological, physical, linguistic, and social domains" (Patton, Payne, & Beirne-Smith, 1990, p. 33). Individuals with mild mental impairment "demonstrate adaptive behaviour and intellectual functioning at the upper end of the [mental impairment] continuum" (Patton et al., 1990, p. 198).

The American Association on Intellectual and Developmental Disabilities has been the leading organization in defining mental impairment (Greenspan, 1999). This organization formerly assessed (currently this assessment is still most often used worldwide) a mildly mentally impaired individual's intellectual functioning as being between two to three standard deviations lower than the mean, or equivalently within the IQ range of 50-55 to

approximately 70 points (AAIDD, 2002). Currently, a definition based on the level of support needed is used by the AAIDD, ranging from intermittent to pervasive. A person with mild mental impairment is now referred to as a person needing intermittent support. Scholars concluded that this new classification model was largely ignored after its introduction (Polloway, Smith, Chamberlain, Denning, & Smith, 1999). Therefore, in Taiwan and the Netherlands, when measuring levels of mental impairment, authorities still refer to the previous AAIDD classification of impairment which ranges from mild to profound (Dosen, 2005; 陳麗如，2005). A more elaborate description the diagnosis of mentally impaired individuals in Taiwan and the Netherlands can be found in sections 2.5.3. and 2.6.3.

Apart from intellectual functioning, standardized tests can also determine concurrent deficits in a mentally impaired individual's adaptive behaviour, which is comprised of three skill types (AAIDD, 2002):

1. *Conceptual skills*: language and literacy, money, time, and number concepts; and self direction
2. *Social skills*: interpersonal skills, social responsibility, self-esteem, gullibility, naïveté (i.e., wariness), social problem solving, and the ability to follow rules / obey laws and to avoid being victimized
3. *Practical skills*: activities of daily living (personal care), occupational skills, healthcare, travel / transportation, schedules / routines, safety, use of money, use of the telephone

In summary, the characteristics of the mild variant of mental impairment can be broken down into the following fields relevant to this condition (Patton et al., 1990):

1. *Communication skills*: ability to listen and speak effectively, can carry on an involved conversation, may have some difficulty understanding some concepts and vocabulary, restricted expressive vocabulary

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2. *Physical dimensions*: no major problems
3. *Social adjustment*: interactions with others are reasonably acceptable, some social skill deficiencies
4. *Independent functioning*: self-supporting
5. *Occupational / vocational level*: good potential for competitive employment
6. *Academic performance*: can achieve academic competence and literacy

When it comes to education, Bouck (2007) emphasizes that "[s]tudents with mild mental impairment do not have mild needs"(p. 81). As to the specific educational characteristics of this population,

> [m]any scholars…have noted the difficulties of [mildly mentally impaired] students whose school performance is characterised by slow learning rates, reliance on concrete learning experiences, short term memory weaknesses, demands for frequent and specific feedback, and poor generalisation and transfer of learning across contexts or disciplines (Andrew & Williamson, 1994, p. 3).

Education of the mentally impaired includes a selection of functional behaviours to be acquired. Functional skills are those skills which are "useful to students that [give] them control over their environment in terms of obtaining positive and consistent results" (Patton et al., 1990, p. 317). A skill is functional in nature when:

- the skill will be useful and adaptive for that individual,
- the learner is able to use the skill in the immediate environment with positive environmental consequences for the learner in daily interactions,
- the learner is able to use the skill often,
- the skill is a prerequisite for learning more complex skills,
- the student becomes more independent as a result of learning the skill,

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- the skill allows the student to qualify for improved or additional services, or services in a less restrictive setting, or
- modifies a behaviour because it is harmful or dangerous to self or others (Patton et al., 1990).

When considering the educational needs of mildly mentally impaired students, many researchers especially emphasize the two areas of social relationships and self-determination. Based on a historical review of the condition of mild mental impairment, Patton, Polloway and Smith (2000) confirm "that [mild mental impairment] has been, and continues to be, a condition concerned with social competence" (p. 80). While there are multiple conceptualizations of social competence, a common way of viewing it is as a judgement of specific social behaviours (social skills) (Gresham & MacMillan, 1997). Upon finishing their education, young adults with mild mental impairment often experience employment difficulties as well as other adult roles due to a lack of appropriate social behaviour (Black & Rojewski, 1998). These employment difficulties can ultimately lead to these employees losing their job. Research indicates that workers without mental impairment often lose jobs for character reasons while workers with mental impairment more often lose their jobs for reasons involving lack of social awareness (Black & Rojewski, 1998). While adequate social skills will increase the chance of individuals with disabilities to hold a job, these skills also predict important social outcomes in school settings. These outcomes might include peer acceptance, significant others' positive judgements of social competence, academic achievement, adequate self-concept, positive attitudes toward school, and freedom from loneliness (Gresham & MacMillan, 1997). Drawing on the evidence from a number of researches, Elksnin and Elksnin (2001) point out that there is "strong evidence that occupationally specific social skills [for individuals with disabilities] may be even more important than academic or vocational skills" (p. 92) and therefore these occupational social

skills should be included in specific educational programs. Occupational social skills are those social skills related to getting and keeping a job (Elksnin & Elksnin, 2001).

Researches related to education for the mentally impaired also often cover the issue of self- determination. Self-determination has been described by Wehmeyer (1996), as "acting as the primary causal agent in one's life and making choices and decisions regarding one's quality of life free from undue external influence or interference" (p. 24). Self-determined behaviour is shown by actions which have four characteristics (Wehmeyer, 1998a):

1. The person acted autonomously.
2. The person's actions were self-regulated.
3. The person initiated and responded to the events in a "psychologically empowered" manner.
4. The person acted in a self-realizing manner.

In literature, many advocates can be found for the promotion of self-determination in the lives of the mildly mentally impaired as well as other disabilities. Zhang (2001) summarized the reasons of the importance attributed to self-determination as:

1. Self-determination is needed by individuals with disabilities to make successful transitions into adulthood.
2. The ability to exercise choice and self-determination plays a central role in helping individuals with mental impairment improve their quality of life.
3. Individuals with disabilities demand to take charge of their own lives and enjoy self-determination.
4. Self-determination facilitates community integration.

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2.2 Secondary Education Programs for Mildly Mentally Impaired Students

Secondary education is the stage between the primary phase of education and higher education (Wellington, 2006). For some students it is their final stage of education (followed by entrance to the job market or work training) but for others it is a preparation for extended education. This can be reflected in, roughly, a 'segmentation' of secondary education into a vocational path and an academic path.

Special classes for students with mental impairment in Europe and the United States can be traced back to the nineteenth century. However, only since the beginning of the twentieth century have the specific needs of individuals with mild limitations been recognized (Patton et al., 2000). At first, self contained special schools and classes were established as a method of transferring this particular population out of the regular grades. This was in accordance with the predominant paradigm which emphasized segregation in line with a service-based view. The assumption was that pull-out services, often to special classes, were best practice in education provision for mildly mentally impaired students (Patton et al., 2000).

In the 1960s and 1970s, the emphasis shifted from teaching students with disabilities in special schools and classes (exclusive education) to teaching these students within the mainstream education system (inclusive education). In line with this new trend of thought, Dunn (1968), in his seminal article *Special education for the mildly impaired – Is much of it justified?*, called for a stop to the segregation of the mildly mentally impaired from the regular school population. He argued that educators should "stop labeling these deprived children as mentally impaired [and]…stop segregating them by placing them into…allegedly special programs" (p. 6). According to him, labelling would reduce the teacher's expectancy for individuals with disabilities to succeed and removing handicapped children from the

regular grades would furthermore significantly contribute to these individuals' feelings of inferiority and problems of acceptance. These 'slow learning children' should therefore be kept in "the mainstream of education with special educators serving as diagnostic, clinical, remedial, resource room, itinerant and / or team teachers, consultants, and developers of instructional materials and prescriptions for effective teaching" (p. 11).

The current debate concerning education for the mildly mentally impaired is still centred around the question whether or not this population of students should be taught in separate, special, classes only (exclusive education), or if they should be included in the regular classroom (inclusive education). Such inclusive education, also referred to as mainstreaming, can be divided into full inclusion and partial inclusion (Kirk, Gallagher, & Anastasiow, 2000). Full inclusion refers to the student constantly being present in the regular classroom with possible additional support coming from professionals in this classroom ("push in" support). Partial inclusion, entails a student physically leaving the regular classroom for part of the day to attend special classes, for instance in the resource room ("pull out" support).

The inclusion movement has found an advocate in the United Nations which stated in its seminal Salamanca Statement and Framework for Action on Special Needs Education that "[e]xperience in many countries demonstrates that the integration of children and youth with special educational needs is best achieved within inclusive schools that serve all children within a community" (UNESCO, 1994).

Inclusive education is in line with the United States' regular education initiative (REI), which states that students with disabilities should be served exclusively in regular education classrooms and should not be "pulled out" to attend special classes (Sacks, 2001). One of the main rationales behind this initiative is that inclusive education promotes social interaction between regular students and students with disabilities. The concept of *least restrictive*

environment is closely related to this. It involves attempting to educate a special needs child in the environmental setting that maximizes the chances that the child will respond well to the educational goals and objectives set for him or her (Kirk et al., 2000). The REI initiative and its concurrent least restrictive environment policy have also been implemented in various other countries worldwide. Some researchers, however, point out that regular education settings, instead of being less restrictive, can actually be more restrictive as it is not clear which setting most effectively services special needs students (Patton et al., 1990). Therefore, there is a lack of consensus as to what the educational programming should be for secondary students with mild mental impairment. Bouck (2007) summarized research findings related to full inclusion of students with disabilities. Concerning the negative aspects of full inclusion, she highlights that some of the research found that students perform worse academically, but also that students experience social isolation in inclusive settings: "…although physical inclusion may occur, very little integration or social inclusion may actually result for students with mild mental impairment" (Bouck, 2007, p. 83). Concerning positive aspects of inclusion, she points out that some researchers found that students with disabilities make more progress in inclusive classrooms than pullout classes while not widening the gap between special education students and general education students. Furthermore, the classroom environment in inclusive settings was rated in reasonably similar ways by students with disabilities and students without disabilities. Bouck concludes that "there is a philosophical push toward including [mildly mentally impaired] students in general education classes without definitive research that suggests this is the most advantageous for this population" (Bouck, 2007, p. 83). Kauffman and Hung (2009) second this thought by stating that "no reliable research has been done on the matter of where students with intellectual disabilities are best taught" (p. 454). On the other hand, critics of categorical service delivery and instruction (e.g. specifically aimed at the mildly mentally impaired or learning disabled) believe that "categorical labels

lead to overgeneralizations about and stereotypification of students with disabilities, a myopic preoccupation with within-child characteristics, and concomitant disregard for student-environment interaction" (Caffrey & Fuchs, 2007, p. 119).

Inclusive education entails making use of special education support services defined in a special education resource program. For pullout services a resource room is commonly designated as a place where students receive pedagogical support. In this resource room, special needs students remain in a regular education class but also receive special education through the coordinated efforts of the regular education teacher and the resource room teacher (Patton et al., 1990). There is a large variation of resource room programs for special needs students. Figure 2.1 provides an overview of these:

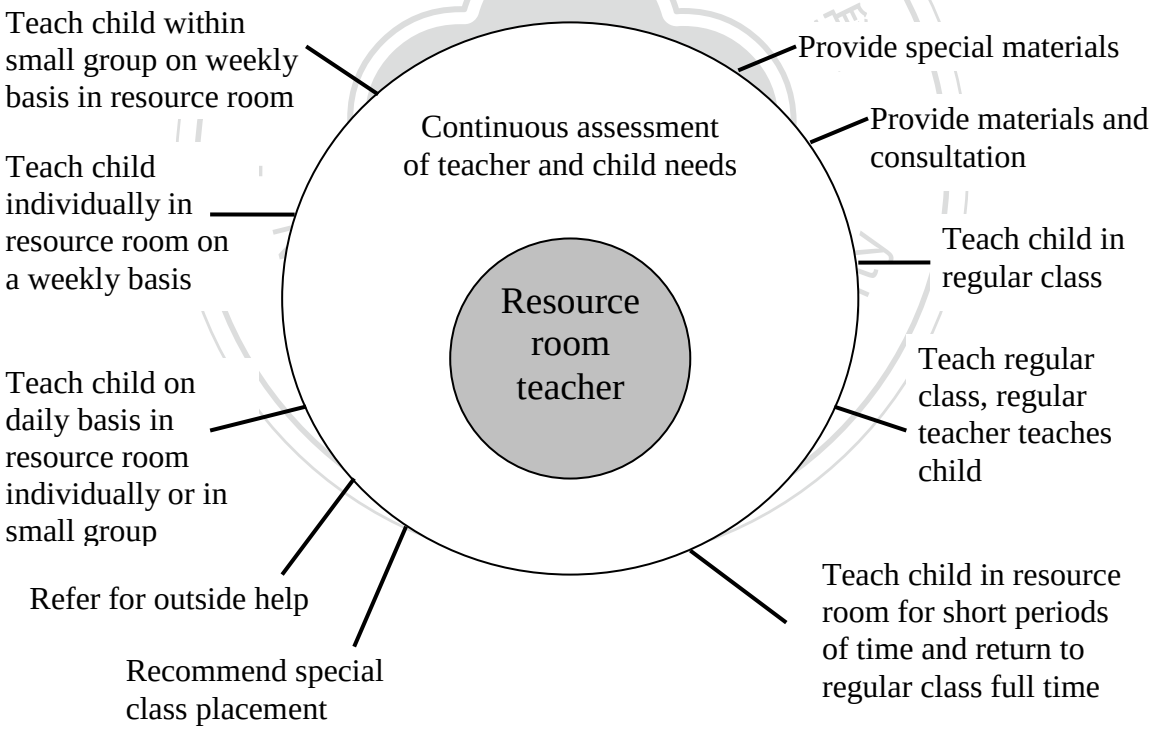

Figure 2.1 Resource room programs

Source: (Patton et al., 1990)

If the least restrictive environment principle is maintained, the resource room is preferred to the part-time special class, and the teacher consultant is preferred to the resource room (Kirk et al., 2000).

2.3 Secondary Education Curriculum for Mildly Mentally Impaired Students

The word ‘curriculum’ is very much a contested concept. It can be very narrowly defined as a course of study to be followed while a much broader definition contests that the curriculum is all the formal and informal opportunities for learning provided by the school (Rose, 2007). The term ‘curriculum’, in this section, will be referred to as the relatively narrow meaning of the particular subject areas and topics that schools and teachers include in their instruction (Brown & Percy, 2007).

While researchers do not always agree on the extent of the curriculum, two international developments have greatly influenced curriculum considerations for students with special needs: inclusion and standard-based reform. Many countries “have enacted educational reforms that attempt to raise standards and to provide a common set of educational experiences for all children” (Rose, 2007, p. 295).

While the educational program setting for mildly mentally impaired students can as of yet not be agreed upon, some believe the specific type of curriculum to be of an even greater importance (Bouck, 2007). Or, in other words, the ‘where’ can not be placed over the ‘what’ (Kauffman & Hung, 2009). “Historically, curricular and instructional practices in programs for individuals with mild mental retardation varied from theory to practice. In theory, the commitment was clearly to a functional orientation in curriculum and preparation for adulthood” (Patton et al., 2000, p. 83). In practice however, “…courses of study…tended to be watered down regular curriculum” (Dunn, 1968, p. 15). The curriculum for students with

disabilities was based on the general education curriculum but modified to fit the expected performance level of these students. The idea was to remediate students' difficulties and help them achieve in the general curriculum, although at a slower pace (Clark, 1994).

In contrast, a functional curriculum is a curriculum designed to teach the skills necessary to live (functional life skills) in an inclusive community (Bouck, 2009). Such a functional curriculum consists of core academic subjects, vocational education, community access, daily living, financial matters, independent living, transportation, social relationships, and self-determination. It is aimed at preparing students to function as independently as possible in an integrated society (Valletutti, Bender, & Sims-Tucker, 1996). When mainstreaming students with disabilities, proponents of a functional curriculum feel that the regular programs should be modified in functional, real-life ways (Valletutti et al., 1996). According to a research covering curricula in American inclusive settings, practice shows that , "…students with high-incidence disabilities [e.g. mild mental impairment] typically receive a remedial curriculum, whereas students with low incidence [more severe] disabilities tend to receive a functional or life skills curriculum" (Bouck, 2004, p. 369). This is based on the common assumption that only students with severe disabilities need a functional curriculum since students with mild to moderate disabilities are assumed to be able to benefit sufficiently from the general education curriculum, albeit with remedial support (Clark, 1994). In line with this view, Wehmeyer (2006) believes that access to the general curriculum for mildly mentally impaired students should coincide with a focus on student performance standards. These standards, however, should not be narrowly defined performance indicators, as is more common in regular education, but the students should rather be allowed to express themselves in a variety of ways and content information should be provided in multiple and flexible formats. Bouck (2007), nevertheless, believes that "this movement toward increasing academic standards in the general education curriculum stands in contrast to both recent and

distant research that indicated vocational education and work experiences are associated with better postschool outcomes, including employment" (p. 82). She believes that there is a lack of evidence that suggests the advantages of including mildly mentally impaired students in the general curriculum.

While the above shows an apparent lack of consensus among researchers, Andrew and Williamson (1994) argue that there is a need for flexible, multi-faceted curricular pathways where "the key curricular research task is how to provide all [mildly mentally impaired] students with commonly agreed outcomes while addressing each of their particular, context-specific, ecological learning needs" (p. 4).

2.4 Individualizing Education for Mildly Mentally Impaired Students

In many countries, the growth of individualism in society has influenced a similar emphasis within the field of intellectual and developmental disabilities (Brown & Percy, 2007). It has become more accepted that people with disabilities have unique needs, wishes, life goals, and capabilities that need to be respected when providing support. This has led to a general shift to individualize planning and instruction.

Individualized education entails a special needs student undergoing individual comprehensive evaluation prior to, and during, placement in a specific educational setting (Strickland & Turnbull, 1990). Within this setting, the support services are determined to assure appropriate education for the individual special needs student. Important is to note that individualized education should be determined by individualized needs, not availability (T. E. C. Smith, Polloway, Patton, & Dowdy, 2004). In contrast to general education, special education can include individualization along eight dimensions of instruction. The special education teacher can (Kauffman & Hung, 2009):

1. vary the pacing or rate of instruction so that it is more appropriate for the individual,
2. increase the intensity of instruction by presenting more trials for a given learning task,
3. be more relentless in working with a student to ensure the acquisition of a concept or skill,
4. provide a more highly or tightly structured environment,
5. provide more explicit and immediate reinforcement for targeted behaviour or the acquisition of particular skills,
6. provide a lower pupil - teacher ratio allowing greater individualization,
7. provide a curriculum appropriate to the student's level of functioning and needed skills, or
8. use more frequent and precise monitoring and assessment.

Prior to individualizing planning and instruction, a comprehensive educational assessment should give an overall picture of the student's functioning level, pinpoint the specific strengths and weaknesses in the student's behavioural repertoire, and clarify the logical next steps in the student's development (Patton et al., 1990).

The emphasis on an individualized approach to educate special needs students can be clearly seen in the Salamanca Statement and Framework for Action on Special Needs Education:

> Special needs education incorporates the proven principles of sound pedagogy from which all children may benefit. It assumes that human differences are normal and that learning must accordingly be adapted to the needs of the child rather than the child fitted to preordained assumptions regarding the pace and nature of the learning process (UNESCO, 1994, p. 7).

Two of the most common tools for tailoring education to special needs students' wishes and needs are the Individualized Education Program (IEP) and the Individual transition plan (ITP). These particular tools are used in many countries although the names

are not necessarily the ones mentioned above. Furthermore, it can also be the case that these two tools are not so clearly separated in certain countries. However, they generally have features which are similar to the tools mentioned below.

Individualized Education Program (IEP)

A well-known tool for individualizing education is the Individualized Education Program (IEP). Although the specifications of this particular program differ per country, the IEP generally contains the following major elements (Patton et al., 1990):

- *Statement of present levels of functioning*. The assessment process determines these levels.
- *Prioritized annual goals*. Goals may be selected and arranged in order of importance using the criteria for selecting functional behaviours.
- *Short-term instructional objectives*. These objectives should be behavioural objectives that provide a clear direction for instruction and ongoing evaluation of student progress.
- *Special education and related services*. Services in addition to those of a classroom teacher which are needed in order to have a program that meets all of the child's educational needs.
- *A statement describing the extent of the child's participation in regular educational programs*. The extent of participation varies according to the child's special needs and limitations, and also to a country's level of inclusion practices for special needs students.
- *Time line of the initiation and duration of services*.
- *Objective criteria and evaluation procedures*.

The formation of an IEP is done by a team of which the members can have a wide range of backgrounds. They can include teachers, psychologists, school administrators, parents, student advocates, nurses, social workers, various therapists, and the student affected (Patton et al., 1990). The exact formation of the team normally depends on the individual student's specific needs.

IEPs are also called Individual Education Plans in certain countries, e.g. the Netherlands, Canada, and the United Kingdom.

Individual transition plan (ITP)

Special needs student transition is the process of moving from one educational stage to the next and eventually to (independent) living in society and (competitive) employment. Most often it is understood as the transition from school to the post-school environment, although some countries (including Taiwan) support a student's transition from one educational stage to the next. When considering student transition as a process of moving on to the post-school environment, the United States based Division on Career Development and Transition (DCDT), defines it as follows:

> Transition refers to a change in status from behaving primarily as a student to assuming emergent adult roles in the community. These roles include employment, participation in post-secondary education, maintaining a home, becoming appropriately involved in the community, and experiencing satisfactory personal and social relationships. The process of enhancing transition involves the participation and coordination of school programs, adult agency services, and natural supports within the community (Halpern, 1994, p. 117).

It should be noted that the transition planning usually occurs in conjunction with the IEP planning process (Sands, Bassett, Lehman, & Spencer, 1998). The most common tool for transition planning is the Individual transition plan (ITP). This tool, again for its more narrow use of preparing for the post-school environment, can contain such planning components as (Wehman, 2002):

- input and participation by the student and his or her family of choice in postsecondary education, employment, community living, etc.;

- participation of parents and guardians who are well informed;
- annual goals along with steps to reach those goals; a list of skills required to function on the job and in the community;
- specific information on who is responsible for each aspect of the process, including referrals to appropriate agencies, job placements, on-the-job-training, and job follow-up;
- a longitudinal format (that begins a number of years before graduation);
- coordination with the IEP during the school years and with the individual rehabilitation plan or service plan;
- encouragement of the coordinated efforts of all appropriate agencies;
- a user-friendly format that is easy for parents and students to understand and take ownership of.

Methods of individualizing education have been influenced by person-centred planning approaches for organizing assistance for people with disabilities. Person-centred planning was developed in the United States in the late 1970s and it is represented by a family of approaches and techniques, which share certain characteristics (Mansell & Beadle-Brown, 2004). Central to person-centred planning is that it is individualized and that it places the person with a disability at the centre. In doing so, person-centred planning (Mansell & Beadle-Brown, 2004):

1. aims to consider aspirations and capacities expressed by the service user rather than needs and deficiencies;
2. attempts to include and mobilize the individual's family and wider social network, as well as the resources from the system of statutory services; and
3. emphasizes providing the support required to achieve goals, rather than limiting goals to what services typically can manage.

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When using the person-centred planning approach in planning transition, the Unites States based National Center on Secondary Education and Transition (NCSET) argues that "[i]t is critical for the young adult with a disability to actively participate in the transition planning meetings" (NCSET, 2004, p. 5). Instead of being a passive observer, the young person needs to be a leader in this process. This also means that this leader is also endowed with certain responsibilities, such as identifying what he / she wants for the future, what kind of support is needed to achieve goals, and coming prepared to share this information with their planning team. Furthermore, "[p]erson-centered planning is a way to identify a student's individual goals and to help students, families, and professionals craft plans that will support students as they strive to achieve their dreams" (NCSET, 2004, p. 2).

Apart from a the person with special needs being at the centre of a transition planning meeting, literature similarly emphasizes special needs students to take control in their IEP meetings as "[i]nvolvement in education planning, decision making, and instruction can take many forms, from students generating their own IEP goals and objectives to students tracking their progress on self-selected goals or objectives" (Wehmeyer, 1998a, p. 5). This researcher believes that such involvement is beneficial to the student as "[r]esearch indicates that students who have the opportunity to choose school activities, show enhanced motivation" (Wehmeyer, 1998a, p. 9). Therefore, "[t]he IEP meeting is the fulcrum for education programming and provides a unique opportunity to give students more control over their education programs" (Wehmeyer, 1998a, p. 8). This concept is known as a 'student-led IEP' or 'self-directed IEP'. Student-led IEPs have advocates in a great number of scholars (Martin et al., 2006; Mason, McGahee-Kovac, & Johnson, 2004; Powers et al., 1998; Sands et al., 1998; Wehmeyer, 1998a). These researchers argue that if IEP meetings are not student-led, "students attending their meetings do not know what to do, do not understand the purpose of

what is being said, and feel as if none of the adult participants listen to them when they do talk" (Martin et al., 2006, p. 300).

Wehmeyer (1998a) identified certain barriers to involvement in education planning by students with disabilities. Among these were:

- *Student competence to make decisions*. Certain educators believe that adolescents with disabilities are incapable of participating in the decision-making process.
- *Student motivation*. Among a number of educators, there is a perceived lack of motivation on behalf of the disabled students to participate in meetings and education programs.
- *Complexity of education process*. Educational planning is considered to be too complex for students by certain educators.

Although these barriers exist, researches claim that they have proved that these barriers are caused by misconceptions (Wehmeyer & Lawrence, 1995). Apart from having actual competence to make decisions, past researches also show a wide range of benefits for students if they are enabled to make decisions. Among these are: increased motivation, higher self-determination, higher levels of conceptual learning, increased retention, higher levels of self-efficacy, and fewer behaviour problems (Doll & Sands, 1998). Furthermore, if a lack of motivation is observed by educators, it is often due to the fact that the student has no control over the process of education planning (Wehmeyer, 1998a). As for the education process being too complex for students with disabilities, Wehmeyer (1998a) believes that the incorrect assumption is that students need to independently perform all educational activities. Students do not need to plan on their own but are supported in this process. Therefore, "[t]he IEP and ITP meetings provide an opportunity for the student to see him- or herself as having control over his or her life and for significant others to see the student as capable and competent" (Wehmeyer, 1998b, p. 154). If students want to become key agents in their own

adult lives, “emphasis must be shifted from transition planning *for* youth to transition planning *with* youth” [emphasis in the original] (Powers et al., 1998, p. 188).

The above also stresses the importance of the student’s family involvement in the planning process. Most importantly, families should encourage and support the student in taking charge of the situation. “Our experiences in working with teenagers suggest that when educators and families are provided with information, strategies, and validation of their support capabilities, educators and families become increasingly interested and proficient in assisting youth to become active in transition planning” (Powers et al., 1998, p. 192).

The NCSET also emphasizes the need for students to explore and create their own goals, even if they seem unrealistic (2004). They stress that “failure is not necessarily something to be avoided; it is a natural part of life” and “a person who is protected from failure is also protected from potential success” (NCSET, 2004, p. 7). Enabling students to explore can be a memorable educational experience and can lead to discovering other pathways to success.

2.5 The Taiwanese Context

2.5.1 Country Profile

Taiwan is located in East Asia on two straits, the Taiwan strait off the south-eastern coast of China, and the Luzon strait connecting the South China Sea with the Pacific Ocean. Taiwan has a total area of 35,980 square kilometres (Library of Congress, 2005). The eastern two-thirds of Taiwan is mainly mountainous with a number of mountains topping 3,000 meters. The western part is made up of rolling hills that slowly descend into plains eventually reaching the coast. Taiwan also lays claim to a number of small populated islands.
While Taiwan is currently officially known as the Republic of China, internationally it was formerly known as Formosa. This name was given to them by the Portuguese (‘formosa’

meaning ‘beautiful’ in Portuguese) upon their arrival to the island in 1624. Before the arrival of the Chinese and the Europeans, the island was already home to Austronesian people whose first settlements can be dated back to 15,000 years ago (Y. S. Chen & Jacob, 2002).

Spain was the first European nation to establish settlements in Formosa in 1628 but they were soon driven out by the Dutch in 1632. The Dutch themselves were driven out in 1662 by the Chinese trader Zheng Chenggong who controlled the island for twenty years while staying loyal to the emperor of the former Ming Dynasty (1368-1643). However, in 1683 the Qing Dynasty (1644-1911) took control of the island which eventually led to the island gaining status as mainland China’s Taiwan province in 1885.

Taiwan was ceded to the Japanese after the Chinese were defeated in the First Sino-Japanese War (1894-1895). The island made for a good strategic outpost with a source of raw materials and Japan intended to make Taiwan a model colony for their expanding empire. The Japanese introduced compulsory primary education to Taiwan even before it was introduced in Japan itself. While the period of Japanese rule brought Taiwan into the modern age, scholars also see this period as the creation of a separate identity from mainland China (Library of Congress, 2005). When the Japanese were defeated in 1945, the Republic of China under the Kuomingtang (KMT, 國民黨) arrived in Taiwan and brought Chinese political, economic, and cultural influence which led to friction and clashes with the local population. After the KMT was defeated by the Chinese Communist Party in 1949, they fled the mainland and re-established their base in Taiwan. This led to economic and military support from the United States government and combined with heavy investments from the United States and Japan in the island’s industry, the island prospered. During the economic boom of the 1960s Taiwan was the fastest growing economy in the world and was named as one of the four Asian Tigers (together with South Korea, Hong Kong, and Singapore).

While economically they were doing very well, politically Taiwan was less successful. In 1971 China took over their seat in the United Nations Security Council which led to international isolation. Domestically, Taiwanese had been living under martial law from 1948 to 1987 but as international pressure increased, national elections were held for the first time in 1996. The reigning KMT won but lost in the following elections of 2000, and again in 2004, to the Democratic Progressive Party (DPP, 民進黨) who were promoting distancing the island from mainland Chinese influence. The KMT regained control of the government in the elections of 2008. Taiwan at the moment still has a political climate which is very much polarized between the two main parties (DPP and KMT).

The current population of Taiwan stands at a little over 23 million with a population growth rate of 0.23% (Government Information Office, 2010). The population is split into four general groups: *Fukinese* (people who immigrated to Taiwan from the Fukine province in China before 1949), *Hakka* (people who immigrated from Guangdong province in China before 1949), *Mainlander* (people who immigrated from China after 1949), and *Indigenous Taiwanese*. These four groups can be divided into two larger groups. The majority being: the Han Chinese, consisting of the Fukinese (74%), Mainlanders (14%), and Hakka (10%). The other group represents the non-Han Austronesians, the indigenous population, which accounts for the final two percent of the population (Y. S. Chen & Jacob, 2002).

Taiwan has heavily populated urban areas which was home to just under seventy percent of the population in 2004 (Government Information Office, 2004).These Taiwanese urban areas are considerably more developed than the rural areas. Furthermore, rural Taiwanese are generally assumed to have more conservative values than do urban residents (Yi, Kung, Chen, & Chu, 2008).

About half of the Taiwanese population is a member of a religious association. Among these, 42.9% are Buddhist, 35.6% Taoist, 6.6% I-Kuan Tao, 4.7% Protestant, 4.1% Islam, and 2.3% Roman Catholic (Library of Congress, 2005).

Taiwan, in 2009, had a nominal GDP of US$ 16,442 per capita which translated into a GDP at PPP of US$31,834 per capita (Government Information Office, 2010). That same year, the GDP had a negative growth of 1.9% and the GDP per capita at PPP ranked 43rd in the world (Central Intelligence Agency, 2010). Inflation for 2010 was estimated at 1.3% and the unemployment rate estimate for 2010 was 5.2% (Central Intelligence Agency, 2010).

2.5.2 The Education System of Taiwan

Like other East Asian societies, Taiwan's education has been influenced by Confucian values (Chou & Ho, 2007). Confucius considered learning to be human's most important defining characteristic (Yao, 2003). A result of the Confucian tradition is that Chinese society in Taiwan places an emphasis on credentialism and examination systems where the examinations are expected to be fair and allow for social upward mobility (Chou & Ho, 2007). Parents place high value on academic performance and the school curriculum, therefore, focuses heavily on preparing students for their examinations.

The educational process in Taiwan is viewed as a two-fold activity (D. C. Smith, 1991). It is the transmission of knowledge from one generation to the next along with the concept of development of new ideas through understanding the old. Therefore, education involves acquiring knowledge and understanding of that which has already been accepted. This is reflected in the use of symbols in Chinese written language which can only be learned through memorization. In secondary education, memorization, drilling, and examinations are common teaching methods. Schools are also the place where values, morals, and ethical priorities will be learned. In summary, "[t]he essence of Confucianism is to provide all people

with an education that includes both basic knowledge and moral precepts" (Kang, Lovett, & Haring, 2002, p. 13).

After Japan's defeat in World War II, Taiwan quickly replaced its Japanese educators by their own intellectuals who had received their educational training in the United States. Eventually, the American style "six-three-three-four" system was adopted (Chou & Ho, 2007). This system encompasses six years of primary education, three years each for both lower and upper secondary education, followed by four years of undergraduate tertiary education. After this, graduate school programs can take one to four years and doctoral degree programs anywhere between two and seven years, depending on the department. In 1968, nine-year compulsory education was established encompassing six years of primary education and three years of junior secondary education (Ministry of Education, 2007). Currently, there are plans to include senior secondary education as part of compulsory education, making it a 12-year program.

Upper secondary education can be divided into normal senior, senior vocational, comprehensive, single discipline, experimental, and combined high schools (Chou & Ho, 2007). The two most common among these are the normal and vocational institutions. Normal senior high schools aim to nurture high-quality professionals with a global outlook while senior vocational high schools strive to develop technical manpower for economic development (Ministry of Education, 2007). Senior vocational high schools are similar to normal senior high schools but place a heavier emphasis on practical and vocational skills. They offer courses in areas such as agriculture, industry, business, maritime studies, marine products, medicine, nursing, home economics, drama and arts (Ministry of Education, 2007). Junior high school graduates can also opt to follow a five-year junior college program while senior high school graduates can also decide to enter a junior college, although they only need to follow a two-year course. Most junior high school graduates currently take the Basic

Competency Test before being admitted to a specific senior high school (Chou & Ho, 2007). Students can also be admitted to a school based on recommendations or after registering and being assigned. The effect of this system is that a major streaming exercise takes place between lower and upper secondary education, dividing students into different academic tracks based on their test results (Chou & Ho, 2007). The transition of upper secondary education to tertiary education is much the same as the one from lower onto upper secondary education, leading to students to strive "to score highly on the MPPCS [Multiroute Promotion Program for College-bound Seniors] at the end of their third year in order to attend universities" (Chou & Ho, 2007, p. 360).

Class sizes at the junior secondary level average at 33 students, senior secondary education has an average of 40 students, and senior vocational secondary education 42 (教育部，2010a).

Relevant to current compulsory education is the recent 'nine-year integrated curriculum' reform. This, controversial, curriculum reform was implemented in 2001. One of the principles identified by the government for this curriculum reform being: "[t]o encourage the development of individuality and the exploration of one's potentials" (教育部，2003), which shows a focus on the individual student. This recent reform entailed integrating the six grades of primary education and the three grades of junior secondary education into a nine-year continuous curriculum. To achieve this, the following goals and objectives were developed (教育部，2003):

- *Integration of seven study fields*: language arts, health and physical education, social studies, arts and humanities, mathematics, technology and science, and integrative activities (of all of these, language arts take about 20 – 30% of the total number of classes)
- *Cultivation of ten core competences*: ability to understand self and develop individual potential; ability to appreciate, perform and create; ability to plan career and learn in all life;

ability to express, communicate, and share; ability to respect others, care for the community, and facilitate teamwork; ability to learn culture and understand international affairs; ability to plan, organize, and practice; ability to use technology and information; ability to explore something actively and conduct research; foster independent thinking and problem solving ability

- *Identification of six major topics related to human development*: information technology, environment, gender, human rights, career development, and home economics

Outside the formal education system, there is also a big market for private cram schools where students receive extra lessons in such subjects as English, math, science etc. A student's opportunity to attend these kinds of schools largely depends on the family's social-economic status. Therefore, "family educational resources and going to cram school make a major difference in patterns of school success" (Chou & Ho, 2007).

The formal Taiwanese school environment emphasizes discipline and uniforms are commonly worn by students up to the senior secondary education level. Mandarin Chinese is the only official language in school education but Taiwanese, Hakka, and indigenous languages are also finding their way into the educational system (Ministry of Education, 2007).

Undergraduate education in Taiwan normally takes four years. Graduate programs can take up anywhere between one to four years while post-graduate programs are between two and seven years long.

In the year 2009, the enrolment rate for compulsory education was 97.95% while the total enrolment of upper secondary education was 92.35% (教育部統計處，2010b). That same year, the Taiwanese government spent 4.81% of Taiwan's GDP on education (Government Information Office, 2010). In 2006, of the total educational budget, 13.11% was spent on junior secondary education, 11.26% on senior secondary education, 5.66% on

senior vocational secondary education, and 0.64% on special education schools (Ministry of Education, 2007). The literacy rate in Taiwan was 97.91% in 2009 (Government Information Office, 2010).

An overview of the Taiwanese education system can be found in Appendix A.

2.5.3 Mildly Mentally Impaired Students in Taiwanese Secondary Education

History of special education

Taiwanese students who are mildly mentally impaired are educated, depending on the educational stage, in inclusive and exclusive settings with special education support. Taiwan's special education history can be roughly divided into the following stages (Ministry of Education, 2010):

- *The foundation stage (before 1962).* The first special education school was a Christian school for the visually impaired in Tainan which opened in 1889. More schools for the visually and hearing impaired opened their doors throughout the country in the following years.
- *The experimentation stage (1962 – 1983).* Some regular schools began offering special education on an experimental basis. In Taipei, a class for mentally challenged was started at a regular elementary school. Primary and junior secondary schools in other cities followed by opening classes for the physically challenged, the speech impaired, and the gifted.
- *The legislation stage (1984 – 1996).* The Special Education Act was enacted in 1984, establishing standards that regulate the promotion of special education to safeguard students' rights and interests. Efforts were focused on diagnosis and evaluation of special needs students, placement of students in the communities they were based, and promotion of research.

- *The development stage (1997 - 2007).* The Special Education Act was amended in 1997. This amendment covered the profession of special education administrative personnel, ensured the funding for special education, established educational systems, curricular and teaching flexibility, minimized limitations, and provided relevant professional services. In 2001, a "12-Year Educational Placement Plan" was implemented to help disabled students enrol in a senior (vocational) high school near them without having to take an entrance exam. This plan also provides for an individualized education.
- *The refinement stage (2008 – present).* A Five-Year Plan for the Development of Special Education and a concurrent action plan for the education of gifted students have been in effect since 2008. This plan will be further covered at the end of this section.

Special education funding

According to Article 9 of The Special Education Act, the central government of Taiwan devotes 4.5% of the whole education budget to special education (Ministry of Education, 2009). An additional 5% of the whole local government education budget is put aside for special education.

Special education in Taiwanese culture

While people in Taiwan "have viewed education with deep respect for centuries…this respect has not always carried over to the education of students with disabilities" (Kang et al., 2002, p. 12). Historically, as mentioned earlier, Chinese society placed a heavy emphasis on standard examinations. Regardless of people's position or social status in life, they could advance through their own efforts. Major limitations, however, could be a person's desire, discipline, or intellect. High expectations and great emphasis on a child's academic performance has resulted in most of the Chinese public having negative attitudes toward

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children with disabilities because of their actual or potential poor academic performance (Kang et al., 2002). Parents may feel responsible for the "disability" or "handicap" in the child and this may compel them to shelter their child from outside interference as much as possible as "[i]t may be considered to be a serious "loss of face" or "failure of the family" when an outsider or stranger discovers the offspring with disabilities" (Kang et al., 2002, p. 14). However, Kang et al (2002) also argue that a distinction should be made between more traditional Chinese families and nuclear families in urban areas. Urban families tend to adopt more modern values and lifestyles than traditional families which means that urban families are more likely to seek outside support.

Mildly mentally impaired student population

In 2009, the percentage of all special needs students compared to the total student population in nine-compulsory education (primary and lower secondary levels) was 2.5% (教育部統計處，2010a). This percentage at the upper secondary level was 2.5% as well. In the same year, there were 20,909 mentally impaired students attending *regular* primary and lower secondary education schools, representing 0.8% of the total nine-year compulsory education population (教育部，2009b). At the upper secondary education level, there were 7,311 mentally impaired students, which was 0.2% of the total upper secondary education student population, studying in *regular* vocational schools (although in a self-contained special education program within these regular education schools). While the government does not specify levels of mental impairment, it is mainly the mildly mentally impaired who study at regular schools. Some moderately impaired students are also mainstreamed but usually, together with the severely and profoundly mentally impaired, they are educated in special schools.

Definition of mildly mentally impaired students

In Taiwan, according to article 3 of the Disabled and Gifted Student Assessment Standard, a mentally impaired student has a delayed intellectual development and has serious difficulties in studying and adapting to the daily life environment (教育部，2009a). Furthermore,

1. intellectual functioning is significantly lower or, according to individual intelligence tests, two standard deviations below the average, and
2. the student has, compared to peers, visible difficulties with self-care, movement, communication, social sentiment, academic studies etc.

A mildly mentally impaired student's intellectual functioning is between two to three standard deviations below the average (陳麗如，2005). The IQ equivalent of the intelligence test results are, for WISC III children or adult tests an IQ of 55 to 69 or, for the Binet test, an IQ of 52 to 67 . The psychological age is between nine to twelve years of age, and upon finishing special education, the person is expected to be able to live partly independently and perform semi-skilled or single-skilled work.

Taiwan's inclusive education movement

Taiwan has followed the worldwide trend of including special needs students in regular education. "As an echo of the worldwide movement of inclusive education and because of the conviction of inclusive ideas, special education in Taiwan is moving toward a goal of inclusion, though not necessarily full inclusion" (Wu, 2007, p. 76). The Special Education Act amendments of 1997 and 2001 strived to create a long term goal of a zero-reject, barriers free, and an inclusive educational environment. However, "[t]he idea of inclusion has been widely acknowledged and accepted by the public, whereas the idea of full inclusion is still in doubt by most people, including special education teachers" (Wu, 2007, p.

90). The principle of the 'Least Restrictive Environment' is adhered to when placing disabled students (Wu, 2007). The Special Education Act stipulates that students be placed in appropriate schools with the premises of satisfying the students' learning requirements. The appropriateness of this placement is annually reassessed by local government agencies.

Educational programs for mildly mentally impaired students

Compulsory education

Currently, special education services start at the pre-primary level. Placement of special needs students in Taiwan currently includes special education schools, special education classes at regular schools, resource classes, regular classes, circuit guidance and assistance, home education and bedside education. According to the early intervention principle, mildly mentally impaired students receive special education services as soon as they are diagnosed as having this kind of impairment. At the compulsory education stage (primary and lower secondary education), this population of students normally attend regular education classes while receiving additional services from the resource program. Resource program classes provide services to students with mild mental impairment, (to a limited extent) moderate mental impairment, learning disability, language disorders, weak sight, mild hearing impairment, emotional disorders, behavioural disorders, attention deficit disorders, physical impairments etc. However, the main population of primary and junior secondary education resource rooms are students with mild disabilities (孟瑛如，2006). Apart from the resource room programs, a number of mildly mentally impaired students are also educated in special education classes in the compulsory education stage. However, following the principle of inclusion, the government strives to place mildly mentally impaired students as much as possible in regular education school resource room programs.

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Taiwanese resource room programs can be divided into the following three general systems (孟瑛如，2006):

1. *Single category programs*: One particular special needs group is targeted, such as the learning disabled, hearing impaired, speech impaired etc.
2. *Cross-categorical programs*: Two or more special needs groups are taught at the same time.
3. *Non-categorical programs*: Also called integrated resource programs. Admittance to this kind of program is not limited to only special needs categories. Any student who needs [special education] counselling services can be served.

Mildly mentally impaired students in compulsory education mostly attend a mix of regular classes combined with non-categorical resource room classes at the junior secondary education level. The nine-year integrated curriculum also applies to students receiving extra services in these resource classes although the difficulty level is adjusted according to the individual student's situation. These students normally receive these resource class services during regular class hours. How this is arranged, differs per school. Some schools opt to have the student skip regular education classes such as physical education or arts, while other schools choose to 'pull' these students out of a regular education's academic classes such as science class.

Resource rooms, apart from especially remote schools, normally have at least two or three qualified teachers who make use of the facilities, equipment and resources to provide individualized education, diagnostic services and counselling (孟瑛如，2006). Furthermore, they also provide regular classroom teachers with diagnostic services and special education counselling support. In this way, special needs students still have the opportunity to attend regular classes while receiving additional support in the resource room. The maximum time a special needs student is allowed to attend resource room classes is half of the total number of

hours a student receives education. If a special needs student requires more additional support than the allowed time, this student should be referred to a self-contained special program.

The term ‘resource’ here refers to two aspects: (1) equipment, facilities, and educational resources (e.g. computers, visual aids, disability facilities etc.) and (2) human resources (resource room teachers, expert groups, social workers etc.) (孟瑛如，2006).

Furthermore, every student attending classes in the resource room has an Individualized Educational Program (IEP). The IEP refers to special education or other related programs developed through professional teamwork to accommodate the needs of individual special needs students (Ministry of Education, 2003). It connects the regular class teachers, expert groups, parents, and resource room teachers. Students themselves may also be invited to participate in the team, and parents of the students concerned may invite other individuals if necessary.

Regular class teachers and resource classroom teachers need to regularly meet to enable a tight collaboration between the two parties while communication between parents and school staff should also be maintained on a more or less regular basis. According to the Enforcement Rules to the Act of Special Education, the IEP shall be developed by the school within one month after the semester begins and shall be subjected to review and conducted at least once per semester (Ministry of Education, 2003). Students are furthermore assisted in transitions from preschool to elementary school, from elementary school to junior high school, from junior high school to senior (vocational) high school, as well as from senior (vocational) high school to university or the post-school environment. At these stages the IEP has an additional function, that of an Individual transition plan (ITP). More detailed regulations concerning IEPs and ITPs will be provided in Chapter 4.

Resource room support services relevant for students with mild mental impairment special needs include (孟瑛如，2006):

1. *Cognition and school work*: Provide students with concrete experiences, exercise opportunities, adjustment of homework difficulty level, multi-sensory learning, and guidance in learning strategies.
2. *Communication*: Assists in language training, provide auxiliary communication tools, and opportunities to practice spoken language or express oneself.
3. *Ability to act*: Arrange a disability free physics room and conform to the principles of reachability, accessibility, and practicality.
4. *Emotional and interpersonal relationships*: Arrange mental counselling or medical treatment.

Furthermore, as part of the individualizing of education, teaching materials can also be modified to better suit the individual needs of the student.

The teaching methods in the resource room can be as follows (孟瑛如，2006):

1. *Small group teaching*. Create small groups of three to six students of the same grade, with similar learning styles, or at similar education levels.
2. *Coordinated teaching*. During classes, two teachers simultaneously teach a certain group of students. One teacher proceeds with the total teaching activities while the other teacher assists in giving individual guidance according to a student's specific needs.
3. *Individualized teaching*. This method is aimed at a student with special teaching needs or a student who cannot continue in the afore-mentioned small learning groups.

Although resource programs are similar nationwide, they can vary throughout Taiwan as the city and county governments are in charge of the program's administration.

Upper secondary education

In 1994, certain regular vocational schools began setting up experimental special education classes in various vocational departments, enrolling junior high school graduates

who were mildly mentally impaired. Since 2001, all physically or mentally impaired junior high school graduates have been able to receive secondary education or secondary vocational education. According to the Vocational Education Act, the Special Education Act, and various other rules and regulations, mildly mentally impaired students are able to attend senior vocational secondary education at a so-called comprehensive vocational program (綜合職能科). This three-year, self-contained, course in upper secondary education is especially aimed at serving students with a mild (and to a limited extent, moderate) mental impairment. Students could have multiple disabilities, but the main indicator for admittance should be mental impairment. These comprehensive vocational programs are situated in *regular* senior vocational secondary education schools.

The main purpose of the course is to develop personal, social, and occupational adaptation ability in order to be able to become independent citizens (教育部，2000). Subsequently, the following goals have been developed:

- To train the students' body and mind, enrich their life intelligence, develop healthy personalities, and increase personal and family life adjustment ability.
- To understand the living environment, adjust to societal change, expand interpersonal relations, and cultivate school and community living adjustment ability.
- To understand the employment environment, cultivate work ethics, establish work skills, and to promote work and society service adjustment ability.

Before being admitted to a comprehensive vocational program, students need to sit an exam especially designed for students with mild mental impairment (教育部，2010b). This exam is split up into two parts and both count for fifty percent of the total. The first part covers functional academic subjects such as Chinese, math, English, common knowledge etc. The other part of the exam tests a student's operational and motor skills. Daily activities such

as pouring tea, opening locks, moving things, etc. are performed by the student and problem solving abilities are also determined.

The comprehensive vocational course consists of six domains which can be further divided into a general education part and a vocational education part. The general education part covers (1) social adaptation, (2) functional languages, (3) functional mathematics, (4) living education, and (5) leisure education while the (6) vocational education part is divided into five fields: service industry, agriculture, housekeeping, business, and industrial labour. Which vocational subjects are offered differs per school and often schools specialize in one or more specific fields. Over the three year course, the percentage of subjects and their contents are as follows (教育部，2000):

- *Personal living (25% to 35% of total courses)*: the ability to take care of oneself in daily life, including practical language, functional math, communication, etiquette, living science and technology, health and recreation, financial management, arts, autonomous living, problem solving, career planning etc.
- *Social living (25% to 35%)*: group and self relations ability, including interpersonal relationships, societal adjustment, law and government education, ethics and morality, protection of resources, ecological care, national identity etc.
- *Occupational living (35% to 45%)*: future work ability, including professional skills, positional skills, basic skills, and work ethics

As to the vocational courses in the comprehensive vocational program, the students explore various industries in the first year of the three year program. In the second grade, vocational skills are emphasized. In the final grade, internships are the main method of vocational learning. Apart from studying in school, students also visit worksites, learn on the job at a company, or follow an internship at a company. This is arranged as follows:

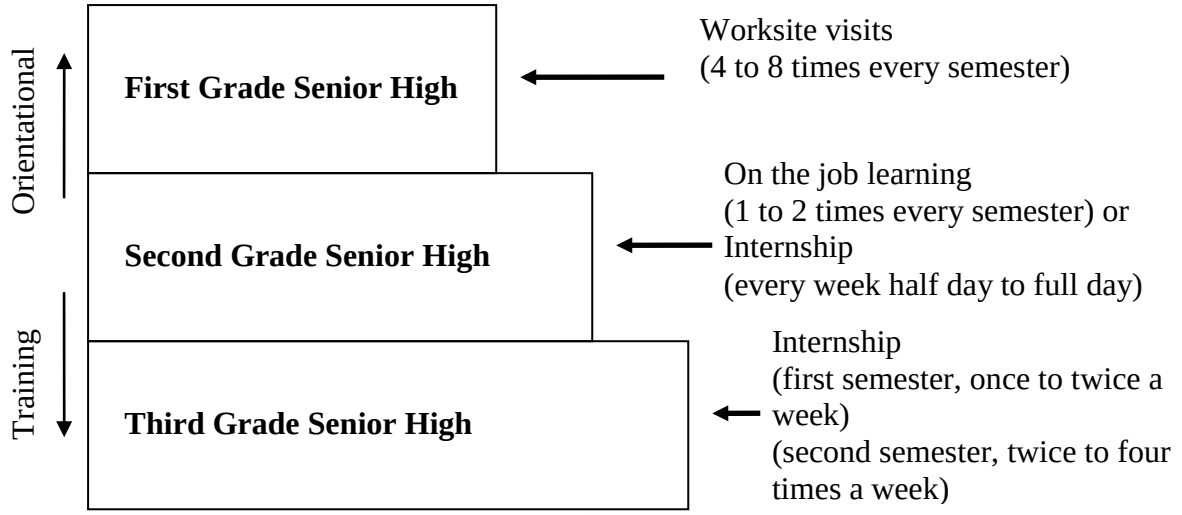

Figure 2.2 Comprehensive Vocational Department vocational exploration

(Source: 教育部，2000)

At the core of the upper secondary education curriculum is the transition to the post-school environment (教育部，2000).

The education of the mildly mentally impaired at the upper secondary education level is based on eight principles (教育部，2000):

1. *Suitability*. As the mildly mentally impaired are slower to develop in such areas as motor skills, social skills, and language skills, the curricular contents and level of difficulty should be adjusted to their special needs.
2. *Development*. The curriculum and educational program should open up a student's potential and aim for a suitable development so the student can become a completely independent, social individual within society.
3. *Comprehensiveness*. Vocational skill learning should integrate general academic education subjects such as reading, writing, calculating etc. as well as consider an individual's civilian, family, and recreational life.
4. *Continuity*. Emphasize the vertical connection with the lower secondary education curriculum aimed at mentally impaired students and avoid a big change in curricular

content. Furthermore, employment cultivation, employment knowledge selection, employment readiness should be well-arranged and sequenced in the curriculum so as to provide a practical transition.

5. *Functionality*. In order to cultivate a student's occupational skills the curriculum needs to serve as an orientation which can determine a student's learning characteristics. The curriculum outline should conform to these occupational needs.
6. *Flexibility*. The mildly mentally impaired possibly have multiple disorders such as emotional disorders, behavioural disorders etc. Therefore, as students' personal characteristics can be diverse, the curricular content and implementation method need to be flexible so as to benefit the student's individual growth and development of potential.
7. *Daily life oriented*. The curricular contents need to emphasize daily routines training in order for the student to be able to adapt to societal and occupational living, develop good living habits, and become an independent, autonomous individual.
8. *Community oriented*. The community is an important resource for special education. Connecting the community's characteristics with the curricular contents helps education achieve its purpose and will shape community identity and provide support.

In planning the curriculum, emphasis is put on the fact that the schools plan in accordance with a student's aspirations, interests, ability, and needs (教育部，2000). Simultaneously, consideration should be given to the characteristics of the community, school development, teaching staff qualifications, etc.

Assessment of a student's knowledge at the comprehensive vocational program level is done through observations, oral tests, written tests, examinations, work samples, homework appraisal etc. (教育部，2000). Furthermore, when assessing, teachers should take into consideration the individual characteristics of the student and teachers should encourage the student to compare assessment outcomes to his / her own previous outcomes rather than other

students'. The results of the assessments should be used to adapt the teaching style, teaching materials, student guidance and also the pace of teaching.

Average class size of comprehensive vocational programs in Taipei City was a little under fourteen students in 2009 (教育部特殊教育通報網 ，2009).

The government commissions schools to hold a separate entrance exam for physically or mentally impaired students allowing a portion of this population of students to attend university programs.

Staff requirements

Taiwanese special education teachers require specialized training (Chang, Reetz, Chien, & Ring, 2001). Furthermore, they need to complete a half-year internship prior to being employed by a school. Regular class teachers are obliged to take three university course credits in special education in order to prepare them for teaching special education needs students in regular class settings as promoted under the inclusion principle set out by the ministry of education.

Future trends

Currently there is a five-year plan, mentioned at the beginning of this section, to develop special education in Taiwan. The relevant main goals and objectives of this plan include (教育部，2008):

- *Perfect the admission and counselling mechanisms*: improve multiple admission channels for special education, implement suitable student placement and guidance
- *Raise the effectiveness of special education*: establish a curriculum adaptation mechanism, assess the results of individualized education planning

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- *Make use of family and community resources*: provide multiple consultation services for families, integrate and use community resources
- *Strengthen special education administration effectiveness*: improve special education evaluation mechanism, effectively utilize special education budget, integrate special education and support services

For the special education curriculum, the following practical changes have been planned for the year 2011 (教育部特殊教育工作小組，2009):

1. For the purpose of achieving inclusion, there should be a connection with the general education curriculum.
2. The curriculum should be adapted to the special needs student's ability, school situation, and the community characteristics.
3. There should be a focus on flexibility for the teaching material and the curriculum. Goals of the curriculum need to be adapted, according to a student's needs, by deepening, widening, reorganizing, simplifying, reducing, staggering, or replacing the curricular contents.
4. The IEP and the curriculum need to be connected so that administration and education planning can function properly.

2.6 The Dutch Context

2.6.1 Country Profile

The Republic of the Netherlands declared independence from Spain in the late sixteenth century (Hellinga, 2007). The subsequent period was one of economic growth which reached its peak in second half of the seventeenth century, also known as the Golden Age. This was also the time when the Netherlands established its colonies, among which were Indonesia, the Netherlands Antilles, and Surinam. The prosperous times of the

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seventeenth century, however, were followed by a gradual decline eventually leading to an invasion by France under Napoleon in 1795. During this time the Netherlands changed from a republic to a monarchy which was continued even after France left the Netherlands in 1813. A constitutional monarchy was established in 1848 making the ministers, not the king, responsible for acts of government. This constitution also guaranteed freedom to provide education. This refers to the freedom to found schools (freedom of establishment), to organise the teaching in schools (freedom of organisation of teaching), and to determine the principles on which they are based (freedom of conviction) (Thijs, van Leeuwen, & Zandbergen, 2009).

During the First World War, the Netherlands remained neutral but this neutrality could not be maintained during the Second World War resulting in a five-year occupation by Nazi Germany. After the liberation by the Allied forces, the Netherlands gradually had to give up rule of most of its colonies. Today, the Kingdom of the Netherlands is comprised of Aruba, Curaçao, the Netherlands, and St. Maarten.

As the Netherlands is located in the heart of Western Europe, it was one of the founding members of the European Economic Community in 1957, which would eventually become the European Union. The 1950s were a time of economic growth caused by a growing industrialisation. The 1960s and 1970s brought about a wave of democratisation and social change (Eurydice, 2009). This period is also marked by an influx of the so-called 'guest workers' from Morocco and Turkey who provided the Netherlands with much needed manual labour. The 1980s were years of economic decline which was successfully combated leading to economic prosperity in the 1990s.

Politically, the Netherlands has a multi-party system and the executive government is formed by the largest party, which also appoints the prime-minister, and one or more coalition parties (Eurydice, 2009). The various departmental ministers are chosen from within

these coalition government parties. Elections are held every four years. The Queen's position in the Netherlands is largely ceremonial.

The Netherlands is a very flat country with about two-thirds of the country being below sea level. Differences between regions are generally very small (OECD, 2008). Rural areas are characterized by proximity to cities. Therefore, economic conditions and the level of social and public services are generally good and not very different from those in urban areas. The Netherlands is the most urbanised country in the OECD and it has one of the highest population densities in the world.

Presently, the Netherlands has a population of roughly 16.5 million with a population growth rate of 0.41%. Ethnic minorities account for about twenty percent of the total population (Centraal Bureau voor de Statistiek, 2008a). Most of these ethnic minorities are from either the Netherlands' ex-colonies of Surinam, the Netherlands Antilles and Aruba or from Morocco and Turkey. The majority of the population in the Netherlands (42%) does not practice any religion (Centraal Bureau voor de Statistiek, 2009b). Of the people who do practice a religion, 29% are Roman-Catholic, 9% Dutch Reformed, 6% Protestant, 4% Reformed, 4% Islamic, and 6% consider themselves to be part of 'other church or personal beliefs'.

In 2009, the Gross Domestic Product (GDP) was US$ 48,222 which was US$39,938 at Purchasing-Power-Parity (PPP) (International Monetary Fund, 2010). While 2009 saw a negative GDP growth of 3.9%, the GDP in 2010 was forecast to grow positively 1.7% (Eurostat, 2010). The provisional value for the annual inflation rate for 2010 was 0.9%. Currently, the Dutch economy ranks at the 16th largest in the world. Unemployment as of July 2010 was, according to the European definition, 4.6% (Eurostat, 2010). Although the unemployment rate has been steadily rising, from as low as 2.8% in 2008 (Centraal Bureau voor de Statistiek, 2009a), it was still the third lowest in the European Union.

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2.6.2 The Education System of the Netherlands

A striking feature of the educational system in the Netherlands is that public and private schools both, if quality standards are met, receive equal funding from the government. This system is a result of the so-called "school dispute" of the nineteenth century (Reulen & Rosmalen, 2003). This dispute was based around the 'freedom of education' principle in the Dutch constitution. Catholics and Protestants wanted to establish their own schools but also claimed the right to government funding. This right was finally achieved in 1917 for primary education. Secondary and tertiary education followed soon after. Today, as a result of this, more than two-thirds of all Dutch schools are privately run. While private schools can set admission requirements according to the denominational or ideological character of the school, public schools have to admit all students.

Today the 'freedom of education' principle is a prominent feature in the Dutch Education Law and it currently refers to the (Reulen & Rosmalen, 2003):

- *Freedom of establishment*. People are free to establish a school as long as certain regulations are met.
- *Freedom of conviction*. This is the freedom to offer education based on any religious or political ideology (denomination).
- *Freedom of arrangement*. This form of freedom stipulates that the school board is able to make their own decisions on the hiring of personnel and the contents of the educational program.

Although most children start attending school at the age of four, compulsory education does not start until the year a child turns five. Students are then required to attend school until the end of the school year in which they turn sixteen, after which they still need

to attend an institution providing educational courses for at least two days a week for another year.

Primary education is free of charge and schools are left free to decide how to arrange the grouping of students. Some schools opt to put different age groups into one class but most schools place students of the same age level in a class. Primary education consists of eight year groups, with four / five year olds starting in group one and group eight students usually finishing primary education at the age of twelve. While the government does not set requirements regarding class sizes, the average number of students for 2005 was around 22 in primary education (Eurydice, 2009). In secondary education class sizes can vary, depending on the educational track and the socio-demographic characteristics of the student population. Dutch is the language of instruction the Netherlands. However, Frisian or another living local dialect may be used as the language of instruction at schools in areas where they are spoken alongside Dutch (Eurydice, 2009).

At the secondary education level, the Netherlands has a tracked system. Since the implementation of the Secondary Education Law of 1998, this tracked system has been rearranged into, according to a student's educational ability, the following three tracks: Pre-University Education (Voorbereidend Wetenschappelijk Onderwijs / VWO), Senior General Secondary Education (Hoger Algemeen Voortgezet Onderwijs / HAVO), and Pre-Vocational Secondary Education (Voorbereidend Middelbaar Beroepsonderwijs / VMBO) (Reulen & Rosmalen, 2003). Of the total regular education student population, about twenty percent attends VWO, another twenty percent attends HAVO, and a little below sixty percent of the students attends VMBO. The remaining percentage of students attends Practical Training schools (Praktijkonderwijs / PrO). Practical Training schools will be covered in detail throughout this report. The second lowest track, Pre-Vocational Secondary Education, has been separated into four, so-called, 'learning pathways': a theoretical learning pathway, an

advanced vocational learning pathway, a mixed learning pathway (theoretical / vocational), and a basic vocational learning pathway. Each of these pathways represents a different way of learning. For all of these four pathways there is, if needed, Learning Support (LWOO), which offers professional help for students who need pedagogical, orthodidactic, or orthopedagogical support (Bootsma-Slinkers & de Groot, 1999). "The term orthopedagogics is used in the Dutch speaking countries of Europe…It involves children or adults with a handicap, educators, and environmental situations in a whole. It integrates feelings, thinking and willing through doing" (Judge & Oreshkina, 2004, p. 40). Students for who is determined that they cannot get a qualification at the basic vocational learning pathway while also receiving Learning Support, are referred to Practical Training (PrO). Practical Training is the mainstream secondary education track servicing students with mild mental impairment.

As at the primary level, there are special schools for students with visual impairments (cluster 1); students with hearing and / or speech impairments (cluster 2); students with mental, physical impairments and / or the chronically ill (cluster 3); and students with behavioural and / or psychiatric problems (cluster 4).

Upon finishing one of the secondary education tracks, students can either, depending on their educational track level, continue their education at a school for Secondary Vocational Education (MBO, 3 years), Undergraduate Education (HBO, 4 years), or Graduate Education (WO, 4 years). Secondary Vocational Education schools offer both secondary education graduates and adults training at an assistant level (1), basic vocational level (2), professional level (3), and middle-management level (4).

Participation in Dutch education in 2006 was 99% for 5 to 14-year olds, 86% for 15 to 19-year olds, and 26% for 20 to 29-year olds (Thijs et al., 2009).

The government's main responsibilities, concerning education, are the structuring and funding of the education system, the management of public-authority institutions, inspection,

and student support (Eurydice, 2009). These are all tasks for the Ministry of Education, Culture and Science. The local authority of the schools is in the hands of the municipal government. Among its prime responsibilities is the drawing up of annual plans for and funding necessary changes in accommodation for primary and secondary schools.

In 2009, the Dutch government spent 5.1% of GDP on education (Ministerie van Onderwijs Cultuur en Wetenschappen, 2010a). Of this total budget, 31.8% was spent on all of secondary education.

The Netherlands is well-known for its liberal culture which in education is translated into the principle of 'freedom of education', mentioned earlier. In the 1960s, the social structure was radically transformed with a consequent emancipation of women and youth. Since then, Dutch society has been going through a process of individualization. The interests of the individual are of more importance than that of the group to which he / she belongs (Reulen & Rosmalen, 2003). Progressive forces in Dutch society have not totally been able to influence the, from the outset, conservative educational system. In practice there is often still a teacher-centred approach in the classroom although an individualized approach, with the student at the centre, has been envisioned.

The multi-ethnic society of the Netherlands also demands special attention in the education system. The percentage of ethnic minorities continues to increase and this population of students is especially prominent in Practical Training (Reulen & Rosmalen, 2003).

Data on literacy rates in the Netherlands, as in other advanced countries, is not collected anymore (UNESCO, 2008).

An overview of the Dutch education system can be found in Appendix B.

2.6.3 Mildly Mentally Impaired Students in Dutch Secondary Education

History of special education

There is a long history of separate special education schools in the Netherlands with a school for the deaf founded by a pastor in 1790 (van Rijswijk & Kool, 1999). When compulsory education began in 1901, regular schools were faced with a group of 'irregular' children who until then only received education for a very limited amount of time or received no education at all. The government soon realized that this group of children should not only have to rely on private education. In 1923, separate (both public and private) schools for students with disabilities were teaching students who were deaf or blind, and also children with (significant) learning difficulties (mentally impaired). Special education was included into the Primary Education Act of 1920, but not until 1985 was the first separate Special Education Interim Act for primary and secondary education put into effect (Eurydice, 2009).

During the decision making process of the planned reforms for special secondary education in 1967, there was an almost unanimous belief that separate special education schools were much better equipped to provide for the educational needs of students with disabilities than regular education. Not until 1970 were questions raised about the steady growth of special education which, for a part, contributed to the implementation of the new Law on Secondary Education in 1998. Under this law, special secondary education schools for mildly mentally impaired students, known in the Netherlands as Children with Learning Difficulties (Moeilijk Lerende Kinderen / MLK), together with Students with Learning and Behavioural Difficulties (Kinderen met Leer- en Opvoedingsmoeilijkheden / LOM) were integrated into mainstream education. However, the Netherlands still has more types of special education schools than any other country (van Rijswijk & Kool, 1999). The 1996 Together to School Again (WSNS) initiative has been implemented by the government to ensure that children with special needs are integrated into mainstream education. The policy

applies to schools which fall under the Primary Education Act. Under this policy, students are not automatically referred to special schools. Parents can choose if they want to send their special needs students to a special school or a regular school. Special education schools are only meant for children who cannot cope in mainstream schools, even with extra assistance. At the primary education level, mainstreamed students can be divided into autistic children, children suffering from ADHD, dyslexic children, and gifted children (Eurydice, 2009).

Special education

Mildly mentally impaired primary students (MLK) together with students with Learning and Behavioural Difficulties (LOM), and Preschool Children with Developmental Difficulties (In hun Ontwikkeling Bedreigde Kleuters / IOBK), receive education in special primary schools. Moderately to profoundly mentally impaired receive education in special schools for Children with Severe Learning Difficulties (Zeer Moeilijk Lerende Kinderen / ZMLK).

The two main objectives of the Together to School Again initiative are: preventing social stigma of special education and stabilising the number of students for special education (van der Leij & van der Linde-Kaan, 2003). Research shows that the reason parents choose regular education for their special needs children is that they want their children to go to the same school as others in the neighbourhood as this increases the opportunity to learn how to handle social situations, make friends and become integrated in the local community (Koster, Pijl, van Houten, & Nakken, 2007). Some parents also hope that this will eventually lead to positive long-term effects on attitudes towards special needs students.

To ensure that regular education schools can provide extra services for special needs students a funding policy directly linked to the special needs students themselves has been implemented. This is the so-called ‘backpack’ policy. Regardless of where the student is

taught, in regular schools or special schools, extra funding is available. However, schools are not required to accept all the special needs children who apply although they need to clearly state how they are incapable of appropriate provision if placement is denied (Norwich, 2008).

The member countries of the European Union have established the European Agency for Development in Special Needs Education. It is an independent platform that acts as a collaboration mechanism regarding the development of provision for learners with special educational needs. The agency is maintained by the Ministries of Education of the European Union members, as well non-members Iceland, Norway and Switzerland.

The Netherlands has signed several international agreements regarding inclusive education (Thijs et al., 2009). Among these are the 1990 Council Resolution for integration of children and young people with disabilities into ordinary systems of education, the 1994 Salamanca Statement, and the 2006 UN Convention on the Rights of Persons with Disabilities. Eventually this has led to the fact that although "[t]he Dutch education system was originally probably one of the most clear-cut dual systems…the current integration policy fits in with a general trend to work towards greater integration and more inclusive education" (Karsten, Peetsma, Roeleveld, & Vergeer, 2001).

Mentally impaired individuals are referred to as people with an intellectual restriction (mensen met een verstandelijke beperking). Even though the mildly mentally impaired are recognized as special needs students, they are considered to be part of mainstream education when they reach the secondary education level. Here they are part of the mainstream education track serving students with the lowest learning ability: Practical Training (Praktijkonderwijs / PrO). This secondary education program was previously a special program, just as it is in primary education, for Children with Learning Difficulties (MLK). As mentioned before, in 1998, the government initiated the integration of special secondary education schools for Children with Learning Difficulties (MLK) with regular secondary

education. Practical Training was the eventual result in 2002 (Ministerie van Onderwijs Cultuur en Wetenschappen, 2006).

Schools which now provide education at the Practical Training level need to cooperate regionally with regular secondary education schools (Pre-Vocational Secondary Education) in, so-called, regional cooperatives (SWV) which makes both Practical Training and regular education schools jointly responsible for these special needs students (Reulen & Rosmalen, 2003). This is in line with the government Together to School Again (WSNS) initiative of 1996. The regional cooperatives have the following three tasks: joint care for sufficient organizational and professional support for students who need an ortho-didactic and ortho-pedagogical approach, the formulation of a 'care plan' (zorgplan), and the establishment of a Permanent Commission Student Care (PCL) (Harskamp & Slof, 2006).

As was mentioned in the previous section, students for who is determined that they cannot get a qualification at the basic vocational learning pathway while also receiving learning support, are referred to the Practical Training track. In other words, Practical Training is specifically aimed at students with mild mental impairment. Although students attending Practical Training could possibly have multiple disorders, the main indicator for admittance is mild mental impairment. Students with moderate mental impairment and higher are intended to attend Secondary Special Education-Children with Significant Learning Difficulties (VSO-ZMLK).

Definition of mildly mentally impaired students in secondary education

Practical Training is aimed at students who (a) mainly need an ortho-pedagogical and ortho-didactic approach, and (b) cannot, even with learning support, obtain a diploma or certificate for VMBO. Admission to Practical Training, as well as Learning Support, is based

on uniform nation-wide criteria. The following four criteria are essential for determining placement (Bootsma-Slinkers & de Groot, 1999).:

1. didactic level of reading, spelling, and maths in didactic age equivalents;
2. cognitive capacity;
3. social-emotional developments; and
4. other (external) educational impediments.

Of these criteria, social-emotional functioning is decisive in admitting students to Learning Support (Bootsma-Slinkers & de Groot, 1999) while the criteria of other (external) educational impediments can also be added to this category. Admittance to Practical Training is primarily based on the first two criteria:

1. *Didactic level of knowledge and skills.* For students who want to enroll in Practical Training, it needs to be firmly established that they have a learning deficit. Calculation of a student's learning deficit is done according to his/her didactic age (Verenigde Samenwerkende Landelijke Pedagogische Centra, 2000).

   From group 3 to group 8 (grade 1 to grade 6) in the primary education stage, students follow a total of ten months of education. Every month of education is considered a measuring unit of didactic age. Therefore the highest unit of didactic age is 60 at the end of group 8. The school year starts in September in the Netherlands. If a student's didactic age is tested in October of group 8, his/her didactic age is 52. A student who is attending group 8 for the second time has a didactic age of 60 for the whole year. The level a student has attained at a certain period of time is expressed in didactic age units. This level is measured with the help of tests.

   For example, a student has been tested to have 43 didactic age units (November group 7), but has a didactic age of 58 (April group 8). To calculate this student's learning deficit,

we need to subtract 1 from the didactic age units divided by the didactic age (1-43/58). Therefore the student in this example is considered to have a learning deficit of 0.26.

A student can only be allowed to enroll in Practical Training if he/she has a learning deficit of more than 0.5. Furthermore, of the four domains, reading comprehension, technical reading, spelling and maths, at least two should score a learning deficit of more than 0.5. Of these two domains, at least one should be reading comprehension or maths.

A student with a learning deficit between 0.25 and 0.5 is admitted to Learning Support.

2. *Cognitive capacity.* A student's cognitive capacity is expressed in an Intelligence Quotient (IQ). Here, a distinction is made between verbal and performing intelligence. The standard IQ for enrolment in Practical Training is a minimum of 60 and a maximum of 75 - 80. Students who have an IQ of between 75 - 80 and 90 should be recommended to Learning Support. When considering students who are in the 75 – 80 IQ range, schools need to explicitly explain why they recommend the student to either Practical Training or Learning Support. They *could* base their recommendation on age, ethnicity, or IQ profile. It could be assumed that older students (15+ years) profit more from practical training for employment (Practical Training schools). Immigrant students could be recommended for Learning Support even though their learning deficit is high. Recommendation could also be influenced by either their specific verbal or performing intelligence scores.

   There is a further degree of flexibility. A positive recommendation for Practical Training is possible for students within the 55 – 59 IQ range, if according to information about the learning deficit it can be assumed there is a greater learning potential than based on IQ alone (Verenigde Samenwerkende Landelijke Pedagogische Centra, 2000). Or conversely, immigrant students who are in the 50 to 75 IQ range, who have a learning deficit of 3 years or more and have followed less than two years of Dutch education, should be recommended to Learning Support and not Practical Training. In general, when there is a

conflict between the learning deficit and the IQ score, the school should put more weight on the learning deficit.

Referral to Practical Training is either done upon leaving (special) primary education or when it becomes obvious that a student attending Pre-Vocational Secondary Education with Learning Support still cannot obtain a diploma or certificate.

Mildly mentally impaired student population in secondary education

In the 2007 / 2008 school year, there were 27,260 students attending Practical Training which was 2.9% of the total population of students attending secondary education (Centraal Bureau voor de Statistiek, 2008b). The total number of special needs students in the Netherlands was 9% in primary education in 2009 (Inspectie van het Onderwijs, 2010). For secondary education this percentage was much higher: 19.6% (including students attending Practical Training). However, the majority of this percentage was students with Learning Support (11.7%).

Secondary education for mildly mentally impaired students

The Law on Secondary Education stipulates that schools for Practical Training schools need to provide modified theoretical education (i.e. modified main objectives of regular education), while trying to attain the main objectives of regular education as much as possible. Practical Training schools, furthermore, need to facilitate personality development as well as the development of social skills, and prepare students for the regional labour market (Ministerie van Onderwijs Cultuur en Wetenschappen, 1998). The intended employment positions in the regional labour market for Practical Training school leavers are under that of the assistant level (qualification level 1 of the Dutch education system).

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Practical Training is adapted to the regional and local labour market situation (Huisman-Bakker, te Braake-Schakenraad, Klasen, Westening, &van der Gulik, 2004). The ultimate goal is to give the student a good chance to find work in the local region. Interesting is to see that while the initial goal of Practical Training was direct entrance into the regional labour market (van Laarhoven et al., 1999), an increasing number of students are opting to continue their education at a higher level (Heijnens, 2009). Therefore, students in Practical Training are now assumed to have the following three *development perspectives* (Blockhuis & Berlet, 2006):

1. Students who after leaving school will still need support and who can live (semi-) independently while working in a protected environment.
2. Students who after leaving school can independently take part in the labour market and society.
3. Students who, with learning support, continue their education to attain a level 1 diploma (assistant level) after leaving Practical Training.

The following features are specific to Practical Training (van Laarhoven et al., 1999):

- *Individual Learning Paths.* The students attending Practical Training are very heterogeneous in nature. They vary in didactic level, command of language, cognitive ability, social-emotional development, and therefore also in post-education perspective. The school, with the student's own input, composes an individual learning path out of the available curriculum.
- *Social and Communicative Skills.* These skills are at the core of the curriculum. Apart from the Dutch language course, learning and applying social-communicative skills is part of all courses in Practical Training.
- *Labour Market Orientation.* Practical Training focuses on students entering the labour market after leaving school. Educational objectives are adjusted to independent

functioning in society, including recreation. If attainable, objectives are related to regular education's 'basis development'.

- *Subject Material Organization.* In the lower grades, there is a broad offer of subject material but in the higher grades the offer becomes narrower with a focus on labour market entry.
- *Ortho-didactic / Ortho-pedagogical Needs.* Practical Training is ortho-didactically and ortho-pedagogically adapted to the educational needs of the students. This means e.g. small and well-ordered learning units, material adapted to a low written language level, a great deal of visual, material and multi-media support, frequent repetition, lots of attention to transfer, but also a safe and stimulating educational environment.
- *Application, Skill, and Relation (ASR).* In Dutch called Toepassing, Vaardigheid en Samenhang (TVS), is at the core of regular education's 'basis development' and it is given special attention in Practical Training. This is expressed in the concept of 'learning by doing' as attention is paid to the actual use of skills in a variety of situations and the relation between the various disciplines.

Additional features of Practical Training are that students work in small groups with adapted programmes and that extra care and support is available for students (Reulen & Rosmalen, 2003).

The courses in Practical Training, compared to regular education, have been compressed into five specific educational directions: Dutch, Maths, Information Technology, Social and Cultural Orientation, and Career and Practical Orientation (Huisman-Bakker et al., 2004). Besides these core courses, Physical Education and Practical Development are also compulsory while English can be, depending on the school, part of the curriculum. Practical Development is especially aimed at career transition and is offered in five common educational routes: environmental sector, household and service sector, technical sector, retail

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sector, and warehouse sector. Students attending Practical Training are constantly working on their practical, social, communication, and creative competencies. Explicit attention is paid to the meaning of the contents of work, living and recreation of the student after leaving Practical Training. The organization of time units in daily and weekly planning is not pre-determined, the schools are free to arrange this themselves (Huisman-Bakker et al., 2004).

Practical Training is based on adaptive and student-led learning. This means that the content, pace, and duration of education is determined by the level, interests, learning aptitude, and ability of the individual student (Harskamp & Slof, 2006). Students are in charge of their own learning and this calls for an active construction of knowledge rather than a consumption of knowledge from the teacher.

At Practical Training schools, teachers need to draft a so-called 'action plan' (handelingsplan). "An action plan is the sum of concrete directives for the education of one or more students based on information of the specific pedagogical-didactic needs of these students, with which the school aims to reach certain learning and developmental goals within a particular timeframe" (Schröder-Servaes et al., 1999). The action plan was previously the main tool for individualizing education for a student but the Individual Education Plan (Individueel Ontwikkelingsplan) or IEP (IOP) has in recent years been introduced in Practical Training schools as the new tool for individualizing education. Practical Training IEPs will be covered in more detail in Chapter 4.

The process involving an action plan is cyclical in nature and it can be divided into four phases: registration, intake, action, and completion (Harskamp & Slof, 2006).

1. Registration Phase

The main point of concern in this phase is what the student needs and what is necessary for him / her. Teachers and specialists give their opinion on the information

provided by initial individual student reports. For instance, a didactic expert looks at a student's didactic information, a doctor looks at the student's medical data, a social worker views the student's home situation, and a behavioural expert observes relevant psycho-diagnostic information (Huijgens & van de Wiel, 2007). The school reports its findings to the parents and if all parties agree, the school will proceed with the next phase.

2. Intake Phase

An initial action plan, with supplementary information about the student if needed, is established. A description of the educational program and method of educational delivery is contained within this initial plan. The plan is executed and through observations, assignments, and tests an evaluation is performed.

3. Action Phase

If the initial action plan method is satisfactory, all educational objectives are drawn up in this manner. The central question behind every objective is: "Who does what, when, how often and in what way?" The method of achieving the objective is mostly described in a group action plan. If an individual student has difficulties with specific elements of the plan, extra support is offered to him / her. Furthermore, a description is included of the method of evaluation, where the evaluation is performed, by whom, and how often. According to this evaluation, an action plan may be revised. A separate action plan is developed for all educational objectives.

4. Completion Phase

If all objectives are attained, the student aims for completion of the Practical Training program. Evaluation results are included in the student's final report.

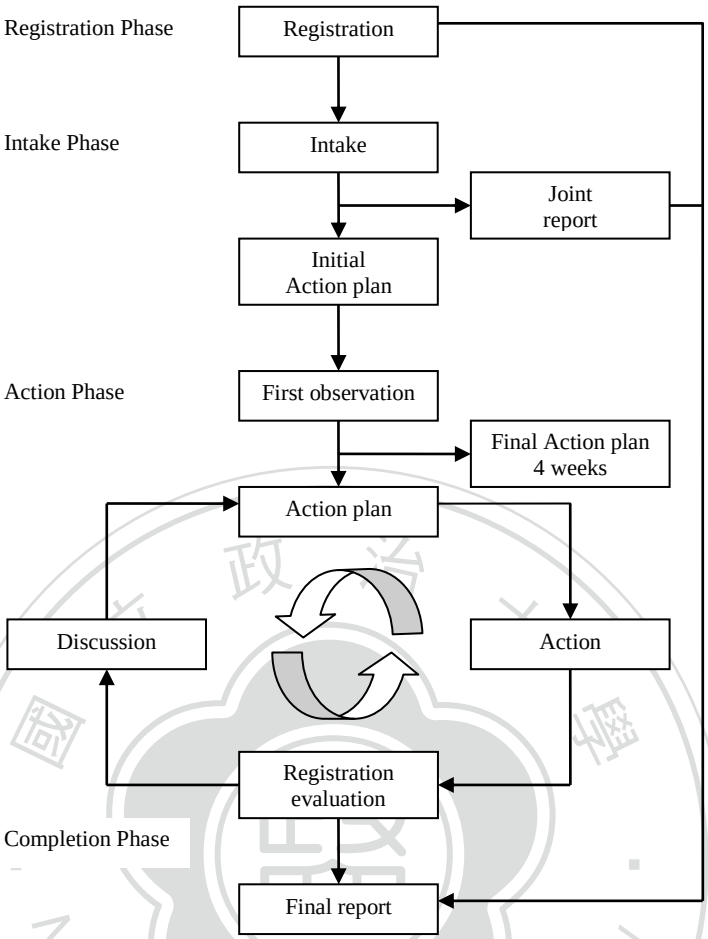

Figure 2.3 Action plan in Practical Training

Source: (Schölvinck & de Vries, 2004)

The most important task regarding the content and subject material for students in Practical Training are a differentiated offer, application, and integration of social and communicative competencies; and a proper fit for regional job. Practical Training has a very individual approach which means there can be numerous educational routes and no two students receive exactly the same education. Besides this, schools for Practical Training differ too and the way education is offered to students can vary. Still, there are still roughly five common routes a student can take: the basic route, the basic route with post-school support, the route with extras, the extended route, and the continuing route (Huisman-Bakker et al., 2004):

1. *The basic route*

   This is the core educational program offered to every student in Practical Training. The ultimate goal of this route is to prepare students for direct entry into the local and regional labour market. Three phases, with a different time frame for each individual student per phase, can be distinguished. In each phase, special emphasis is put on the individual student's social and communicative skills. In the first phase, basic skills like reading, maths, writing etc. play an important role. Students are also introduced to a wide variety of vocational courses, especially courses which would be useful for the local labour market in the school's region. In the second phase, students are prepared for an external internship with a focus on certain, for the student relevant, vocational courses. Internship preparation can be done through internal internships (vocational practice provided inside the school), external vocational training centres, excursions, or group internships. The third, and final, phase is mainly aimed at the external internship. First, students take part in several orientation internships and towards the end of their Practical Training program a placement internship is chosen which should eventually lead to a, in many cases government subsidized, work contract or when this is not directly feasible, work in a sheltered workshop.

2. *The basic route with post-school support*

   After the basic route has been finished and the student has entered the labour market, schools still offer one to two years of on-the-job support to the student.

3. *The route with extras*

   The basic route is supplemented with courses taken inside or outside the school. Besides this, there are some students who can follow vocational courses at a Pre-Vocational Secondary Education (VMBO) school or at a Regional Education Centre (ROC). Upon

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finishing their Practical Training education, students can also continue taking courses which are offered by the various industry sectors.

4. *The extended route*

   This is meant for students 18 years of age who are not yet ready for independent work and cannot yet be placed, or are not willing to be placed, in the sheltered workshop. These students can stay in school a while longer and take specific training and an extra internship.

5. *The continuing route*

   Although the IQ and learning deficit criteria indicated that Pre-Vocational Secondary Education and level 1 (assistant level) of an Regional Education Centre were too high for students who attended Practical Training, an increasing number of students want to continue their education at a regular school (Heijnen, 2009). In 2009, 24% of the students leaving Practical Training continued their education at a Regional Education Centre while 2% continued their education at a Pre-Vocational Secondary Education school (the basic vocational learning pathway).

Instead of offering an educational program which works towards predetermined objectives, a reverse method is created (van Laarhoven et al., 1999). After an analysis of the student, subject material, within the curriculum, is found which is deemed suitable for the specific student.

Education at Practical Training schools focuses on the acquirement of competencies. The definition of competencies used for Practical Training is "…abilities (which can be developed) of people to apply knowledge, skills, and attitudes in specific situations with the result of showing appropriate behaviour", in other words, someone knows what to do, how to do it, and can also indicate why it is done in that specific way (van den Boogaard & Teurlings, 2004, p. 4). In Practical Training, a distinction is made between general competencies and

(sector-) specific competencies for work. The general competencies can be divided into the ability to: properly prepare for work, act safely and environmentally consciously, maintain quality, work together, express oneself adequately, act in a customer directed way, solve problems, increasingly improve on strong points, act as a good employee (Blockhuis & Berlet, 2006). Students acquire and develop competencies in a variety of situations inside and outside of the school either though formal learning (in school), non-formal learning (e.g. at an internship), or informal learning (e.g. at home). Finally, certain otherwise acquired competencies (EVC) should also count in the assessment of a student's competencies.

To be able to learn, students themselves need to be active, preferably in a social context (Huisman-Bakker et al., 2004). This principle leads to new forms of working, different types of assignments, and more use of information technology. The physical learning environment changes which leads to a change of the role of the teacher from a provider of knowledge to a guide who recognizes and supports learning processes.

According to the principle of inclusion, students attending Practical Training attend part of their education in classrooms together with Pre-Vocational Secondary Education students or at Regional Education Centres (Schouten, te Braake-Schakenraad, Huisman-Bakker, & van de Beek, 2002). These classes are usually vocational classes taught by a vocational education teacher while additional assistance is offered to Practical Training students through 'push-in' support from a teacher specialized in special needs education. A striking feature of Practical Training is that there are no centrally determined 'standards' like examination requirements or a nation-wide qualification structure (Blockhuis & Berlet, 2006). Students do not sit exams and they do not graduate in the sense that they receive a diploma. Instead, many schools offer a certain certificate for successful completion of Practical Training. Students who leave Practical Training should be able to find a job, live independently, and arrange their free time meaningfully (Schouten et al., 2002).

Funding

As was mentioned before, special needs students financing is known as the 'back-pack' policy. If students meet certain special needs criteria, they receive a so-called 'pupil-bound budget' which empowers students and parents to choose a school, special or, if possible, mainstream, and take part in decision making on the best way to use the funds in order to meet the student's special needs (Thijs et al., 2009). Per student in secondary education, the average funding for Pre-Vocational Secondary Education, Senior General Secondary Education, and Pre-University Education was €6,400 while students attending Practical Training or receiving Learning Support received an average of €11,700 from the government. This is 83% more funding for this special needs group compared to regular students. Schools for Practical Training receive block grant funding to cover staff and running costs, which they can spend as they see fit.

Staff requirements

To be able to teach at a school for Practical Training, teachers need to finish an undergraduate course for teaching at the secondary education level. Currently, there are also many teachers employed who have a an undergraduate degree for teaching at the primary education level, but the law stipulates that, from 2006, new teachers should have a secondary education specialization (Sectorbestuur Onderwijsarbeidsmarkt, 2010). Most teachers at special education schools have also completed a master's degree course in special educational needs (Eurydice, 2009).

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Nationwide Association for Practical Training

In 2007, former minister of education Netelenbos, commenting on that year's government evaluation of Dutch education, proudly called Practical Training a successful educational reform (van de Ven, 2008). Currently, the Nationwide Association for Practical Training (Vereniging Landelijk Werkverband Praktijkonderwijs) is coordinating several projects for the development of Practical Training education. This association is the backbone of Practical Training education in the Netherlands and most Practical Training schools are members. Since the start of the Practical Training reform in 1998, "[s]ocietal, cultural and technological developments [has been] happening at an ever increasing speed. The government finds it increasingly more difficult to create nationwide, uniform criteria for control. Therefore, it continues to withdraw" (Vereniging Landelijk Werkverband Praktijkonderwijs, 2006, p. 2). The result has been that schools have more room to make their own policy choices. Therefore, the Nationwide Association for Practical Training was formed. Its main goals are (Vereniging Landelijk Werkverband Praktijkonderwijs, 2010b):

- Promoting the interests of this type of education at all levels and at all organizations.
- Acting as contact point and conversation partner during educational reform processes.
- Striving for joint educational reforms and further professionalizing through exchange, support, and schooling.
- Maintaining good communication between all members for the benefit of recognizable and well-organized Practical Training education.

Future trends

The Nationwide Association for Practical Training maintains a close contact with several actors in the field of Practical Training, among which the Ministry of Education, Culture and Science, and it also initiates various researches through external research agencies. Among

current projects, there is a one aimed at designing an IEP (IOP) that would eventually lead to an ITP (Vereniging Landelijk Werkverband Praktijkonderwijs, 2010a). ITPs are as of yet not formally in use in Practical Training.

Another, recent, initiative by the government is the ‘appropriate education’ policy (Thijs et al., 2009). The main aim of this policy is to improve the realisation of education for every pupil with special educational needs within the educational system. Schools need to collaborate with other regional school boards in order to arrange educational provisions in such a way that every child can be educated while taking into account their special educational needs. Schools are free to decide on how the arrangements are offered.

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Chapter 3 Research Methodology

3.1 Research Method

This dissertation seeks to investigate and compare the Taiwanese and Dutch policies for meeting the individual wishes and needs of mildly mentally impaired students in secondary education and the subsequent implementation of these policies in two Taiwanese and one Dutch school setting. To achieve this, the research is performed on two levels:

- National policy level
- School level

A qualitative case study has been chosen as the main research method. When considering the implementation process, it is important to view both these schools as being embedded in their own specific contexts. According to Yin (1994), a qualitative case study is especially appropriate when it is impossible to separate the phenomenon's variables from their context. Furthermore, "a case study is a particularly suitable design if you are interested in process" (Merriam, 1998, p. 33). In summary, a case study can be defined by its special features (Merriam, 1998):

1. *Particularistic*

   Case studies focus on a particular situation, event, program, or phenomenon. They concentrate attention on how groups of people confront specific problems, taking a holistic view of the situation.

2. *Descriptive*

   The end product of a case study is a rich, "thick" description of the phenomenon under study. Case studies include as many variables as possible and portray their interaction.

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3. *Heuristic*

Case studies illuminate the reader's understanding of the phenomenon under study. They can bring about the discovery of new meaning, extend the reader's experience, or confirm what is known (pp. 29-30).

Since one of the key objectives of this research project is to investigate and compare the rationale behind participants' actions, a qualitative method is necessary as it allows the researcher to access and interpret participants' meanings and motivations.

This research project is not meant to generalize the specific findings of both countries' cases to a larger area since the unique circumstances of each case cannot be stripped away. That is, each country is unique and so are the school cases chosen for this research project. Nevertheless, the findings are also compared with relevant worldwide trends concerning individualizing education for mildly mentally impaired students since these trends have aided in shaping policies in both Taiwan and the Netherlands. This helps put this research project in a wider context, beyond that of the Taiwanese and Dutch national contexts. Furthermore, "no problem in education exists in isolation from other areas of human behaviour. Consequently, there is always some research study, some theory, some thinking related to the problem that can be reviewed to inform the study at hand" (Merriam, 1998, pp. 50-51). In comparative educational research this is especially applicable as "too many studies neglect discussion of the ways in which patterns at lower levels in education systems are shaped by patterns at higher levels, and vice versa" (Bray, 2005, p. 240).

Throughout this research project, mindful attention was directed towards the validity and trustworthiness of the research design and the implementation process. The following sections will discuss and detail this research project's conceptual framework, research subject, research tools, research process, data collection and data analysis.

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3.2 Conceptual Framework

A strength of case studies is that the loose framework of the research leaves room for unexpected results (Maxwell, 1996). When considering multiple-case studies, this notion is seconded by Miles and Huberman (1994) who point out that "in multiple-case research…the looser the initial framework, the more each researcher can be receptive to local idiosyncrasies" (p. 17). However, they also warn that "cross-case comparability will be hard to get, and the costs and the information load will be colossal" (Miles & Huberman, 1994, p. 17). These authors believe that a solution would be to avoid either extreme. Therefore Figure 3.1. shows the conceptual framework which has been designed to expand the boundaries of the research while leaving enough room for unexpected results.

The framework itself covers a very wide context which stretches far beyond the national borders of both countries. This is in line with Bray's (2003) view that, in comparative education, researchers should locate nation-to-nation comparisons in wider frameworks. Limiting the framework to both nations only would isolate them on 'islands' not connected to their surroundings. The conceptual framework visibly shows the holistic nature of this research project.

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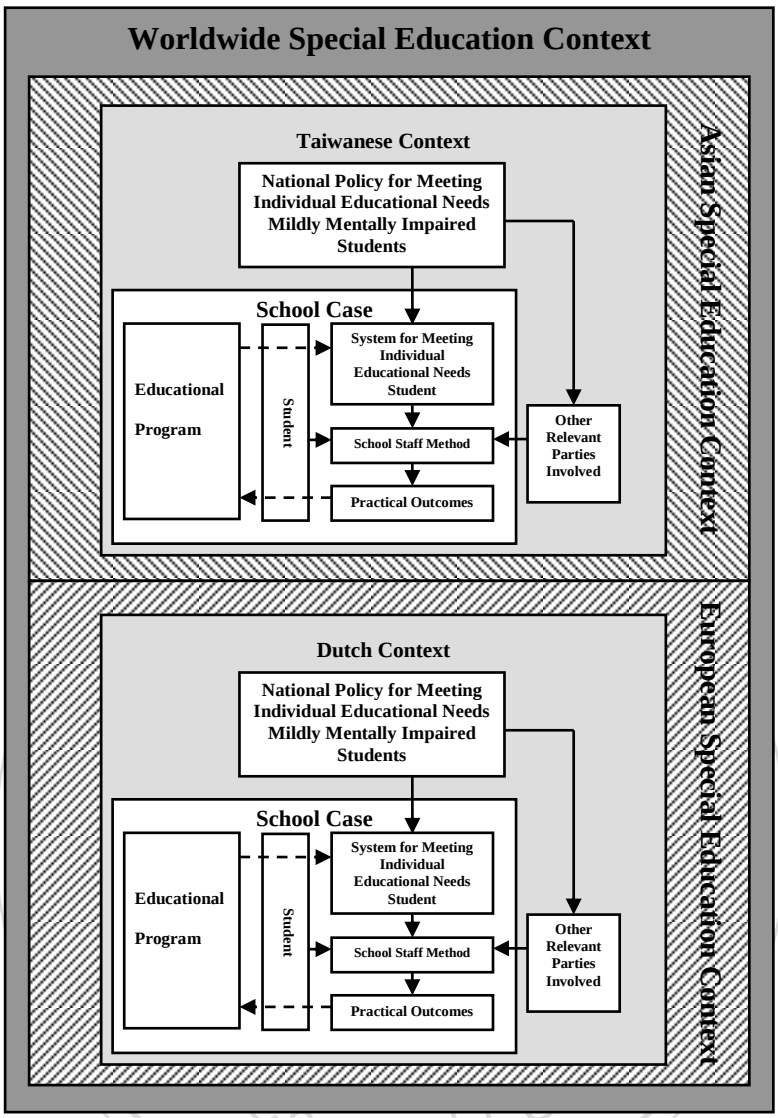

Figure 3.1 Conceptual framework

3.3 Research Subject

This research project is a qualitative, comparative case study for which a secondary education school in both Taiwan and the Netherlands have been chosen which are locally considered to provide high-quality implementation of individualized education for mildly mentally impaired students. The choice of schools is based on recommendations made by a Taiwanese expert on special education and a Dutch expert on secondary education for mildly

mentally impaired students. This ensures a level of comparability since both school cases will represent 'high-quality' implementations of national policies in their specific national context. The choice of case subjects accords with the belief held by Walford (2001) who argues that in case study research involving policy issues, it is "necessary to select research sites which are important for themselves and for their historical and strategic role in policy rather than for their supposed 'typicality'" (p. 162).

Professor Li-Yu Hung (洪儷瑜) was chosen as the expert who made the Taiwanese school case recommendations. She is currently a professor in National Taiwan Normal University's Special Education Department at which she has taught for twenty years. Furthermore, she is, among others, the current president of the Taiwan Academy for Learning Disabilities, a board member of the Taiwanese Learning Disabilities Association, the Taiwan Academy of Learning Disabilities, and the Special Education Association of Taiwan, of which she is also a permanent member. Besides this, she has served as a committee member of the Taipei Municipal Consultant Committee for over ten years. Since 1984, Professor Hung has written or co-written close to a hundred articles for Taiwanese and international journals in special education, and she is also the author or the co-author of several books in the same field.

For the Netherlands, Mr. Cees Hoedjes made the recommendation for the most suitable school case to investigate. Mr. Hoedjes has been involved in secondary special education for mildly mentally impaired students (Practical Training schools) in the Netherlands for more than 30 years. Until 2008, he was director at a Practical Training school for a total of 25 years while also simultaneously holding the position of director of the regional consortia for cooperation between special and mainstream secondary education for 10 years. Currently, he is active as a member of the Nationwide Association for Practical Training Schools (of which all the Dutch Practical Training schools are members) where he

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mainly focuses on the implementation of quality policy in Practical Training schools. Mr. Hoedjes also serves as an intermediary between the national association of Practical Training schools and the industry sector, and also works as an independent consultant in the field of Practical Training education.

After considering the purpose of this research project, Mr. Hoedjes recommended Practical Training school Accent Nijkerk to be used as a case representing high-quality practical implementation of national policy in the Netherlands.

Professor Hung recommended two high-quality schools which are situated in Taipei City. The school for lower-level secondary education wished to remain anonymous and therefore the identity of this school will not be stated. Instead, it will be referred to as 'Taipei Junior High School'. The school for upper-level secondary education, Nan Gang Senior Vocational High School, consented to participate in this research project non-anonymously. Chapter 4 will provide a general description of these three school cases.

The heads of these schools / departments were asked to identify key staff members within the school who are involved in the process of individualizing education for mildly mentally impaired students. These key informants served as interviewees and they are staff members whom the school / department heads consider to be particularly effective. An overview of the background of these interviewees can also be found in Chapter 4.

The participants were properly informed that this research project does not aim to evaluate their practical implementation of national policy but rather to understand the practice of individualizing education in its local context. In other words, the interviews served as a means to *understand* rather than *judge*. This caveat allowed for the participants to speak candidly.

3.4 Research Instruments

For the national policy level of this research project, government policy documents regarding secondary education for mildly mentally impaired students were collected and analysed in order to establish the key stated goals and objectives of each country for meeting the individual educational wishes and needs of mildly mentally impaired secondary education students.

As to obtaining the necessary data for both school cases, Merriam (1998) states that "qualitative inquiry, which focuses on meaning in context, requires a data collection instrument that is sensitive to underlying meaning when gathering and interpreting data" (p. 1). Therefore, both a semi-structured interview technique and the collection of relevant documents in both school cases have been chosen as the main instruments of this research project. Interviews are one of the primary means of collecting data in qualitative studies (Maxwell, 1996; Merriam, 1998; Miles & Huberman, 1994; Yin, 1994). Furthermore, conducting interviews is the most appropriate fit for performing this specific research since it represents "… the best technique to use when conducting intensive case studies of a few selected individuals" (Merriam, 1998, p. 72).

The choice of a semi-structured approach is justified since it avoids both the extremes of both structured and non-structured interview techniques, therefore leaving room for local idiosyncrasies while maintaining enough structure to perform an international cross-case comparison. A semi-structured interview is a type of interview in which "either all of the questions are more flexibly worded, or the interview is a mix of more and less structured questions" (Merriam, 1998, p. 74). This means there can be a highly structured section to the interview since certain information is desired from all the respondents in this research project. However, the largest part of the interview is still guided by a list of questions or issues to be explored, leaving room for the respondents to define the world in unique ways while also

allowing the researcher to respond to the situation at hand (Merriam, 1998). Given the comparative nature of this research project, Miles and Huberman (1994) emphasize that "[a cross-case comparison] requires some standardization of instruments so that findings can be laid side by side in the course of analysis" (p. 35).

During the process of conducting the interviews, any relevant documents will simultaneously be collected for analysis. These documents will also serve as a tool for probing into deeper meaning during these interviews. Stake (2006) believes that

> …some of the most effective interviewing is "probe-based," meaning that certain materials (texts, videos, or other artifacts) are used as probes to evoke interviewee comment or interpretation. The probe materials give focus and scope to topics of interest, as well as motivate participation. (p. 31)

A list of all the interview questions in Chinese, Dutch, and English can be found in Appendices C to F.

3.5 Research Process

In comparative educational research, there is no single approach to comparison which is agreed upon by all researchers (Bray, Adamson, & Mason, 2007; Phillips, 2006). However,

> …at the very least there should be attempts to produce a systematic framework for analysis which uses techniques of what Bereday called 'juxtaposition' of data for comparison and which includes a full consideration of context in any attempts to reach conclusions or to generalise from the findings (Phillips, 2006, p. 315).

With due consideration of this recommendation in mind, the following model, loosely based on a model proposed by Phillips (2006), was created:

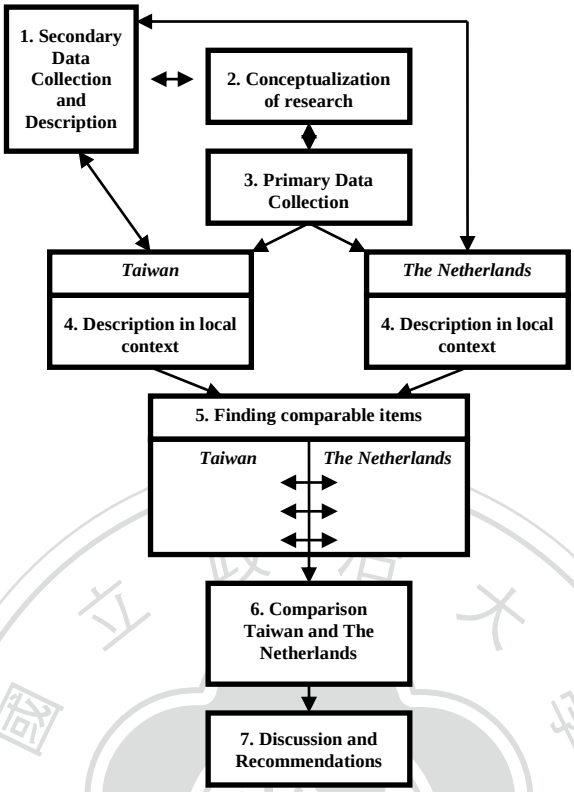

Figure 3.2 Research process

1. Secondary data collection and description

This first stage is the gathering, analyzing, and description of secondary data. These data are current worldwide discussions and debates related to the process of meeting the educational wishes and needs of mildly mentally impaired students in secondary education. The sources of the data are online databases (e.g. Eric, Proquest) as well as relevant books and journals. Furthermore, this section includes a contextualization of both countries through a description of the country profiles, education systems, and the position of mildly mentally impaired secondary education students within these two education systems.

2. Conceptualization of research

This stage "represents the essential initial attempts to identify the research questions and to 'neutralise' them from any particular context" (Phillips, 2006, p. 315).

3. Primary data collection and 4. Analysis and description in local context

Data collection and analysis happen simultaneously. Primary data are gathered, analysed, and described in their specific local contexts. These primary data are (1) the national policies for individualizing education for mildly mentally impaired secondary education students and (2) the interviews conducted at the school cases.

5. Finding comparable items

Next, by juxtaposing (placing side by side) the two countries' data, criteria for comparison are created by establishing similarities and differences.

6. Comparison

Using the established items fit for comparison, the Taiwanese and Dutch national policies for meeting individual educational wishes and needs of mildly mentally impaired students in secondary education in Taiwan and the Netherlands are compared as is the implementation of these policies in the school cases.

7. Discussion and recommendations

Finally, the findings from the comparison are discussed and recommendations are offered.

3.6 Data Collection

The conducting of interviews and the collection of relevant data were both performed at the school campuses. The complete contents of the interviews were digitally audio-recorded and fully transcribed, thus ensuring a "rich" data source. Field notes and reflective memos were simultaneously taken to aid in the process of data analysis and a personal research log was kept to keep track of the research process. Miles and Huberman (1994) anticipate that "the lion's share of fieldwork consists of taking notes, recording events (conversations, meetings), and picking up things (documents, products, artifacts)" (p. 35).

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Staff members at Accent Nijkerk fully consented to take part in this research project and they did not choose the option to do so anonymously. The interviews were conducted at the school in April of 2010.

Data collection in Taiwan occurred between October and December of 2010. 'Taipei Junior High School' wished to remain anonymous while Nan Gang Senior Vocational High School participated non-anonymously. However, one of the three key informants at this school did wish to remain anonymous.

Since the researcher is sufficiently proficient orally in both Chinese and Dutch, the Taiwanese interviews were conducted in Chinese and the Dutch interviews were conducted in Dutch. Since the researcher's mother tongue is Dutch, no help was necessary in conducting or transcribing the interviews. However, to ensure that sufficient data was collected during the Chinese interviews and that the collected data would be correctly transcribed, a native Taiwanese student at National Taiwan Normal University (國立師範大學) studying special education at the graduate level assisted in conducting the interviews. Another native Taiwanese was responsible for transcribing the Chinese recordings. The National Taiwan Normal University's graduate student's knowledge of the Chinese language was also used, when needed, in translating data into English or confirming correct translations. In international comparison, the use of local translators and interpreters is very useful, as they can become cultural informants, helping to place the individual cases into their wider context (Schweisfurth, 1999). Interviews were transcribed using digital media and to ensure the validity of the data collected, the description of the findings were provided to the participants for 'member checking' and feedback. All three school cases returned their member checking files and provided valuable feedback on the accuracy of the program descriptions.

The member checking measure was also included to counter the threat of "imposing one's own framework or meaning, rather than understanding the perspective of the people

studied and the meanings they attach to their words and actions" (Maxwell, 1996, p. 90). The interviewer – respondent relationship is a complex phenomenon and Merriam (1998) warns that "both parties bring biases, predispositions, attitudes, and physical characteristics that color the interaction and the data elicited" (p. 87). In international comparative studies the dimension of ethnocentricity is also a potential issue:

> It is important to recognise that we come with a great deal of preconceptions based on long personal experience of a particular way of looking at things in education and thus to try to create a kind of neutrality in attempting to understand other systems of education and the issues that are of interest or concern in them. Seeing things through an ethnocentric filter can have distorting effects as far as our understanding of educational phenomena in other countries is concerned (Phillips, 2006, p. 311).

The researcher is aware of these possible dangers and he maintained an appropriate distance from the subject while focusing on exploring the assumptions of the interviewee. Concurrently, the researcher avoided sharing any of his own opinions.

3.7 Data Analysis

The process of data collection and data analysis cannot be clearly separated. For an effective qualitative study, data collection and analysis should happen simultaneously from the research project's inception, as this helps the researcher "cycle back and forth between thinking about the existing data and generating strategies for collecting new, often better, data" (Miles & Huberman, 1994, p. 50). Merriam (1998) summarizes this process as follows:

> Data collection and analysis is a *simultaneous* activity in qualitative research. Analysis begins with the first review, the first observation, the first document read. Emerging insights, hunches, and tentative hypotheses direct the next phase of data

collection, which in turn leads to the refinement or reformulation of questions, and so on (p. 151).

This research project consists of a comparison of two countries' national policies and the implementation of these in school cases. This calls for two stages of analysis, that of the within-case analysis and that of the cross-case analysis (Merriam, 1998):

> For the within-case analysis, each case is first treated as a comprehensive case in and of itself. Data are gathered so the researcher can learn as much about the contextual variables as possible that might have a bearing on the case. Once the analysis of each case is completed, cross-case analysis begins (pp. 194-195).

Collected data amass to huge amounts and the analysis of these (making sense out of them) involves consolidating, reducing, and interpreting (Merriam, 1998). When performing data analysis in case studies, Yin (1994) emphasizes that the researcher attends to all the evidence, addresses all major rival interpretations, addresses the most significant aspects, and utilizes the researcher's prior expert knowledge.

The data collected from each interview will be triangulated by the following:

1. data collected from the other participant interviews,
2. relevant documents collected from the schools, and
3. national policy guidelines.

Stake (2006) summarizes triangulation as "an effort to assure that the right information and interpretations have been obtained" (p. 35). In order to attain this,

- each important finding needs to have…confirmations and assurances that key meanings are not overlooked, and
- each important interpretation needs assurance that it is supported by the data gathered and not easily misinterpreted (p. 33).

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The use of the member checking technique, which is mentioned in the data collection section, should also have aided in the triangulation process in the sense that “internal validity may be strengthened through respondent verification of researcher impressions and findings” (Schweisfurth, 1999, p. 335).

Comparability of data was ensured by focusing on the process of meeting the individual wishes and needs of the students in both school cases. This comes down to finding out the ‘what’, ‘who’, ‘when’, ‘where’, and ‘how’ in both school cases while simultaneously focusing on the ‘why’ for each. These questions served as the initial categories for cross-case comparison while the researcher also prepared for any themes and categories that emerged during data collection and analysis. This initial attempt at categorizing aided in the process of juxtaposing collected data from both countries. The issues that emerged during data analysis are covered in Chapter 5.

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Chapter 4 Research Findings

4.1 Taiwan

4.1.1 Taiwanese Policy

In Taiwan, education for the mildly mentally impaired, and therefore policies regarding the individualization of education for this population of students, can be found in the Special Education Act (Ministry of Education, 2009) and the Enforcement Rules of the Special Education Act (Ministry of Education, 2003). The relevant articles are as follows:

Special Education Act:

- **Article 12**

  The educational level, grade placement, class location and instruction practice of special education students should be flexible to the extent that it is sensitive to their special educational needs. Their entry age of education and duration limit of schooling are required to shift to meet realistic needs.

  Procedure and details of practices including lowering or raising the entry age, shortening or extending duration of schooling, etc., are all determined by central authorities. But in case there is a law involved, it should be followed.

- **Article 18**

  Provision and programming of special education and related services should be based on appropriateness, individualization, localization, accessibility, and inclusion.

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- **Article 19**

  The curriculum, materials, methods and assessment in special education should be flexible to the extent that they meet the needs and suit the characteristics of individual students, with the measures set by central authorities.

- **Article 28**

  Schools under senior high should develop the individualized education program for each and every special needs student based on a multidisciplinary team, invite parents for participation and, where it needs, encourage professionals to accompany parents for participation.

- **Article 29**

  Schools under senior high should take into consideration [the] strengths, aptitude, special education needs, and career development of students with disabilities and therefore offer appropriate counseling services in admission to secondary education. The measures of counseling services in admission to secondary school after completion of compulsory education are set by the central authorities.

Enforcement Rules of the Special Education Act

- **Article 18**

  The "individualized education program" described in Article 27[1] of the Act refers to special education or other related programs developed through professional teamwork to accommodate the needs of the individual special needs student. The program shall cover the following areas:

[1] While article 18 of the Enforcement Rules of the Special Education Act refers to article 27 of the Special Education Act, it is in reality article 28.

1. The student's ability concerning cognition, communication, mobility, emotion, and interpersonal relations, as well as sensory functions, physical health, self-help behaviors, and performance in subjects like Chinese and mathematics
2. The student's family background
3. The impact of disabilities on the student's academic performance and general adjustment in regular classes
4. Ideal means assessment for the student
5. Strategies of management and administrative support as the student's learning is halted by his or her behavioural problems
6. Annual goals and instructive objectives
7. Special education and related professional services needed by the student
8. Activities and amount of time per day the student participates in regular schools / classes
9. Date and criteria concerning the assessment of whether the student has achieved annual goals and instructive objectives
10. Assistances in transitions from preschool to elementary school, from elementary school to junior high school, from junior high school to senior (vocational) high school, as well as from senior (vocational) high school to college / university

The "assistances in transitions" as described in subparagraph 10 above shall cover counseling concerning admission to higher education institution, daily life, and employment, as well as psychological counseling, welfare, and other related services. The team responsible for developing the individualized education program shall include school administration personnel, teachers, parents of the student concerned, and other professionals specializing in special education or related fields. The student concerned

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may be invited to participate in the team. Parents of the student concerned may invite other individuals if necessary.

- **Article 19**

  The individualized education program described in the previous article shall be developed by the school within one month after the semester begins and shall be subjected to review and conducted at least once per semester.

4.1.2 Implementation in Taiwanese School Cases

Two schools, based on Professor Li-Yu Hung's recommendation described in Chapter 3, agreed to participate in this research project. Both of these schools are located in Taipei City. The school for lower secondary education wished to remain anonymous while the upper secondary education school did not choose this option. Therefore, the lower secondary education school participating in this research project will from here on be referred to as 'Taipei Junior High School'. The school case for upper secondary education was Nan Gang Senior Vocational High School. The research sites were visited in October and November of 2010.

Taipei City

Taipei City, Taiwan's capital, is located on the northern tip of Taiwan. It is the largest city in Taiwan with Taipei City's population (not including the Taipei County districts) being over two and a half million. Taipei City hosts the government of Taiwan and it has been the centre of economic development.

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Taipei Junior High School

School background

This public junior high school is situated in one of the oldest districts of Taipei City. It has a total population of just under 200,000 people.

The school was founded more than fifty years ago. Across the three grades, it has sixty-five regular education classes, three special education classes, and two resource room program classes. The total population of students is over 1,900 with the number of staff members servicing them being more than 180.

Among the facilities of the school are ICT centres and classrooms, a sports field, an activities centre, a conference room, and various student support offices.

Research participants

Taipei Junior High School was visited in October of 2010 and the school's special education coordinator was the first person to be interviewed. She subsequently identified two other key informants in the process of individualizing education for mildly mentally impaired students at the school. The total time of the interviews was over 200 minutes. The participants were:

1. *Special education coordinator (特殊教育組長)*

   The main responsibility of the special education coordinator in the process of individualizing education is controlling the financial budget of the educational programs.

   The special coordinator holds a masters degree in special education. She worked for more than ten years in the school's resource room program as well as the special education class. She currently is the special education coordinator, a position which she has held for more than a year.

2. *Special education class mentor (特殊班導師)*

The responsibilities of the special education class mentor are assisting the students during class, addressing behavioural aspects of the children, and communicating with the parents. A mentor also holds the position as case manager. A case manager is responsible for the Individualized Education Program (IEP) of about three to four students.

The special education class mentor interviewed holds a bachelors degree in special education and has worked at the school for five years. In the school, she has held the position of subject teacher (專任老師), and special education coordinator before being employed at her current position of special education class mentor of the seventh grade.

3. *Resource room guidance teacher* (認輔老師)

A resource room guidance teacher is responsible for teaching resource room students the academic subject of either Chinese, English or maths. A guidance teacher also holds the position as case manager. A case manager, therefore, is also responsible for the Individualized Education Program (IEP) of a few students.

The resource room guidance teacher has both a bachelors and a masters degree in special education. She has taught at the school for over twelve years, of which she spent the first eight years as a mentor in the special education class. Currently, she teaches English in the resource room class, and she is a case manager for seven students with either learning disabilities or autism. While she is currently not a case manager for mildly mentally impaired students, she has had experience as a case manager for this population of students in the past.

Direct quotes from any of these four participants will be written in italics in the following sections followed by a reference as to who was quoted.

The school's programs for mildly mentally impaired students

The school both services students with mild mental impairment in the resource room class as well as in the special education class. There are currently three mildly mentally impaired students in the resource room program. Two are in the seventh grade and one is in the eight grade. The special education class program has three mildly mentally impaired students. They are divided over all three grades: one in the seventh, one in the eighth, and another student in the ninth grade.

Since both educational programs are quite different from each other, they will be discussed separately. However, the process of individualizing education has significant similarities in both programs and therefore the description of this process is combined and, when needed, with clear references as to which educational program it applies to.

The resource room program

The resource room is the educational environment which the Taiwanese government believes is most suitable for mildly mentally impaired junior high school students. Taipei Junior High's resource room program is of the non-categorical type. Students with various types of disabilities are serviced there at the same time. The majority of the students are either learning disabled, mildly mentally impaired, or autistic.

Mildly mentally impaired students follow the nine-year integrated curriculum outline but the learning material is adapted to their level. The pace of teaching is also adjusted.

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Mildly mentally impaired students are only pulled out of the regular classes for the subjects of Chinese, English, and maths. For the other classes, the students join their regular education classmates.

We let them take all classes with the regular class students, except Chinese, English, and math. We let them have classes such as physical education and music class together but also, for instance, social studies. For the students we could then, if necessary, lower the standard. (Resource room guidance teacher)

In the two resource room classes, there is a team of three subject teachers (專任老師) who teach Chinese, English, and maths. All of these three teachers are also guidance teachers (認輔老師). The guidance teachers are also case managers (個案管理老師). Among the guidance teachers, one person is selected as a convener (召集人). Besides the resource room guidance teacher, every student in the resource room also has a regular education class mentor.

The fact that students are normally pulled out of Chinese, English, and maths class doesn't mean that the students cannot take these three classes in the regular classroom. If the student's ability on one of these subjects is good, he or she can take this subject in the regular education class.

Since there are only three options for the teachers to pull out students, arranging class time is considered a difficulty. The school currently has the resource room program organized into two classes. One class services one part seventh graders and the other part eighth graders while the other class has seventh and ninth graders. This is organized in this way due to time restrictions.

It is very hard to organize the curriculum in the resource room. Therefore, we mostly have two different grades taking class at the same time. It is hard for the teachers because students

are scattered over the classes. It is hard to divide the classes according to student level. (Special education coordinator)

The case managers in the resource room organize the timetables. They try to teach a subject to a group of students simultaneously. If students are pulled out of Chinese class, they do not necessarily have Chinese class in the resource room. Social skills, social adjustment, and behavioural classes are also added to the resource room curriculum. The school, however, does not provide vocational classes in the resource room program. Resource room programs in some other schools in the surrounding areas do have such classes and if students want to take a vocational class, they can attend one at a neighbouring school. These classes could be in the field of cooking, the beauty parlours industry, or ICT.

The resource room students take tests which are tailored to their specific level. The students normally also take the regular class test as well as the resource class test. The difference in grades shows how the student compares to the regular class level. In the past, the resource class test score was the official one.

We encouraged the students to take the regular class test. It will let the parents and the student know which level can be attained with hard work. (Special education coordinator)

This school year, the test system has changed and the resource class test score and the regular class test score are combined and a decision on the student's final grade is discussed in the IEP meetings.

The special education program

Compared to the resource room, the special education class has more mildly mentally impaired students who are also autistic. The resource room tends to have mildly mentally impaired students who are not diagnosed with other disabilities. The special education class

mentor currently has one seventh grade student who is only diagnosed with mild mental impairment.

This student studied in a special education class in elementary school so the resource room program is too hard. The regular classes would be at an abstraction level that is too high. It would be best for the students to have the opportunity to study in an inclusive environment in elementary school. (Special education class mentor)

The other mildly mentally impaired student in the seventh grade is also autistic.

The special education class does not (yet) have to follow the nine-year integrated curriculum outline. The curriculum is completely written by the teachers themselves and is mostly functional in nature. Regardless of the level of mental impairment, all the students take social skills and daily living education classes at the same time. However, the curriculum is mainly written for mildly and moderately mentally impaired students. The severely mentally impaired students only attend parts of the classes.

There are three special education classes with each ten students. These classes are separated into A, B, C, and D levels for the subjects of Chinese, English, and maths. In the eighth and ninth grade, mildly mentally impaired students normally are in the A-level classes. In the seventh grade, they can be in both A- or B-level classes depending on the ability of the student. The A-level classes normally have the highest number of students while the D-level classes have the fewest. The students have homework but they do not get grades for this. The amount of material studied for the basic academic subjects such as Chinese, English, and maths is based on a student's personal ability.

Mildly mentally impaired students [in the special education class] can pretty much learn all the material offered. (Special education class mentor)

In the special education class the students learn very basic social skills like basic conversation skills, introducing oneself, telephone etiquette, etc. Mildly mentally impaired

students can act as the teacher's helpers and implement the social skills they have learned involving contact with other people, such as ordering lunch boxes.

The transition from primary education to secondary education is considered a big step. Students need to adjust to their new environment in the first year.

The difference between primary school and lower secondary school is big. In the first year we want the children to get used to the daily routines. (Special education coordinator)

Besides this, social interaction skills are emphasized from the start. In the second year, the students should have adapted to their new environment so the teachers can focus more on the educational part. In the third year, the students start preparing for their transition to a senior high school. They practice for the upcoming ability assessment (能力評量) and teachers emphasize improving the students' knowledge for the various academic subjects.

Comparatively, students in the special education class have more behavioural problems than in the resource room classes.

Mildly mentally impaired students are better than their classmates at academic subjects like Chinese, English, and maths. The difference in level in the class is very big. The mildly mentally impaired students have a lot of self-confidence and are willing to help the other students. They also have some behavioural difficulties. They are more prone to hit and bully other students because they are smarter and therefore naughtier. (Special education class mentor)

Just like in the resource room, every special education class has three subject teachers (專任老師). One of these is the mentor (導師) and the other two are guidance teachers (認輔老師) who are responsible for providing assistance. The guidance teacher also helps with the administrative work. All three subject teachers are also case managers (個案管理老師) and each person is responsible for three to four individual cases. The role of the mildly mentally impaired students during class is somewhat different than in the resource room:

The mildly mentally impaired students in the special education class act as the teachers' helpers. They are the smarter ones in the class. (Special education coordinator)

Mildly mentally impaired students in the special education class also have to take tests to practice for their entrance examination for a comprehensive vocational program at a regular education senior high school.

The test scores are not so important in the special education class. We just let the students experience these kinds of tests because they will need to take an entrance exam for senior high school. Although the teachers might not care so much about the test scores, the parents do care. (Special education class mentor)

Post-lower secondary education perspectives students

The teachers at the school recommend that mildly mentally impaired students continue their educational career by studying at a comprehensive vocational program instead of a regular senior vocational education class. Almost all the students who graduate from this school will eventually go to a comprehensive vocational program.

The comprehensive vocational program will prepare a student for employment. At a regular education class it will be [academic] tests, tests, tests. It's a waste of time if they don't learn employment skills. (Resource room guidance teacher)

We have found that the comprehensive vocational programs really suit mildly mentally impaired students better. Their subjects and their vocational skill training really help the students. (Special education coordinator)

In the seventh and eighth grades the teachers do not yet emphasize the transition to the comprehensive vocational program yet. This really starts in the ninth grade. Students that are the worst performers in entrance examinations for senior high school comprehensive vocational programs end up in special education schools since all the classes are full in the

regular schools. This means that the entrance exams are highly competitive and a source of pressure for the students to perform.

Parents start being nervous in the eighth grade and they are very nervous in the ninth grade. (Special education class mentor)

Individualizing education

Participants in the student's individualized education process

It is important to note that the teachers at Taipei Junior High School often have multiple staff positions. Therefore, this person could have multiple tasks in the process of individualizing education for the students.

Case manager (個案管理老師)

The case manager is the main person responsible for writing the Individualized Education Program (IEP), writing the guidance record, and communicating with the parents. Each of the three special education class subject teachers for one grade, is also the case manager of three to four students. In the resource room, she communicates with the regular classroom teachers about the student's situation. Apart from this collaboration, the case manager also communicates with the other two subject teachers.

Student counsellor (輔導老師)

This person is the regular education student counsellor. So, this person only services mildly mentally impaired students in the resource room, not the special education class. The main task of a student counsellor is the counselling of ten students covering behavioural aspects.

Mentor (導師) and convener (召集人)

In the special education program, the mentor arranges the time table, classes, and other activities for every semester. This is done in coordination with the other mentors. The resource room program's convener does this for the resource classes while communicating with the guidance teachers / case managers.

Guidance teacher (認輔老師)

The guidance teacher specifically looks at behavioural issues a student might have and provides assistance in overcoming such difficulties.

Special education coordinator (特殊教育組長)

Often the special education coordinator represents the administration department at an IEP meeting. She is in charge of the financial budget of the programs.

Regular classroom mentor (普通班導師)

If there are academic or social adjustment issues in the regular education class, the regular classroom mentor communicates this to the student counsellor and the resource room teachers.

Therapists

If a student requires therapies for their specific special education needs, this student will be referred to a therapist. This could be a physical therapist, occupational therapist, speech therapist, hearing therapist, or clinical psychologist. Information related to such a condition needs to be taken into account for each individual case.

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Parents

The parents have a very important role as the final decision makers in educational planning for their child. The zero-reject policy in Taiwan empowers the parents to have the final say in which classroom environment their child will be educated. The parents also have a lot of say in what their child studies in school.

The wishes of the student are normally the parents' wishes. For example, what does a student need to learn in the seventh grade? We respect the parents' wishes. (Special education class mentor)

Students

Each individual student's needs are taken into account in the process of individualizing education. However, the various staff members of the school as well as the parents are the main decision makers.

Normally the students accept what is decided. They do not take on the role as decider themselves. (Special education class mentor)

System and tools for individualizing education

The system for individualizing education for mildly mentally impaired students at Taipei Junior High School has as its main tools the Individualized Education Program (IEP), Individual Transition Plan (ITP), and the guidance record. These are all written documents where relevant individual student information is recorded. Besides these three documents, the school also makes use of communication books and various unscheduled, informal student-teacher meetings.

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Individualized Education Program (IEP)

The school's IEP is a written document which contains all the items stipulated in article 18 of the Enforcement Rules of the Special Education Act. The educational goals in the IEP are clearly stated with the aspired attainment of these goals expressed in percentages.

The attendees at a meeting for a resource room student are the case manager, all the resource room subject teachers teaching a particular student, the regular education class mentor, the student counsellor, an administrator (often the special education coordinator), and the parents. For students studying in the special education class the same people are present at the IEP meeting, except for the regular education class mentor and the student counsellor. If one of the staff members has more than one staff position, he or she represents both these parties. The number of people attending is therefore different for every student. The students themselves are normally not invited to attend the meeting. As to why the students do not participate in the IEP meetings, the resource room guidance teacher and the special education mentor held the following views:

The last few years, mildly mentally impaired students haven't attended the meetings. We normally only let some students, like students with learning disabilities attend. Mildly mentally impaired students don't understand what's being said in the meetings. (Resource room guidance teacher)

First of all, the student probably doesn't understand what we are talking about. Second, you ask him, "Is this ok? Do you want this?" What this student replies with is not necessarily true. Furthermore, what the student decides is maybe not the same as the parents' decisions. Father and mother know better what a student needs. (Special education class mentor)

One year has two semesters and there should be three IEP meetings per semester. It can be the case that two meetings are combined into one. Of these meetings, according to school policy, there should be at least one review meeting (檢討會議) per semester. The IEPs

of new students need to be finished before the end of September. Parental attendance at the IEP meetings can be a problem.

Often the parents only come once. They tell us they don't have time. (Resource room guidance teacher)

An (anonymous) partial example of a special education class mildly mentally impaired student's IEP can be found in appendix G.

A point which was raised by the staff was the fact that the families in the community around the school have lower social-economic status than in most parts of Taipei. Some parents have only studied up to lower level secondary school and some are not functionally literate. This makes communication with the parents difficult for the teachers at the school.

Individual Transition Plan (ITP)

IEPs become Individual Transition Plans (ITPs) in the ninth grade but there is not much difference between an IEP and an ITP. In the ITP, the vocational assessment information, the needed welfare services, and possible information about the next educational stage are added.

Guidance record

The case manager notes in a document, called the 'guidance record' (輔導記錄), if anything important happens during the daily activities of a student. These are mainly important issues such as a student's behavioural difficulties but they could also be positive points. This written information is shared with the administrators but the parents do not receive a copy. When a student goes to the upper secondary education level, the guidance record is combined with the IEP information and put into the transition file.

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Study portfolio (學習檔案)

A student's studied material, past homework grades and scores on examinations are kept in this file.

Communication books

Both in the resource room as well as the special education class the teachers make use of communication books. These books are used to present parents and other teachers with information about a student's academic performance, homework, behavioural aspects, and other relevant information. The book contains checklists, rewards (stars), and reprimands (crosses). Students take their communication book home every day so their parents are able to follow what is happening at school. Parents can also write information in the book about the student's situation at home.

In the resource room, there are two communication books, one for the regular education class and one for the resource room.

Informal student-teacher meetings

There are frequent non-scheduled, informal student-teacher meetings between the teachers and the students to discuss various aspects of a student's educational situation. If certain issues need to be discussed, lunch time or after-class hours are used for this. The teachers also have non-scheduled, informal discussions with each other concerning the situation of the individual student.

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Method of individualizing education

Assessing individual student needs, interests and educational goals

The teachers at the school believe mildly mentally impaired students' needs to be more of a behavioural nature than an academic one. Therefore, emphasis lies in developing behavioural aspects for all the students.

We hope that we can cultivate [students with] a better attitude and better habits at the junior high school level. Our homework is not difficult, so we focus more on behaviour when we give homework. They need to respect the teachers' rules and complete their work step by step. When they start working, they will do this according the boss's rules. (Resource room guidance teacher)

Assessment of an individual student's needs already starts when the future student is still in primary school. Teachers from Taipei Junior High School go to the elementary schools and test the sixth graders who will be students at the school. They look at academic ability, communication, cognition, daily living aspects etc. This information is shared with the special education diagnosis committee and a recommendation on placement is made by the school's teachers. The committee then agrees or disagrees with this recommendation and the eventual decision is put in front of the parents. According the zero-reject policy, the parents have the final say on whether their child will attend a special education class or the resource room program of the school. This system ensures that the teachers at Taipei Junior High School already have some basic information on the needs of the student before he or she is officially enrolled.

Classroom observations, examinations and the informal student-teacher meetings between the teachers and the student give a teacher insight into an individual student's interests and needs. In the resource room, the mentor, student counsellor, other resource room teachers, and the regular education teachers all collaborate in determining an individual

student's needs. In the special education class, the team of three teachers jointly discuss what the student needs. This is then adjusted by each of the teachers when they write what they want to teach the student specifically. In both cases, the information is relayed to the parents at the IEP meetings and at this point can be subject to further adjustment. The parents add their views on the needs of their child and these are considered important in the process.

Basically, the parents really know their child, so we discuss directly with them. (Special education coordinator)

Before a student makes the transition to a comprehensive vocational program, the school lets students try different kinds of vocations to find out which field the student has interest in.

We first look at a student's ability and then look which direction is suitable. However, we don't decide for the student what kind of job is most suitable. We don't say, "You will be a cleaner. You will go into the service industry." (Special education class mentor)

While the school does not teach vocational classes, trying various vocational skills helps students decide what kind of program is most suitable for them upon graduation from Taipei Junior High School.

At the junior high school stage, we try to help them with orientation for the senior high school program as well as teach them some important knowledge and skills. (Special education class mentor)

The goals of a particular student are mostly formulated by the case manager. The parents of the student often contribute less to the specific formulation of the goals.

Parents really care about the academic aspects of their child. They want to discuss the contents of the curriculum at the IEP meetings. They say things like, "My child already knows that. My child doesn't know that yet." Parents have less interest in the goals we set.

They care most about the lessons the student has, especially Chinese, English, and maths. (Special education class mentor)

The perceived difficulty level of the goals is determined by tests and the teacher's experience with the student.

For instance, one student cannot remember the alphabet. I first estimate that she should be able to learn this in half a year. This estimation is based on tests that show she should have this ability. However, after half a year she still can't do it. I have no other option than to adjust the goals. We can flexibly adjust. (Resource room guidance teacher)

The teachers normally set goals which should challenge the students. This means that the educational goals can be too high at times.

If the pressure is too high, we adjust the goals. We first let them try and encourage them. If, it's not possible, we take a step back. (Resource room guidance teacher)

If a student cannot attain a certain goal, we don't insist on attaining it. We will then find another way. If a student has problems calculating, we will give him a multiplication table. Or if this doesn't work, we give him a calculator. If a student cannot memorize Chinese characters, we give him a dictionary. (Special education class mentor)

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Creating individualized educational programs

Individualized curriculum

In the resource room, the regular education class curriculum needs to be followed as much as possible.

We first slow down the pace of teaching. If this means that the student can't keep up, we adjust the level of the material. (Resource room guidance teacher)

The teachers cannot fall too far behind the regular curriculum so normally they try adjusting the pace only for a short time. If a student still shows significant difficulty with the material,

the teachers start simplifying the curriculum. When the simplified curriculum is still considered too hard for a student, it will be further simplified to the point where it becomes a more functional curriculum.

If a student can't learn the material, we simplify it step by step. We don't go straight to a functional curriculum. (Resource room guidance teacher)

The resource room student is involved in the process of curriculum adaptation. The teachers give the students a couple of options and gently push them towards the direction that the teacher thinks benefits the student. For example, if a student might need a more functional kind of curriculum:

We don't give them too many options. I will ask, "Do you want to take the same class as your classmates? Don't you feel that is a little uncomfortable?" In the end she will choose herself to take a more functional curriculum. But the students don't really choose what they want to study, we do. (Resource room guidance teacher)

In the special education class, the curriculum is already of a functional nature. The complete curriculum is written by the special education class teachers themselves.

Planning and scheduling of individualized educational programs

As was mentioned earlier, planning and scheduling of the resource room classes is a difficult matter in the school. This makes it even harder to plan in individual classes. Teachers, therefore, use lunch time and after-school hours to take a student aside and teach him or her individually.

However, if needed, additional classes could be added to the curriculum. The decision to add these classes is based on the number of students who have a certain need. There should be at least three to four students with similar needs for the teachers to decide to teach an additional class. If only one student shows a particular need, this student is taught

individually after class. For instance, daily living education can be taught individually after the morning classes have finished.

We can't find a pattern of arranging classes. So, we often use after-class hours to reinforce or supplement. At lunch time we could ask a student to come eat [at our office] and after finishing lunch, he could wash the dishes or practice wiping the table. We don't have time to take an afternoon nap. We are busy all day. (Resource room guidance teacher)

If a resource room student shows enough ability to study Chinese, English, or maths in the regular education class, it is up to the student to decide whether or not to study one of these subjects there.

We had a mildly mentally impaired student who could memorize two thousand English words. She could take English class in the regular education class. I asked her, "Do you think this will be too hard?" She said, "No, I want to try." If she is willing to try, we let her try. (Resource room guidance teacher)

Conversely, if a student from the resource room program has more difficulty with a subject than other classmates, he or she could also take a few classes in the special education class. They could learn some more basic skills there.

If we feel a student needs to take classes in the special education class, we normally first wait for a year or half a year or so and then discuss the situation with the teachers and parents. A student might need help from other classmates with everything. If he can't make a lunch box, clean a lunch box, sweep the floor, or has problems adjusting to the class, we discuss this with the parents. (Resource room guidance teacher)

The parents, but also the students themselves, have the final say if they are to attend classes in the special education class.

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Our students really don't want to take classes in the special education class. If they are not willing to go, we don't make them take classes there. Most of them say they don't want to go. (Resource room guidance teacher)

In these cases, the resource room teachers take the special education class material and use it in the resource room class or adjust the material to the level of the special education class.

Compared to the resource room, giving a student extra lessons in the special education class is less of a problem. The teachers can arrange the timing of the lessons more easily. If a student has difficulties with social interaction, they plan in extra time for this particular student. Still, the special education class planning is arranged in a way similar to that of the resource room. If there are enough students who show they have an educational need, a class, where this issue is addressed, will be added.

We look at the students' needs and then decide what they need to learn. We don't only look at the curriculum outline [provided by the government]. However, we normally don't individualize a class. This is because a class doesn't only have one student. We look at multiple students when we plan a class. We have ten students in one class at the same time. We don't focus on individual students. We teach all the ten students the same material together. It's just that each student's goals are not the same. (Special education class mentor)

If one or two students have difficulty with a certain topic then the teacher might address this issue to the whole class. For the students who are already familiar with the material, this is considered a review.

But the time we spend on this is very little. After all, there are only a couple of students who have this difficulty. However, some students will find me after class and ask questions about homework. I use this time to individually teach that student. Only at this time does it become really individual. (Special education class mentor)

Individual student evaluation

In both the resource room and the special education class, tests and examinations are used to determine a student's academic progress. Apart from this method, teachers also base the academic needs and behavioural needs of students on observations during class time. Depending on the individual student's situation, the score for passing a test is adjusted. While the assumed standard score might be sixty, a score of forty might be sufficient for one particular student. The teachers in the special education class use the tests to see at what level a student is but the scores do not determine if a student does or does not pass a class. The only comparison that is made is between an individual student's own past test scores. In this way, it can be determined if a student is improving.

Nan Gang Senior Vocational High School

School background

Nan Gang Senior Vocational High School is situated in the Nan Gang district on the outskirts of Taipei City. It has the lowest population of all of Taipei City's districts at just over 100,000 residents. The school is public and it was established more than thirty years ago. There are ninety-seven classes with a combined population of more than 3,300 students.

The vocational departments are in the fields of electronics and electrical engineering, mechanical engineering, civil engineering and architecture, as well as power mechanical engineering. The school also offers a comprehensive high school program, an evening school, and a comprehensive vocational program. Students with various special needs can receive educational support in the resource room program.

Research participants

Nan Gang Senior Vocational High School was visited by the researcher in October and November of 2010. The special education coordinator identified two other key members in the process of individualizing education for mildly mentally impaired students at the school. The total time of the interviews was a little over 220 minutes. The participants were:

1. *Special education coordinator (特殊教育組長)*

   A Comprehensive Vocational Department's special education coordinator's main responsibility in the process of individualizing education for students is controlling the financial budget of the educational program.

   Mr. Tsung-Min Chien is the special education coordinator at Nang Gang Senior Vocational High School. He holds a masters degree in special education. He has seven years of experience working in special education and he has been working as the special education coordinator at Nan Gang Senior Vocational High School for three years.

2. *Mentor (導師)*

   A mentor is responsible for teaching all the subjects to one of the three grades in the school. The mentor also simultaneously holds the position as case manager and therefore is responsible for the IEPs of all the students in one grade.

   This teacher wished to remain anonymous and therefore will only be referred to as the second grade mentor. She has an undergraduate diploma in teacher training. For this degree, she did her internship at Nan Gang Senior Vocational High School and started working there upon graduation. In the school, she has held the positions of resource room teacher, resource room mentor, and special education coordinator. Currently she is the mentor of the second grade class at the Comprehensive Vocational Department.

She teaches Chinese, maths, food preparation, cooking, living education, social adjustment, and subject-related activities.

3. *Student counsellor (輔導老師)*

A student counsellor co-teaches a class with a mentor but focuses more on, possible, behavioural issues of the students.

Mrs. Cheng-Min Lin has twenty-two years of work experience in special education. Twelve of these years were spent at a special education school and she has worked at Nan Gang Senior Vocational High School for ten years. She studied home economics at a bachelor's level and received additional special education training at a later stage since there was not yet a special education department in Taiwan when she started her career in special education. She is currently a student counsellor for the second grade class as well as a subject teacher (任課老師).

Direct quotes from any of these three participants will be written in italics in the following sections followed by a reference as to who was quoted.

The school's program

As was described in Chapter 2, mildly mentally impaired students at the upper level of secondary education are served in a Comprehensive Vocational Department. In the Comprehensive Vocational Department of the school, there are three classes in total (one class per grade) with fifteen students in each class. Therefore, the total number of students in the school's comprehensive vocational program is forty-five. This does not mean that these students are the only mildly mentally impaired students within the school.

There is a part of the mildly mentally impaired students who are hidden inside the school. There are more than forty-five in total. (Special education coordinator)

Students can also have multiple disabilities but the maximum number of students who are also autistic in a comprehensive vocational class, according to Taipei City regulations, is two. The school is public and the score on the entrance exam needs to be higher than at the surrounding private schools.

The level of the students at our school is a little bit better. Our entrance exam is not the same as the other schools. (Student counsellor)

The Comprehensive Vocational Department's staff members consist of eleven full-time teachers, including the special education coordinator, servicing the mildly mentally impaired students. There is one mentor (導師) for each of the three grades. A mentor of a class is normally also the case manager (個案管理老師). The other teachers are subject teachers (任課老師) and student counsellors (輔導老師). The three classes have both a mentor and a student counsellor who teach a class simultaneously. While the mentor is quite strict with the students, the student counsellor is gentler. She takes on the role as the person a student can go to with behavioural issues. This style of teaching is considered a unique feature by the school itself.

I think this is where our school differs from other schools. (Student counsellor)

Students who have certain, relatively serious, educational or behavioural difficulties may also have a guidance teacher (認輔老師). The Comprehensive Vocational Department could also consider hiring outside teachers if a class is started which at that point is not yet taught in the school.

The teachers have made their own curriculum and the material is shared among the other teachers. They base what they add to a curriculum on the government curriculum guideline (see Chapter 2.5.3) and on their own experiences.

The classes offered revolve around the six educational domains of functional Chinese, functional English, functional mathematics, living education, recreational education, and

vocational education. However, the educational domains are not very clearly separated in the curriculum. Vocational activities are also integrated throughout the entire curriculum.

We really want our students to not just sit in the classroom but also be able to do things. So our six main educational domains all revolve around the vocational curriculum. (Special education coordinator)

Living education contains classes which teach students daily living aspects such as clothing, transport, hygiene etc. Recreational education can be separated into a 'dynamic' class and a 'static' class. For a dynamic class, students might play basketball, table tennis, badminton, etc. while for a static class they can have such classes as music or art class.

Vocational courses can be divided into the fields of food preparation, restaurant service, cleaning industry, car beauty, retail stores, and office work.

The school arranges vocational courses which give students a better opportunity to find work upon finishing school. Teachers especially look at which companies are available in the surrounding area. Among the job opportunities are work in restaurants, car cleaning companies, and convenience stores.

In the first year we have a car cleaning course. We know that graduated students can find work at car cleaning companies, so we add this class to the curriculum. (Student counsellor)

Nan Gang's Comprehensive Vocational Department specializes in the four fields of cleaning, cooking, food service, and car beauty. Nang Gang's Comprehensive Vocational Department has its own kitchen and restaurant where the students can learn food service related activities. As at the lower-secondary school level, students get a chance to explore different vocational fields. However, the school specializes in certain fields and spends considerably less time on the other fields.

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What we do is we get an outside teacher to come to our school and teach those fields. We let our students work with wood and maybe make a small chair. Let them play around. Let them know what woodworking is. (Mentor)

Like other senior high schools, there are three educational stages at Nan Gang's Comprehensive Vocational Department. Students start their educational career at the school in grade ten and they graduate at the end of grade twelve (teachers also often refer to these grades as the first, second, and third year). The tenth grade revolves around occupational adaptation. The concept of occupational safety is covered as well as the development of a proper work attitude. Students do not immediately start with work skills but instead first learn the philosophy behind the work.

For instance, in the first year of the cooking classes, the focus is on hygiene, food characteristics, food service, food preparation, cooking equipment etc.

In the first year, we arrange classes which emphasize cleaning practices. For example, wiping the table, cleaning the table, mopping the floor etc. As for cooking, we don't let them cook just yet. We only let them understand different kinds of food, where it comes from, how to clean the food and prepare it. (Special education coordinator)

The second year stage is called occupational differentiation or occupational divergence. For the field of car beauty, students start washing and polishing cars. It is professional work and skill and confidence is needed.

In the second year, students also start going outside the school for practical training at internship companies. This means that, in the second semester of the second year, students work at an internship company outside the school one day a week. In the third year they go for two days in the first semester and three days a week in the last semester before eventually graduating from the school.

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The school makes its own curriculum while following the guidelines of the ministry of education's Comprehensive Vocational Department curriculum.

Before class time, we copy our teaching material. We look at newspapers and see what is currently happening. Maybe some articles talk about what we cover in class. For example, there have recently been many fraudulent groups. We can use these articles and discuss them in Chinese class. If they have problems reading newspapers, we watch the TV news. (Mentor)

There are no ready to use teaching material in textbooks or Taiwanese websites especially tailored to students with mild mental impairment.

Material we use of other people does not necessarily suit us. We always need to adapt it. (Mentor)

The students at Nan Gang Comprehensive Vocational Department are separated into two groups, according to ability, for maths, Chinese, and computer class.

Post-education perspectives students

The main goal of the comprehensive vocational course is employment after graduation.

Our goal is very easy: we want the students to be able to live independently. We aim to let a student adjust to the social environment and live independently. Living independently means that a student works. (Special education coordinator)

We hope that after they receive training here at school they will be able to be a useful member of society, be sufficiently independent to work. (Student counsellor)

As to the job opportunities for the students, companies available in the surrounding area have an influence on the schools' field of specialization.

After school, students will probably work at the supermarket, Costco, Carrefour, or a bakery, so our curriculum is slowly moving towards the service industry. (Mentor)

The government supplies temporary salary subsidies to employers but not all students receive this subsidy. Furthermore, the subsidy is only for half a year which means that employing graduated students only gives employers a short-term financial motive for hiring them.

Graduates need to quickly get to the level of regular employees. (Student counsellor)

If a graduate does not get to this level in time, employers may not continue hiring him or her. However, when this graduate is then employed at a different company, the new employer will again receive half a year of salary subsidy. The special education coordinator believes this to be the reason why many graduates have difficulties retaining a job. Conversely, it is also a reason why about eight out of ten graduates did have a job in the year 2010.

Students who do not find a job upon graduation legally need to receive half a year of post-school support.

Some twelfth-grade students decide to take the university entrance examination but studying at this level is not recommended by Nan Gang's Comprehensive Vocational Department.

In reality, no student goes on the study at a university. We had two students last year who passed the entrance examination for a university but they didn't attend. If students finish university it doesn't mean they will find work so why not let them work now? (Special education coordinator)

Individualizing education

Participants in the student's individualized education process

As was the case at Taipei Junior High School, it is important to note that the teachers at Nan Gang's Comprehensive Vocational Department often have multiple staff positions.

Therefore, this person could have multiple tasks in the process of individualizing education for the students.

Case manager (個案管理老師)

The case manager is the person responsible for the IEPs of the fifteen students in one class. This means that this person is in charge of arranging the IEP meetings. Therefore, the case manager communicates with all relevant parties concerning the process of individualizing education for the students.

Mentor (導師)

The mentor of a class is normally the case manager for these students. Furthermore, the mentor is in close contact with a student during class time and therefore the mentor needs to recognize needs and interests of students.

Student counsellor (輔導老師)

As is the case with mentors, student counsellors are also in close contact with the student and the recognition of needs and interests of a student is also a task of this staff member. Furthermore, the student counsellor deals with needs of a more behavioural level.

Special education coordinator (特殊教育組長)

The special education coordinator's task in the process of individualizing education is to control the budget of the school and communicate with the administration department. As the head of the special education department, this person is also the final decision maker.

Guidance teachers (認輔老師)

A guidance teacher helps students who have serious educational or behavioural difficulties. The guidance teacher is in close contact with both the student's mentor and student counsellor. Personal student information is shared between these parties.

Subject teacher (任課老師)

All the relevant subject teachers can also attend the meeting. This depends on whether or not anything important happens during a student's class.

Therapists

As in junior high schools, if a student requires therapies for their specific special education needs, this student will be referred to a therapist. This could be a physical therapist, occupational therapist, speech therapist, hearing therapist, or clinical psychologist. Information related to such a condition needs to be taken into account for each individual case.

Parents

Parents have the final say in the process of individualizing education for their child. What the parents believe to be educationally beneficial will be given the highest consideration.

For the teachers, the parents are the main party. (Special education coordinator)

Student

The position of the student at Nan Gang's Comprehensive Vocational Department is similar to Taipei Junior High School's students. Each individual student's needs are taken

into account in the process of individualizing education while the various staff members of the school as well as the parents are the main decision makers.

System and tools for individualizing education

The following will be a brief description as to what tools are used for individualizing education of the students at Nan Gang's Comprehensive Vocational Department.

Individualized Education Program (IEP)

The school's IEP is a written document which contains nine of the items stipulated in article 18 of the Enforcement Rules of the Act of Special Education (Ministry of Education, 2003). However, sub-article 8 (activities and amount of time per day the student participates in regular schools / classes) is not present since a comprehensive vocational program is a self-contained special education program. Although the program is located in a regular education school, no regular education classes are attended by the mildly mentally impaired students.

While the researcher was given an IEP for analysis, this example has not been included in the appendix due to privacy and legal concerns. However, the format of this IEP is similar to the IEP of Taipei Junior High School.

There should be four IEP meetings per year. This means that there are two per semester, but often the two meetings in the middle of the year are combined into one meeting.

At least present at these meetings should be the mentor (case manager), the student counsellor, the special education coordinator, and the parents. Although parents are obliged to come to the IEP meetings, they frequently fail to show up. The teachers at the school consider this to be a difficulty.

Some parents tell me that they do not have any money and that they need to work. We do not see them here. The first year is a bit better. The first semester they are willing to come to

school. But we cannot push them. We cannot say, "You have to come." We only have five or six students in our class whose parents always attend the meetings. (Mentor)

If parents do not show up at an IEP meeting, the mentor will call them on the telephone and discuss the contents of the IEP. The teacher then drafts the IEP and asks the student to give it to the parents for approval. If needed, the mentor visits the parents at their home.

Parents should at least come the first semester so I can meet them. So, we demand that the parents come the first semester. (Mentor)

After the first semester, telephone calls are also possible.

Students are normally not invited to attend the IEP meetings.

Since we discuss the positive and negative aspects of a student, we don't really let a student participate in the meeting. (Mentor)

Besides this reason, the staff members of the school also consider the meetings to be too difficult and intimidating for the students.

Individual Transition Plan (ITP)

There is no clear distinction between an IEP and an ITP in the school. Instead, both documents are integrated.

When you prepare an IEP, you also prepare the ITP. When a case manager drafts an IEP for a student, he / she already needs to think about the employment situation of the student after graduation. (Special education coordinator)

Informal student-teacher meetings

Students and teachers interact during classes but also at certain times after these classes if a student has the need for this. Normally, lunch time and after-class hours are the

designated times for these informal meetings. There are no fixed times planned for these meetings and they are arranged on an on-demand basis.

Vocational assessments

There are various vocational assessments for students at a Comprehensive Vocational Department (能力評量, 育成工作評量, 工作樣本). When a student first arrives at the school, he / she will undergo a standardized vocational assessment, followed in the second year by an occupational ability assessment, and finally, in the third year, a work sample assessment. For all these assessments, the students need to use their hands and show their ability on certain tasks. There are no written examination parts in these assessments.

The test results will tell the Labour Bureau what the student's approximate abilities are. (Mentor)

Homework record (作業單 / 學習單)

Each student has a record with an overview of what he or she has studied. After completing the study material, the mentor or student counsellor will evaluate the student and note this evaluation in the record. The mentor and student counsellor can view this information and determine on which part the student should focus in the future or which part the student has already mastered.

Communication books

The school uses communication books as a tool for students and parents to keep track of school activities and homework. Apart from this, students themselves also need to write down what tasks they have performed at home and what recreational activities they have

done. This information gives the mentors and the student counsellors insight into the student's life outside school.

Behavioural check (行為檢核表)

This is a section that could be added to an IEP of a certain student who has some educational or daily life difficulties. This check is performed by the mentor, parents, and students themselves. These three parties all give their opinion on a student's daily living and study habits. A subsequent discussion of this can lead to a formulation of goals.

Guidance teacher file

If a student faces more serious behavioural or educational difficulties which cannot be dealt with by the mentor or student counsellor, he or she will be assigned a guidance teacher. This guidance teacher strives to help the student overcome their difficulties. All the relevant information is recorded in the guidance teacher file.

Method of individualizing education

Assessing individual student needs, interests and educational goals

The common needs which the school mainly focuses on are the need for living and social adjustment, vocational knowledge, and basic academic knowledge. Compared to the inclusive primary and lower-secondary education stage environment, education at a Comprehensive Vocational Department is more aimed at integrating academic knowledge with vocational and social skills. The school's mentor believes this to be more meaningful. *In elementary school they sleep for six years. In junior high school they sleep for three years. Then they come here and they can study some things. Maybe this is not Chinese, maybe it is*

not maths. What is emphasized is living and social adjustment ability as well as vocational skills. (Mentor)

The mentor believes basic academic skills should not be neglected but rather integrated throughout the curriculum.

There are still some basic Chinese and maths skills a student needs. For example, you have to be able to write some basic information, not just sign your name on any form. And for maths we spend a lot of time teaching students how to calculate money. Even if you don't have work, calculating money is very important. (Mentor)

Considering the common needs of all students, the special education coordinator believes the acquisition of proper social skills crucial.

We teach how to deal with people, colleagues, classmates, anyone they have contact with. Social skills are more important than technical skills. (Special education coordinator)

While the acquisition of vocational skills is considered to be important at this educational stage, students are trained to be able to learn these as well when they are employed.

We train students on their work attitude. If a student demands of himself that he works fast, accurately, and is not lazy, he will be able to learn any technical skills at whatever job he'll end up working. (Student counsellor)

When a student shows a deficit in any of the common needs areas, education for this particular student should aim at narrowing this deficit. When doing so, there should be a focus on each student's strong points.

We try to teach our students as much as possible but their intelligence is limited. Three years of senior high school is very short. You need to focus on their strong points and develop these. (Mentor)

An initial idea of a student's individual needs is determined in the first year by reviewing the transition information of the students. Afterwards, the teacher will also ask the

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parents of the student for relevant information. They will find out if the parents' and the teachers' views match. This way, the position of the student and the parents is confirmed.

We start in the first year by looking at a student's junior high school transition information so we can understand the student. Next, we call up the parents and, if needed, we go to their house for a talk. This way we can understand the student's past experiences and start drafting the IEP. (Student counsellor)

After reviewing the transition information written by the junior high school staff, the teachers do not yet have a clear picture of what the student's characteristics are.

It is very hard to see what a student's ability is in the first year. Some junior high school teachers who write the student's information are very strict and others are not at all. The first year the teachers are slowly discovering what the student is like but in the second year they know what the approximate ability of the student is. (Mentor)

The teachers at the school consider the way the IEP meeting is set up to be intimidating for a student. Instead of asking a student to attend the meeting, the teachers and parents need to determine what a student's needs and interests are before the IEP meeting is held. The teachers' main tool for this is the informal student-teacher meeting. Besides this, how a student performs during class time is also a source of information.

When a student is facing this many adults [at an IEP meeting], he cannot really express his opinion. But the student is very close to his parents and also very close to his teacher. We already deal with the student before the meeting. We already know what they are thinking. (Student counsellor)

An issue which was raised by Nan Gang's school staff is the relative passivity of students in determining their own educational program.

In Taiwan it seems to be the case that the teacher arranges the curriculum and the students come to class. If you ask a student what he wants to study, he won't be able to answer. In

foreign countries children will think about what they want to do, but in Taiwan, from primary school on, everything is arranged for the students. If you get to Vocational Senior High and you ask a student what he wants to study, he won't be able to tell you. This is very difficult. Only a few students will actively say what they want to study. The other students will say, "Whatever." (Mentor)

Educational goals are based on the perceived student ability and there is no uniform standard for all students. The educational goals per subject are written down with a corresponding percentage of aspired attainment. Evaluation of these goals is noted with the use of a five-point Likert scale. The range is: 5 (totally completed), 4 (mostly completed), 3 (half completed), 2 (partly completed), and 1 (not yet completed).

For instance, the IEP provided to the researcher has as an educational goal for functional language class: 'Be able to accurately fill out a hospital registration form. After a month, attain an accuracy of 90%'. The student's evaluation for this specific goal was a '4 (mostly completed)'. This can be interpreted as meaning the student did not yet achieve an accuracy of 90% after a month. The school's view on this is that the ability of every student varies. Some students are only expected to be able to get a score of '3' while other can attain a score of '5'. Upon the initial goal determination, the percentage of accuracy (90%) will not be lowered when a student does not attain a score of '5'.

Creating individualized educational programs

Individualized curriculum

As was mentioned earlier, the students at Nan Gang Comprehensive Vocational Department are separated into two groups (A and B), according to ability, for maths, Chinese, and computer class. While the teachers base their recommendation on their perceived ability

of the student, the parents are the ones who make the final decision. However, the teachers' and parents' views do not always match.

Some parents do not mind if their child is in A or B class. As long as the student is well-behaved, they think it is okay. Other parents really care about the grades and may ask, "Can you give some harder study material to my child?" But they are not able to learn it! If parents think that their child is doing well and you decide to put him/her in the B class, you need to explain this very well. (Mentor)

For the vocational classes, teachers assign tasks to students during class. These tasks are based on a student's personal ability.

If a student's ability is a bit better, he will get more complicated tasks. If the student's ability is a bit weaker, he will get more simple tasks. (Student counsellor)

The students only have limited opportunity to learn vocational skills outside the fields which the school specializes in. It can be the case that a student wants to pursue vocational training which the school does not offer. When this happens, the interest needs to first be confirmed.

If you have interest in something, it doesn't mean you necessarily want to do this. You need to try first and then see if you still have interest. So we let our students try first. We arrange for the student to go for a day and see if they are still interested. (Student counsellor)

If, after having confirmed valid interest, the student wishes, for instance, to study woodworking, the school needs to utilize its social network.

If a student really wishes to study woodworking, they cannot do it at this school. We have limited resources. The teachers' time and the teachers' expertise are both limited. They really want to help the student but they probably don't have the vocational skills. If a student shows good ability in woodworking, we can recommend the student to study this field outside the school. Maybe a relative of a teacher has a factory, this student can then work there in the

winter or summer holidays. They can perform some basic tasks there like washing or polishing the wood. If the owner is related to the staff at the school, they are willing to help out. (Mentor)

Planning and scheduling of individualized educational programs

If some students need more individual attention, the class can be split up into two. For one particular class, five students, whose ability is somewhat lower, are taught separately from the other ten students. However, they are all still in the same classroom. Both the mentor and the student counsellor then teach one part of the class each. They still go to class together, but their goals in class are different or the pace of teaching is slower.

The difficulty level for these five students is then lowered because we need to remind them each individually what to do. We can separate classes according to ability if needed. (Student counsellor)

Individual students who have difficulty with a subject can stay after the class is finished and the teacher will explain or give extra practice opportunities. It could also be the case that students who cannot keep up with the pace of teaching are pulled out to receive extra lessons to practice.

Choosing internships

The results of the vocational assessments help the student in determining a suitable internship position. The mentor tries to find such an internship company near the school. First, she tries within a radius of five to eight hundred meters distance from the school. If no suitable company can be found, she tries in a radius of one and a half kilometres.

It needs to be suitable for the student. It's not that whatever we find is ok. It needs to be suitable for the school and it needs to be in accordance with the student's interests. (Special education coordinator)

The mentor initially finds a few companies where the student could take an internship. After this, the full-time teacher also gives his / her opinion on the suitability of the available options. Finally, the mentor asks the student's preference. As was mentioned earlier, actively involving students in their educational planning is considered a difficult matter.

We want to give them a few [internship] choices so they can decide themselves. Individualized education calls for the students to state their own needs, but I think our students cannot do this. This is because they have never learned this from an early age on. It is very difficult to change this kind of thinking. (Mentor)

The school tries to use their social network to place students at an internship company. Without previously made social contacts, finding suitable companies can be a hard matter. Company owners' perception of a mildly mentally impaired student can prevent a student from being accepted.

It is not easy to use the community resources. You need to know an owner of a company. If you don't know them they will say, "I will donate some money. I feel sorry for your student but I don't want her here." (Mentor)

To make sure that a student's individual interests are taken into account, a mentor might have to resort to her own personal social network.

We have a girl in the first year who is really good at hair styling. She likes helping all the girls in her class to do their hair up. Right now it is not really possible that a barber will let a mentally impaired person work in beauty parlour to style people's hair. But in the second year, I will try to help her with an internship. I normally wash my hair at the beauty parlour and I know this owner. I have told her about this student and she is willing to let her do some

easy jobs next year. She can start with massaging people and sweeping the floor. She can also wash my hair first to practice. (Mentor)

Individual student evaluation

Based on the government curriculum outline, the school knows what it needs to teach in each grade. However, the requirements per student can be adapted. Some students can study ninety percent of the material, others seventy percent, and for a few, fifty percent can be seen as sufficient. Teachers try to challenge the students to perform as well as they can.

We don't compare students' grades to each other. We compare an individual student's grade to his or her previous grade. If a certain student improves from a grade of sixty to sixty-four, this could be excellent. Other students maybe already have very good grades. They can score eighties or nineties. We still try to encourage them to get an even higher score.

The exams for the students are not only written or oral tests. Students also need to show, for example, what they have learned in cooking class by washing, cutting and cooking food.

Two weeks ago we tested students on preparing fried rice. Every plate had a number on it representing a student, and all the ten teachers ate and rated the food. We use written tests for languages and maths but we use more practical methods for grading vocational classes. (Mentor)

Apart from being evaluated on the various subjects in the educational program, students are evaluated on their IEP goals. For this, a five-point Likert scale, ranging from 5 (totally completed) to 1 (not yet completed), is used. However, the standard passing score is not the same for every student.

We have to look at ability. Some students can only get a score of three. For instance, if a student is not able to get a score of five, this would not be a goal. So a score of four would be okay. (Student counsellor)

Parents are also involved in the evaluation of a student. The reason behind this is that if the students do not practice at home what they learn in school, they have problems remembering. Teachers can ask students to perform some tasks at home such as sweeping or mopping the floor. Parents are then asked to check on an evaluation sheet if they finished these tasks.

Middle-class families are often more inclined to help with filling out these lists since both the father and mother often work. When they come home the food is washed and the rice is cooked. They feel that their child is contributing to the household. (Mentor)

4.2 The Netherlands

4.2.1 Dutch Policy

Government Policy Regulations

The Law on Secondary Education has the following policies specifically covering the aspects of individualizing education for students attending Practical Training (Ministerie van Onderwijs Cultuur en Wetenschappen, 1998):

- **Article 10f (3):**

  Practical Training consists of a part where adapted theoretical education, personality development, and the learning of social skills is offered, and a part where the student is prepared for performing in the job market.

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- **Article 10 f (4):**

  The authorities in Practical Training schools can…if proven needed in the case of a student…diverge from the regulations [concerning core objectives of the lower level of secondary education and the connection with the upper level].

- **Article 10 g (6):**

  The authorities in Practical Training schools to where the student is admitted drafts, after a discussion with the parents, an action plan for the student. The action plan contains a description of the method in which education for the specific student will be offered.

- **Article 27:**

  This article states that a student cannot attend a school for Practical Training upon reaching the age of eighteen unless "the authorities of the school consider that the student is not sufficiently prepared for performing in job market." In this case, even a student of the age of nineteen can still study at a Practical Training school.

Also, according to Article 10 g 2, upon leaving primary school, a pedagogical report (onderwijskundig rapport) is written for every student. This report gives insight to the results of the student, his/her attitude, school advice, and other points of interest (Ministerie van Onderwijs Cultuur en Wetenschappen, 2010b).

Nationwide Association for Practical Training Policy Recommendations

As was mentioned in Chapter 2, the Nationwide Association for Practical Training is the advising body for Practical Training education. Although the government is giving the schools considerable autonomy to arrange their own policies, this association advices schools on educational matters. Several publications have been written to help schools with implementing their own policies. The following information was taken from publications

related to Individual Education Plans (aka Individualized Education Programs). These publications were commissioned by the Nationwide Association for Practical Training. The Dutch school case (Accent Nijkerk) of this research project was one of the model schools for a publication concerning the implementation of IEPs in Practical Training schools (te Braake-Schakenraad & Huisman-Bakker, 2004).

Individual Education Plans (IEPs) in Practical Training schools

The action plan was previously the main tool for education planning in Practical Training. As was described in Chapter 2, action plans are often drawn up for a group of students (although specific individual needs can be included). However, since Practical Training is designed to have a very individual approach, new regulations have called for an introduction of an Individual Education Plan (aka Individualized Education Program). The Dutch for this is 'Individueel Ontwikkelingsplan (IOP)'. Starting in 2009, Practical Training schools needed to have an IEP for 25% of the total student population. In 2010 this number should be increased to 50%, in 2011 75%, and finally in 2012 all students should have an IEP (Heijnens, 2009).

In the individualization process, three elements are crucial: individual coach / mentor interviews, assessments for suitable internships, and job analytical research (Harskamp & Slof, 2006). Besides these three elements, two tools are used to keep track of a student's progress: a student portfolio (organized by the student), and a student tracking system (organized by the school) (Schölvinck & de Vries, 2004).

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Individual coaching interviews

These interviews are at the core of the IEP. They clarify the student's wishes and abilities. Results of these interviews should lead to drafting, evaluating, and adapting the student's IEP (Harskamp & Slof, 2006).

Assessments for suitable internships

When the student is ready, he / she can start orientating towards a particular industry sector in which he / she has a specific interest. Before internal or external internship placement, an assessment is performed to see if the student possesses the specific requirements needed.

Job analytic research

It can be the case that a student's experiences from an internship reveal that job analytic research is needed. This kind of research specifies job related demands, possibilities, and limitations concerning future job placement.

Student Portfolio

Proof of competent behaviour, which is appropriate for the development of the student, is recorded in a portfolio. It is a recording instrument, in the hands of the student, that contains all objective and perceptible results of the learning and development process of a student's educational career (Schölvinck & de Vries, 2004).

Student Tracking System

The school's coaches, teachers, and mentors record the development of the student in this student tracking and guidance system (Schölvinck & de Vries, 2004).

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The way IEPs are often used in Practical Training can be represented in a ‘Christmas tree model’.

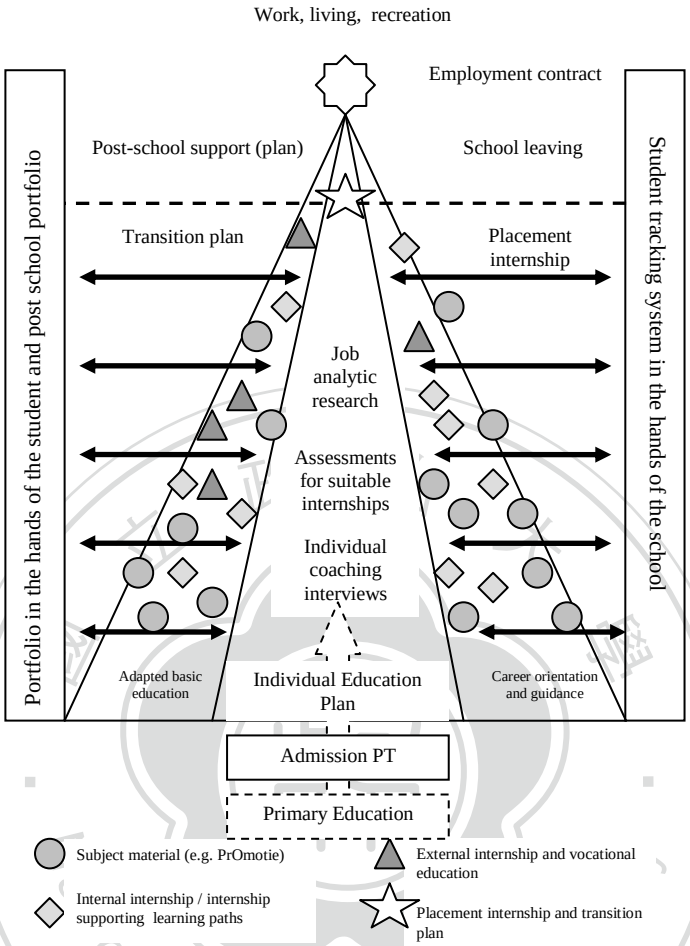

Figure 4.1 Christmas tree model of the IEP

Source: (te Braake-Schakenraad & Huisman-Bakker, 2004)

4.2.2 Dutch School Case Implementation

As was mentioned in the previous chapter, the approached Dutch expert on secondary education for mildly mentally impaired students, Mr. Cees Hoedjes, recommended Accent Nijkerk as the ideal school case for this research project. Since the authorities at Accent Nijkerk consented to take part non-anonymously, a short introduction of the school and a description of the research participants will now follow.

School background

Accent Nijkerk is located on the outskirts of the city of Nijkerk. It is a medium-sized city, according to Dutch standards, with a population of just under 40,000. It is situated in the centre of the Netherlands, about forty kilometres northeast of the large city of Utrecht and just over ten kilometres north of Amersfoort.

Accent Nijkerk is a private Practical Training school with a Protestant ideology. Together with Accent Amersfoort Practical Training it forms the division of Practical Training within the Meerwegen Schools which also offer education at the Pre-University Education (VWO), Senior General Secondary Education (HAVO), and Pre-Vocational Secondary Education (VMBO) levels. The Practical Training school has about 225 students and forty staff members.

The school's own facilities include students' own bicycle parking, a kitchen according to national hygiene and safety standards (HCT), mountain bikes for recreation which are also maintained by students, a warehouse with forklift, plants outside that are taken care of by students themselves, a technical classroom, a textile processing classroom, and a recording studio / multimedia studio.

Research participants

Accent Nijkerk was visited by the researcher in April and May of 2010. The location manager of the school, besides himself, identified three other key informants to be interviewed and this resulted in a total of over six hours of interviews. The participants were:

1. Location manager

The tasks and responsibilities of the location manager at this school are the daily running of the school concerning student matters, supervising the mentor team,

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supervising the teachers, and coordinating the educational processes at the departments.

Mr. Hofman is the location manager of the school and he has worked at the school for over ten years. He graduated from a Primary School Teacher Training College (PABO) and he holds a masters degree in special education.

2. *Curriculum supervisor*

The curriculum supervisor's main responsibility is coordinating curricular matters within the school and, therefore, he communicates with external parties to develop the school's curriculum.

Mr. Noorlander has worked at Accent Nijkerk for more than five years. Among others, he is currently the chairman of the P-team (PrOmotie curriculum team) and mentor of an upper-level class. In the early 1980s he was deputy director at the same school (at the time Secondary Special Education for Children with Learning Difficulties). Afterwards, Mr. Noorlander was the director of an elementary school for eleven years and the director of a Secondary Special Education school for Severely Maladjusted Children (ZMOK). He holds a Primary School Teacher Training College (PABO) degree and studied special education for mentally impaired students upon graduation.

3. *Mentor*

A mentor at Accent Nijkerk is responsible for teaching one class of, on average, fifteen students. The mentor is also responsible for facilitating the drafting of these students' Individual Education Plan (IEP).

Mrs. Diane van de Steege is currently the mentor of an upper level class, member of the Participation Council (Medezeggenschapsraad) and also the confidential student advisor within the school. She has worked at the school for five years.

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4. Internship coordinator

The internship coordinator oversees the school's internship supervisors and communicates with internship companies.

Mr. Kok is the head of the internship, after-care, and ICT departments. He holds a Primary School Teacher Training College (PABO) degree and also studied special education for two years. He coordinates the school's internship supervisors and approaches companies to find internship positions for the students. Mr. Kok has worked at Accent Nijkerk since 1984.

Direct quotes from any of these four participants will be written in italics in the following sections followed by a reference as to who was quoted.

The school's program

At Accent Nijkerk, education is split up into two phases: the lower level and the upper level. The lower level is roughly grades one and two. An average class in the lower level is about fifteen students of the same age, and at the upper level it could be as many as nineteen students. However, at the upper level, many of the students are at a company for their internship, so these students are normally not all present in the class at the same time.

At both the lower and upper level, students join vocational classes at the adjacent school for Pre-Vocational Secondary Education (VMBO). This is referred to as 'symbiosis education' at Accent Nijkerk. This initiative is in line with the government's 'Together to School Again' (WSNS) policy described in Chapter 2.6.3. Symbiosis classes are compulsory and students are taught by a teacher specialized in vocational education and 'push-in' support is delivered by a Practical Training teacher. This Practical Training teacher provides pedagogical support concerning cooperation between students and safety aspects.

Our students start taking vocational courses in the first grade of secondary education while students at the Pre-Vocational Secondary Education track do not take such courses until the third grade. Our students are often stronger in vocational classes since they had a head start. Theoretically, however, they are weaker. Often it is the case that Pre-Vocational Secondary Education students help our students with theory while our students help them with the vocational parts. The cooperation between the two parties works well. There is no discrimination. (Location manager)

The symbiosis classes at the lower level include all the possible sectors for which a student can take classes. Accent Nijkerk wishes for the students to try every sector at the lower level before making a final decision as to which vocational path to follow at the upper level. The symbiosis classes at the lower level take about half of the student's total class time. The other half is based around the PrOmotie textbooks. The concept of the PrOmotie curriculum is that theory supports practice. The curriculum is functional in nature and the subject matter learned can be put into practice when taking the vocational classes.

If a student chooses a metalworking program, he certainly will need to be able to calculate. Also Dutch, you will at times need to fill in a form. (Location manager)

The school works with the PrOmotie curriculum since it offers adapted theoretical education as stated in the Law on Secondary Education. The PrOmotie curriculum has been developed by publisher Edu'Actief and has been approved by the Ministry of Education, Culture and Science. The majority of Practical Training schools in the Netherlands make use of their textbooks. It consists of five basic learning domains: Culture and Society, Dutch, Calculating and Math, Information Technology, Vocation and Career. Throughout these domains, the following themes, which cover the daily life of the student, are integrated: 'Around you', 'To your health', 'Fun activities', 'Money matters', and 'Society'. Physical

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education is also offered and special attention is paid to the acquisition of social skills throughout the curriculum. English is optional.

PrOmotie is based on seventeen competencies. These seventeen competencies have been accepted by the Nationwide Association for Practical Training and the Inspection of Education. A list of these competencies can be found in appendix I.

We educate here to be able to work well but also live well. So, what is important for your daily life and recreation? You will need to be able to handle money, fill out forms, read the newspaper, stay up-to-date on the latest developments. These matters are all covered in the educational domains. (Curriculum supervisor)

Accent Nijkerk is also a pilot school for the digital version of PrOmotie called PrOdigi. The school is, together with PrOdigi's supplier Edu'Actief and the Nationwide Association for Practical Training, developing the digital curriculum for the school. In the school year 2009 / 2010 this was used in a few upper level classes only for the domain 'Vocation and Career'. This domain is mainly aimed at placement into the job market while also integrating the other four domains into the subject matter. Within the next five years all the domains should be included into PrOdigi.

Practical Training writes its own newspaper, the so-called PrO newspaper. There is a printed paper as well as a digital version in PrOdigi. It is also used as teaching material at the school. It has various topics which a student can choose from with related questions to be answered. There are also various websites with teaching material specifically aimed at the Practical Training student population which the teachers at Accent Nijkerk use.

The theory learned from PrOmotie textbooks, which covers about half of class time at the lower level, is designed to support the students in their vocational classes. At the lower level, students are also introduced to vocational courses from four sectors: the environmental, technical, economical, and care and wellbeing sectors. This is further split up into a wide

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variety of vocational subjects such as metalworking, woodworking, painting, cooking, nursing, technology, gardening and maintenance, and animal farming.

Based on these vocational classes a vocational teacher can judge very well if a student is good at metalworking, woodworking, painting etc. A mentor nowadays can judge this well too. (Internship coordinator)

Students are evaluated and given a score of one (insufficient), two (sufficient), and three (good). If a student performs at a level three for a certain vocational subject at the lower level, he or she could be encouraged to take this subject as a vocational course at the upper level.

Although the lower level is roughly the first two grades at Accent Nijkerk, students can also be assigned to classes based on age. Students can either come straight from primary education, special education, or Pre-Vocational Education. A student who failed a grade in primary school will still start at grade one at Accent Nijkerk. It can also be the case that a student in second grade is already following an internship. The difference between the lower and upper levels is not always very clear. Students do not fail a class at Accent Nijkerk but it is not necessarily the case that all students are at a similar level. There are no clear standard norms per class as to what the level should be.

A major difference between the lower level and the upper level is that at the lower level all the students together take the same vocational class, for instance woodworking, and they also jointly work on their five basic domains. Students are introduced to all different industry sectors before they make a decision on what vocational courses to pursue at the upper level. At the upper level, students start taking vocational courses instead of vocational classes. A vocational course is specifically aimed at an industry sector while vocational classes are more diverse at the lower level. Vocational courses remain part of symbiosis education as students still join classes with their Pre-Vocational Education classmates. So,

studying at the upper level means that students start choosing what they want to do after finishing school. This means that at the upper level, more individual programs are taken. Students will still, however, study the five basic domains of the PrOmotie curriculum. Apart from that, students can also choose academic workshops (e.g. English) related to their field of interest.

At the upper level (roughly starting at grade three, although this could vary per individual case), a student starts with internships. The student will continue with the vocational courses in his or her field of interest to prepare for these internships. Before the students turn fifteen, they can take part in activities which prepare them for future internships. These activities can take place at school or at a company.

To be able to start an internship, students need to be at least fifteen years of age. They are then allowed to work at a company one day a week. This is the so-called 'career orientation internship'. The goals of this kind of internship are to develop a good work attitude and to find out what a student's possibilities and limitations are. As the student's work performance and age increases, the internship can be extended to two or two-and-a-half days a week. This is called the 'career preparation internship'. Concerning the company choice for this kind of internship, more attention is paid to the possibilities and the career perspectives of the student. It is possible that this internship will result in a 'placement internship'. The placement internship is the final kind of internship. A student at this stage works three to four days a week at a company before finishing his or her educational career at Accent Nijkerk. The placement internship is meant for students who possess sufficient skills to have an effective chance to obtain a job position within a company or government organization. The nature of the work at an internship can be described as assisting, orderly, routine, of a low educational level, and non-complex.

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It is also possible for students to have an internal internship within the school. This kind of internship is meant for those students who are not yet ready to function in an external internship at a company. During an internal internship, the student will need to perform tasks which are evaluated by the staff. At this point they will also learn how to evaluate themselves. Examples of internal internships are cleaning the classrooms, copying documents, warehouse tasks, and reception activities.

Accent also offers certificates at Job Market Qualified Assistant level (AKA). This is a certificate at Secondary Vocational Education (MBO) level 1. The name 'Secondary Vocational Education' (MBO) should not be confused with 'Secondary Education' (VO). For a more detailed explanation, see Chapter 2.6.2 and Appendix B.

For certain students, it is possible to study an AKA program at Accent Nijkerk. AKA level 1 is a course that will educate a student up to an assistant position within a company. This is a competencies-based course that focuses on practical application instead of written examinations. This kind of course is done in cooperation with a Regional Education Centre and although the classes can be taken at the Practical Training school, the Regional Education Centre is in charge of the examinations.

It is not always sensible, necessary or possible that a student studies an AKA course. When this happens, it is only because both the Practical Training school and the Regional Education Centre both believe this to be appropriate. (Location manager)

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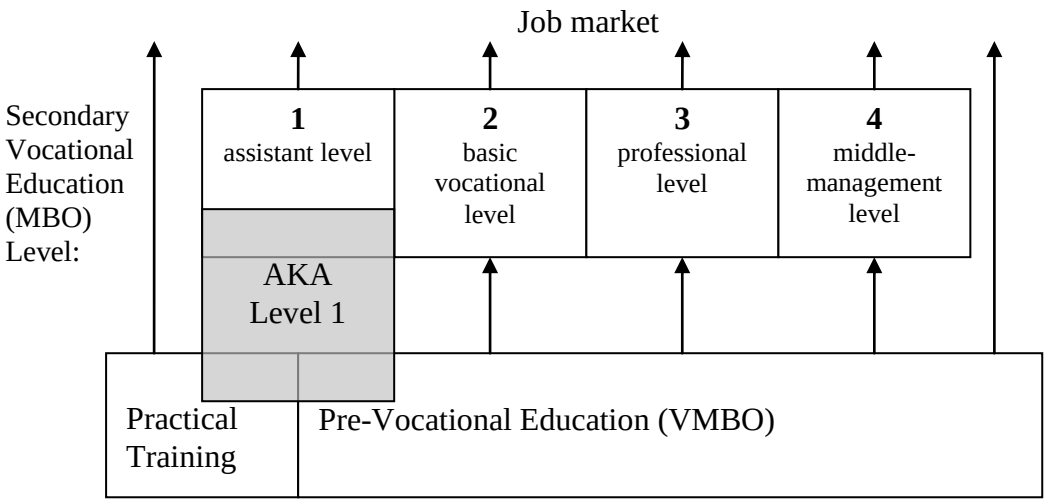

Figure 4.2 AKA course

Source: Accent Nijkerk's location manager Jan Hofman

We recently had a girl who went to level three, but those are really the exceptions. Normally that doesn't happen. Let's be honest, for some level one is the maximum and for others level two. But still, parents are really focused on that, they want a diploma. But I say that there's no noticeable difference between level one, two, or straight out of Practical Training to the job market. It's all about the self-esteem of the student. That's what matters. (Internship coordinator)

There are no final exams at Accent Nijkerk. Students can, however, sometimes receive diplomas for certain individual tracks or parts of a certificate from the Pre-Vocational Secondary Education track (VMBO), Secondary Vocational Education (MBO), or certain industry sector training.

We try to find the challenge of how far we can go. (Location manager)

Accent Nijkerk, in the school year 2009 / 2010, had one student who was in the seventh year of education at the school. If the school wants to keep eighteen or nineteen year-old students, it needs to ask for dispensation from the Ministry of Education, Culture, and Science.

When students finish their educational career at Accent Nijkerk, they receive a certificate of completion. This is not a formal diploma as is the case for the Pre-Vocational Education (VMBO), Senior General Secondary Education (HAVO), or Pre-University Education (VWO) tracks. For the vocational courses, it can be the case that a course is tailor-made for the student. In these cases, the student receives several modular certificates after finishing parts of certain courses.

Post-education perspectives students

As was explained in the previous section, students can continue their education at a Regional Education Centre and work their way up the Secondary Vocational Education (MBO) system from a level one to, if possible, a level four (see Figure 4.2).

If students do not continue studying after finishing their education at Accent Nijkerk, they will aim for employment. At the school, employment is split up into four categories: A, B, C, and D. Internship positions are categorized in the same way.

- Level A is the sheltered work environment. These are non-profit organizations at which the job performance is secondary to a student's personal development. There is a need to perform but, instead, performance is linked to the ability of the student.
- Level B companies are places where the performance factor is more prominent. Companies like these receive some government subsidies but also need to compete for money in the competitive market. Accent Nijkerk has connections with such companies in the fields of landscaping, construction, production, metalworking, and cleaning.
- Level C indicates companies who fully operate in the competitive market. However, the employer can receive subsidies or tax rebates for each individual student who works there.
- Level D is the same as level C, but here the employer receives no support from the government to employ the student.

Students in the Practical Training track have a Structural Functional Limitation (SFB) which means that all students have the right to receive subsidies.

However, the school believes that students should only receive subsidies if it is really needed. (Location manager)

The Nationwide Association for Practical Training provides statistics of what students do after finishing their education at every Practical Training school. Of the thirty-one students who left Accent Nijkerk after the 2006 / 2007 school year, twenty-one entered the job market, nine continued their education at a Regional Education Centre, and one student became unemployed. Accent Nijkerk offers one year of post-Practical Training support.

Individualizing education

An important part of our vision is that the student does not receive education but that education is tailored to the student. The student is at the centre, not the teacher, which means that there is a change from supply-driven education to demand-driven education. (Location manager)

Participants in the student's individualized education process

The process of individualizing education is mainly based around the 'triangle' of the student, the mentor, and the parents. Other participants include the location manager, the other teachers who are in contact with the student, and the Care and Advice Team (ZAT). Furthermore, the internship supervisor has an important role to play when the student starts preparing for internships.

<u>The student</u>

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There is a heavy emphasis on student input into the process of individualizing education. Accent Nijkerk provides various tools which are, together with the mentor, the responsibility of the student.

Not only the school is responsible for what a student needs to learn, but also the student. The student is jointly responsible. The school will be judged for the results, but we also say to the student, "You are a human being too, you need to become an adult, and you have an opinion to which we will listen." (Location manager)

The mentor

Each class at Accent Nijkerk has a mentor. He or she is also the class teacher who covers the PrOmotie curriculum. Apart from being a mentor / teacher, this person could also be one of the internship supervisors.

An important role of the class mentor is to guide each student in the class in individualizing their own educational program. The mentor communicates with all the, for the individual student, relevant staff members, the parents, and the Care and Advice Team.

The parents / guardians

The input and consent of the student's parents / guardians in pursuing individualized education is considered a vital part. Parents need to be involved in their child's educational program.

I always say at the parent information evenings, "If your child attends this school, you will need to be involved." Parents are obliged to attend the relevant meetings. (Location manager)

Internship supervisors

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Accent has five class mentors who are also internship supervisors. When students start with their internships at the upper level, they are appointed an internship supervisor. This person communicates with the student's external (company) supervisor and also visits the student at the work site. The internship supervisor is in close contact with the student's mentor and relevant student information is exchanged between them.

The individual needs of students are also determined by the companies in the regional labour market. Internship supervisors match the individual qualities of a student with the demand from the job market.

The location manager

The location manager is in charge of the daily running of the school and also the budgeting of individualized educational programs of students.

Other teachers

Teachers collaborate with each other to guide the student through his or her individual program. When students need to perform individual activities which are away from the classroom, other teachers help each other by keeping an eye on what students are doing. All the teachers also meet formally at least once a month and they also exchange student information informally on a daily basis.

Care and Advice Team (ZAT)

The Care and Advice Team is a team of social workers, within the school as well as external, who provide assistance to a student when this is needed. The team is in close contact with the mentor and also relevant professionals such as the school doctor, youth welfare, the police etc. The Care and Advice Team is also in charge of the action plan.

System and tools for individualizing education

The following section covers a description of the tools used for individualizing education and the system in which they are embedded.

Action plan

The action plan (handelingsplan) at Accent is the general educational plan. When a student first goes to school, a plan is written covering what kind of educational or social-emotional therapies a student has taken or will undergo. This plan is the responsibility of the Care and Advice Team (ZAT). It is now a paper file but the team is in the process of updating and changing it to an electronic system.

While the action plan was formerly the plan which covered an individual educational plan of a student, the school has moved towards using an IEP over the last ten years.

The action plan is more a group plan. The IEP is the individual plan. The action plan is not so clearly defined in Practical Training, it is clearer in Special Education. The teachers here don't work with the action plan, they have an IEP. (Curriculum supervisor)

Triangle meetings

At the heart of the educational individualization process is the so-called 'triangle meeting'.

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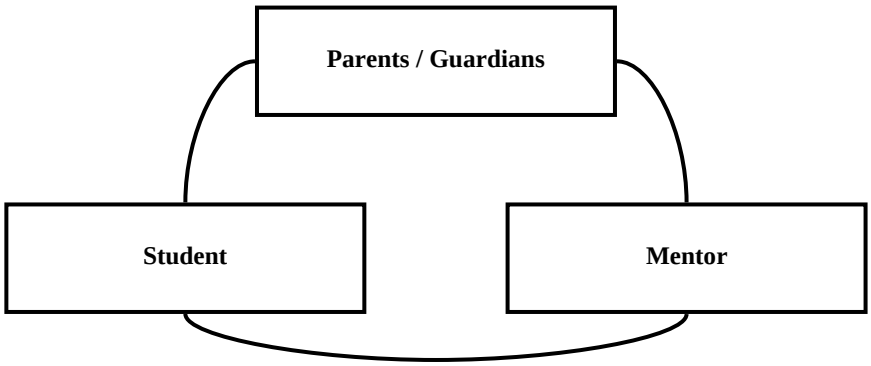

Figure 4.3 Triangle meetings

Source: Accent Nijkerk's location manager Jan Hofman

Triangle meetings are essential for the development of the child and therefore they are compulsory for the student, the mentor, and the parents. (Location manager)

A triangle meeting is arranged at least twice a year. If needed, parents can come to school for extra triangle meetings. The meetings are not planned in on fixed dates. The mentor needs to plan them in when deemed necessary. They are normally planned to be fifteen minutes long but could be longer if needed / possible. Every mentor also visits the student and family at their home at least once a year. Such a visit can also be used to compensate for a lack of time at triangle meetings.

Triangle meetings always cover what the student is doing at school. The program the student has chosen. The books the student wants to use. I can see whether or not the student is studying the books seriously or if certain books are studied too little. It is after all the freedom they have. We never have a [formal] meeting with only the parents. The student is always involved in every meeting. In the lower level as well as the upper level. It can be the case that a student is momentarily not present, but then we are covering behavioural aspects. (Curriculum supervisor)

Besides the triangle meetings, there can also be informal meetings between parents and teachers. These can happen whenever the parents might be present at school.

Coaching meetings

There are three coaching meetings a year. They are planned in at the beginning, in the middle, and at the end of the year. At these meetings, the mentor and the student discuss educational issues and goals. Apart from the coaching meetings, students can at any time approach a mentor and ask to discuss certain aspects of their program.

Individual Education Plan (IEP)

As could be seen in Figure 4.1, the IEP is an all-encompassing term which includes various paper and digital files. The meetings covered above are considered to be vital in aiding the formulation of an IEP.

IEPs consist of a weekly plan, the subject matter tracking system, the student tracking system, vocational tests and assessments, the portfolio, and eventually, a formal IEP presentation performed by the student.

The way Accent Nijkerk has integrated the IEP into their school program was a model for the booklet 'Het Individueel Ontwikkelingsplan (IOP) in het Praktijkonderwijs' (The individual Education Plan (IEP) in Practical Training) written by the KPC Group and commissioned by the Nationwide Association for Practical Training (te Braake-Schakenraad & Huisman-Bakker, 2004).

Weekly plan

Part of the IEP is a plan, written by the student under the mentor's guidance, stating what the student wants to learn that week. This plan includes a subsequent timeframe of

completion. Any teacher must be able to look at what a student plans to do for the week and make sure that what is planned is also executed. During class time, teachers plan for the students to individually, as the school calls it, 'work on their IEP'. Students then look at their weekly plan and study from their 'IEP books' (the PrOmotie books) or other learning material.

Subject matter tracking system

The subject matter tracking system (leerstofvolgsysteem) is a tool for tracking what material a student has studied. All the material a student chooses to use is recorded in this file. The subject material tracking system has a list of all the possible books and the teacher needs to tick which ones the student has covered and note the final assessment of completed work. All completed assignments (of websites, textbooks, PrO newspaper etc.) are recorded in the subject matter tracking system.

If a student in my class chooses a book about calculating money, I can check the subject matter tracking system and maybe see that this student already covered this book two years ago. However, it can be the case that this book wasn't completed satisfactorily and this can all be read in this system. (Curriculum supervisor)

Student tracking system

In the student tracking system are the personal details, intake information, examinations, possible therapies for behavioural improvement, psychological analysis, all the reports from past teachers (start to end of the year), home visits, internship reports, and other relevant information. If a student goes to the next class, the teacher also needs to note down the relevant transition information.

Both the student tracking system and the subject matter tracking system are in the hands of the teachers and the student. A student records completed material in his own file and the teacher records it too. The teacher notes when it was completed and how long it took the student to complete it.

Information on students is accessible to all teachers. Any teacher can access the server and see how a student scores on certain vocational classes, social skills, reading skills, math etc., as well as access any additional information. This means that teachers can add information when needed and also read up on a student before a meeting with this student. *Does a student shake hands with you or not? Certain students don't. This information is recorded and fed back to the teachers. So, the next time a student goes to an internship company, you say, "Make sure that you shake hands and state your last name." (Internship coordinator)*

Vocational tests and assessments

Vocational tests and assessments are an important tool for determining the future employment possibilities of a student. These tests and examination will be covered in more detail in 'Choosing internships' below.

Portfolio

The portfolio concept was introduced in the school year 2007 / 2008. It is a collection of 'evidence' of what a student has learned and is able to do.

The portfolio is a collection of evidence of the student's acquired competencies. It can include diplomas, certificates, internship evaluations, photos, assignments, etc. The student does not only learn inside the school, this also happens outside the school. Evidence of this can also be included in the portfolio. At the end of the day, the student himself is responsible

for the completion of his portfolio. Depending on the level, age and interest of the student, a portfolio can have various appearances. (Location manager)

Eventually, this portfolio will lead to a transition portfolio. The transition portfolio will be a collection of all the portfolios a student has accumulated over the years. It will contain all the results, assignments, photos, and reports. At the time of research, this was still in a developmental stage.

A student has put in his IEP that he is rather insecure. However, he shows a picture of his internship where he stands behind a sales counter. This is evidence that you have become more confident. (Location manager)

IEP presentation

Eventually, the portfolio / IEP needs to be presented by the student. The method of presentation is flexible, so students are allowed to present their evidence in any form.

We started with developing an individualized plan made by the students themselves about ten years ago. And if they are weak in language skills, they can make one by using pictures. We do not pay attention to the medium of presentation, but rather to the manner in which it is presented. It can be done digitally through power point, by ways of a guided tour, or even with objects, but the most important thing is: "How do you present what you have learned?" (Location manager)

The student self is in charge of this presentation. The school organizes a week, once a year, when all the students present their final IEP to their classmates. The student presents the main points of his / her meetings, the educational goals, the material which will be studied, the courses that will be taken, other skills which will be worked on (e.g. social skills), and internship information (for upper level students).

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An example of a student's IEP, presented to classmates in a power point format, can be found in appendix H.

The digital learning environment

As was mentioned previously, Accent Nijkerk is a pilot school for the new digital version of the PrOmotie curriculum. This new digital environment will provide the school with more opportunities to individualize education for the students. While only one educational domain (Vocation and Career) is currently available in the digital format for a selected number of upper-level classes, the full PrOmotie curriculum will be available to all the classes in both the lower and upper levels in the future.

The new digital learning environment gives us more flexibility, material for differentiation, and more possibilities to arrange individual learning paths. (Location manager)

Method of individualizing education

Assessing individual student needs, interests and educational goals

The student is not a slow learning student with limitations but rather a different learning student with opportunities. These opportunities can and should be offered through education. We assume that no student is the same. There are differences. Each student has his own style of learning and learning demands. (Location manager)

Education at Accent Nijkerk is competency-based. All students should aim to acquire the seventeen competencies mentioned previously. This does not mean that all students have the ability to acquire these competencies to the same extent. There is no common standard applied to all students. However, the school tries to challenge the student.

We do not believe in restrictions, we only believe in possibilities. Everyone, of course, has certain restrictions, but we will discover these ourselves in due time. Students are allowed to

explore and even when it turns out that it did not work, the student at least tried. (Location manager)

Accent Nijkerk aspires to prepare students for the competitive employment market. This means that there is a focus on the transition from the sheltered school environment to an environment where there is a need to perform.

Look, those first few years here at school the students keep up fine. It is all very safe here. We are equipped for this. We know how to handle the situation. We understand the students. The job market is very different. There you will need to perform. We do need to prepare them for that. (Internship coordinator)

A recurring theme among the research participants was the focus on a student's 'passion'. A student's passion is the field of work in which the student has the most interest.

I believe the school needs to relate to the passion of the student. What does someone want to learn? If you extend this, he will start learning. (Location manager)

We ask them, "What do you want to do here? What is it you want to learn? What is your passion?" That is really important. (Curriculum supervisor)

The formulation of educational goals is in the hands of the student. The mentor guides the student in determining realistic goals. Focus is on a, so-called, 'pull-out' technique of exploring a student's needs, strengths and interests. The mentor lets the student explore while trying to stay focused on the topic at hand. The student self will then arrive at the relevant educational goals.

The student frequently meets with his mentor at coaching meetings. Because the mentor facilitates a discussion, the student discovers what he wants and can learn. Based on this discussion, the student writes down what goals he wants to attain. (Location manager)

These learning goals can be about anything that is needed to become independent, such as the five basic domains, personal development, and vocational courses the student

would like to take. This is then, as much as possible, linked to the curriculum present at the school. Some goals are easily quantifiable (e.g. passing the written exam for a drivers license) while others are more of a qualitative nature (e.g. becoming more assertive).

Assessment of a student's internship preferences and vocational abilities will be discussed in the section 'Choosing internships' below.

Creating individualized educational programs

Individualized curriculum

At the lower level, the educational program is mostly similar for all the students. They study the PrOmotie curriculum in their class and they take the various vocational classes (symbiosis classes) at the adjacent school for Pre-Vocational Secondary Education. If needed, the study material can be adapted to an individual student's needs.

If it becomes clear that the material is either too easy or too hard for a certain student, additional books are used. These could, for example, be books from the Pre-Vocational Education track. (Location manager)

At the upper level, students start following their own individual educational program. They start choosing the field they have specific interest in and take relevant vocational courses to prepare themselves for future work in that field. Students keep studying the five basic domains of the PrOmotie curriculum but there can be more focus on a certain domain that is more important for their future job. Apart from this material, additional material specific to a certain field can be added from websites, the PrO newspaper, or other sources.

Individual programs are related as much as possible to the existing curriculum. Students are allowed to state their study material preferences while the mentor guides them in choosing a realistic selection of subjects.

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You need to put it into a framework of a concrete program. A student says, "I want to be a truck driver," but he is only twelve. That is just not possible yet. I then ask, "What do you need for that?" You will need Dutch, you will need to be able to calculate, and you will need to get your moped license first because you will need experience in traffic. You will also need to learn geography. Everything a student asks, you will need to relate back to a concrete program. (Location manager)

As the students are allowed to explore their interests, it can be the case that they want to study something which is not yet offered at the school. When this happens, the school will try to find solutions.

I once had a student and he wanted to learn French. He worked in a restaurant and the menu had a lot of French words so we bought a French course for him. He eventually got his certificate and he was super proud. The school has money to buy [additional] courses. (Curriculum supervisor)

There were a couple of boys in this school and their passion was fish. So, we found a person who supplied us with an aquarium and relevant books. The students needed to perform all kinds of chemical tests and note the results on a list…and we are talking about students with a limitation…but if you can do this, all these chemicals…they know everything. I think that is called education. (Location manager)

If the student wishes to study material that cannot be provided at the school, teachers explore possibilities within their network of cooperating schools and institutions. This network consists of the adjacent Pre-vocational Secondary Education school (VMBO), as well as a neighbouring agrarian school, the Regional Education Centres (ROCs), and even institutions in the neighbouring city of Amersfoort. A certain program, at the student's specific level, can also be taken at these cooperating schools and institutions if Accent

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Nijkerk cannot provide the necessary educational material. Besides these schools and institutions, the school's private network can also be utilized.

A recurring theme in the school is the need to provide 'meaningful' education. This means that the material provided is functional in nature and the learning material is directly related to a student's interests.

I was about to teach reading to a class. One of the boys said, "Sir, I am seventeen and I have been reading since I was four years old. I am still reading the same books. What do you think you can teach me in the next two years?" I told him, "You are right. So, what is it you want to do?" He said, "I want to get my tractor driving licence." "Ok," I said, and I arranged for the boy to practice at a farm. "I also need to sit an exam," he mentioned, so I went to a training centre and got him the books and CD-Rom. It was far too hard for him, but he was reading for days. Of course, I needed to help him, but the boy was reading in a meaningful way. He does not realize it as such, but he is really studying. (Location manager)

Planning and scheduling of individualized educational programs

At both the lower and the upper level, students start the week by writing a weekly plan. This weekly plan covers what the student intends to do for the coming week and how much time the student thinks he or she will need for this.

I think it is important for the students to make a proper weekly plan. It is really difficult for the children to predict how much time they will need for a certain chapter. The first time they get it all wrong but the next time I tell them, "Last time you said you needed an hour for this, but you only got half of it done. So, how much time do you need to plan next time?" (Curriculum supervisor)

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At the lower level, students, for the most part, cover the same subjects in class together. Classes are based around adapted theoretical education in the form of the five PrOmotie domains as well as the symbiosis classes.

We need to offer material from all the five basic domains. Everything is possible but you can't say that you don't want to learn certain things. (Curriculum supervisor)

However, students still need to plan when they want to study certain subjects and the time they think they will need to be able to finish related assignments. Students, therefore, focus more on planning the timing part of their educational program at the lower level. If a student needs extra time for a certain subject, they can discuss with their mentor when this would be possible and then integrate it in into their weekly plan.

Imagine there are a couple of students who need instruction for the domain 'Calculating and Money'. The teacher can then tell these students to write down in their weekly plan that they have 'Calculating and Money' on Wednesday morning between eleven and twelve. (Curriculum supervisor)

Students at the lower level also prepare to take more charge of their own learning for when they get to the upper level.

Preparing also means that you need to learn to take responsibility. It is developing an attitude. Something they are not used to. (Curriculum supervisor)

When students get to the upper level, they start deciding which vocational course they would like to take. They start focusing on specific theoretical subjects and vocational classes in a certain field.

When they get to the third grade, you will notice a change. You see that they do not have to study certain domains or learning areas anymore. And that is fine because they have to start making choices. This does not mean that they don't have to do one thing at all and do another thing too much, though. If they have chosen the course metalworking, they have to

attend those classes for fifty percent of the time but the other fifty percent they have to do other things. (Curriculum supervisor)

Students are deemed more capable of making choices as to which subjects they need for their vocational course at the upper level. At this stage, the mentor will also have a better picture of the individual student's abilities.

A student at the lower level may too easily say, "I think calculating is awful. I don't want to do it." When a student becomes older, the individual wishes are taken into account more. If they have calculated for years and they say they hate it, I will give them a calculator. When they get to the upper level, they grow up. (Curriculum supervisor)

Students normally start internships at the third grade. This means that they are not present in school as much as they are in the first two grades. The students come to school at different times and each individual student has a unique schedule.

I am the mentor of twenty students. On average I have about eleven students in my class. The others are all over the place. Every hour it is a surprise who is in my class. The others are at workshops or they follow courses. So, we have twenty rosters, twenty weekly plans, twenty internship addresses. Everyone here has different books and they are all here at school at different times. And what's funny is that the students of class 4 / 5 ask, "Who exactly is my mentor?" We all have to laugh about this. We all help each other. (Mentor)

All the students have a folder. I tell them to take out their weekly plan. I tell them, "Show me your weekly plan. What are you going to do? Where are you going to sit? Do you need a computer? No. Then you can stay here and do your work. If you have questions, come and find me." This way you cover each student. (Curriculum supervisor)

Choosing internships

Deciding on an internship for a student consists of four steps at Accent Nijkerk:

1. An internship assessment is taken to decide which line of work the student is interested in and what the realistic possibilities are for this student.

   The internship assessment consists of the following parts:

   - Work Images Interest Test (AWIT). This test determines at which places a student would like to take an internship. The test is developed by an external company and it is a visual assessment. It uses forty-five pictures of work activities of which students need to make a choice. Every picture is judged on a five-point Likert scale ranging from 'not at all interested' (1) to 'very much interested' (5). The raw scores are then discussed with the student since it might be the case that these test results are not correct.

     I then say, "What was it you had in mind?" Apart from that, we also ask questions related to school. This list covers ninety-four questions. The student rates himself on such areas as social skills, school enjoyment, ability to express oneself, confidence, social acceptance etc. all important areas for an internship. If the scores are too high or too low, maybe the list hasn't been filled in correctly, but you find this out through discussing it with the student. (Internship coordinator)

   - What do I think of school? This is a questionnaire which gives a clear picture of what the student thinks about himself, his fellow students, and the school. This questionnaire is also developed by an external publisher.
   - Screening list Goldstein training. This screening list, filled out by the mentor, is specially adapted for student with lower cognitive functioning. It determines the level of social skills by scoring these skills along a ten-point Likert scale.
   - Introductory meeting. During this meeting attention is paid to which aspects a student still needs to develop to be able to have a job interview.
   - Internship analysis. The mentor fills out a list of important items covering such areas as the ability to travel independently, personal care etc.

- Role play video. The students watch a video and interpret what is happening in the various scenes. The assessors determine if the student can correctly observe and interpret the essence of the scenes.
- Work activity test. This test evaluates how a student deals with work related activities and it consists of the following parts: instruction, work procedure and general attitude, motor skills, concentration, feedback, preciseness, own initiative, attitude, and pace. *You need two people to assist in this test. It's very labour intensive so we haven't used it for the last two or three years. (Internship coordinator)*

2. The assessors use the internship assessment data to evaluate if the student is ready for an internship. The following issues are taken into account: sufficient job skills, independence, sufficient social skills, ability to travel independently, motivation, physical condition, and the availability of a suitable internship.
3. The assessors discuss the outcomes with the teachers and decide on the field of work and at what level the work will be. This is discussed with the student and the parents are notified. The levels of work are divided into A, B, C, and D (discussed earlier).
4. The internship coordinator proposes a company to the student and parents and an introductory meeting is arranged. If all parties agree, an internship agreement is signed by the parents, student, the company, and the school.

It can be the case that a student cannot go to the preferred company for an internship. In this case, a position at another company related in some way to the preferred internship is found. If a student fails to find an internship at, for instance, a building site, this student could possibly work at a warehouse supplying material for construction companies.

Choosing between the available internship categories (A to D) can, in cases, be problematic. There can be both acceptance issues of assumed needed support at times with the parents as well as the students. It can be the case that an internship supervisor believes

that a social work environment is the best option, but that the student really does not accept this.

We normally say, "Ok, I will give you the benefit of the doubt." That's the option we choose: "You go ahead and try." I can tell you as a teacher what I think, but you will need to experience it yourself. Trial and error. You want to protect them, but it is not always possible. (Internship coordinator)

Individual student evaluation

We demand a lot from our students, but at their level and in their field. (Location manager)

Evaluating how well a student performs is considered to be a subjective matter. It is different for every student. It depends largely on how hard a student tries and what the possibilities are for the specific student.

A teacher needs to be able to evaluate properly what a student can and cannot do. What are the possibilities? Those need to be utilized. (Curriculum supervisor)

There are two different evaluation systems. First of all, when evaluating completion of courses and material, three levels are applied: insufficient (1), sufficient (2), and good (3).

When a student scores a level three on woodworking in the first year at a symbiosis course, we say, "You have completed the course at level three, so you should follow a course for this at the upper level for a certificate. You can do it. You are at a good level." (Curriculum supervisor)

Second of all, education at Accent Nijkerk is based around acquiring competencies. These are the seventeen competencies integrated into the PrOmotie curriculum (see appendix I). Student assignments are linked to these competencies.

A specific assignment could be: 'Record the electricity meter reading'. I will ask the student to finish it by a certain date, so the student needs to plan this in (competency 'Planning and

Organizing'). Does the student record the reading accurately? (competency 'Skilful') And I also ask if the student can have the assignment checked by the parents (competency 'Learning'). (Curriculum supervisor)

Each competency has a list of behaviour indicators. These behaviour indicators are ranked from 1 (insufficient) to 5 (extremely well). An example of the list of behaviour indicators for the competency 'Deciding and taking initiative' can also be found in appendix I.

How can you see if a student has learned something? For example, the competency 'Learning'. Under this heading are a set of behaviour indicators. One of these is: 'Student asks advice about how something is done'. If the student has paid proper attention but also asks a question, this is a positive point of 'Learning'. (Curriculum supervisor)

The lists of behaviour indicators are filled out by both the student and the teacher and subsequently juxtaposed to allow for a discussion.

A teacher might tell a student, "I don't think you are yet independent because you still come and ask me a lot of questions." The student's response might be, "But I think I'm very independent because I can already travel independently." And this will then result in a discussion. (Location manager)

This juxtaposition of the lists filled out by the mentor and student is based around the idea of making the student aware of his or her own progress.

I find it important that people are aware of what they learn. That is not dependent on their level. I think that these people are very much capable of this and we have told them far too long that they were not. (Location manager)

Chapter 5 Comparison

This chapter not only offers a comparison of national policies and school case practices, but it also provides an overview of how these policies and practices relate to worldwide trends and researches related to the purpose of this research project. Throughout the chapter, the differences between the lower and upper levels of secondary education (and also the differences between the Taiwanese lower secondary education's resource and special education programs) have been kept in mind. Tables have been created to provide the reader with an overview of similarities and differences. However, when possible, the lower and upper level Taiwanese school cases have been combined in these tables.

5.1 The Definition of Mildly Mentally Impaired Students

The definition of mild mental impairment in education is, to a certain degree, different in Taiwan and the Netherlands. These differences in definition, stated below, were taken into account as the findings were analysed.

Terminology

In the Netherlands, primary special education schools, and previously special secondary education schools (now mainstreamed schools for Practical Training), for mildly mentally impaired students are called schools for Children with Learning Difficulties (Moeilijk Lerende Kinderen / MLK) thus avoiding the term 'mental impairment' or a variation of this type of terminology. Students attending Practical Training are, therefore, also not referred to as mildly mentally impaired students. In Taiwan, as in most countries in the world, the term 輕度智能障礙 is used, for the population of students included in this

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research project, which could be translated as ‘mildly mentally retarded’ or ‘mildly mentally impaired’.

Diagnostics

For the diagnostic category of intellectual functioning there is a difference in the applied range of deviations from the mean. In Taiwan, a student’s intellectual functioning should be at about two to three standard deviations from the mean. This is the equivalent of IQ 55 – 69 (WISC III) or IQ 52 – 67 (Binet). The range of IQ levels applied for admittance to Practical Training is somewhat wider in the Netherlands: between IQ 55 – 59 and 75 – 80 (WISC III). The variation of the lower (IQ 55 – 59) and upper ceiling (IQ 75 – 80) is related to other personal characteristics of a student (e.g. ethnicity). Immigrant children and ethnic minorities are more prominent in the Netherlands than in Taiwan. Besides intellectual functioning, students in both countries need to show significant deficiencies in social development, academic development (expressed in didactic level units in the Netherlands), and a possible presence of other impediments.

Total population of mildly mentally impaired students in secondary education

The percentage of mildly mentally impaired students in Taiwanese secondary education is considerably lower than in the Netherlands. At Taiwanese junior high schools this specific population stands at 0.8% of the total student population and in senior Comprehensive Vocational Departments at 0.2%. Practical Training schools offer education to 2.9% of the total population of secondary education students (lower and upper levels combined).

On reason behind the difference in the number of students in the Netherlands is the higher ceiling applied to intellectual functioning. Another reason behind this difference in

number, of officially recognized mildly mentally impaired students, seems to be the issue of cultural acceptance of special needs students. It can be argued that there is a portion of Taiwanese mildly mentally impaired students who are hidden inside the regular education system.

Table 5.1

Comparison of definition of mildly mentally impaired students

Topic	**Taiwan**	**The Netherlands**
Terminology	Mildly mentally impaired students	Children with learning difficulties
Diagnostics	- WISC III IQ 55 – 69, or - Binet IQ 52 – 67, and - difficulties with self-care, movement, communication, social sentiment, academic studies etc.	- WISC III between IQ 55 – 59 and 75 – 80 - didactic level academic subjects - social-emotional developments - other (external) educational impediments
Student population	- Lower level 0.8% of total - Upper level 0.2% of total	- Lower and upper level combined 2.9% of total

Conclusion

Mildly mentally impaired students in the Netherlands have a higher ceiling of intellectual functioning than their Taiwanese counterparts. This, partly, explains for the larger total mildly mentally impaired student population. However, it does not completely account for the striking difference in size, and it can be argued that cultural factors cause parts of the mildly mentally student population to remain hidden inside the regular education student population.

5.2 National Context

History of the special education context

Taiwan's first Special Education Act was promulgated in 1984. Before that, education for special needs students was mainly experimental. In the Netherlands, there is a long history of special education (included in the Primary Education Act of 1920), but not until 1985 was the first separate Special Education Interim Act for primary and secondary education put into effect.

After the Salamanca Statement of 1994, both Taiwan (1997) and the Netherlands (1998) amended their special education policies which eventually would lead to the creation of the Comprehensive Vocational Departments situated in regular education schools in Taiwan (2001) and Practical Training schools as part of regular education in the Netherlands (2002). The city of Taipei has had an inclusive environment (resource room programs) for mildly mentally impaired students in the nine-year compulsory education stage, officially, since 1986.

Funding of the programs

The total expenditure of the government on education was more or less similar in both countries as Taiwan spent 4.81% of its GDP on education in 2009 while the Netherlands spent 5.1% of its GDP on education in the same year.

Available data shows that in Taiwan 13.11% of the total educational budget was spent on junior secondary education, 5.66% on senior vocational secondary education. Furthermore, the central government of Taiwan devotes 4.5% of the whole education budget to special education (Ministry of Education, 2009). An additional 5% of the whole local government education budget is put aside for special education. Since senior education is not part of

compulsory education, this educational stage receives comparatively less money since students need to pay for parts of their education. However, students at Comprehensive Vocational Departments do receive full government funding.

Practical Training is part of mainstream secondary education and of all expenditure on education in the Netherlands, 31.8% was reserved for secondary education. Of this, available data shows that students in Practical Training (together with secondary education students who receive learning support) receive 83% more funding per capita than do other secondary education students. The Dutch school case also makes use of various available subsidies such as the ones provided by the European Social Fund. If there are projects proposed within the school, the location manager tries to get additional funding from certain available agencies.

The above data give an idea of the funding available in both countries. However, these data do not provide for a detailed overview of how much money is comparatively available for each mildly mentally impaired student in each country.

Dutch Practical Training schools receive block grant funding to cover staff and running costs, which they can be spent as the school sees fit.

I have a lot of freedom. If, for instance, I want to spend money, I don't have to ask for permission. As long as I stay within the budget, it is ok. It is a different way of working. (Location manager Accent Nijkerk)

In contrast, Taiwanese schools need to provide details of their expenses to the government.

The degree of educational regulations

The Netherlands has an advising body (the Nationwide Association for Practical Training) for secondary education serving mildly mentally impaired students rather than strict government regulations. The Law on Secondary Education, therefore, provides a certain

degree of autonomy for the schools to offer education as they best see fit. This is in line with Dutch education's 'freedom of arrangement' principle.

In Taiwan, the government stipulates in the Special Education Act that the government determines details of practices. Regulations are enforced and compliance is checked during school evaluations.

Taiwan has regulations that need to be followed otherwise everybody does things differently. (Special education coordinator Nan Gang Comprehensive Vocational Department)

Table 5.2

Comparison of national contexts

Topic	**Taiwan**	**The Netherlands**
History	- First Special Education Act 1984 - Resource room program officially since 1986 in Taipei - Comprehensive Vocational Department since 2001	- First Special Education Interim Act 1985 - Practical Training officially since 2002
Funding	- 4.81% of GDP total education - Special needs students at lower secondary education stage and Comprehensive Vocational Department extra funding compared to regular education	- 5.1% of GDP total education - Practical Training students 83% more funding per capita than other secondary education students - Block grant funding for schools

Topic	Taiwan	The Netherlands
Degree of regulations	- Regulations enforced by government	- Advising body instead of strict regulations - School autonomy
Educational program	- Lower level: 50% inclusion in regular education (inclusion classes are academic and recreational classes), and - lower level: self-contained special education program - Upper level, self-contained special education program	- Lower level: 50% inclusion in regular education - Lower and upper level inclusion classes are vocational classes - Upper level: continued inclusion in vocational regular education

Conclusion

The Netherlands has a longer history of education tailored to special needs students, but the official Special Education Acts of both countries follow a similar timeline. Policies and regulations, however, are enforced in different ways. In Taiwan, there is a top-down approach while the Netherlands it is more bottom-up. The educational program settings also show differences. Inclusion with regular education is assured at both the lower and upper level in the Netherlands, while this is only the case in Taiwan's resource room program in the lower level.

The following sub-chapters will focus on the three school cases studied while relating the findings of the school cases to national policies and international trends.

5.3 Participants in the Process of Individualizing Education

This section will provide an overview of the participants. The participants' tasks and roles will be further discussed in the following sections.

In the Taiwanese and the Dutch school cases, there is a staff member who is both a teacher to the student a mentor (the Netherlands) and a case manager (Taiwan) for individualizing a student's education. On the administrative side, the Taiwanese special education coordinator's Dutch counterpart can be viewed as the location manager. All school cases have experts who deal with more serious behavioural or academic difficulties. The tasks of the Dutch internship supervisor are performed by the Taiwanese mentor and student counsellor.

Table 5.3 will give on overview of all the participants while also, roughly, showing the equivalent participants in both countries.

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Table 5.3

Comparison of participants in the student's individualized education process

Taiwan	The Netherlands
- Case manager	- Mentor
- Special education coordinator	- Location manager
- Guidance teacher (lower level) and student counsellor (upper level)	- Mentor and other teachers
- Subject teachers	- Other teachers
- Student counsellor (lower level)	- Care and Advice Team (ZAT)
- Student	- Student
- Parents	- Parents
- Guidance teachers, therapists and other external parties	- Care and Advice Team (ZAT)
- Mentor and student counsellor	- Internship supervisor
- Regular classroom mentor (lower level)	

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5.4 System and Tools for Individualizing Education

IEP regulations

Both Taiwanese and Dutch policies obligate schools for secondary education, servicing mildly mentally impaired students, to utilize a tool to aid in the drafting of an individualized program for mildly mentally impaired students. This tool is referred to as the Individualized Education Program in Taiwan and the Individual Education Plan in the Netherlands. These of are both referred to as the IEP. The Taiwanese Enforcement Rules to the Act of Special Education (Ministry of Education, 2003) clearly states the items which

need to be included into this program. These items include all the major elements (see Chapter 2.4) specified by Patton et al. (1990). Both Taiwanese school cases have an IEP format which abides by the country's regulations.

Although Dutch policy has called for a start to integrate IEPs into a school's educational program, there are no strict regulations as to what the exact format of an IEP is. Schools have considerable autonomy to create their own version of an IEP. Taiwanese schools can also create their own format as long as the items from the Taiwanese Enforcement Rules to the Act are included.

The Dutch Nationwide Association for Practical Training is providing publications that aid the schools in creating IEPs. These publications (Harskamp & Slof, 2006; Schölvinck & de Vries, 2004; te Braake-Schakenraad & Huisman-Bakker, 2004) also cover the major elements of an IEP described by Patton et al. (1990). Accent Nijkerk was one of the schools which stood model for the publication covering the introduction of IEPs into Practical Training schools (te Braake-Schakenraad & Huisman-Bakker, 2004). This indicates a bottom-up approach in policy creation, where the government empowers schools to create their own programs.

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IEP contents

The IEP is, in both the Taiwanese and the Dutch school cases, a collection of various files. As is often the case (Sands et al., 1998), the Individual Transition Plan (ITP) cannot be clearly separated from the IEP in either the Taiwanese or Dutch school cases. Rather, transition information is integrated into the IEP. In Taiwan this means that the IEP transforms into an ITP as the student approaches graduation. In the Netherlands, the transition portfolio and the student tracking system combined resemble an ITP as it is a collection of all evidence

of acquired competencies and all relevant transition information. The transition portfolio is a file containing all previous student portfolios.

Table 5.4 provides an overview of equivalent files in both countries.

Table 5.4

Overview of the IEP contents

IEP file description	Taiwan	The Netherlands
A student's completed subject material with corresponding evaluations	- Study portfolio (lower level) - Study portfolio (lower level) - Homework record (upper level)	- Subject matter tracking system - Portfolio
(Possible) Educational or behavioural difficulties of the student	Guidance record (lower level), behaviour check and guidance file (upper level)	Student tracking system
A record of vocational assessments and tests taken by the student	Vocational assessments file	Vocational tests and assessments file
Short-term and long term educational goals and evaluation	Included as a section of the finalized IEP	- Student tracking system - Subject matter tracking system - Weekly plan

IEP file description	Taiwan	The Netherlands
Transition information of the student	IEP becomes Individual Transition Plan (ITP) when transition is eminent	- Student tracking system - (Transition) Portfolio
Participation in regular education	Only at Taipei Junior High School as a section of the finalized IEP	Subject matter tracking system

The format of the IEP

One of the major differences between the Taiwanese school cases (appendix G) and Dutch school case (appendix H) is how the finalized IEP is presented.

Both Taiwanese schools use a paper (printed) file which includes all the files described above. The IEP is then signed by the relevant parties and completed with a signature of one of the parents. This finalized IEP is the direct responsibility of the student's case manager.

In contrast, Accent Nijkerk's subject matter tracking system and student tracking system are in the hands of both the mentor as well as the student. This is in line with the concept of the student-led IEP or self-directed IEP (see Chapter 2.4) where students take control of their own IEP. The final product is created by the student self, under guidance of the mentor, and is presented to his / her classmates. The student is free to decide how this IEP is presented but often this is done as a power point presentation. Parents and other parties can be invited to attend the presentation.

Meetings in support of individualizing education

In all the school cases, there are formal meetings related to the process of individualizing education for an individual student. These are, straightforwardly, called the IEP meetings in Taiwan and there are two formal meetings at Accent Nijkerk: the triangle meetings and the coaching meetings.

According to regulations, at Taipei Junior High School, IEP meetings are attended by the case manager, all the resource room subject teachers teaching a particular student (resource program), the regular education class mentor (resource program), the student counsellor, an administrator (often the special education coordinator), and the parents. At Nan Gang Comprehensive Vocational Department, the mentor (case manager), the student counsellor, the special education coordinator, and the parents are present.

Accent Nijkerk invites the 'triangle' of the mentor, the student and the parents to attend their, so-called, triangle meetings. For the coaching meetings, the mentor and student are the only ones present.

At both Taiwanese school cases, the student self is normally not invited to attend IEP meetings unless there are some behavioural issues that should be directly discussed with the student. The student is, however, not directly involved in the formal decision making process at IEP meetings. Interviewees of both school cases pointed out that the reason for this is that students do not understand what is being discussed at IEP meetings and that they can be intimidated by the presence of a group of adults. Students have difficulty understanding the finalized IEP, as it is an elaborate file containing the various details of the student's educational program.

As described by Wehmeyer (1998a), the above indicates the presence of two of the barriers (complexity of education process and lack of student motivation) to participation in formal decision making (see Chapter 2.4).

Instead of using the formal IEP meeting, the Taiwanese school cases make use of informal student-teacher meetings to assess an individual student's views on the educational program. There is no fixed, scheduled time arranged for these meetings and the teachers use any available time they can find.

At the Dutch school case, the student, together with the mentor, is present in both formal meetings. This is the case since the student is, partly, responsible for the IEP's student tracking system, the student matter tracking system, the portfolio, the weekly plan, and, eventually, the IEP presentation.

Taiwanese IEP meetings are arranged at least three times a year on, relatively, fixed dates. Accent Nijkerk's triangle meetings are planned in, on an on-demand basis, at least twice a year and there is one home visit per year which can also be viewed as a triangle meeting. There are three coaching meetings a year. They are planned in at the beginning, in the middle, and at the end of the year.

Table 5.5

Comparison of system and tools for individualizing education

Topic	**Taiwan**	**The Netherlands**
IEP regulations	- Strict regulations - Top-down	- Policy advice - Bottom-up
IEP contents	- Collection of files - ITP integrated into IEP	- Collection of files - ITP integrated into IEP
IEP format	- Case-manager-led IEP - Printed paper file	- Student-led IEP - Student presentation

Topic	Taiwan	The Netherlands
Meetings in support of individualizing education	- Formal IEP meetings attended by school staff and parents (at least 3 times a year) - Informal student-teacher meetings	- Formal triangle meetings attended by student, mentor, and parents (3 times a year) - Formal coaching meetings between mentor and student (3 times a year)

Conclusion

An IEP is the main tool for individualizing a student's educational program in both countries. While in Taiwan there are clear guidelines as to what the contents and format of the IEPs are, the Dutch schools have more freedom to decide these themselves. As a result, there is a striking difference in the finalized versions of the IEPs. The Taiwanese IEP is a printed file created by the case manager but the Dutch IEP is a student presentation created by the student him / herself. Formal meetings in support of the IEPs are attended by the Dutch students while Taiwanese students attend the informal meetings. In the Taiwanese cases, more professionals attend the meetings.

5.5 Method of Individualizing Education

This section highlights some of the main themes derived from the findings concerning the method of individualizing education at the three school cases.

Common needs and future perspectives of mildly mentally impaired students

The main perspective of mildly mentally impaired students at Taipei Junior High School is attending a Comprehensive Vocational Department. Therefore, students need to prepare for the entrance examination of this department. From the lower level to the higher level of secondary education, there is no standardized exam in the Dutch education system. Students continue studying at the same school. Even the transition from the lower level to the higher level is not that clear at Accent Nijkerk.

The goals for students at Nan Gang Comprehensive Vocational Department and Accent Nijkerk are similar: to be able to live independently, including work and recreation within the community upon leaving the school. While in Taiwan the students are not expected to continue their studies at a higher level upon graduation, some Dutch students do continue their education at the AKA level. The higher ceiling in intellectual functioning of the definition of mildly mentally impaired students is a possible explanation for this trend. This opportunity to continue studying is a move away from the original post-Practical Training goal set by the Dutch Ministry of Education, Culture and Science (1998) which stated that the intended employment positions in the regional labour market for Practical Training school leavers are under that of AKA level 1.

In line with Patton, Polloway and Smith's (2000) belief "that [mild mental impairment] has been, and continues to be, a condition concerned with social competence" (p. 80), all three school cases highlight the need of social competence for their students. Therefore, the acquisition of social skills is integrated throughout the school programs.

While at Taipei Junior High School vocational skills are not yet part of the regular curriculum, Nan Gang Comprehensive Vocational Department and Accent Nijkerk (both lower and upper level) heavily emphasize these skills.

Since students at Taipei Junior High School's resource program need to follow the nine-year integrated curriculum, (more abstract) academic skills are also emphasized at this stage. Students, like their regular education peers, need to prepare for (regular education and special needs-tailored) examinations. Regular education examinations are not taken by students of Nan Gang Comprehensive Vocational Department and the curriculum can, therefore, be of a functional nature. Students prepare to enter the employment market and since students are discouraged to study at a university level, they do not prepare for the university entrance examinations.

There are no formal examinations at Accent Nijkerk. Students work on their seventeen competencies and, even at the lower level, vocational skills which are evaluated in a qualitative manner.

Employment of students is anticipated to be in the surrounding community of the two schools in both countries.

The role of the student in the process of individualizing education

The role of the student in the process of individualizing education is one of the major differences between the Taiwanese and Dutch school cases. In all school cases, the formal meetings are the time when most of the decisions are made concerning individualized programs. The two formal meetings at Accent, the triangle meeting and the coaching meeting, are attended by the student, while the formal IEP meetings at both Taipei Junior High School and Nan Gang Comprehensive Vocational Department are not attended by students. This shows that the concept of the student-led IEP, or self-directed IEP, is present in the Dutch school case but not in the Taiwanese school cases. Therefore, the roles of the student in the formal decision making process for individualized programs is markedly different in both countries.

As was mentioned previously, Accent Nijkerk's students share responsibility for various IEP tools and the contents of these tools are covered in the formal meetings. Interviewees at Accent Nijkerk pointed out that this responsibility should provide the students with a sense of control over their own educational program. This is consistent with the notion that involvement of mildly mentally impaired students in formal education planning supplies students with a sense of self-determination (see Chapter 2.1). While students at the lower level cannot yet determine their own curricular contents, they are already given the responsibility to arrange (to some extent) their own weekly time tables and set their own educational goals. This is meant to prepare them for the upper level where students start choosing the subjects of their own educational program as well as the field of their vocational course and internships. The fact that self-determination for students is emphasized fits inside the Dutch cultural context. Regardless of their educational track, it is normal for Dutch students to decide themselves which field they want to study. At every track of the upper secondary education level, students are expected to choose a number of subjects they wish to study and which support their future employment plans. Parents can influence a student's decision but often it is the students themselves who have the final say over which courses to take at this point of their educational career.

While the students at both Taipei Junior High School and Nan Gang Comprehensive Vocational Department are not directly involved in the formal meetings, their wishes and interests are also taken into account when planning their educational programs. Students need to express their views at the informal student-teacher meetings. At Taipei Junior High School a student's wishes are mainly taken into account concerning the nature of the curriculum. For instance, a resource room student is consulted if the case manager believes the curriculum should be adapted to become more functional or when it is considered beneficial for a student to take some classes in the special education class.

At Nan Gang Comprehensive Vocational Department, students start preparing for future employment. An internship at a company related to the field of interest of the student is considered essential. The mentor at Nan Gang Comprehensive Vocational Department, however, pointed out that their students are relatively passive when it comes to expressing their own interests. She believes that, although she tries to include them more in the planning of their own education, they are not used to it and that this is hard to change at the upper level of secondary education. This indicates presence of one of Wehmeyer's (1998a) barriers to participation in the planning of education, that of a lack of student motivation. However, the mentor believes this lack of motivation to be shaped by the stages of education prior to the upper level of secondary education. If students are not accustomed to be listened to when their programs are arranged at the compulsory education stage, it is hard to change their attitude at the upper level of secondary education in the short period of three years. Furthermore, it is common for Taiwanese parents to be strongly involved in a child's educational planning. While in the Dutch school case there is a focus on self-determination, letting Taiwanese students plan their own programs could even be considered irresponsible. As there is a lack of social welfare for the elderly in Taiwan, parents can view their child as an investment for when they retire. Parents, therefore, often want to assure that the right courses are taken with the best prospects for adequate future employment (S. W. Chen, Wang, Wei, Fwu, & Hwang, 2009).

The students at Accent Nijkerk are encouraged to choose a field of work which is related to his / her 'passion' to assure that, in the words of the school staff, their education is meaningful. The term 'meaningful' refers to the fact that the student is interested in studying and that there is a connection between education and daily life / future employment. Accent Nijkerk empowers the students to the extent that they have the final say over their education planning, even if it is quite obvious to the mentor that the difficulty level is too high or the set

goals are unrealistic. In the words of the location manager of Accent Nijkerk, “Students are allowed to explore and even when it turns out that it did not work, the student at least tried.” Similarly, the students at both Taipei Junior High School and Nan Gang Comprehensive Vocational Department are challenged when determining educational goals. This corresponds with the view of the United States based National Center on Secondary Education and Transition which believes that “failure is not necessarily something to be avoided; it is a natural part of life” and “a person who is protected from failure is also protected from potential success” (2004, p. 7).

The role of the school staff in individualizing education

The staff members most concerned with the process of individualizing education are the mentor of the Dutch school case and the case managers at the Taiwanese school cases. Both the mentor and the case manager are responsible for the IEP of a student. The difference, nonetheless, is that the Dutch mentor is responsible for guiding the student in formulating educational goals and managing the educational program while the Taiwanese case manager collaborates with other key staff members in formulating these goals. The mentors and the case managers are both the key members who communicate with all key staff members and other relevant parties involved in the process of individualizing education.

In both countries, staff members are expected to provide extra educational support if the student shows a need for this. A student’s individual needs and interests become clear to key staff members by using the student’s transition information, the (in)formal meetings, observations, assessments, homework, and (in the Taiwanese cases) examinations. The mentor and case manager discuss the educational program with each individual student. The interaction, however, is somewhat different in both countries. At Accent Nijkerk, a recurring theme was that the mentor ‘guides’ a student in exploring educational subjects and

determining educational goals. This is based on a ‘pull-out’ technique where the mentor encourages the student to explore their own interests while trying to keep the student inside the boundaries of his/her own abilities as well as the available program. As was described in the last section, this kind of ‘pull-out’ technique has proven to be difficult for the staff members at Nan Gang Comprehensive Vocational Department. While it is considered the preferred option, staff members, instead, often need to offer students subject and internship options and ‘push’ them in a certain direction to make a choice.

As students do not yet have the option of determining the subjects of the educational program at the lower secondary education level of both countries’ school cases, students at Taipei Junior High School are more involved in choosing the nature of their curriculum (academic versus functional or the level of classes taken) rather than the subjects studied. The case manager gives the students options and tries to convince the student of the benefit of the preferred option. In contrast, the Dutch school case already has a functional curriculum and, like in Taiwan, there are compulsory subjects. Dutch mentors at the lower level need to mainly guide the students in determining educational goals and arranging their weekly plans.

In both countries, individualized education calls for providing the student with extra individual instruction and tutoring if this is needed. Staff members in all three school cases need to manage a schedule where extra time is reserved for individual students who need more personal attention for a certain topic.

The Taiwanese school cases both have student counsellors and guidance teachers specifically dealing with behavioural issues of a student while also being in daily contact with the student. At Accent Nijkerk, the mentor is in charge of this aspect and there is not a separate staff position available. For more serious behavioural difficulties, all school cases have additional experts present.

Accent Nijkerk has a number of internship supervisors under the supervision of an internship coordinator. The internship supervisors are in charge of finding suitable internship companies and matching students with the right company. This task is performed by the mentor at Nan Gang Comprehensive Vocational Department. The Dutch internship supervisors are also responsible for the vocational assessments while at the Taiwanese school case this is done by the teachers.

Finally, the Taiwanese special education coordinator and the Dutch location manager are in charge of the budgeting of individualized educational programs of students.

The role of the parents in individualizing education

Although person-centred planning puts the student at the centre of the educational planning process, another feature of it is the direct involvement of the student's family (Mansell & Beadle-Brown, 2004). This party is represented in the planning process at both the Taiwanese and the Dutch school cases. However, the position they hold is noticeably different.

While the student is the final decision maker at Accent Nijkerk, the student's parents are the final decision maker in both Taiwanese school cases. On the other hand, the parents at Accent Nijkerk also hold a vital position in the process of individualizing education as they are one of the three participating parties of the triangle meetings. The views of all these participants are taken into account when education is individualized for a student.

Yet, the Taiwanese zero-reject policy effectively means that the parents are the most influential member at the IEP meetings. This is even the case on a higher policy level where the parent council is a major voice in the creation and amendments of educational regulations, even more so than the schools self. As was mentioned in a previous section, Taiwanese parents are, regardless of which educational stage or level, often strongly involved in their

child's educational planning. It is the responsibility of the parents to decide for their child's future as well as their own.

Although the Taiwanese parents have a key role to perform, they can be absent at the IEP meetings. At both schools cases, staff members wish for the parents to be present at all meetings, but lack of time, or in some cases a perceived lack of interest, can prevent the parents from attending. Both school cases' interviewees expressed their inability to oblige parents to attend. This is apparently less of a concern at Accent Nijkerk where, before their child's entry to the school program, the parents are explained which role they have in attributing to their child's education. The school asks for a commitment from the parents to attend the triangle meetings, and therefore parents are obliged to do so.

At Taipei Junior High School, the parents leave the formulation of the educational goals to the case manager but they involve themselves more directly in which classes their child attends and at what level they are taken. They also have a role to play in expressing their child's interests and abilities. Similarly, Dutch parents too leave the formulation of the goals to another party, although in this case it is their child.

In both countries, parents are included in the education of their child by having him/her perform household tasks. Parents are also asked to give an evaluation of the completion of these tasks.

Vocational exploration at the lower secondary education level

In both Taiwan and the Netherlands, the upper level of secondary education is the stage where mildly mentally impaired students specialize in a certain vocational field. Upon finishing the lower level, therefore, these students need to have a clear picture as to where their interests lie and what their abilities are before they decide what to study at the upper level.

At the Taiwanese lower secondary education level, education for mildly mentally impaired students is partly offered (up to fifty percent) in resource classes while the other part is offered in regular education classes. This is similar in the Netherlands where, in Dutch Practical Training schools, all the students join their Pre-Vocational Education track counterparts for about half of the school day at the lower level. The difference, however, is in which classes students in both countries join. At Taipei Junior High School, these are, in most cases, all the recreational classes as well as academic classes except for Chinese, English, and maths. Vocational classes are not yet offered at the lower level of secondary education in Taiwan but such vocational classes are precisely the only classes students at Accent Nijkerk join in the Pre-Vocational Education track. Vocational classes at Accent Nijkerk's lower level cover a wide range of fields and they are all compulsory. The reasoning behind this is that all students need to try the various vocational fields before they are able to choose their specialization in the upper level. Taipei Junior High School also offers some vocational classes but since the school is not a vocational school, facilities and opportunities to explore the various vocational fields are limited. Focus is on the nine-year integrated curriculum for the resource room students and, in the near future, this will also be the case for the special education class students. This is in line with the concepts of standards-based reform and allowing mentally impaired students access to the general curriculum to assure equal learning opportunities for all students (see Chapter 2.3) as proposed by Wehmeyer (2003, 2006).

The timing of a student's first internship is, consequently, another difference between the school cases. Students at Nan Gang Comprehensive Vocational Department start in the second semester of the second year of school while the students at Accent Nijkerk, mostly, start, two years earlier, in the third year of school. There are no internships at Taipei Junior High School. Since the Dutch students already start taking vocational classes in the first year

of the lower level, they possess the skills needed to start working at an earlier age compared to their Taiwanese counterparts.

Resources for creating individualized vocational programs

At Nan Gang Comprehensive Vocational Department, all the classes are taken in a self-contained special education program inside a regular Senior Vocational High School. The school is specialized (specialization at the upper level is a common feature of Taiwanese vocational high schools) in the vocational fields of food preparation, food service, cleaning, and car beauty. The school, therefore, has facilities related to these fields. Opportunity to study other fields is limited and while the school is situated inside a regular education vocational school (specialized in such fields as engineering and architecture), students do not use classroom facilities (e.g. vocational classrooms) reserved for regular education students. Students wishing to study a field outside the ones offered at the school make use of the school's social network. The same is the case for selecting internships. If the student prefers an internship which currently cannot be chosen from within the network of available companies, the mentor, and possibly other staff members, tries to utilize her own social network. Placing a student in a company, which is not yet familiar with Nan Gang Comprehensive Vocational Department's students, can be difficult as the company's perception of the student can, at times, be negative. This issue was less of a concern for the staff members at Accent Nijkerk.

Accent Nijkerk makes use of the vocational class facilities of the adjacent school for Pre-Vocational Secondary Education at both the lower level and the upper level. Since Dutch vocational schools for secondary education offer vocational classes in a wide range of fields, opportunities to specialize in a certain field are more extensive in the Dutch school case than the Taiwanese school case for upper secondary education. Similar to the Taiwanese school

case, the Dutch school's network can also be used to tailor a student's individualized program if facilities within the school are lacking.

As the post-education employment perspectives for students in both countries are within the local community, specialization at the upper level is also influenced by the opportunities for work in the surrounding area.

Table 5.6

Comparison of the method of individualizing education

Topic	**Taiwan**	**The Netherlands**
Common needs and future perspectives of mildly mentally impaired students	- Academic, social, and recreational skills (lower level) - Academic, social, recreational, and vocational skills (upper level) - Independent living and employment	- Academic, social, recreational, and vocational skills (both lower and upper level) - Independent living and employment
The role of the student	- Informal role	- Formal decision maker
The role of the school staff	- Recognize needs, interests, abilities - Formal decision maker	- Recognize needs, interests, abilities - Guide the student in decision making process
The role of the parents	- Recognize needs, interests, abilities - Final decision maker	- Recognize needs, interests, abilities

Topic	Taiwan	The Netherlands
Vocational exploration at the lower secondary education level	- Limited school facilities	- Regular vocational education track facilities
Resources for creating individualized vocational programs	- Department's facilities in a select number of fields - School network	- Regular vocational education track facilities - School network

Conclusion

The focus on academic tests in Taiwan and the lack thereof in the Netherlands shapes both countries' educational programs. Furthermore, the cultural and economic contexts of both countries have shaped the decision making process of individualized education. In the Netherlands, a focus on self-determination in education is common while in Taiwan this is not the case. The result is that the student is the main decision making party in the Netherlands and the parents are the final decision makers in Taiwan. The role of the school staff in the Netherlands, therefore, is to guide the student in the decision making process while Taiwanese staff members plan for educational program approval of the parents. Finally, Dutch students' opportunities to explore vocational courses at the lower level aid them in making a choice for vocational specialization at the upper level. On the other hand, Taiwanese students do not start taking vocational courses until the upper level and the courses taken at the Comprehensive Vocational Department are limited to the fields the school specializes in.

5.6 Individual Student Evaluation

An essential factor in the way student evaluations are performed in the Taiwanese school cases is the influence of the Confucian society in which they are embedded. There is a heavy emphasis on examinations and parents place high value on academic performance. Combined with the trend of standards-based reform, mildly mentally impaired students are expected, just like their regular education peers, to sit for their academic mid-term and final examinations while also taking an entrance examination into senior high school. Whereas students at Nan Gang Comprehensive Vocational Department write a simplified regular education exam, students at Taipei Junior High School are expected to also take the regular education exams (as well as a simplified version). In contrast, Accent Nijkerk has no formal written examinations.

The mentor at Accent Nijkerk has the responsibility of assessing a student's knowledge and functioning. This is not so much based on examinations but rather on qualitative methods. By spending time with the student in class as well as meeting with the student at the triangle and coaching meetings, the mentor is expected to have a clear picture of a student's abilities and needs. This is furthermore aided by the vocational tests and examinations.

Similarly, assessment of a student's knowledge and functioning in the Taiwanese school cases is also based on observations by the staff members directly involved in the education of the student. However, in contrast, Dutch Practical Training schools in general avoid academic examinations, while in Taiwan, such academic examinations are also used.

Therefore, assessments and observations are a common feature, while academic examinations are more unique to Taiwan.

Evaluation of a student's performance at Accent Nijkerk is not only performed by school staff and parents, it is also performed by the student self. The educational program is

based on seventeen competencies, each with a list of behaviour indicators (see Chapter 4.2.2 and appendix I). The student's performance on each of these behaviour indicators is evaluated by both the mentor as well as the student. Differences in opinion are discussed. Neither Taiwanese school case has an evaluation technique based on the acquisition of competencies.

Table 5.7

Comparison of individual student evaluation

Topic	**Taiwan**	**The Netherlands**
Assessments and examinations	- Simplified and regular education academic written examinations (lower level) - Simplified academic written examinations (upper level) - Vocational assessments	X - Vocational assessments
Skills evaluation	- Observations by staff members X	- Observations by staff members - Competencies-based evaluation

Conclusion

Confucian society and standards-based reform influence the method of student evaluation in Taiwan. Focus is on academic examinations similar to those of regular Taiwanese education. In contrast, the Dutch school case has no formal academic

examinations. Both countries also rely on staff member observation of student skill competence and acquisition.

5.7 Individualized Education

Chapter 2.4 gave an overview, based on related literature, of which elements individualized education can consist. The previous comparisons have highlighted some similarities and differences of the process of individualizing education in all three school cases. The following tables aim provide an overview as to what the final result of individualized education for mildly mentally impaired students entails in both the lower level and the upper level of secondary education in Taiwan and the Netherlands.

The first table shows how Taipei Junior high School's program for mildly mentally impaired students compares to Accent Nijkerk's lower level program. While in both cases the curriculum is adapted and additional instruction and tutoring is offered if a student shows the need for this, there are also some differences. Although the pace of learning is according to a student's ability, the Dutch student plans his/her own timeframe of completion while the teachers do this in Taiwan. Mildly mentally impaired students in the special education class of Taipei Junior High School normally do not have difficulty with the pace of the program. Grouping according to ability is a method of teaching more unique to the Taiwanese case. This grouping can refer to classes taken in the regular classroom, grouping according to ability in the resource room, and grouping according to ability in the special education class.

Table 5.8

Individualized education at the lower secondary education level

Taipei Junior High School's resource room	**Taipei Junior High School's special education class**	**Accent Nijkerk's lower level**
- Adjust pace of regular education program - Curriculum adaptation (from academic to a functional level) - Group placement according to level of ability - Additional individual instruction and tutoring - Individual educational goals (set by case manager)	X - Curriculum adaptation (contents and educational level) - Group placement according to level of ability - Additional individual instruction and tutoring - Individual educational goals (set by case manager)	- Individual weekly plan (set by student) - Curriculum adaptation (contents and educational level) X - Additional individual instruction and tutoring - Individual educational goals (set by student)

At the upper level, the pace of the program, and the formulation of educational goals are dealt with in a similar manner as at the lower level school cases. The difference at this level, though, is the extent to which an academic and a vocational program is individualized. At Accent Nijkerk's upper level, certain subjects are still taken together with other students, either in the mentor's class or at academic workshops. However, a part of the day is reserved for students to work on their 'IEP', which means they draft a weekly plan and study the material they have chosen and which, therefore, relates to their vocational course. Students

work independently and the mentor offers individual support during class time. At Nan Gang Comprehensive Vocational Department, classes are grouped according to ability, if needed, but the same subject is taught to an entire class. For academic classes, this means that students are separated in two groups although all the students are studying in the same classroom. Grouping according to ability in vocational classes means that less complicated tasks are assigned to students with a lower ability and more complicated tasks are assigned to students with a higher ability.

Table 5.9

Individualized education at the upper secondary education level

Nan Gang Comprehensive Vocational Department	**Accent Nijkerk's upper level**
- Adjust pace of program - Individual educational goals (set by mentor) - Additional individual instruction and tutoring - Group placement according to level of ability for academic subjects - Task assignment according to level of ability - Internship	- Individual weekly plan (set by student) - Individual educational goals (set by student) - (Additional) individual instruction and tutoring - (Partly) individualized academic curriculum - Individualized vocational curriculum - Internship

Chapter 6 Conclusions and Recommendations

6.1 Conclusions

This report began by raising questions about individualized education for mildly mentally impaired students in the secondary education system of two culturally diverse countries. It is therefore not surprising that these cultural contexts have been a major influence in the shaping of relevant policies and practices. Apart from certain similarities, the findings have also indicated some striking differences. Yet it would be unwise to solely attribute differences on national variations in culture. Both countries policies and practices have also been influenced by trends on a global scale.

On a national policy level, Taiwanese and Dutch regulations regarding individualized education for mildly mentally impaired students are created and enforced in different ways. In Taiwan, policies and regulations are set by the Ministry of Education and schools need to abide by them. School compliance is evaluated by this same ministry. In the Netherlands, the Ministry of Education, Culture and Science has designated the Nationwide Association for Practical Training to serve as an advising body for Practical Training schools. This association has published various articles which describe how the process of individualizing education is arranged in some model schools. While schools are obliged to offer individualized programs to mildly mentally impaired students, they are empowered by the government to arrange this in a way they best see fit. This shows a difference in the direction of interaction between policy and practice in the two countries. Whereas in Taiwan this can be more seen as a top-down interaction, the Netherlands shows elements of a bottom-up

approach. This also effectively means that there is more school autonomy in the Netherlands to create a unique system of individualizing education.

Individualized education has different meanings at the lower level and upper level of secondary education at the school cases. In both countries, at the lower level, individualized education includes extra attention and tutoring for the individual student who has this need. It also includes setting an individual student's own educational goals, within the existing educational program. These goals are mainly based on an individual student's educational needs and abilities.

At the upper level, individualized education also entails creating an individual educational program tailored to the student's future employment prospects. Students in Taiwan as well as the Netherlands are expected to start with internships at this educational stage. While both countries have a similar focus on group teaching and learning of subject matter at the lower secondary education stage, the upper secondary school cases show markedly different approaches to individual educational program planning. Taiwanese students take all classes together while Dutch students not only take classes together with their classmates but they are also expected to each have a unique program. This can be partly explained by the fact that there is a wide range of vocational fields the Dutch students can specialize in. On the other hand, Taiwanese students have fewer choices for vocational specialization. There are a select number of vocational classes and each class is attended by all the students simultaneously. Furthermore, Taiwanese mildly mentally impaired students need to take part in the school's examinations. The subject material on the examinations needs to be known by all the students and they can therefore be taught to a whole class. This focus on examinations, at both the lower and upper secondary education level, has its roots in the Taiwanese Confucian society. Furthermore, the Taiwanese school cases also show

elements of the standards-based reform movement. Mildly mentally impaired students, like other special needs students, are entitled to the same kind of education as their regular education peers and therefore there is a link with the regular education curriculum. The fact that there are no examinations at the Dutch school case gives the Dutch teachers and students the freedom to create an individual program which can focus more on one subject and, possibly, less on another.

While both countries use the IEP as the main tool for individualizing education, there are noticeable differences between the school cases' format of the IEP and, especially, the degree of responsibility the individual student is endowed with.

The call for a focus on a student-led IEP (aka student-directed IEP), with its origins in the person-centred planning movement, has found an advocate in this research project's Dutch school case. The student is jointly responsible, together with staff members and parents, for the planning of the individual pace of learning, curricular contents (at the upper level), educational goals, and evaluation of various competencies. In Taiwan, giving the student these same responsibilities is considered a difficult matter by some of the interviewees because of a perceived lack of student competence and motivation. However, this perceived lack of competence and motivation seems to stem from a system of individualizing education which is at a high abstraction level. Students are believed to have difficulty understanding what is being discussed at the IEP meetings and the format of the IEP is such that it is hard for the student to take ownership of. Furthermore, the way the IEP meetings are arranged can be intimidating for students as the setting is formal with various adults present. Especially Taiwanese interviewees at the upper secondary education school case expressed a desire for the students to be more involved in their own education planning but believed this to be less possible within the present system.

In the Dutch school case, the system of individualizing education has a simple format which makes it possible for student to be in charge of their own educational planning. Furthermore, the meetings are set up in such a way that they are attended either by the mentor and the student, or by a combination of the mentor, student and parents. The student is expected to feel comfortable and speak candidly in front of a small group of people he/she is very familiar with. These two measures (uncomplicated IEP format and a comfortable formal meeting environment) are in place to counter the concerns similar to the ones which were stated by the interviewees of the Taiwanese school cases.

6.2 Recommendations

One of the initial rationales for performing this comparative case study was to encourage practitioners to appreciate their nations' education systems as well as to heighten their awareness of shortcomings (Bray, 2003). While throughout the report the researcher has reminded the reader that all three school cases are very much embedded in their local contexts, the issue of student involvement in educational planning deserves additional attention in this section especially because of barriers identified in the Taiwanese school cases which were counteracted by measures in the Dutch school case.

If student involvement in educational planning is deemed important and desirable in Taiwan, and the current barriers are to be eliminated, the Dutch school case measures described above could be considered as an interesting example. This would call for Taiwanese students to be involved in their own educational planning at an earlier stage as well as a change in format of the IEP and the formal meeting environment.

This research project's main research instrument for discovering how key school staff members deal with the process of individualizing education, was the in-depth interview. It

could be interesting to extend this research project by performing observations of e.g. the various meetings discussed and classroom practices. It could provide new insight into the process described in this report.

Furthermore, the staff members interviewed for this research project were not the only key participants in the process of individualizing education for mildly mentally impaired students. The most obvious participants whose views were not consulted being the mildly mentally impaired students themselves while the findings of this report also indicate that the parents of these students also hold a pivotal position in the aforementioned process. These parties' contributions are recognized and a role as central participants in future research is justified.

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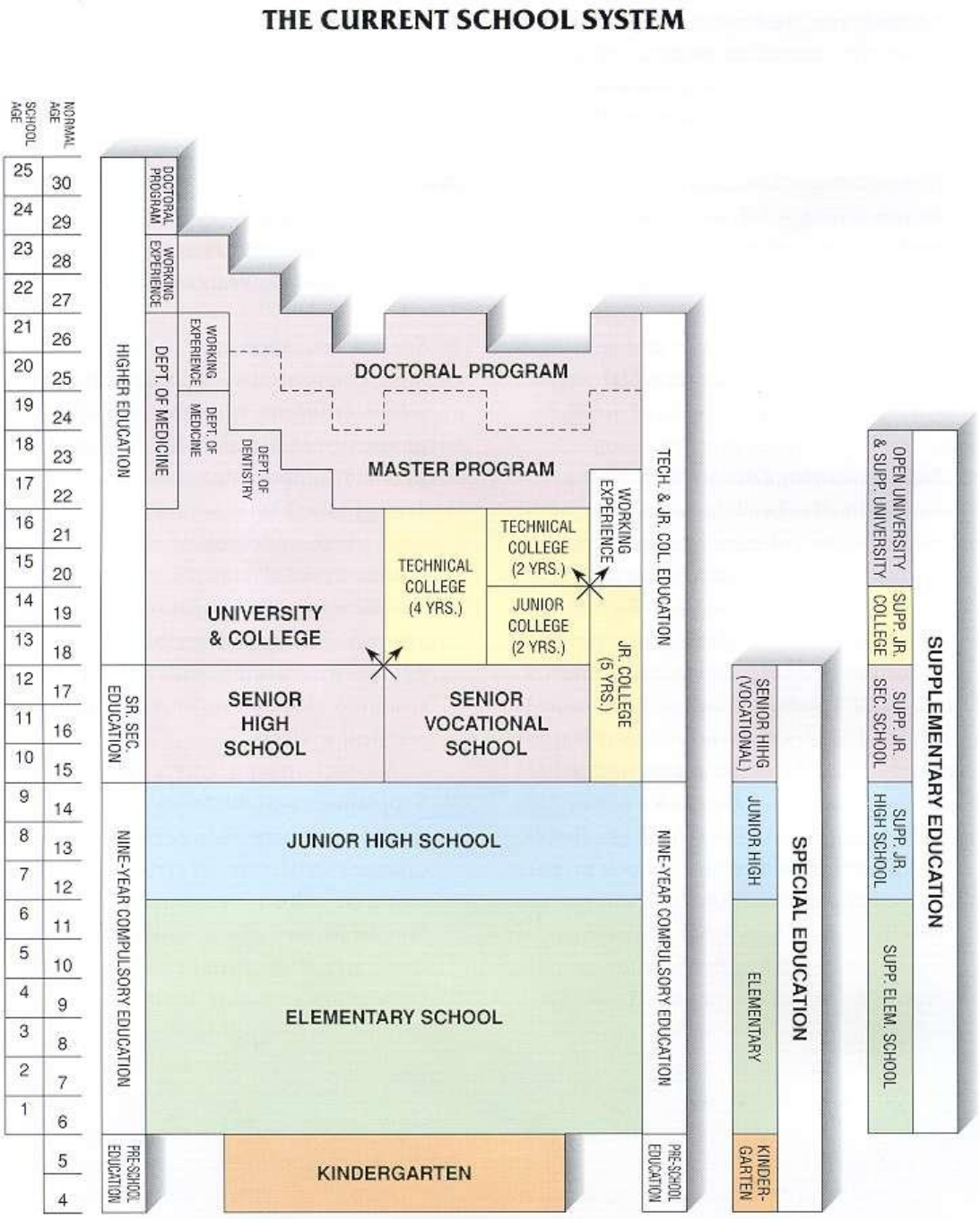
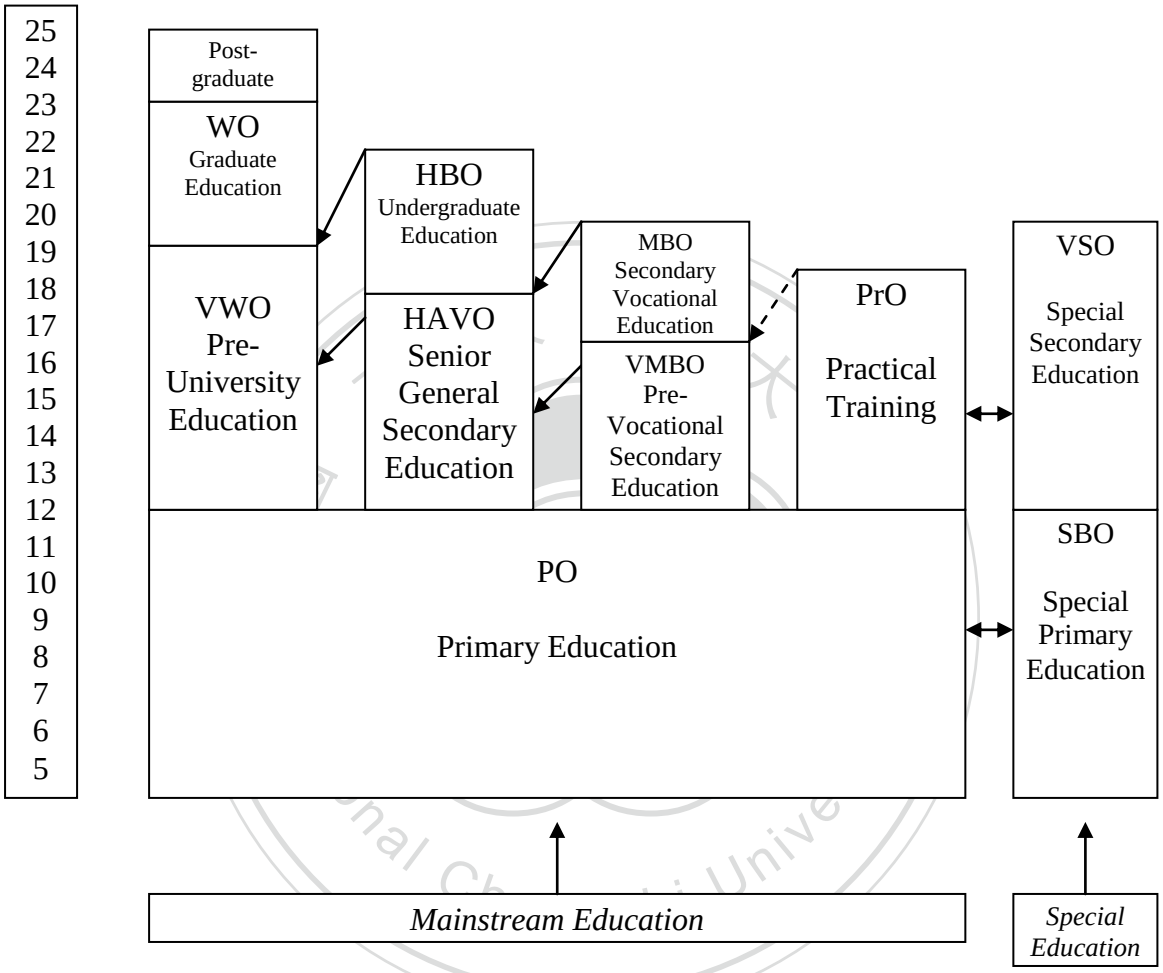
Appendix A Education system of Taiwan



Appendix B Education system of the Netherlands



Appendix C Interview protocol Taiwan (Chinese version)

台灣學校個案之特殊教育組長訪談題綱

1. 說明研究目的
2. 知會同意研究參與者以及匿名 / 非匿名參與研究
3. 建立同儕檢核的需求
4. 詢問檢視重要文件以及影印文件的可能(匿名)
5. 告知期望的訪談時間表

- 受訪者的背景資料 (學歷、工作經驗、在本校服務年資)
- 學校資料 (歷史、學生數、教職員、設備、環境)
- 學校對特殊需求學生的願景
- 就你所知，學校裡輕度智能障礙學生的特質是什麼？
- 你認為輕度智能障礙學生在校完成學業後，有什麼樣的前景發展？
- 可以請你說明本校對於輕度智能障礙學生的教育方案？
- 可以請你說明輕度智能障礙學生的課程和教材？
- 在輕度智能障礙學生中你是否經常觀察到某些需求？如果有的話，是什麼？
- 這些需求會在課程中出現嗎？如果有的話，是什麼？
- 在本校輕度智能障礙學生經歷哪些不同的階段？
- 這些階段裡，輕度智能障礙學生的日常活動是什麼？
- 通常在哪些地方發生？
- 輕度智能障礙學生的個別期望和需求 (個別化教育) 在這些階段裡是如何考慮？

- 使用哪些工具來達成？
- 哪些人會參與此過程以及他們的任務和責任是什麼？
- 這些人如何合作？
- 當這些人為輕度智能障礙學生的個別化教育提供他們的任務和責任時，需要著重什麼樣的個人技能？
- 對參與該工作的成員哪些技能是期望他們具備的？
- 在輕度智能障礙學生個別化教育過程中的定位和角色是什麼？
- 父母在過程中的定位和角色是什麼？
- 對這些成員而言是否有某些之前決定的方式來決定對輕度智能障礙學生的期許和需求？如果有的話，是什麼？以及如何應用？
- 個別的學習目的和目標是如何決定的？
- 如何去評量他們的進步和學習目的和目標的達成又是如何評量？
- 團隊的成員在一開始有沒有自主的空間？
- 對輕度智能障礙學生而言，個別化教育過程中最明顯的工作在什麼地方進行？
- 這些工作何時以及多常進行？
- 輕度智能障礙學生個別的期許和需求如何整合在課程中？
- 對你而言，該所學校達成輕度智能障礙學生個別的期許和需求最有利之處為何？
- 有任何的挑戰和困難嗎？如果有的話，是什麼？

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台灣學校個案之特殊教育成員訪談題綱

1. 說明研究目的
2. 知會同意研究參與者以及匿名 / 非匿名參與研究
3. 建立同儕檢核的需求
4. 詢問檢視重要文件以及影印文件的可能(匿名)
5. 告知期望的訪談時間表

- 受訪者的背景資料 (學歷、工作經驗、在本校服務年資)
- 請你解說你在學校的任務和職責？
- 就你所知，學校裡輕度智能障礙學生的特質是什麼？
- 你認為輕度智能障礙學生在校完成學業後，有什麼樣的前景發展？
- 在輕度智能障礙學生中你是否經常觀察到某些需求？如果有的話，是什麼？
- 這些需求會在課程中出現嗎？如果有的話，是什麼？
- 在輕度智能障礙學生的不同教育階段裡，你有什麼具體的任務和責任可以幫助他們，來達成個別的期望何需求？
- 使用哪些工具來達成？
- 你協助幾位輕度智能障礙學生？
- 你協助輕度智能障礙的學生時間是多長？
- 你在何時協助輕度智能障礙的學生以及多常進行？
- 你的任務與及職責在哪裡施行？
- 輕度智能障礙學生在個別化教育過程中的定位和角色是什麼？
- 父母在過程中的定位和角色是什麼？

- 是否有其他合作對象與你一起參與個別化教育？如果有的話，他們在過程中的定位和角色是什麼？
- 可否請你描述，你將會來決定對輕度智能障礙學生的期許和需求？
- 在這種方式的過程中，你覺得什麼是正面的？
- 在施行這種方式的過程有哪些挑戰與困難？
- 對於這些挑戰與困難如何克服及解決？
- 個別的學習目的和目標是如何決定的？
- 如何去評量他們的進步和學習目的和目標的達成又是如何評量？
- 如何將輕度智能障礙學生的期許和需求融入在課程裡？
- 對你而言，該所學校達成輕度智能障礙學生個別的期許和需求最有利之處為何？
- 有任何的挑戰和困難嗎？如果有的話，是什麼？

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Appendix D Interview protocol Taiwan (English version)

Interview questions special education coordinator Taiwanese school cases

1. Explanation of the research purpose
2. Establish consent to participate in the research and establish anonymous / non-anonymous participation.
3. Establish the possible need for 'member checking'
4. Inquire into the possibility to view key documents, and, in cases, copy documents and publish (anonymously)
5. State expected timeframe of the interview

- Background of the interviewee (schooling, experience, number of years employed by this school)
- School information (history, students, staff positions, facilities, environment)
- What is this school's vision regarding its special needs students?
- What are, according to you, specific characteristics of the mildly mentally impaired students in this school?
- What do you view to be the perspectives the mildly mentally impaired students have upon finishing their education at this school?
- Could you describe the educational program intended for the mildly mentally impaired of the school?
- Could you describe the curriculum / teaching material used for the mildly mentally impaired?

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- Are there certain needs among the mildly mentally impaired students which you often observe? If so, which?
- Are these needs met in the curriculum? If so, how?
- What are the various stages the mildly mentally impaired student goes through in this school?
- What are the daily activities of the mildly mentally impaired students at these stages?
- In what kind of environment do they take place?
- How are individual wishes and needs (individualized education) of mildly mentally impaired students taken into consideration at these stages?
- Which tools are used to achieve this?
- Who are involved in this process and what are their tasks and responsibilities?
- How is collaboration between these parties arranged?
- What personal skills are of importance for these parties when they perform their tasks and responsibilities for individualizing education for mildly mentally impaired students?
- Which skills are expected from the involved staff members?
- What is the position / role of the mildly mentally impaired student in the process of individualizing education?
- What is the position / role of the parents in this?
- Is there a certain prescribed approach for the staff members to determine the wishes and needs of the mildly mentally impaired student? If so, what is it / how is this applied?
- How are individual learning goals and objectives determined?
- How is progress evaluated, and how is the attainment of the learning goals / objectives measured?
- Is there room for own initiative by the staff members?

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- Where are the relevant tasks in the process of individualizing education for the mildly mentally impaired performed?
- When and how often are these tasks performed?
- How are the wishes and needs of the individual mildly mentally impaired student integrated into the curriculum?
- In your opinion, what are the strong points of this school's system for meeting the wishes and needs of the individual mildly mentally impaired student?
- Are there certain challenges / difficulties? If so, which?

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Interview questions staff members Taiwanese school cases

1. Explanation of the research purpose
2. Establish consent to participate in the research and establish anonymous / non-anonymous participation.
3. Establish the possible need for 'member checking'
4. Inquire into the possibility to view key documents, and, in cases, copy documents and publish (anonymously)
5. State expected timeframe of the interview

- Background of the interviewee (schooling, experience, number of years employed by this school)
- Could you describe your tasks and responsibilities in this school?
- What are, according to you, specific characteristics of the mildly mentally impaired students in this school?
- What do you view to be the perspectives the mildly mentally impaired students have upon finishing their education at this school?
- Are there certain needs among the mildly mentally impaired students which you often observe? If so, which?
- Are these needs met in the curriculum? If so, how?
- What are your specific tasks and responsibilities in meeting the individual wishes and needs (individualized education) of mildly mentally impaired students at the different educational stages?
- Which tools are used for this?
- How many mildly mentally impaired students do you work with?

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- How long do you work with a certain mildly mentally impaired student?
- When and how often do you perform tasks and responsibilities concerning the individualizing of education for mildly mentally impaired students?
- Where are these tasks and responsibilities performed?
- What is the position / role of the mildly mentally impaired student in the process of individualizing education?
- What is the position / role of the parents in this?
- Do you work together with other relevant parties for the purpose of individualizing education? If so, who and what are their positions / roles in this process?
- Could you describe how you approach the determining of the individual wishes and needs of a mildly mentally impaired student?
- What do you consider to be positive about this approach?
- Are there challenges / difficulties in this approach? If so, which?
- If there are difficulties / challenges, how do you try to overcome these?
- How are the individual learning goals / objectives determined?
- How is progress evaluated, and how is the attainment of the learning goals / objectives measured?
- How are the wishes and needs of the individual mildly mentally impaired student integrated into the curriculum?
- In your opinion, what are the strong points of this school's system for meeting the wishes and needs of the individual mildly mentally impaired student?
- Are there certain challenges / difficulties? If so, which?

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Appendix E Interview protocol the Netherlands (Dutch Version)

Interviewvragen locatiemanager Accent Nijkerk

1. Uitleg doel van het onderzoek
2. Toestemming vragen deelname onderzoek. Anoniem / niet-anonieme deelname
3. Vragen over eventuele behoefte ‘member checking’
4. Vragen of het mogelijk is om belangrijke documenten in te zien / te kopieren en publiceren (anoniem)
5. Verwachte tijd voor interview

- Achtergrond van deze persoon (scholing, ervaring, jaar werkzaam op deze school)
- School gegevens (geschiedenis, studenten, personeelsfuncties, faciliteiten, omgeving)
- Wat is de visie van deze school?
- Wat zijn volgens u specifieke karakteristieken van de studenten op deze school?
- Wat ziet u als de perspectieven die studenten hebben na het afsluiten van hun onderwijs op deze school?
- Kunt u het onderwijsprogramma van deze school beschrijven?
- Kunt u het curriculumaanbod / lesmateriaal beschrijven?
- Zijn er bepaalde behoeften onder de studenten die u vaak terug ziet? Zo ja, welke?
- Wordt aan deze behoeften voldaan in het curriculum? Zo ja, hoe?
- Wat zijn de verschillende fases die een student in deze school doorloopt?
- Wat zijn de dagelijkse activiteiten van de studenten tijdens deze fases?
- In wat voor omgeving vinden ze plaats?

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- Hoe wordt er rekening gehouden met de individuele wensen en behoeften (individueel onderwijs) van de student tijdens deze verschillende fases?
- Welke hulpmiddelen worden hiervoor gebruikt?
- Wie zijn erbij betrokken en wat zijn hun taken en verantwoordelijkheden?
- Hoe verloopt de samenwerking tussen deze partijen?
- Welke vaardigheden zijn van belang voor deze partijen voor het uitvoeren van hun taken en verantwoordelijkheden m.b.t. individueel onderwijs?
- Welke vaardigheden worden er verwacht van het betrokken personeel?
- Wat is de positie / rol van de student hierin in het process van het individueel maken van het onderwijs?
- Wat is de positie / rol van de ouders / verzorgers hierin?
- Is er een bepaalde benadering voorgeschreven aan het personeel om de wensen en behoeften vast te stellen? Indien ja, wat is deze / hoe gaat dat in zijn werk?
- Hoe worden de individuele leerdoelen bepaald?
- Hoe wordt de voortgang hiervan geëvalueerd hoe wordt bepaald / gemeten of de leerdoelen zijn bereikt?
- Is er ruimte voor eigen initatief van het personeel?
- Waar worden de taken relevant voor dit proces uitgevoerd?
- Wanneer en hoe vaak worden ze uitgevoerd?
- Hoe worden de individuele wensen en behoeften geintegreerd in het curriculum?
- Hoe wordt de kwaliteit van het beleid m.b.t. het voldoen aan individuele wensen en behoeften van de student gewaarborgd?
- Wat zijn naar uw mening de sterke punten van het aanwezige systeem voor het voldoen aan de wensen en behoeften van de individuele student?
- Zijn er ook bepaalde uitdagingen / moeilijkheden? Zo ja, welke?

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Interviewvragen personeel Accent Nijkerk

1. Uitleg doel van het onderzoek
2. Toestemming vragen deelname onderzoek. Anoniem / niet-anonieme deelname
3. Vragen over eventueel ‘member checking’
4. Vragen of het mogelijk is om documenten in te zien / te kopieren en publiceren (anoniem)
5. Verwachte tijd voor interview

Achtergrond van deze persoon (scholing, ervaring, jaar werkzaam op deze school)

- Kunt u uw taken en verantwoordelijkheden op deze school beschrijven?
- Wat zijn volgens u specifieke karakteristieken van de studenten op deze school?
- Wat ziet u als de perspectieven die studenten hebben na het afsluiten van hun onderwijs op deze school?
- Zijn er bepaalde behoeften onder de studenten die u vaak terug ziet? Zo ja, welke?
- Wordt aan deze behoeften voldaan in het curriculum? Hoe?
- Wat zijn uw specifieke taken en verantwoordelijkheden als het neerkomt op het voldoen aan de individuele wensen en behoeften (individueel onderwijs) van de studenten in de verschillende leerfasen?
- Welke hulpmiddelen worden hiervoor gebruikt?
- Met hoeveel studenten werkt u?
- Hoe lang werkt u met een bepaalde student (groep studenten)?
- Wanneer en hoe vaak vindt het uitvoeren van uw taken en verantwoordelijkeheden m.b.t. het voldoen aan de individuele wensen en behoeften van de studenten plaats?
- Waar vinden ze plaats?

- Wat is de positie / rol van de student hierin?
- Wat is de positie / rol van de ouders / verzorgers hierin?
- Werkt u samen met andere relevante partijen voor het individueel maken van het onderwijs? Zo ja, welke en wat is hun positie / rol in het proces?
- Kunt u beschrijven hoe u het bepalen van de individuele wensen en behoeften van de student benadert?
- Wat beschouwt u als positief in deze benadering?
- Zijn er bepaalde moeilijkheden / uitdagingen voor deze benadering? Zo ja, welke?
- Als er moeilijkheden / uitdagingen zijn, hoe probeert u deze te overbruggen?
- Hoe worden de individuele leerdoelen bepaald?
- Hoe wordt de voortgang hiervan geëvalueerd hoe wordt bepaald / gemeten of de leerdoelen zijn bereikt?
- Hoe worden de specifiek individuele wensen en behoeften geintegreerd in het curriculum?
- Wat zijn naar uw mening de sterke punten van het aanwezige systeem voor het voldoen aan de wensen en behoeften van de individuele student?
- Zijn er ook bepaalde uitdagingen? Zo ja, welke?

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Appendix F Interview protocol the Netherlands (English Version)

Interview questions location manager Accent Nijkerk

1. Explanation of the research purpose
2. Establish consent to participate in the research and establish anonymous / non-anonymous participation.
3. Establish the possible need for 'member checking'
4. Inquire into the possibility to view key documents, and, in cases, copy documents and publish (anonymously)
5. State expected timeframe of the interview

- Background of the interviewee (schooling, experience, number of years employed by this school)
- School information (history, students, staff positions, facilities, environment)
- What is this school's vision?
- What are, according to you, specific characteristics of the students in this school?
- What do you view to be the perspectives the students have upon finishing their education at this school?
- Could you describe the educational program of the school?
- Could you describe the curriculum / teaching material?
- Are there certain needs among the students which you often observe? If so, which?
- Are these needs met in the curriculum? If so, how?
- What are the various stages the student goes through in this school?
- What are the daily activities of the students at these stages?

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- In what kind of environment do they take place?
- How are individual wishes and needs (individualized education) of students taken into consideration at these stages?
- Which tools are used to achieve this?
- Who are involved in this process and what are their tasks and responsibilities?
- How is collaboration between these parties arranged?
- What personal skills are of importance for these parties when they perform their tasks and responsibilities for individualizing education?
- Which skills are expected from the involved staff members?
- What is the position / role of the student in the process of individualizing education?
- What is the position / role of the parents in this?
- Is there a certain prescribed approach for the staff members to determine the wishes and needs of the student? If so, what is it / how is this applied?
- How are individual learning goals and objectives determined?
- How is progress evaluated, and how is the attainment of the learning goals / objectives measured?
- Is there room for own initiative by the staff members?
- Where are the relevant tasks in the process of individualizing education performed?
- When and how often are these tasks performed?
- How are the wishes and needs of the individual student integrated into the curriculum?
- In your opinion, what are the strong points of this school's system for meeting the wishes and needs of the individual student?
- Are there certain challenges / difficulties? If so, which?

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Interview questions staff members Accent Nijkerk

1. Explanation of the research purpose
2. Establish consent to participate in the research and establish anonymous / non-anonymous participation.
3. Establish the possible need for 'member checking'
4. Inquire into the possibility to view key documents, and, in cases, copy documents and publish (anonymously)
5. State expected timeframe of the interview

- Background of the interviewee (schooling, experience, number of years employed by this school)
- Could you describe your tasks and responsibilities in this school?
- What are, according to you, specific characteristics of the students in this school?
- What do you view to be the perspectives the students have upon finishing their education at this school?
- Are there certain needs among the students which you often observe? If so, which?
- Are these needs met in the curriculum? If so, how?
- What are your specific tasks and responsibilities in meeting the individual wishes and needs (individualized education) of students at the different educational stages?
- Which tools are used for this?
- How many students do you work with?
- How long do you work with a certain student (group of students)?
- When and how often do you perform tasks and responsibilities concerning the individualizing of education for students?

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- Where are these tasks and responsibilities performed?
- What is the position / role of the student in the process of individualizing education?
- What is the position / role of the parents in this?
- Do you work together with other relevant parties for the purpose of individualizing education? If so, who and what are their positions / roles in this process?
- Could you describe how you approach the determining of the individual wishes and needs of a student?
- What do you consider to be positive about this approach?
- Are there challenges / difficulties in this approach? If so, which?
- If there are difficulties / challenges, how do you try to overcome these?
- How are the individual learning goals / objectives determined?
- How is progress evaluated, and how is the attainment of the learning goals / objectives measured?
- How are the wishes and needs of the individual student integrated into the curriculum?
- In your opinion, what are the strong points of this school's system for meeting the wishes and needs of the individual student?
- Are there certain challenges / difficulties? If so, which?

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Appendix G (Partial) IEP example Taipei Junior High School

臺北市立○○國中個別化教育計畫

學生姓名: ○○○

班級: 7 年 班 號　　個案管理者: 吳○○

參與會議者簽名:			開會日期:	
行政人員	特教老師		相關專業人員	家長及學生

(一)個人資料

學生姓名	○○○	性別	男	出生	年 月 日	身份證字號	
住　址	臺北市						
住址變更						電話	H：
家長或監護人		關係					O：
台北市鑑輔會鑑定類別：							C：
身障手冊：□無　☑有（續填）　手冊記載類別：智障　障礙程度：輕度							

(二)身心狀況

1. 健康狀況：

☑健康，很少生病　□偶生病　□常生病　□體弱多病(常缺席)　□其它

2. 相關障礙：

☑智障　□聽障□語障　□視障　□學障　□肢障　□自閉症　□情緒障礙

□特殊疾病　□服用藥物　□服藥次數/頻率

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特徵描述：					
(三)家庭狀況及背景環境					
家長教育程度	父：	母：		主要照顧者	母親
家長職業	父：	母：		主要學習協助者	母親
家庭經濟狀況		父母婚姻狀況		家族特殊案例	
家長期望	健康平安、快樂成長。				
家庭生活簡述	(家庭互動關係、教養態度、生活作息狀況...等) 個案是家中的獨生子(與媽媽同住)，在家裡偶爾會對家人態度較任性，但對媽媽很孝順，會陪著媽媽去看醫生，也會分擔家中的家務事。				
(四)教育史及發展史					
過去教育安置情形	○○國小特教班一～六年級				
專業診斷治療情形	曾接受☑語言治療，時間/地點/內容：○○國小特教班 ☑物理治療，時間/地點/內容：○○國小特教班 ☑職能治療，時間/地點/內容：○○國小特教班				
其他					
討論與決議事項:(含家長配合事項及需求)					
計畫實施日期: 99 年 9 月 ～100 年 6 月			家長同意簽名:		

一、基本資料

二、評量記錄（略）

※標準化測驗:如個別或團体智力測驗、各科能力診斷測驗……等。

※檢核量表：如適應行為量表、各類障礙檢核表或相關量表……等。

※非正式評量：如觀察、晤談、自編測驗等。每年將專業團隊建議及重要輔導記錄做摘要。

三、能力現況描述

項目	能力現況描述	修改 （須註明日期）
認知能力	（記憶、理解、推理、注意力等） 生活相關的認知能力還不錯，對一般生活常用事物或常遇到的生活認知技巧的記憶、理解尚可，但推理能力不好，前因後果的推測或突然間發生事件的問題解決、及抽象的內容，均不會思考，會用不知道直接回答，也不會求進一步的了解，課堂中，在教師提醒下，注意力約可維持 20 分鐘。短期記憶較差，教師教過的學科內容易忘記，需不斷反覆練習，一星期內的教學內容大都可記住，但一星期過後則容易忘記，或選擇性的記得一部分；能理解生活中的簡單對話和執行簡單指令，如拿來給某人、打開東西、起立去…等；但詢問其認知性問題或抽象思考、複雜的句子，含兩個以上指令(一句話超過兩個指令以上的句子)及需推理（歸類）的問題時，則完全無法理解，如(往前~拿回~物品、先向左~再向右、物品正反面較不會分辨或釐清。	
溝通能力	（口語、文字、動作之表達及語言理解等） 日常口語溝通沒有問題，理解和敘述事情的能力不佳，只能理解簡單詞彙，無法理解抽象語詞意思，說話時也很少用形容詞，兩個以上的指令所連帶的句子指令難以瞭解，有時只會記得句尾的單一項指令，經常會混淆指令的前後意思，或直接回答不知道。對溝通完的事情，經常等待教師或媽媽的再次提醒或給指令才會有動作；溝通的話語常常很短，說話的速度慢，因構音不全造成說話時聲音有些不清楚，尤其在緊張或不知如何回答問題時，特別明顯。與他人對談時會注意聽，但不太直視對方，是因右眼球有些向鼻子方向靠(單眼鬥雞眼)，且兩眼視差大所造成。	
學業能力	語文方面大約是四年級程度，表面上看起來具有聽說讀寫的能力，但經觀察後發現，雖有聽讀課文能力，但課文內容不能理解和應用，平時僅記具體簡短的語詞，在課文中的詞句雖能聽讀、也可識字，但對較長、抽象的句子或句中的形容詞、副詞等，則完全不能理解不會運用；在造詞及造句方面需有題本參考或填空造句、舉例說明的方式，才能完成，並需反覆多次的練習，書寫動作慢，會因粗心而出錯。數學約三年級程度，基本加減法、乘法(二位數乘以二位數)除法(二位數除一位數)計算能力尚可，但四則混合運算較複雜的題目很容易出錯，數學涉及應用問題時，文字部分常不去思考題意，需加強理解和判題的技巧，並要多加的複習。	

生活自理能力	（飲食、排泄、盥洗、購買、穿脫衣服、上下學等食衣住行） 基本生活自理大致能自我操作，但完成的品質不好，不注重細節，衛生習慣需加強，例如汗流滿面了，沒提醒不會擦汗或直接用衣服、袖子擦；自我管理差，書包、座位凌亂，需教師提醒。衣著方面會自行穿脫，但常左右、正反不分，需母親或熟悉的人提醒，才知道自己穿錯、穿反，會聽老師的話改正過來，但不熟悉的人提醒，劉生會不在乎，或不理會。目前自行步行上下學。	
動作/行動能力	（精細及粗大動作協調、操作、運動機能、社區移動等） 動作能力正常，可自行在社區移動，到便利商店消費。 有脊椎側彎，不可提重物，走路時有雙腳外八的情形。	
感官功能	（視覺、聽覺、觸覺、平衡覺等） 右眼球有些向鼻子方向靠(單眼鬥雞眼)，兩眼視差大。聽覺無異狀，平衡覺較一般同儕差。	
社會化及情緒行為	（人際關係、情緒控制、行為問題等） 平時在老師的提醒下，很願意幫助其他功能較差的同學，雖對環境的改變不會感到不適，但不會了解在適當的情境中表現應有的進退應對，例如：同學被處罰時，該生會在一旁笑，或露出高興看好戲的樣子，也因而受同學討厭。心情好時，情緒穩定，個性溫和。但常因生活瑣事和同學吵架，以致情緒失控，會突然不表達自己的需求，需給予較一般孩子長的冷靜時間，經過較長時間的思考和情境的轉移後，才能慢慢的恢復穩定。	

四、學習特性及需求綜合摘要

優點	**缺點**
1. 個性溫和、對老師有禮貌 2. 態度成熟穩重，上課配合度高 3. 能自己完成作業並準時繳交	1. 回家後對家人態度較任性 2. 有時會因同學的挑釁而發脾氣

障礙狀況在普通班上課及生活之影響

整體認知能力、互動能力均與一般同儕有明顯落差，且學業能力與普通班之課程有明顯落差，學習能力較一般同儕弱，需更多引導與功能性的課程。

學生需求分析

1. 需加強與他人溝通及互動的正確方式。
2. 需延長團體注意力的持續時間及建立團體規範。
3. 需加強基本學科的認知能力與技能學習。

適合之評量方式

採用筆試、操作、口試、觀察等方式評量。

五、教育安置與服務方式

(一)主要安置環境

☑特殊教育班（☑啟智類　□在家教育　□其他_____）
□普通班（□資源班直接服務　□資源班間接服務）

(二)接受特殊教育服務

科目(領域)	地點	週/節課	起迄時間	負責教師	備註(抽離/外加)
實用語文	特教班	一週（六節）	99.09-100.06		國 B 英 A
實用數學	特教班	一週（四節）	99.09-100.06		數 B
生活教育	特教班	一週（五節）	99.09-100.06		
職業生活	特教班	一週（九節）	99.09-100.06		
社會適應	特教班	一週（五節）	99.09-100.06		
休閒教育	特教班	一週（六節）	99.09-100.06		協同教學

(三)特教班學生參與普通班上課科目

科目（領域）	地點	週/節課	起迄時間	負責教師	備註
週會	禮堂	一學期一次	99.09-100.06	○○○	
校慶	校園內	一年一次	99.10.25	○○○	
聖誕節報佳音	校園內	一年一次	99.12.22	○○○	

(四)相關專業服務(語言、職能、物理、醫療、心理治療或社工……等)

服務內容	服務方式	頻率	起訖日期	負責人
物理治療	到校服務	一學期一次	99.09-100.06	○○○

(五)行政支援(交通、輔具、無障礙設施、編班排課協調、義工及座位安排、行為問題危機處理等)

項目	方式	負責單位及人員
申請獎助學金	協助申請	特教組長
申請交通車補助費	每學期申請一次	特教組長

學雜費減免、午餐補助	協助申請	導師

(六)轉銜服務(職業教育、技藝輔導、就業輔導、進路輔導……等)

項目	計劃內容	負責單位及人員

(七)學生課表（或接受特教服務時間）

	週一	週二	週三	週四	週五
早自習					
第一節	實用數學	實用語文	職業生活	實用數學	實用語文
第二節	實用語文	社會適應	職業生活	實用語文	社會適應
第三節	社會適應	實用數學	職業生活	休閒教育	實用數學
第四節	休閒教育	實用語文	職業生活	休閒教育	實用語文
午休					
第五節	休閒教育	職業生活	職業生活	生活教育	休閒教育
第六節	生活教育	職業生活	職業生活	職業生活	休閒教育
第七節	社會適應	生活教育	生活教育（週會）	社會適應	生活教育
第八節					

綜合說明	地點與方式	符號	每星期上課節數	其他或修改（請註明日期）
	普通班	○	每個月一次	
	在普通班予特教協助	◎		
	資源教室	#		
	特教班	△	35	

※請在課表欄內將學生所接受的特殊服務地點與方式，用綜合說明欄之代號列於該科目後

六、學年教育目標

年度目標	相關領域或科目
一、能提升基本學科的認知能力，並在提示下應用在日常生活中。	實用語文、實用數學、生活教育、社會適應、職業教育、休閒教育
二、能遵守各項行為規範(聽從指令、上課秩序、注意力)。	實用語文、實用數學、生活教育、社會適應、職業教育、休閒教育

三、能在教師的提示下正確地與同學互動。	生活教育、社會適應、實用語文、實用數學、休閒教育、職業教育

七、學期教育目標（略）

八、檢討會議記錄

參與會議者簽名:			開會日期:	
行政人員	特教老師		相關專業人員	家長及學生
上學期檢討討論事項：				
家長同意簽名:				

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<table>
<tr><td colspan="4">參與會議者簽名:　　開會日期:</td></tr>
<tr><td>行政人員</td><td colspan="2">特教老師</td><td>相關專業人員</td><td>家長及學生</td></tr>
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<tr><td colspan="5">家長同意簽名:</td></tr>
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Appendix H IEP presentation Accent Nijkerk[2]

IEP 2009 / 2010

Name: (anonymous)

Class: (anonymous)

School: Accent Nijkerk

[2] This IEP contains spelling and grammar mistakes. In translating this document, these mistakes have not been copied.

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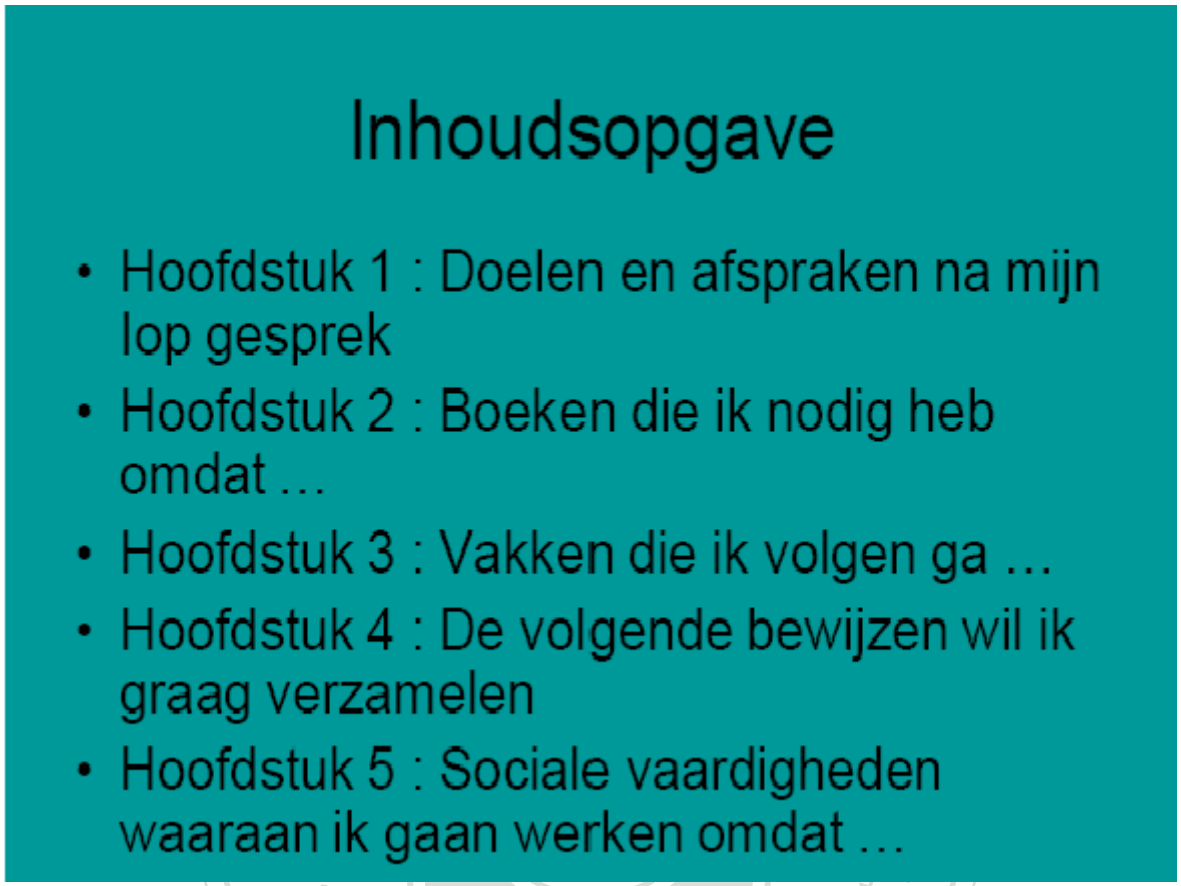

Table of contents:

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Table of contents:

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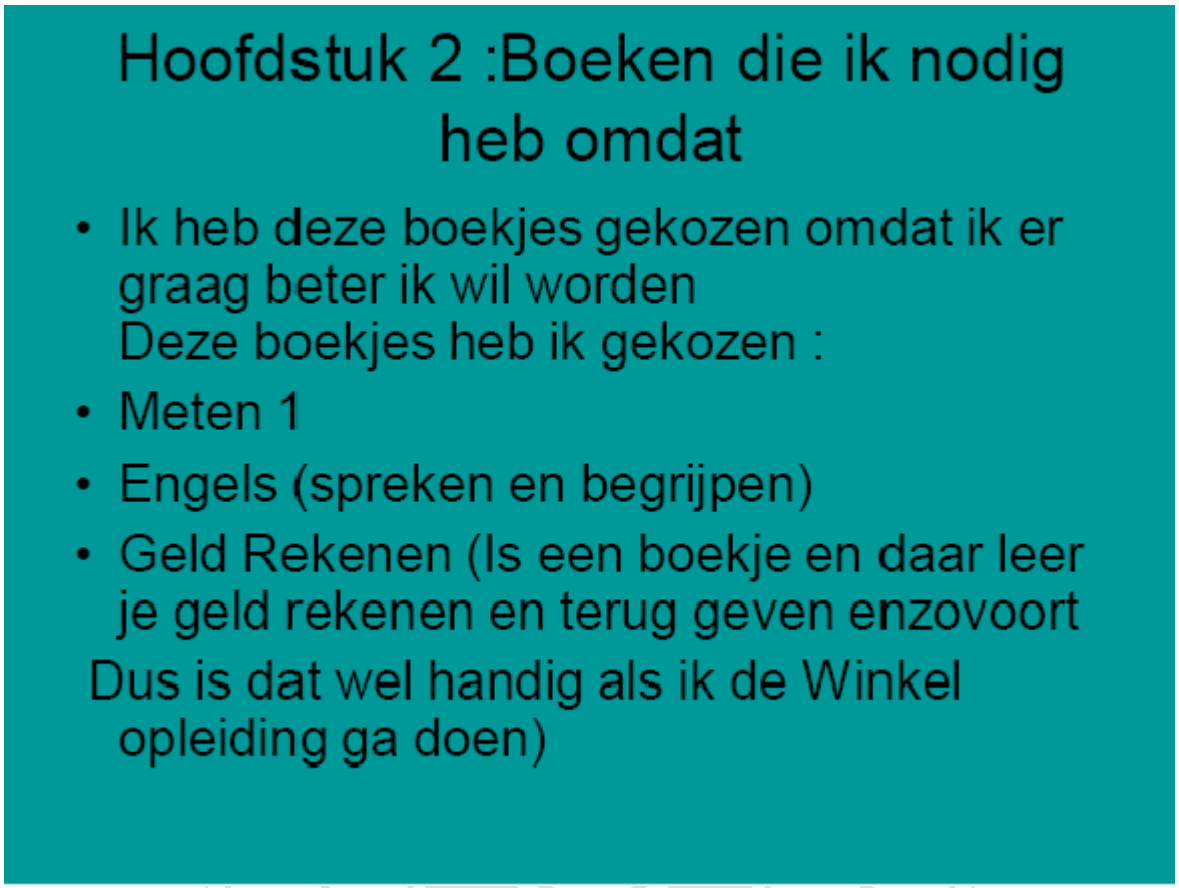
Chapter 1: Goals and agreements

- I will receive extra homework for spelling and I will receive extra homework for English.
- When I turn fifteen, I will start with studying for my moped certificate.



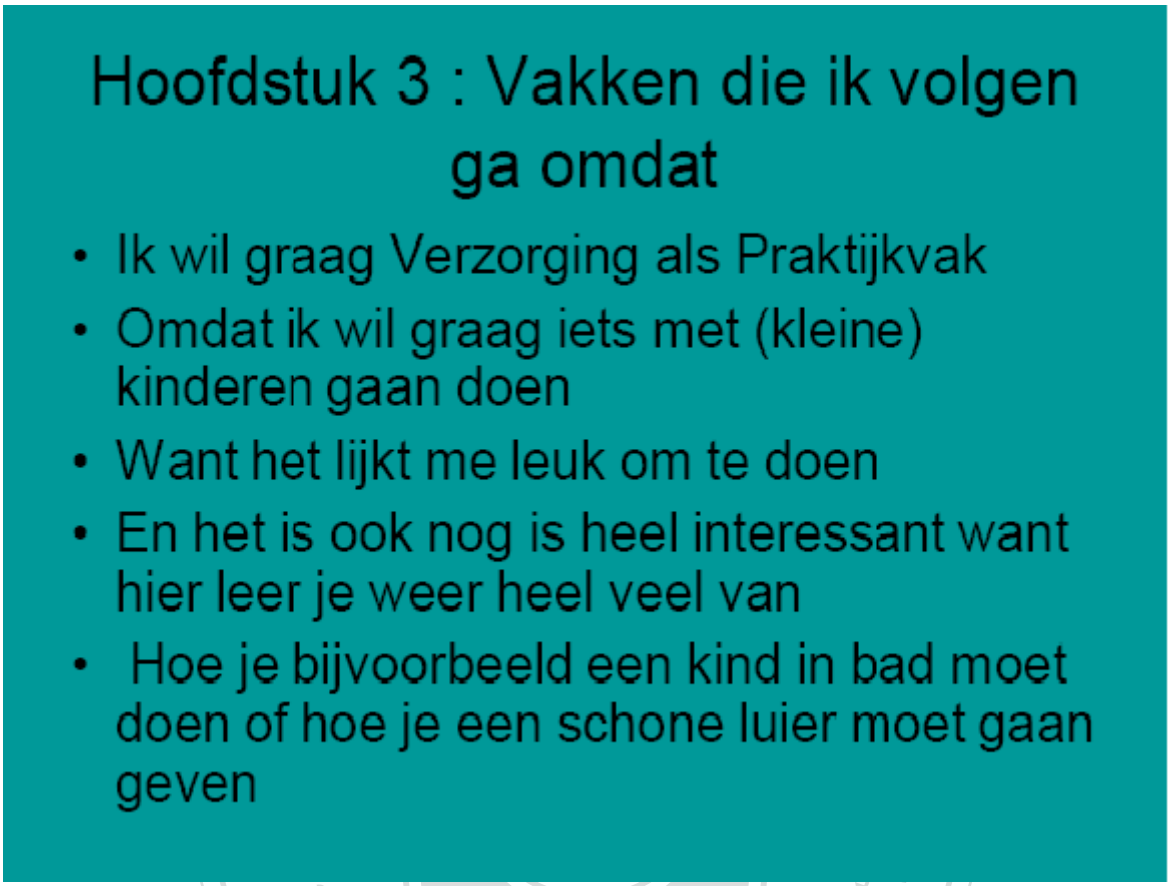
Chapter 2: Books I still need because…

- I have chosen these books because I would like to improve.

  These are the books I have chosen:

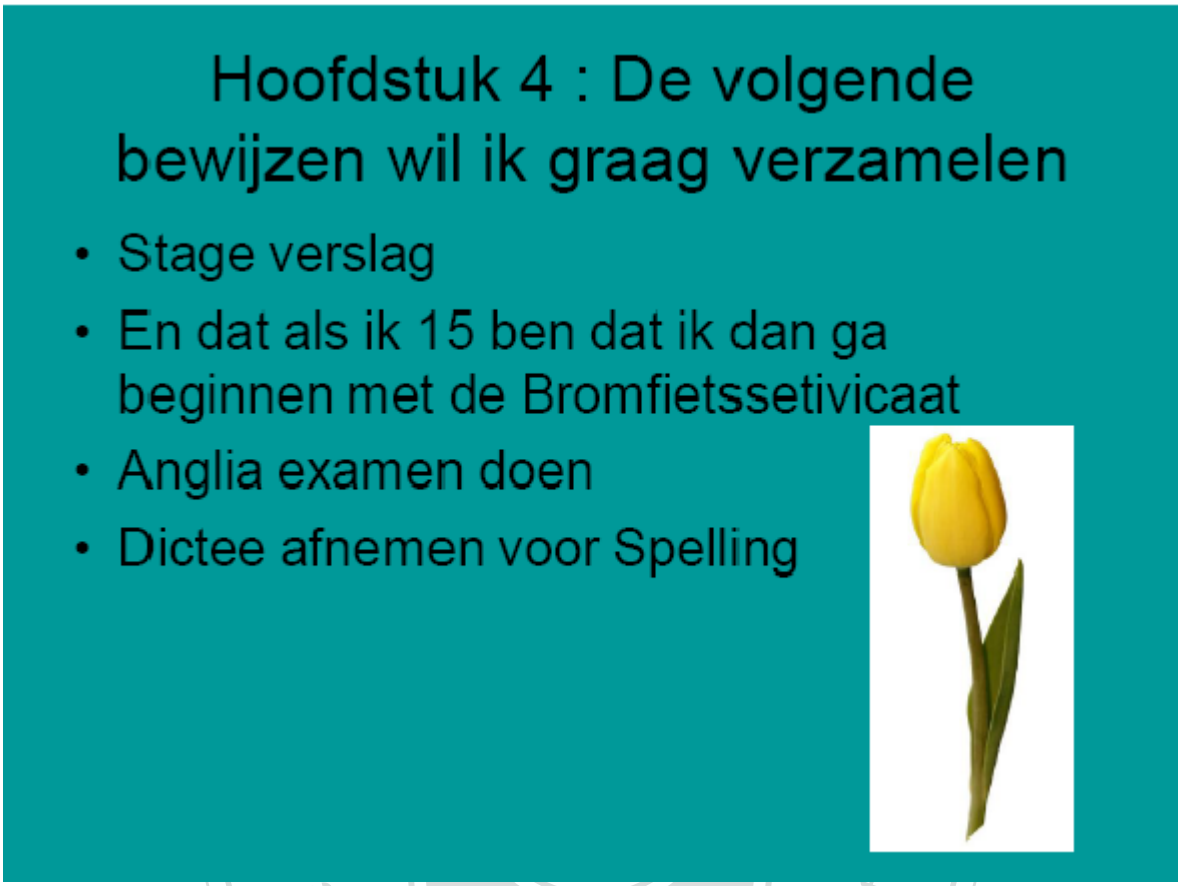
- Measuring 1
- English (speaking and understanding)
- Calculating money (this is a book in which you learn how to calculate money and how much change you need to give back etcetera

  So this comes in handy when I will take the ‘Shop’ course)



Chapter 3: Classes I will take because…

- I would like to choose 'Care' as a vocational class.
- Because I would like to work with (little) children.
- Because I think it would be fun to do.
- And it is also very interesting because you will learn a lot about this.
- How you help a child take a bath or how to change a diaper for example.



Chapter 4: I would like to collect the next pieces of evidence …

- Internship report
- And when I am fifteen I will start with my moped certificate.
- Anglia examination
- Take a spelling examination

Chapter 5: Social skills I will work on because…

- I will dare to give my own opinion.
- I can handle conflicts.
- I dare make contact with other people.
- I can provide feedback in a good way.
- I can be self-reflecting.

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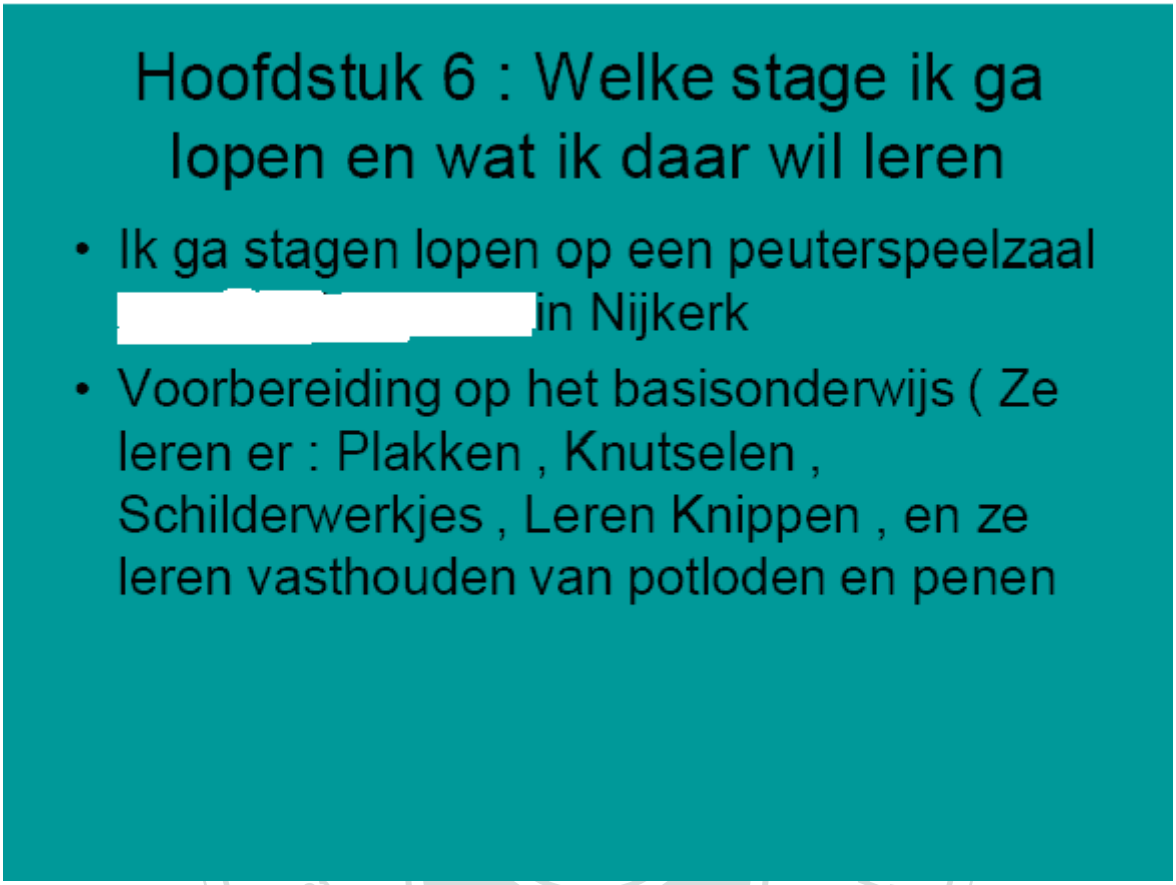
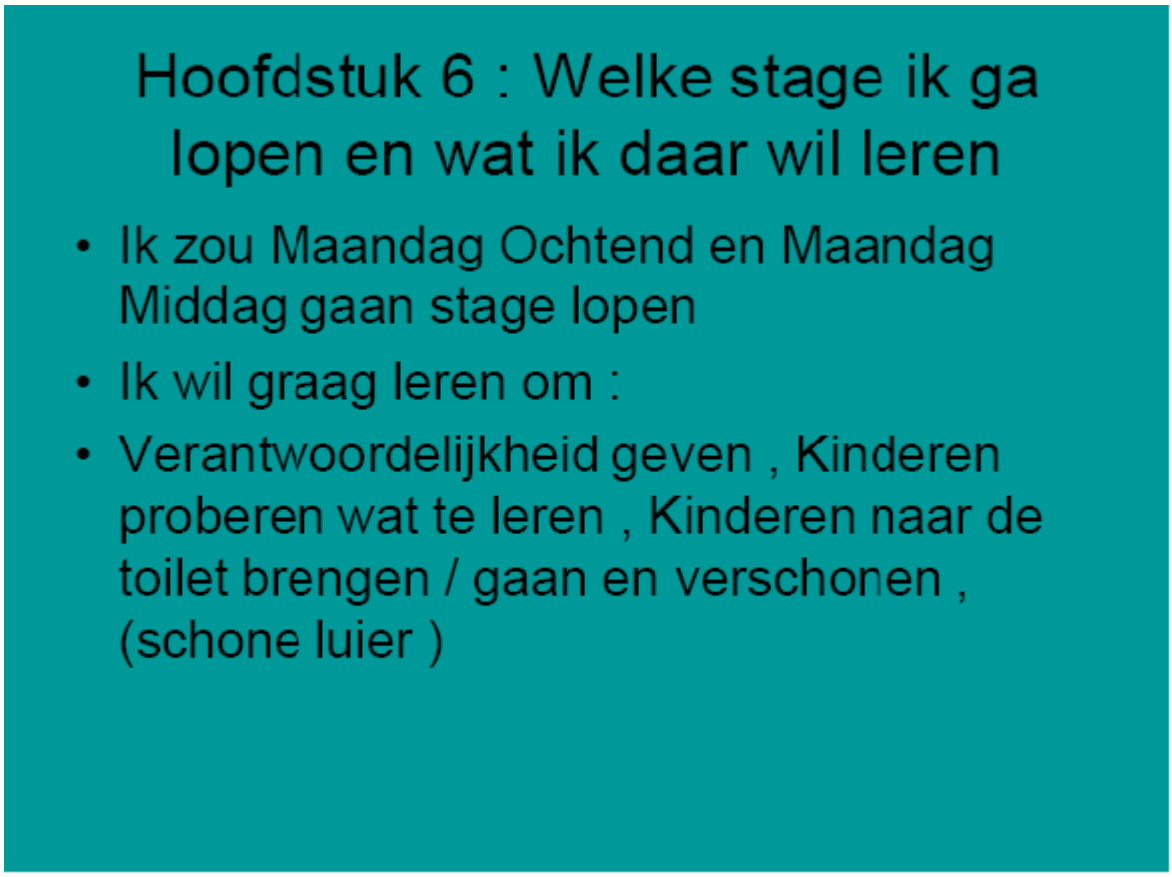


Chapter 6: Which internship I want to take and what I will learn there…

- I will take an internship at a nursery school[3] (anonymous) in Nijkerk.
- Preparation for primary education (they learn: pasting, crafts, painting, cutting, and they learn how to hold pencils and pens)

[3] A nursery school is pre-primary type of school for children aged between three and five years old. Primary school starts at age five in the Netherlands.



Chapter 6: Which internship I want to take and what I will learn there…

- I will do my internship on Monday morning and afternoon
- I want to learn how to:
- Take responsibility, teach children, take children to the toilet and change them, (clean diaper)

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Appendix I List of competencies PrOmotie curriculum[4]

1. Paying attention and showing understanding (Aandacht en begrip tonen)
2. Analyzing (Analyseren)
3. Deciding and taking initiative (Beslissen en initiatief nemen)
4. Handling ethically and upright (Ethisch en integer handelen)
5. Formulating and reporting (Formuleren en rapporteren)
6. Following instructions and procedures (Instructies en procedures opvolgen)
7. Being customer-friendly and helpful (Klantvriendelijk en dienstverlenend zijn)
8. Delivering quality (Kwaliteit leveren)
9. Learning (Leren)
10. Using material and tools (Materialen en gereedschappen gebruiken)
11. Dealing with pressure and setbacks (Met druk en tegenslag omgaan)
12. Dealing with change and adjusting (Omgaan met veranderingen en aanpassen)
13. Researching (Onderzoeken)
14. Planning and organizing (Plannen en organiseren)
15. Presenting (Presenteren)
16. Cooperating and discussing (Samenwerken en overleggen)
17. Skilfull (Vakmatig)

[4] Note. Copyright 2011 by Uitgeverij Edu'Actief b.v. Meppel. Reprinted with permission.

Behaviour indicators for the competency 'Deciding and taking initiative'

- He proposes ideas
- He immediately starts working as soon as he knows what to do
- He takes initiative to find something to do
- He indicates himself whether or not he understands and can perform a task
- He admits when he has made a mistake
- He chooses what he wants to choose himself
- He clearly shows confidence when he starts work
- He notifies when he cannot come to work
- He realizes the consequences of his own behaviour
- He supports his own decisions
- He supports his own actions
- He actively tells something about himself to the group
- He only asks for help when he really needs it

These behaviour indicators are ranked on a five-point Likert Scale ranging from 1 (insufficient) to 5 (extremely well).

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