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An Investigation Into Junior High School EFL Teachers'
Implementation of English Gifted Alternative Curricula



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摘要

因為人才發展的需求以及區分性教學的推廣，資優教育逐漸在臺灣獲得關注。本研究旨在調查桃園市英語資優彈性課程的實施，藉以探討課程綱要與實際實施的異同。研究地點選在桃園市係因研究執行時，桃園市有最多的英語資優班與英語資優學生。本研究對象來自三所不同國民中學，共有三位新手英資班教師與三位英資班資深教師參與研究。透過 63 小時的教室觀察、48 次半結構式訪談以及教材和學生作品的蒐集，探討國中英資班教師實施彈性課程時使用的原則和架構以及所遇到的困難和可能的解決方法。

研究結果顯示多數的教師營造舒適、放鬆並且高度移動的學習環境。英語資優彈性課程以內容為本、意義導向並且強調思考技巧。教學內容多為閱讀材料，以及未經編輯、與日常生活相關的教材。教學歷程中，教師善用提問，並且引領開放式討論來激發學生的高層思考能力。區分性的教學步調主要靠不同的提問方式、不同的任務要求、科技輔助、以及安排與學生的個別討論時間等方式來達成。大多數的學習成果與布魯姆的認知金字塔相關，少與克拉斯霍爾的情意金字塔有關。此外，教師幾乎沒有以明確的規準評量學生的學習成果。

在實施彈性課程的過程中，教師遇到的困難有三：時間限制、難以提供多元彈性課程以及難以融入英語語言成分。教師建議應訂定明確指標以規範彈性課程中英語的使用與學習，並期望相關單位能提供諮詢與研習，協助教師在彈性課程中融入英語學習。

本研究顯示國中英資班在區分性的學習上仍有改進空間，需再加強，且政府應對英語資優班之彈性課程規劃，提供更明確的指引。另外，應重新思考並且釐清英資班彈性課程的角色。

關鍵字：英語資優教育、彈性課程、課程發展、困難、以英語為外語教學

ABSTRACT

Gifted education has gradually gained attention in Taiwan because of the needs of talented human resources development and promotion of differentiated teaching. This study investigated implementation of the alternative curricula for English gifted students practiced in Taoyuan City, which had the largest number of English gifted classes and students at the time of study. Six junior high school English teachers from three different junior high schools were recruited. Half of them were novice teachers and half of them were experienced teachers. Data were collected from 63 hours' classroom observations, 48 semi-structured interviews, and copies of teaching materials and students' assignments.

The results showed that most of the participants tended to create a comfortable and relaxing learning environment. The curricula were content-based and meaning-oriented and focused on facilitation of thinking skills. For the teaching content, the participants mainly used "raw" reading materials related to everyday issues. In the teaching process, the participants made inquiries and led open-ended discussion to boost the students' higher-level thinking skills. Though not commonly used, differentiated learning pace was occasionally observed through adopting different ways of inquiry, setting different task requirements, turning to technology for assistance, and conducting individual discussion with students. The participants mostly expected students to show performances at different levels of Bloom's cognitive taxonomy, while they hardly required students to show affective skills or performances. Also, the participants rarely used explicit rubrics for assessments.

In implementation of these alternative curricula, the obstacles the participants met were time limitation, difficulty of offering multiple alternative curricula, and difficulty in incorporating English language components into the curriculum. The participants required guidelines for determining the proportion of English use and learning in the

alternative curriculum; they also demanded consultation and training on integrating English learning into the curriculum.

The findings suggest that there is a need for improving teachers' skills of implementing various pacing in English gifted classes and the government should help clarify what is important to teach in alternative curricula. Moreover, the role of alternative curricula for the English gifted students should be reconsidered and clarified by the government.

Keywords: English gifted education, alternative curricula, curriculum development, obstacles, teaching English as a foreign language



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CHAPTER ONE

INTRODUCTION

Gifted education has gradually gained attention in Taiwan because of the needs of talented human resources development and promotion of differentiated teaching (Guo, 2009; Kou, 2007; W.-T. Wu, 2013a; Hou & S.-H. Chen, 2017). Corresponding to the newly enacted General Curriculum Guidelines for 12-Year Basic Education, the special education curriculum guidelines were also revised. The revised special education curriculum guidelines required the English gifted students in junior high schools to take three periods of regular English class and three to six periods of alternative curriculum per week based on their unique strengths. The present study sought to investigate how teachers of English gifted resource classes (EGRC) implement the alternative curricula.

Development of Gifted Education in Taiwan

This section introduces the development of gifted education and gifted education in Taiwan and the gifted curricula in the 12-Year Basic Education in Taiwan. The history of gifted education in Taiwan can be traced back to 1960s. The first gifted class was set for music gifted learners in northern Taiwan based on a pilot plan in 1962. The Special Education Act was not promulgated until 1984. Therefore, from 1962 to 1984, all of the gifted classes were at an experimental stage. After the Special Education Act was enacted, the number of gifted resource classes soared drastically. The goal of gifted education is to provide differentiated curricula for meeting the gifted students' special needs (Ministry of Education, 2008). However, in the past decades, some schools took advantages of setting gifted resource classes to recruit students and to group them on a competence basis. The original intention of setting gifted classes was twisted. To avoid schools from using gifted classes as a means of competence-based class grouping and to deter growing diplomaism (W.-T. Wu, 2006), the Special Education Act was amended in 2009. Since then, only decentralized gifted resource classes are legitimate

in elementary schools and junior high schools. Gifted students thus receive pull-out curricula based on their special-educational diagnosis. Under this kind of implementation, gifted students are put into smaller groups, so teachers are more likely to take care of every student (Kuo, Wu, Hou, & Tsai, 2006).

According to the latest version of Special Education Act, the so-called giftedness or talented students refer to individuals who are with excellent potential or outstanding performance evaluated by professionals, and demonstrate needs for special education and related services. Moreover, the giftedness or talents are categorized into six types: (1) giftedness/talents in intelligence; (2) giftedness/talents in scholarship; (3) giftedness/talents in arts; (4) giftedness/talents in creativity; (5) giftedness/talents in leadership and (6) giftedness/talents in other areas. In the statistics released by MOE in October, 2020, in junior high schools, classes categorized in the domain of the giftedness in scholarship were placed the most. These classes mainly consisted of two kinds: math and science gifted resource class and language gifted resource class. Among them, 142 were decentralized math and science gifted resource classes comprising 4574 students, while the number of decentralized language gifted resource classes was only 37 and included 830 students. Note that science and math gifted resource classes started much earlier than language gifted classes. The former started in the 1980s, while the latter were not officially placed until 2003, and most of them were basically placed as EGRC.

Alternative Curricula in Gifted Education

In 2014, Curriculum Guidelines of 12-Year Basic Education were enacted as a national policy. The release of special education curriculum guidelines ensued in 2017. The special curriculum guidelines suggest that compacted, accelerated, challenging, enriched, and deepened learning materials and differentiated instruction should be adopted in the gifted curriculum. The special education curriculum guidelines also

require the English gifted students in junior high schools to take three periods of regular English class and three to six periods of alternative curriculum per week based on their unique strengths. Alternative curriculum can be in the form of independent research, students' clubs, and courses in the special needs domain, such as affect, creativity, or leadership. Although multiple models of alternative curricula were promoted, common alternative curricula include independent research, extensive reading, and writing to evoke the gifted students' creative and higher level thinking skills and to polish up their English abilities and learning capacities (Chuang, 2013; Kou, 2007; Tseng, 2016; C.-Y. Wu, 2007; Yang, 2007). At school level, the special education implementation committee plans the curriculum; the teachers then put the plan into actual practice. Therefore, the implementation and design of English gifted curriculum differs from school to school and even from class to class (W.-T. Wu, 2006).

Implementing alternative curricula gives teachers a great challenge in designing curricula for the English gifted. For example, teachers were found to be under great pressure and heavy workload in designing suitable materials by themselves (Guo, 2009; L.-Y. Huang, 2012; K.-Y. Huang & C.-X. Huang, 2019; Liu & Lien, 2019; Ou Yang & Shih, 2019) and found it hard to provide the gifted sufficient self-directed learning opportunities (L.-Y. Chen, 2007), various assessments (Kou, 2007), and differentiated instruction (C.-T. Huang & C.-C. Lin, 2014; L.-Y. Huang, 2012; M.-Y. Lin, 2018). Lack of evaluation of alternative curricula was also problematic (Tseng, 2008).

Purpose of the Study

The policies of gifted education have been under change. Its regulation and the curriculum guidelines have been revised. Therefore, studies should be conducted to examine the current practices of the new curriculum guidelines. More importantly, most previous studies have investigated the implementation of math and science gifted resource classes. Studies on the implementation of EGRC are still insufficient. More

studies on implementation of EGRC are needed. Previous research revealed that implementing alternative curricula presents a greater challenge to teachers for they usually have to design the whole curriculum by themselves. However, implementing the curricula also gives teachers greater flexibility to design a curriculum. Thus, the present study proposed to investigate teachers' implementation of the alternative curricula for English gifted students in Taoyuan City, which had the largest number of English gifted classes and students at the time of study.

Research Questions

The current study addresses the following two primary questions.

- (1) What principles or frameworks do teachers of English gifted resource classes follow when implementing English gifted alternative curricula?
- (2) What kind of obstacles do they meet? How do they conquer the problems and what kind of support do they need?

Findings of this study could provide implications for the government and teachers to enhance the implementation of alternative curricula for EGRC.

CHAPTER TWO

LITERATURE REVIEW

In this chapter, literature on the nature of giftedness, needs and traits of the verbally gifted learners, curriculum development, curricula for verbally gifted learners including components and principles, studies on the verbally gifted curricula in Taiwan, and problems in practicing English gifted curriculum in Taiwan were reviewed.

The Nature of Giftedness

Marland (1971) was the first to officially define the gifted/talented children as “those identified by professionally qualified persons to possess outstanding abilities and to be capable of high performance” (p. 8) in a report for the U.S. Office of Education (USOE). Marland further categorized the giftedness/talents into six types: (1) general intellectual ability; (2) specific academic aptitude; (3) creative or productive thinking; (4) leadership ability; (5) visual and performing arts; and (6) psychomotor ability. The gifted/talented students comprise a minimum of 3 to 5 percent of the school population and are recommended to receive differentiated educational programs rather than regular programs.

Renzulli (1978) critiqued Marland’s report from two aspects. First, the definition excluded non-intellective factors. Second, “specific academic aptitude” and “visual and performing arts” were “performance-oriented,” while the other four categories were “process-oriented.” Renzulli also pointed out the misuse of Marland’s criteria in schools. He deprecated that the practitioners referred to high intelligence or aptitude score as a minimum standard to identify the gifted students. Thus, he proposed three-ring conception of giftedness, which considered giftedness as the combination of above-average intelligence, high level of attention, and advanced creativity (Renzulli, 1978, 2016). Children who develop abilities in these three clusters are highly likely to contribute to valuable areas in the society.

Consistent with Renzulli, Gardner opposed taking intelligence quotient (IQ) score as the only standard to identify the gifted/talented. In 1983, Gardner proposed his theory of multiple intelligences (MI). J.-Q. Chen, Moran, and Gardner (2009) reframed the original MI theory. They listed ten different tendencies of talents: musical-rhythmic, visual-spatial, verbal-linguistic, logical-mathematical, bodily-kinesthetic, interpersonal, intrapersonal, naturalistic, existential, and moral abilities. MI theory provides educators a foundation for helping students find and develop their talents.

Sternberg also advocated that the gifted/talented could not be identified merely by IQ scores. In addition to IQ scores, Sternberg (1993) specified “excellence, rarity, productivity, demonstrability, and value” as the criteria for labeling the gifted. These criteria showed the gifted individual’s superiority in some fields, abundant accomplishment, and valuable or unique performance or contribution to the society. Sternberg (1995; 1997) then framed a triarchic model of intelligence based on the processing theory. The model comprises three parts: executive process, performance process, and knowledge-acquisition process. Two features of the triarchic model, process and practicability, are related to metacognitive theory, because the gifted may be more aware of their thinking process and reflection.

Similar to Renzulli, Stankowski (1978) emphasized defining the gifted based on exceptional performance in valuable areas. Another crucial statement Stankowski proclaimed was that a fixed proportion of the gifted exists in the society. Although the latter conception is controversial in defining the gifted, the former has played a leading role in the identification of the gifted children.

A different focus on the definition of giftedness/talent was brought up by Gagne a few decades later. Gagne (2004) differentiated “giftedness” from “talent” through a well-known “Differentiated Model of Giftedness and Talent” (DGMT). “Giftedness” is used to refer to an innate ability, while “talent,” abilities that can be trained and develop.

“Giftedness” consists of four domains: intellectual, creative, socio-affective and, sensorimotor. “Talent” is related to the skills or abilities that occupations require, such as academic, artistic, technological, or athletic skills. Sometimes, talents are developed in learners’ leisure activities. However, giftedness and talent share in that they both correlate with human abilities, establish norms and standards, and refer to individuals with extraordinary behaviors and professionals.

Besides giftedness and talent, some other researchers used “able learners” or “potentially gifted” (Cox, Daniel, & Boston, 1985; Davis, Rimm, & Siegle, 2011). In the present study, “gifted” is adopted to refer to learners with special needs because of their exceptional abilities and advanced skills in valuable fields.

Needs and Traits of the Verbally Gifted Learners

Different kinds of gifted learners share some characteristics, including overexcitabilities (OEs), high concentration, high sensitivity, and perfectionism (Baker, 1996; Coleman & Cross, 2000; Dabrowski, 1964; Davis et al., 2011; Perleth, Lehwald, & Browder, 1993; Piechowski, 1999; Siegle & Schuler, 2000; Silverman, 1993; VanTassel-Baska, 1994a). Generally, gifted learners develop better verbal abilities than regular learners (Davis et al., 2011; Nikolova & Taylor, 2003; Tsai, 1989; VanTassel-Baska, 1996).

But for verbally gifted learners, they are not only extraordinary in verbal abilities, but keen on language (Bailey, 1996), equipped with advanced reading comprehension abilities and high-level vocabulary words, and willing to write and to solve verbal riddles (VanTassel-Baska, 1996). Dean (2002) identified more concrete and complete characteristics of verbally gifted learners in writing and reading: (1) they tend to be more sensitive to nuances in language components and keen to use the text models they once read in writing; (2) they are fluent, confident, critical, reflective and extensive readers who can grasp the meaning fast and have great abilities of making inference

and deduction; (3) they enjoy language tasks and can voice for their standpoints clearly and reassuringly; and (4) with better readiness, they are able of completing writing tasks with more appropriate language choices. Schneiderman and Desmarais (1988) further stated that verbally gifted learners are capable to be native-like in learning foreign languages.

To Fox and Durden (1982), verbal giftedness included a comprehensive range, and thus it was hard to calculate the actual number of verbally gifted students. However, they still classified verbally gifted into five categories: the gifted in (1) verbal expression; (2) reading; (3) foreign languages; (4) creative writing; and (5) general verbal reasoning. An individual can be labeled as verbally gifted when he or she is exceptional in at least one of the above areas. Fox and Durden also implied that these categories are more related to general intellectual ability and specific academic aptitude provided in Marland's (1971) report.

More detailed characteristics of language giftedness were portrayed by Lewis (1995). According to Lewis, the verbally gifted learners (1) start to be fluent and spontaneous readers at a very young age; (2) love to read extensively and comprehend the content; (3) have better writing and reading skills than peers; (4) can write up an imaginative and logical story without any difficulty; (5) can write up a story with an unexpected and surprising ending; (6) can support the whole story with proper and effective details; (7) can easily comprehend the theme and plots of the reading materials; (8) possess a large amount of advanced vocabulary to use in speaking and writing; (9) prefer to write down ideas and concepts; (10) can make up characters that sound real in stories; (11) are keen human observers; and (12) are sensitive to others' emotions and interpersonal relationships.

Bailey (1996) argued that no accurate checklist could be used to define verbally gifted learners. She nevertheless distinguished verbally "competent" learners from

verbally “gifted” learners by referring to the former as those who are able to master in symbolic linguistics, but the latter as those who can further transfer receptive knowledge into productive knowledge. Bailey took two case studies as examples in which verbally gifted learners were described as manifesting (1) articulate and exuberant accounts, (2) spontaneous learning in reading and writing, (3) agility of using powerful words to express sophisticated thoughts, and (4) thirst for challenges and novelty. Hence, verbally gifted learners benefit from challenging tasks, examination of contradictions, ambiguity exploration, and deliberate learning.

VanTassel-Baska (1996) focused on verbally gifted learners’ cognitive and affective performance. She proposed five advanced cognitive learning abilities: (1) reading, (2) vocabulary, (3) abstract reasoning, (4) organization, and (5) facility to generate ideas. Their outstanding affective performances included (1) high concentration, (2) concern for moral, ethical, and other sophisticated issues, and (3) sensitive emotions. VanTassel-Baska further elaborated that verbally gifted learners are those proficient in dealing with vital social issues, and sensitive to cultural differences and values. They can think creatively beyond the constraints, integrate skills and knowledge across related fields, and reflect and assess their own learning. Moreover, they all serve as co-learners in a learning community.

Porath (1996) compared 14 verbally gifted 6-year-old first graders with other 14 equal chronological- and mental-age average learners in Canada. They were given a period of time to craft a well-designed story about a little girl’s or a little boy’s problem which they would like to solve. The results showed that those verbally gifted 6-year-olds’ narrative structures were at the level of 8-year-olds. They articulated more sophisticated, exquisite, mature, and various vocabulary words. They could also elaborate a much longer story with advanced plot structure. For example, they named the main characters, created special characters, used direct dialogues, and brought

different elements in the story into a harmonious, efficient, and balanced relation. Based on the findings, Porath suggested that accelerated curricular content can be integrated in teaching verbally gifted students, for they acquire language knowledge and skills rapidly.

From the point of social and emotional adjustment, Brody and Benbow (1986) compared American verbally and mathematically gifted students' self-esteem, locus of control, popularity, depression, and discipline to those of average-ability students. Brody and Benbow especially demonstrated that although inconclusive standards have been adopted for defining "good" social and emotional adjustment, reasonably high self-esteem and peer acceptance are crucial in the adjustment. Their results showed that gifted students had better locus of control but lower popularity. Feeling uncomfortable or not fitting in their peer groups was more significant in highly gifted students than the average students. No differences were found in self-esteem, levels of depression, and discipline between the gifted and the average-ability students. However, surprising differences were found between the verbally and the mathematically gifted students. Verbally gifted students had lower self-esteem, less popularity, more difficulty in interacting with peers, and slightly more depression. Overall, verbally gifted students reported more negative social and emotional adjustments.

Besides personal traits and development, Harris, Plucker, Rapp and Martínez (2009) declared that linguistic, ethnic, and cultural backgrounds should be taken into consideration for identifying ESL/EFL language gifted students. Numerous Taiwanese scholars did depict features and characteristics of the verbally gifted/language gifted under EFL contexts. Y.-F. Chen (1988) listed five traits in the verbally gifted, including good abilities to (1) use advanced words; (2) manipulate words; (3) retrieve old experiences and apply them to new contexts; (4) use rhetoric to create clear image and theme in writing; and (5) sense the agony and ecstasy in daily life more than others.

Tsai (1989) included four major characteristics of the verbally gifted. First, their vocabulary production is far higher and more advanced than peers. Second, they can produce longer and more beautiful sentences than peers, learn foreign languages fast, and speak at least two languages fluently. Third, they are interested in extensive reading at an early age, and they enjoy reading informational and educational books, such as encyclopedias, dictionaries, biographies, and so on. Fourth, they are better in writing sentences, letters, stories, proses, and poems. Hou (1998) further connected verbally gifted learners' characteristics to their needs. Hou held the view that verbally gifted learners are fast learners, so educators should help them understand components and structures in languages, practice the languages in contexts, and enrich their literary and cultural knowledge.

In a more recent study, Cross et al. (2019) combined cultural factors with social experiences. A total of 90 elementary-, middle-, and high school gifted students from the United States, United Kingdom, South Korea, Ireland, and France participated in the study. Together, most of the students had positive social experiences in positive competition and comfort with peers, while they had negative social experiences because of having excessive pressure, concerning too much for peer's feelings and their significant other's expectations, and not knowing how to deal with rejection. Except the students from South Korea, the gifted students would like to increase their social networks through giving others a hand, hiding their outstanding abilities in order to stay "normal", or paying more attention to their own self-achievement and self-realization. However, the students from South Korea tended to show the best part of themselves, because under the South Korean context, to gain emotional support from peers, parents, and teachers, the students had to achieve high goals and perform as well as they could. Cross et al. concluded that gifted students should strike a balance between developing competence and maintaining harmonious social relationships.

In conclusion, verbally gifted learners are equipped with outstanding language abilities, especially in reading, writing, and organization. The curriculum designed for them should be correspondent to their characteristics and special needs, which is also mentioned in the special education curriculum guidelines: the curriculum design should be flexible to meet the needs and suit the characteristics of individual gifted students.

Curriculum Development

Curriculum can be defined from different aspects. Candlin (1984) claimed that “curriculum is concerned with making general statements about language learning, learning purpose, experience, evaluation, and the role and relationships of teachers and learners” (p. 31). Nunan (1993) agreed with Candlin and extended the definition into: “curriculum is concerned with planning, implementation, evaluation, management, and administration of education programs” (p. 8). Focusing on the structure, Brown and Lee (2015) defined curriculum as “the selection and structure of the goals, content, sequence, procedures, and assessment of a program or course” (p.179). Richards (2017), on the other hand, focused on the perspective of teachers. He defined curriculum as “how teachers enact or implement their teaching plans,” and “the teaching and learning that come about as a result of the teacher’s beliefs, understanding, teaching philosophy, and experience and how these shape the choice of activities tasks, and strategies the teacher makes use of in the process of turning course plans and syllabus content into learning” (p. 11).

Based on the definition, Richards (2017) drew distinctions between two types of curriculum development: “curriculum as product” and “curriculum as process.” “Curriculum as product” stresses the “learned content” and “achieved outcomes.” This approach to curriculum development involves needs analysis, plans of materials selection, choice of teaching methods, determination of learning outcomes, and design of assessments. “Curriculum as a process” is a fresh point of view on curriculum

development. This approach emphasizes “experiences,” “interaction,” and “variety.” Selecting materials is to trigger various interactions and teaching-learning experiences. Learning outcomes and assessments do not specifically needed. Taking the “curriculum as a product approach,” VanTassel-Baska (1994a) and Maker (1982a) proposed steps to develop curriculum for the gifted. VanTassel-Baska (1994a) suggested that the educators should first draft a whole picture including direction and philosophy for the curriculum, analyze students’ needs, and develop a work team to seek for professional advice. Then they can move on to develop the complete curriculum. Similarly, Maker (1982a) suggested that teachers should involve people to assist, define “giftedness,” identify target students’ needs, and develop philosophy for the current curriculum before they develop objectives, teaching strategies, learning outcomes, and assessments procedure.

On the other hand, Kaplan (1986) proposed what should not be in differentiated curriculum development. For example, she was against constructing curriculum with advanced subject-matter materials based on teachers’ assumptions rather than students’ real needs and readiness. She also indicated that teachers should not expect the gifted to develop their own learning process without appropriate guidance, as is often seen in self-directed learning and independence research.

To conclude, a curriculum involves teaching as well as learning, and a process from planning, practice, to evaluation. Curriculum development can be either a “product” or a “process.”

Curricula for Verbally Gifted Learners

To deal with the characteristics and learning needs mentioned above, special curricula should be developed for the verbally gifted students. The following sections review the actual practices in Taiwan, followed by the problems identified in previous studies.

Components of Verbally Gifted Curricula Recommended by Scholars

VanTassel-Baska (1994c) highlighted seven elements for consideration in designing curricula to foster verbally gifted learners' higher level thinking skills and to hone their potential abilities (Table 1).

As shown in Table 1, four of the elements are skill-based, two are research-based, and one is affect-based. Skill-based elements include: (1) reading and study of literature, (2) writing and composition, (3) oral discourse, and (4) foreign language. It is suggested that in reading and study of literature, a wide variety of book lists be provided, and learners be engaged in self-reading and small-group discussion, so as to foster learners' recognition of themes and issues, and critical reflection, analysis, interpretation, and evaluation. For writing and composition, different activities are recommended for learners of different levels. For example, for young verbally gifted learners, teachers can teach them basic components of building up a story and ask them to respond to a piece of art work or a literary work. For older verbally gifted learners, teachers can direct students' attention to a specific genre with assigned topics. With such writing and composition curricula, verbally gifted learners are expected to boost their writing fluency, accuracy, and organization, and master different kinds of writing. Personal oral presentations, debates, and drama performances are recommended to be included in oral discourse curricula. Through these activities, verbally gifted learners in secondary schools are expected to develop abstract values' elaboration and analytical and theoretical judgments. Foreign language courses are also recommended for verbally gifted learners, through which their language awareness, knowledge about the contrast between their first language and foreign language, and linguistic competence are to be enhanced. Research-based elements in VanTassel-Baska (1994c) comprised: (1) library, and (2) language study. The resources in the library are expected to provide verbally gifted students with extensive and comprehensive information to accomplish research

on topics of interest to them. Conducting a language study is claimed to draw verbally gifted learners' attention to syntax, semantics, etymology, and language development, helping them to develop language awareness and appreciate language arts. VanTassel-Baska (1994c) suggested including bibliotherapy as a component of the affect-based curriculum, which gives verbally gifted learners a chance to connect what they read to their personal life and emotions, and to articulate their feelings, and to understand themselves.

Table 1

The Elements of VanTassel-Baska's (1994c) Verbally Gifted Curricula

Category	Element	Suggested Content	Benefit
Skill-Based	reading and the study of literature	➤ a wide variety of book list	➤ themes and issues recognition
		➤ self-reading time	➤ critical reflection, analysis, interpretation, and evaluation
		➤ small-group discussion	
	writing and composition	➤ story build-up	➤ fluency, accuracy, and organization
➤ responsive writing		➤ mastery of different writing forms	
oral discourse	➤ specific genre writing		
	➤ personal oral presentation	➤ abstract values' elaboration	
	➤ debate	➤ analytical and theoretical judgments	
foreign language	➤ drama performance		
	➤ enrichment curriculum	➤ language awareness	
		➤ comparison between L1 and foreign languages	
Research-Based	library	➤ linguistic competence enhancement	
		➤ interests and topics research	➤ extensive and comprehensive information
	language study	➤ syntax, semantics and etymology	➤ appreciation of language arts
➤ language development		➤ language awareness	
Affect-Based	bibliotherapy	➤ reading materials	➤ emotional relatedness
		➤ small-group discussion	➤ self-understanding

Later in 1996, VanTassel-Baska proposed a framework for middle schools' verbally gifted curriculum development, which concerned three major learning

outcomes: concept, process, and content outcomes. Concept outcomes cover authenticity and application. Process outcomes stress on critical thinking and organized reasoning. Content outcomes, including reading, literature, writing, language study, and oral communication, are the fundamental learning elements for verbally gifted learners. In the 1996 model, the components of proper curricula for verbally gifted learners include multicultural literature, inquiry, interpretation, vocabulary study, complex issues, systematic learning of grammar, content-based instructions, and interdisciplinary knowledge and integration.

In 2016, Tseng reviewed literature and listed five core elements required of the differentiated curricula for verbally gifted high school students in Taiwan. The first one is reading and literature. Through reading and literature, students are expected to expand vocabulary size, boost higher level thinking skills, develop exquisite and more complicated language, play with the language, broaden their horizons, and cultivate their competence in humanities. However, these cannot be achieved without teachers' support and monitor. Teachers should choose good reading materials for students and design appropriate reading activities. Tseng suggested, for example, teachers select writers' or philosophers' biography as materials of bibliotherapy. Students can thus reflect on their life experiences, emotions, and learning through their stories. The second one is writing, for it can help students develop linguistic knowledge and learn different genres and organization. According to Tseng, the focus of writing courses should be "logical thinking and argumentation" rather than rhetoric and creativity only. Poetry, short fictions, prose, drama script, essay, research report, reading report, and campus news can also be integrated into the course. Before students work on these writing tasks, teachers should guide students to identify different features of different genres. The third one is language research on English, comprising phonetics, semantics, rhetoric, etymology, syntax, pragmatics, and cross-linguistic comparison. Tseng

claimed that students may foster metacognition and cultivate their appreciation toward language in analyzing language structures and cultural factors through language research. The fourth one is oral expression. According to Tseng, oral expression is not only related to language accuracy and fluency, but it is also related to systematic reasoning, keen interpretation, and effective communication. Teachers are suggested to arrange debates, group discussion, drama plays, oral interpretation, literary works' critiques, and storytelling in training oral expression. The last one is independent study. Teachers are recommended to set up the schedule with students in order to help them complete their studies step by step.

Principles for Verbally Gifted Curriculum Design

Besides suggesting the focal elements, scholars proposed different principles of designing verbally gifted curricula. VanTassel-Baska (1994c) offered some major principles for curriculum development from the aspect of teaching materials, teaching techniques, and learning outcomes (Figure 1). Regarding materials, she proposed that they should be (1) abundant and rigorous, (2) whole-language and literature-based, and (3) interdisciplinary, incorporating art, music, social studies, and other relevant fields. In the aspect of teaching techniques, collaboration, researching, discussion, concept map, and inquiry are recommended. For learning outcomes, the following areas are emphasized: (1) learner autonomy, (2) learner independence, (3) critical thinking, (4) creativity, (5) metacognition, (6) cultural awareness, (7) reasoning, and (8) appreciation.

Similar to VanTassel-Baska, Maker (1982a) presented major principles for designing verbally gifted curricula from the aspect of content, process, product, and learning environment (Figure 2). However, Maker emphasized creating “qualitatively different” learning experiences for gifted students. The principles of developing learning contents include (1) abstractness in terms of data, concepts, and generalization, (2) interdisciplinary complexity and diversity, (3) variety in terms of enrichment and

systematic sampling, (4) organization and economy in terms of chronology, causality, categorization, conceptualization, and contextualization, (5) the study of people, and (6) methods of inquiry. For learning process, open-ended questions are recommended to replace close-ended questions so as to boost higher levels of thinking. Patterns discovery, proof with evidence and citations, flexibility to make choices, group interaction activities, and various pacing are also listed as principles. The principles for learning products include authenticity of tasks, appropriate evaluation, transformation of factual information into synthesis, and integration. Learner centeredness (reduction of teacher talk time and teacher authority, and increase of various interaction patterns), independence (tolerance of abstractness and solution brainstorm), openness (divergent learning paths and diverse methods), acceptance (willingness to understand and to evaluate), complexity (sophisticated materials, intellectual challenges, and social interactions), and high mobility (flexibility and facilitation) form the principles for building learning environments. Maker especially revealed that “high mobility” is the key to successfully differentiating the content, process, product, and learning environment in gifted curricula, because it gives students freedom to move, to group flexibly, and to be exposed to various materials.

In another book, Maker (1982b) commented several teaching principles for developing gifted curricula. She reviewed the cognitive and affective taxonomies proposed by Benjamin Bloom and David Krathwohl respectively. These two taxonomies have been widely used among teachers. In the latest revised version of Bloom’s taxonomy is comprised of six layers of thinking skills which are remember, understand, apply, analyze, evaluate, and create from the bottom to the top, whilst Krathwohl’s taxonomy consists of five layers of dimensions: receiving, responding, valuing, organization, and characterization by a value or a value complex. Although Bloom’s cognitive and Krathwohl’s affective taxonomies were not directed toward

gifted learners, Maker assumed that educators should integrate more high-level thinking skills in gifted curricula. Later, Silverman (1994) also proposed principles of affective curricula with Krathwohl's taxonomy. She stressed on the importance of developing personal as well as interpersonal learning in an affective curriculum. Moreover, she provided examples of affective activities in class (e.g. Ice Breakers which shares feelings with others, Awards which builds their self-esteem, and Collections which introduces giftedness).

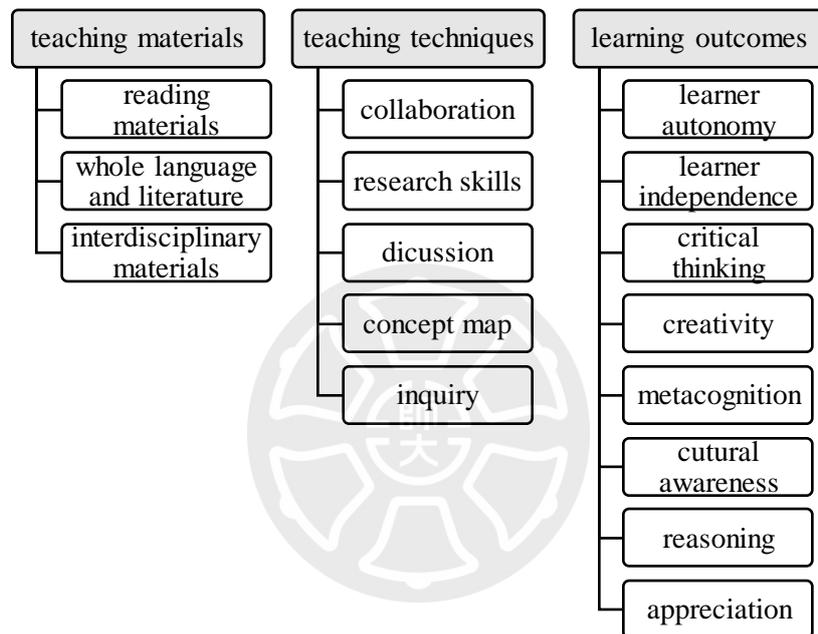


Figure 1. VanTassel-Baska's (1994c) principles for verbally gifted curriculum design.

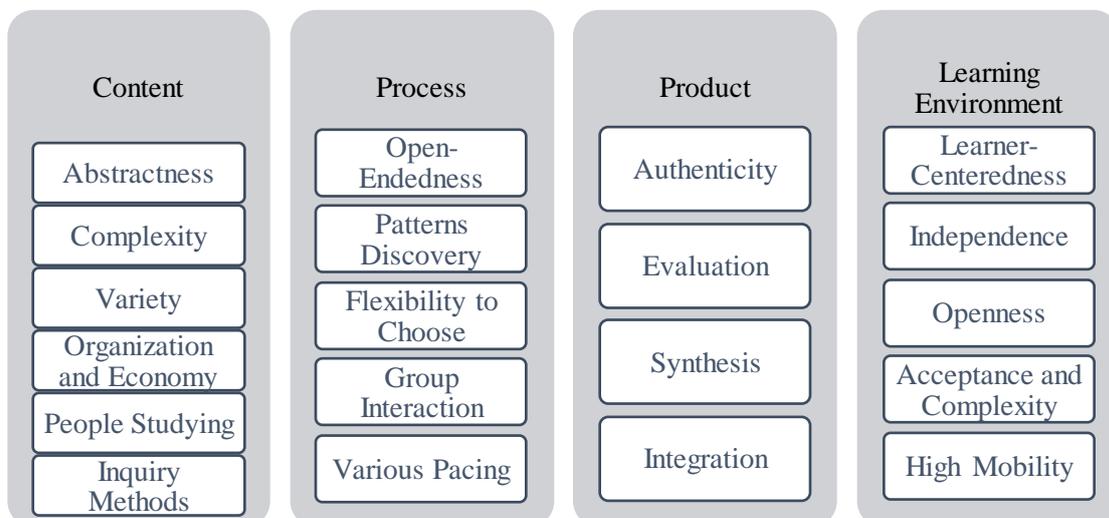


Figure 2. Maker's (1982a) qualitatively different gifted curriculum design.

Also from the perspective of affect, VanTassel-Baska (1994b) employed Grand Rapids Public School as an example to show tiered affective skills in alternative curricula: understanding self, understanding others, and dealing with specific concern. The first one expects gifted children to know what giftedness is, how to respond to others' various expectations, and embraces their strengths and weaknesses. The second concerns tolerating the differences among all kinds of people and valuing people from any kinds of races, educational backgrounds, and cultures. The third one is regarding how to improve the students' self-esteem and reduce anxiety, and about the recognition of frustration and other negative feelings in life.

Maker's (1982b) book also examined principles for developing curricula aimed for specific skills. Three chapters are related to those proposed by VanTassel-Baska (1994a) and concern creative problem solving, teaching strategies, and self-directed learning. In a curriculum for creative problem solving, students applied creativity to solve real-life problems. Maker especially distinguished the differences between being a creative teacher and being a teacher teaching creativity. The former is able to use unique teaching techniques to present materials, while the latter is able to facilitate students to think out of the box. In a creative problem-solving curriculum, teachers should be the latter. For teaching strategies, Maker recommended that they can either be developed into a curriculum or be used as techniques in other curricula. The focal point of teaching strategies is to use "sequential questioning techniques" (p.237) with "open-ended but focused questions" (p.238). Four major principles of questioning are proposed, including asking concepts, interpretation, generalization, and resolution of conflicts. Through these intellectually-demanding questioning techniques, students are expected to develop and enhance higher thinking skills to achieve learning goals. As an extension of teaching strategies, self-directed learning and independence learning skills are considered important for the gifted learners. Maker adapted the self-directed learning

model of a forerunner, Donald J. Treffinger (1975), and divided the process into four levels: teacher-directed, self-directed—level 1, self-directed—level 2, and self-directed—level 3. In these four levels, teachers' role transforms from a decision maker to an assistant. In the teacher directed level, teachers make decisions for the learning objectives, learning procedures, and learning outcomes. Moving on to self-directed—level 1, teachers provided choices with various pacing for the students. Then in self-directed—level 2, students are included in creating options, while teachers provide resources. In the last one, self-directed—level 3, students are responsible for making decisions and evaluating learning outcomes by themselves, and teachers supply resources and materials; however, at this level, teachers should not be the only reference in students' self-directed learning process.

Gallagher and Gallagher (1994) highlighted differentiation of verbally gifted curricula's content in four major aspects: (1) acceleration, (2) enrichment, (3) sophistication, and (4) novelty (Figure 3). Content acceleration refers to obtaining inquiry skills to explore complex areas, such as analyzing rhetoric devices in poetry and learning foreign languages. Content enrichment is to extend verbally gifted learners' learning time and space to deepen their learning and thinking process. For instance, teachers may offer students different genres of literary works for them to analyze based on cultural and historical backgrounds. Sophistication means to perceive crucial issues lying in scenes of everyday life and embodied in various fields like values, aesthetics, laws, politics, beliefs, morality, ethics, and responsibilities. Novelty concerns content and how content is presented. For example, verbally gifted learners are encouraged to engage in vibrant discussion, which is different from how regular students learn and are trained at school. Instead of finding correct answers or drawing a definite conclusion, discussion, problem solving, and debating processes are emphasized.

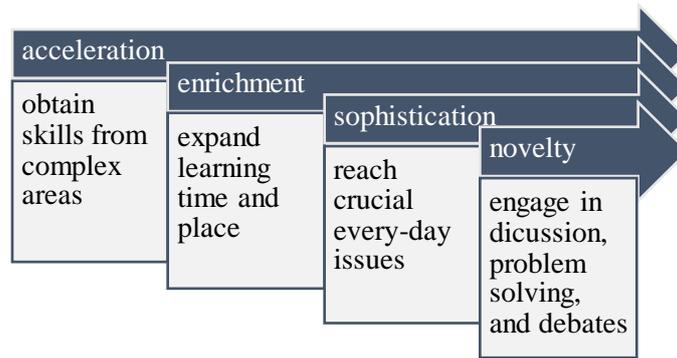


Figure 3. Gallagher and Gallagher's (1994) content differentiation principles.

Tseng (2008) reviewed principles and concepts of curriculum design. Based on the findings, she constructed criteria for English gifted curricula in senior high school using CIPP (Context, Input, Process, and Product) evaluation model and Delphi technique. The finalized version suggested providing literature, advanced reading, listening, speaking, and writing, language research, and independent research in senior high school's English-gifted curriculum and boosting students' critical thinking, creative thinking, metacognition, autonomy, and multicultural awareness.

From a more practical perspective, Glew (2007) wrote a book for gifted classroom teachers as reference in designing courses for the gifted students in England from Key Stage 3 (Grades 7 to 9) and Key Stage 4 (Grades 10 to 11). She declared that the book provided educators ideas, ingredients, and strategies for the students in the top 5-10% in schools or in the whole nation. In chapter four, she clearly stated how teachers could meet the needs of students through course planning, reading and writing instruction, and use of teaching strategies (Figure 4).

According to Glew (2007), in course planning, differentiation is necessary. Efficient differentiation will be a great support for low achievers and a challenge for high achievers. Teachers can set different objectives for students with different proficiency levels and negotiate the objectives with students. The objectives can be sequenced

based on difficulties, so students can upgrade to an upper level according to their progression. For reading and writing, the most critical point is to show students what is expected. In teaching reading, teachers are encouraged to provide students with (1) intellectual challenge, (2) space for originality and imagination, and (3) opportunities for independence. As for writing instruction, teachers are encouraged to (1) use shared writing, (2) show outstanding works from students as examples, (3) demonstrate the linguistic effects, (4) direct students' attention to writer's point of view, and (5) discuss impacts on readers with students. Regarding teaching strategies, Glew adapted two main frameworks as references for teachers to design teaching activities. One is an adaption of Fisher's (1998) framework of thinking skills, which are divided into seven categories: (1) concept formation, (2) enquiry, (3) reasoning, (4) translation, (5) criticism, (6) creativity, and (7) cooperation. The other one is Bloom's cognitive taxonomy as Maker (1982b) reviewed.

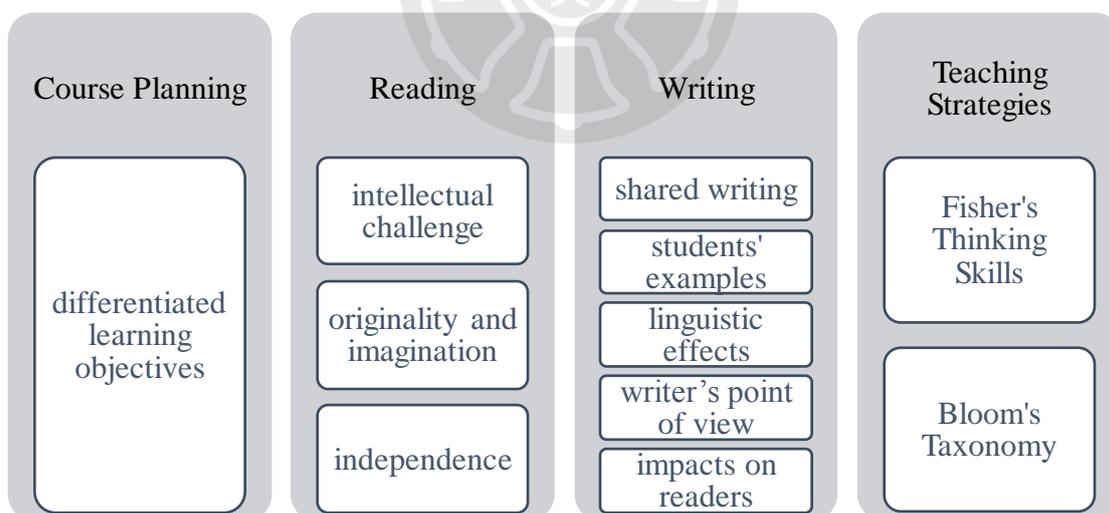


Figure 4. Glew's (2007) suggestion for classroom provision.

In conclusion, verbally gifted curricula are usually divided into four parts: (1) content, (2) process, (3) product/learning outcome, and (4) learning environment. Reading literature, writing, oral expression, advanced listening, foreign languages, and

research are often suggested as the course content, which is expected to be accelerated, enriched, complex, novel, abstract, and authentic, and to involve interdisciplinary knowledge. In the teaching process, teaching techniques including different inquiry methods, open-ended questions, various pacing, and collaboration are recommended to be used; teaching activities should take care of students' skills of decision making, reasoning, debate, critical thinking, creative thinking, and problem solving. The learning products and outcomes are expected to involve evaluation, synthesis, integration, interpretation, linguistic enhancement, autonomy, independence, metacognition, multicultural awareness, and appreciation. Teachers are suggested to build a learning environment that is learner-centered, and with openness, acceptance, independence, and high mobility. Table 2 summarizes the contents and design principles in four aspects of verbally gifted curricula proposed in the literature reviewed above.

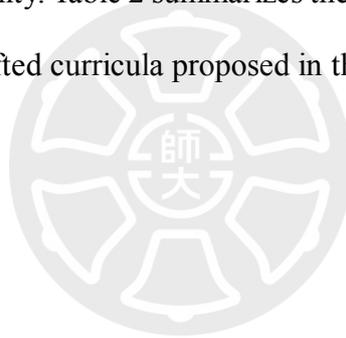


Table 2

A Summary of the Principles for Designing Verbally Gifted Curricula

Principle	Researcher	VanTassel -Baska (1994c)	VanTassel -Baska (1996)	Maker (1982a; 1982b)	Gallagher and Gallagher (1994)	Glew (2007)	Tseng (2008)
Content	can contain:						
	literature	v	v			v	v
	writing	v	v			v	v
	oral expression	v	v				
	listening						v
	foreign language	v			v		
	should be:						
	interdisciplinary		v	v			
	accelerated					v	v
	enriched	v		v	v		
	complex		v	v	v		
	novel					v	
	abstract	v	v	v			
	authentic		v	v			
research-based	v	v	v			v	
Process	should involve:						
	inquiry	v	v	v		v	
	open-endedness			v		v	
	various pacing	v		v	v	v	
	collaboration	v		v		v	
	should take care of students' skills of:						
	decision making			v			
	reasoning	v	v	v		v	
	debate	v			v		
	critical thinking	v	v			v	v
	creative thinking	v				v	v
problem solving			v	v			
Product/ Learning Outcome	should involve:						
	evaluation	v		v		v	v
	synthesis	v		v		v	
	linguistic enhancement	v					
	integration		v	v			
	interpretation	v	v			v	
	autonomy	v		v			v
	metacognition	v					v
	multicultural awareness	v	v		v		v
	appreciation	v					
Learning Environment	should be:						
	learner-centered			v			
	open			v	v	v	
	accepting			v			
	of independence	v		v		v	
of high mobility			v				

Studies on the Verbally Gifted Curricula in Taiwan

The current special education curriculum guidelines (Ministry of Education, 2019) declare that compacted, accelerated, challenging, enriched, and deepened materials, and differentiated instruction should be involved in the gifted curriculum, which need to be related to the features of the school and communities. For English-gifted students in junior high school, three periods of English class and three to six periods of alternative curriculum per week should be offered. The alternative curricula may include theme/project/issue-based inquiry, extracurricular activities/vocational curricula, courses in the special needs domain (affect, leadership, creativity, and independent research), and other courses (Figure 5).

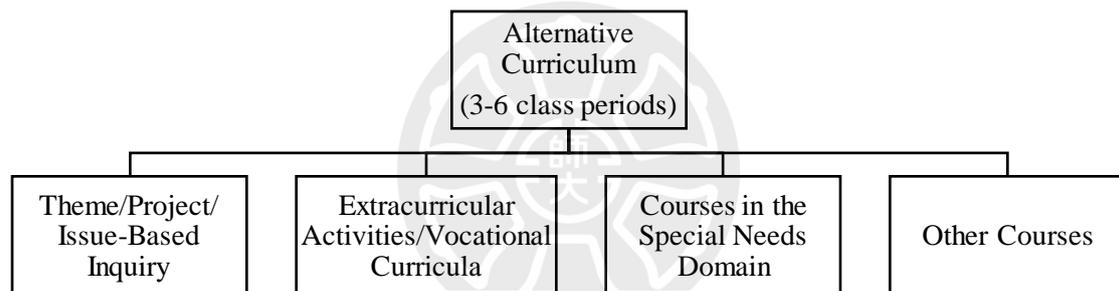


Figure 5. Alternative curriculum for English-gifted junior high students recommended in the national gifted curriculum guidelines (Ministry of Education, 2019).

Owing to different needs of schools, the practices of alternative curricula vary from school to school. For instance, Kou (2007) evaluated the implementation of English curriculum in the gifted and regular classes. The participants were eleventh graders from a municipal senior high school in Taipei City. While the students in the regular class only received “General English,” the students in the gifted class not only learned accelerated “General English,” but took “Independent Research,” “Introduction to British and American Literature,” “Speech Debate,” and “Internet English” as

enrichment courses. The students took each of the enrichment courses for two class periods per week in the whole school year. Outside reading was also given as deepened content. Results showed that English was used more often in the gifted class, so were top-down reading skills. The teacher participated in this research self-reported that four English language skills were integrated into the gifted curriculum. However, differentiated instruction was not applied for the gifted curriculum because the time was limited and the teacher held a strong belief that she should offer similar curricula for students in the gifted class and the regular class. The teacher mentioned that students in both classes anticipated grasping key learning points in “General English” to get a higher score on exams. Therefore, the teacher was dedicated to providing similar “teacher-centered” lectures in “General English” for both classes.

Another research on gifted English curricula was conducted by C.-Y. Wu (2007). She surveyed forty-eight senior high school students’ satisfaction with the curriculum and their perceived effects of the curriculum on their listening, speaking, reading, and writing skills. Half of the participants were in English-gifted program, and the other half were in regular classes. For English-gifted students, compacted and enriched courses were provided by a foreign teacher, who was an English native speaker. The students only took two periods of “General English” per week. They were additionally exposed to one period of “Introduction to Western Literature”, two periods of “English Composition,” and two periods of “Aural-Oral Training in English” every week. In “Introduction to Western Literature,” the students read different genres of literary works and learned how to enjoy reading. In “English composition,” the students practiced writing, proceeding from structured sentences to well-organized paragraphs. They were also encouraged to write about what they learned in the literary works they read. In “Aural-Oral Training in English,” the students practiced listening comprehension and speaking skills through audiovisual videos and different learning activities. Pretests and

posttests were given to evaluate the English gifted students' learning outcomes. The results of the posttests showed that a significant difference existed between students in the regular class and those in the English-gifted program. Students from the English-gifted program outperformed those in the regular class in the listening, writing, reading, and speaking posttests. In the questionnaires and interviews, English-gifted students self-reported that they were more engaged and motivated in the learning process. They also learned well and were able to appreciate English literature in depth. Moreover, they learned different viewpoints from the foreign teacher due to cultural differences. Nevertheless, high-level thinking, independent thinking, and problem-solving skills were not observed in the curriculum.

Yang (2007) designed a gifted curriculum for 22 junior high school English gifted students in southern Taiwan. During a 16-week program, the English gifted students had to finish reading two simplified fictions: *The Call of Wild* (London, 1903) and *Black Beauty* (Sewell, 1877) and took part in several reading activities. The focus of the program was to facilitate students' reading comprehension skills and to bring up the issues of how human beings treat other lives in the world. The students were put into groups to take turn presenting summaries of the assigned chapters. Pre-reading, while-reading, and after-reading tasks were designed and put into worksheets, including true-or-false identification, matching, blanks filling, and open-ended questions. After reading the two stories, the students were asked to comment on the plot and characters in groups and record their discussion. Then they compared the two stories and expressed their opinions on human beings' treatment of other lives. Pretests and posttest of reading comprehension, perception of the curriculum, and Creativity Assessment Packet (CAP) developed by Frank Williams in 1980 were used to evaluate the curriculum. The mean score of reading comprehension rose from 68.86 (pre-test) to 84.54 (post-test). Flexibility, originality, elaboration, fluency, openness, and entitling of the students were

enhanced according to the outcomes of CAP. Despite these positive results, the findings indicated that the reading time was inadequate and more support should be given, such as a brief introduction to similar reading sections and ways to acquire new or difficult vocabulary words.

Chuang (2013) conducted an action research on 18 eighth graders in an English-gifted program in Taipei, Taiwan. A six-week enrichment course, English Poetry, with 12 class periods was provided to boost students' creative thinking strategies, consisting of KJ Method, Synectics, Mind-Map Process, and SCAMPER. Through KJ Method, information related to a new problem was collected, categorized, and visualized in order to find out possible solutions. Mind-Map Process is to do divergent thinking. A mind-map is created with branches stretching out according to a theme, developing into a logical structure. Unlike KJ Method and Mind-Map Process, the ultimate goal of Synectics is to use metaphors and analogies to connect unrelated elements to solve problems. SCAMPER stands for substitute, combine, adapt, modify, put to other uses, eliminate and rearrange. These are used for creating flexibility in creative thinking process.

In the first phase of the course, the students learned how to read, analyze, and interpret an English poem. The students used the KJ Method to create an image of a poem and appreciate English poetry. Then they used Synectics to interpret the analogy, similes, and metaphors in a poem. Mind-Map Process was used to construct structures of classic poems. In the second phase, the students began to work on their own poems. They used the KJ Method to brainstorm possible topics and ideas for their poems. Then, they used Mind-Map Process to build the outline of their poems. After they finished their poems, they adopted SCAMPER to evaluate others, and their own works. English poetry was a new field for the students, so they spent some time on clarifying the elements and styles of English poetry. The students were guided to play with words,

apply higher level words, extend their creativity, and revise their poems with a more concise language. The students were also encouraged to write up a poem related to what they cared about, thus strengthening the connection between the poetry and themselves, and adding authenticity to the learning content and products. The results showed that students were able to use figurative speech, especially similes and metaphors to describe what closely related to them in their poems.

In an investigation into the practices of independent study course, Liang *et al.* (2002) collected data from verbally gifted classes in three junior high schools in Taipei. School A arranged the course in summer or winter vacation. The students in school A worked in groups and chose research topics by themselves. The students in school B had one class period per week throughout the whole semester. They were allowed to work independently or in pairs. They could also decide what topics they wanted to do. School C did not set the course separately. The course was integrated with regular classes. All of the students worked individually. The modes of independent study included writing afterthoughts for assigned reading texts, writing up a story, and creating drama script or other literary works. The students still had flexibility to decide the topics of each task based on their own interests. The researchers upheld that independent study courses in the schools did not have specific learning objectives or expected learning outcomes, and the research topics were not discussed in depth.

Problems in Implementing Verbally Gifted Curricula in Taiwan

Some problems have emerged in different models and possibilities of verbally gifted curricula. In Taiwan, common problems are related to special education policies and teacher development. In 2009, a newly amended policy of gifted education was released. Guo (2009) then compared the new policy to the old one and discussed their enactment. He found that differentiated curriculum was not complete, diplomaism was still playing a leading role in deciding the teaching content of the gifted curricula, and teachers faced

great pressure on developing extended materials by themselves. Later in 2013, W.-T. Wu offered an overview of the 40-year gifted education development in Taiwan. He also criticized the influence of diplomaism, owing to which gifted education was mistaken as a shortcut for students to get into prestigious schools. Interested in the difficulties teachers faced in gifted education, L.-Y. Huang (2012) probed into the practices of 130 teachers' individualized education plans for gifted students in junior high schools. The findings indicated that the teachers under study were stressful to design suitable materials and faced heavy workload at school. On the other hand, C.-T. Huang and C.-C. Lin (2014) investigated 443 English teachers in Taoyuan to understand their perceptions on gifted education. The teachers self-reported that they had limited abilities to apply differentiated curriculum in gifted class.

Some other problems were also identified in studies that had a closer examination on specific verbally gifted curricula. For example, L.-Y. Chen (2007) surveyed 265 educators and administrators related to English gifted curricula in six junior high schools located in Taoyuan. She claimed that the implementation of English gifted curricula in the six schools was thorough. However, their evaluation of curricula was not clear and the teachers lacked professional backgrounds of implementing gifted curricula. Because of the tight schedule, the teachers were not able to give the gifted sufficient self-learning opportunities. M.-Y. Lin (2018) conducted another investigation on 228 teachers' implementation of differentiated instruction in Taiwanese junior high gifted classes. The results showed that the teachers did have difficulty implementing differentiated instruction. Three main reasons were provided besides the biggest challenge, time limitation. First, teachers lacked external supports. They were offered few resources and little training on differentiated instruction. Second, teachers found it hard to evaluate students' starting point of learning and their prior knowledge. The wide discrepancy between students' abilities led to adversity of designing "differentiated

teaching content.” Third, the teaching environment was not in favor of differentiated instruction. The equipment and teaching situation did not allow teachers to implement differentiated instruction smoothly. Lin suggested that teachers should do a better class management to make the best use of limited teaching time. Moreover, workshops of differentiated instruction should be held to help teachers gain access to resources and build teacher network.

Some teachers in Taiwan examined verbally gifted curricula in the schools they served. For example, K.-Y. Huang and C.-X. Huang (2019) introduced and evaluated the verbally gifted curricula in National Lan Yang Girls' Senior High School, the first school in Yilan that set a verbally gifted program. Two major problems were found in the curriculum implementation. First, passing the identification assessment was not a guarantee of being equipped with an equivalent ability/competence in all aspects of languages. For example, the students identified as verbally gifted might be proficient in English reading and writing but with a poor speaking skill. Second, the diverse elective courses highly burdened the teachers. There was only a limited number of teachers and they had to offer various kinds of courses including independent research courses, various genre writing courses, interdisciplinary courses, and individual tutorial classes. The heavy workload drained the teachers. Another examination was made by Liu and Lien (2019) in Wu-Ling Senior High School. The biggest problem was time limitation. Although time limitation pushed the teachers to use a more efficient way to teach, the teachers had to reduce the amount of teaching materials and simplify the teaching process. How to decide what was “important” became a dilemma for the teachers. Another long-existing problem was the shortage of qualified teachers. Most in-service teachers did not receive enough training, or did not have a teacher certificate for teaching gifted students. The teachers could not stay abreast of times and their professional knowledge in gifted education was not enough for them to develop suitable

lesson plans and teaching materials. Similarly, Ou Yang and Shih (2019) also pointed out the problems of lacking qualified teachers. These unqualified teachers had difficulty meeting the diverse and growing needs from the gifted students.



CHAPTER THREE

METHODOLOGY

In order to explore the mapping between the national curriculum guidelines and the actual practices, the current study set out to investigate the English gifted alternative curricula practiced in Taoyuan City, which had the largest number of English gifted resource classes and students when the current research was conducted from March 2020 to June 2020. The following sections introduced the research context, the participants, instruments, data collection procedure, and data analysis procedure of the study.

Research Context

At the time of study, Taoyuan City had the largest number of EGRC and students. In 2019 and 2020, Taoyuan City's Special Education Resource Center identified the English gifted through two stages. The first stage was to review applicants' recommendation documents related to students' independent research and a gifted behaviors observation scale assessed by students themselves, their teachers and parents, and field experts. Those who passed the first stage could get into the second stage: taking aptitude and achievement tests. Students whose scores are 2 standard deviations above the group mean on aptitude and achievement tests are identified as gifted and placed in EGRC-receiving pull-out English programs. That is, they are pulled out from their homerooms during English classes. Of English classes during school hours, seventh graders receive 4 to 5 hours, while eighth graders receive 5 to 6 hours. The Special Education Promotion Committee in every school decides how to allot time for regular English classes and alternative curricula.

In the present study, participants were invited from three different junior high schools, Park School, City School, and River School. In Park School, seventh graders received 3-hour regular English classes and 1-hour alternative curriculum; eighth

graders received 4-hour regular English classes and 1-hour alternative curriculum. In City School, seventh graders received 3-hour regular English classes and 2-hour alternative curricula; eighth graders received 3-hour regular English classes and 3-hour alternative curricula. River school did not separate time specifically for alternative curricula, so seventh graders and eighth graders both received 5-hour English classes in which teachers integrated alternative curricula with regular English classes. Basically, the students learned the textbook content involving speaking, reading, vocabulary, and sentence patterns in regular English classes. Then they received alternative curricula in the domain of extracurricular activities, special needs, or other courses.

Participants

At the time when this study was conducted, 15 EGRC were located in 12 junior high schools in Taoyuan City. A total of 41 teachers served in EGRC and 39 of them were formal teachers, but only ten of them were certified special education (the gifted domain) teachers. In the current study, six teachers, Shiitake, Dove, Piske, Lexa, Winnie, and Wendy, from three different junior high schools, Sun School, Park School, and River School were recruited through convenience sampling. Specifically, the researcher invited her friends teaching EGRC at different schools in Taoyuan to participate in this study; her friends then introduced their colleagues to join the study. The goal was to recruit one novice teacher and one experienced teacher from each school so that diversity in the participants' teaching experiences can be achieved. Consequently, half of the participants were novice teachers (teaching for no more than 3 years) and half of them were experienced teachers (with more than 7 years of teaching). Dove, Lexa, and Wendy were 7th graders' teachers who had taught English for more than 12 years and EGRC for at least 7 years. Shiitake, Piske, and Winnie were 8th graders' teachers with two years teaching experience limited to EGRC. Except for Dove and Lexa who were still taking courses from the gifted educational program for teachers, the other four

teachers were certified special education (the gifted domain) teachers. The participants' basic information was illustrated in Table 3.

Table 3
Participants' Information

School's Name (pseudonym)	Name (pseudonym)	Education	Years of Teaching	Years of Teaching in EGRC	Students' Grade
Sun School	Dove	Master Degree (College of Liberal Arts)	17	13	7 th
	Shiitake	Bachelor Degree (College of Education; English Double Major)	2	2	8 th
Park School	Lexa	Master Degree (College of Liberal Arts)	12	7	7 th
	Piske	Bachelor Degree (College of Liberal Arts)	2	2	8 th
River School	Wendy	Master Degree (College of Education)	25	13	7 th
	Winnie	Bachelor Degree (College of Liberal Arts)	2	2	8 th

The Instruments

The current research is a qualitative research study. Data were collected from classroom observations, semi-structured interviews, teaching materials, and the students' assignments.

Classroom Observation

Observation can capture actions, interactions, events, behaviors, and artifacts under certain social settings or contexts (Marshall & Rossman, 2006). With strict and systematic time recording, repeated patterns of behaviors, actions, and relationships can be gradually uncovered (Brown & Lee 2015; Marshall & Rossman, 2006). Remaining an outsider to observe from an etic perspective (Mcmillan & Schumacher, 2001), the

observer should develop effective observing steps, such as: (1) arrange a pre-observation meeting; (2) identify a focus of the observation; (3) develop a procedure; (4) carry out the observation; (5) arrange a post-observation meeting (Richards & Lockhart, 2007, pp.24-26).

During the observing process, observers could take down field notes for a more elaborative description (McDonough & McDonough, 2014), for recording objective events in class and personal comments for post-observation conversation (Murphy, 2014), or for recording immediate ideas from the observer, related literature, and questions for further inquiry (Mcmillan & Schumacher, 2001).

In the current study, classroom observation was used to observe the instructional practices in EGRC. An observation form was used for a more efficient and systematic record. The observation form was adapted from the forms used in Borich (2016) and Brown and Lee (2015) and integrated the principles about gifted curriculum design from Gallagher and Gallagher (1994), Glew (2007), Maker (1982a; 1982b), Tseng (2008), and VanTassel-Baska (1994c; 1996). The form contained six major sections with different focuses of observation: (1) classroom settings, (2) teaching procedure, (3) teaching context, (4) teaching content, (5) teaching techniques, and (6) learning outcomes (see Appendix A). The first section comprised a large space to record the classroom settings, including seat arrangements and equipment. The second section comprised another large space to note down detailed teaching procedures with time marked in sequence. The third, fourth, fifth, and sixth sections comprised 7, 11, 12, and 15 items, respectively, about the observed lessons. A space for comments was added right under each item. Items related to “teaching context” include “showing learner centeredness in the course design,” “getting acceptance from the teacher and students,” “high mobility,” “allowing students’ freedom to ask questions or express feelings,” “making students attentive and involved,” “students feeling comfortable and relaxed,”

and “the teacher being aware of students’ needs.” Items related to “teaching content” ask if the following phenomena or contents are observed: “teaching goals/objectives,” “based on students’ level of comprehension,” “literary works/other advanced reading materials,” “writing or composition,” “oral communication,” “advanced listening materials,” “language study,” “acceleration,” “sophistication,” “enrichment,” and “interdisciplinary content.” Items concerning “teaching techniques” address the following aspects: “smooth, sequenced, and logical presentation,” “appropriate error correction,” “giving students’ flexibility to make choice,” “various pacing,” “the amount of teacher talk time and the extent of teacher authority,” “various interaction patterns,” “open-endedness in teaching activities,” “the proportion of English use in class,” “involving critical thinking skills,” “involving creative thinking skills,” “involving reasoning skills,” “involving problem solving,” and “involving students’ collaboration”. Items about “learning outcomes” ask if the following elements are demanded: “recall facts and basic concepts,” “explain facts or concept,” “use information in the situation,” “draw connections among ideas,” “justify a stand or decision,” “synthesize information,” “integration of skills,” “interdisciplinary,” “interpretation,” “self-regulation,” “multiple perspectives,” “appreciation,” “authentic tasks,” “learner independence/autonomy,” and “originality/innovation”. In addition, unexpected events that happened in class and questions or ideas that came across the researcher’s mind during observation were recorded under the section of “unexpected incidents” and “questions to ask/comments” and sequenced in time at the end of the observation form for further inquiry. Copies of teaching materials and the students’ assignments in the observed classes were also collected.

Semi-Structured Interview

Besides classroom observations, semi-structured interviews were conducted to gather here-and-now information, investigate participants’ expectations, and make

verification (Lincoln & Guba, 1985). Semi-structured interviews allowed interviewers to ask questions with more flexibility and add on follow-up questions more easily, but still with control of the whole interview (McDonough & McDonough, 2014). Through the interviews, the participants could verbalize their beliefs and what cannot be shown in the observation (Burns and Richards, 2009). A total of six pre-observation interviews, 46 post-observation interviews, and six summative interviews were conducted in the research. The pre-observation interview was used for the researcher to get familiar with the participants and know more about their educational background, teaching experiences, the units or topics that were going to be observed, and their students. The interview guideline was composed of two sections (see Appendix B). The first section was related to the participants' educational background and teaching experiences. The second section was to inquire the class that the researcher was going to enter. For the post-observation interview, the questions focus on instructional goals, teaching principles or models consulted, and teachers' perceived difficulties and solutions (see Appendix C). Further questions were added based on the participants' answers and the field notes taken during the observation process whenever it was needed and appropriate. At the end of the study, a summative interview for each participant was conducted (see Appendix D). The summative interview guideline included five sections corresponding to the items in the observation form and three other questions in order to wrap up the whole observation process.

Data Collection Procedure

The participants agreed to participate in the current research in October, 2019. The first meeting was arranged in February, 2020. In the first meeting, the participants signed the consent form (see Appendix E) and the pre-observation interview was carried out. Then the observation began in March 2020 and end in June 2020. One complete themed course for each of the participant was observed: 8 hours for Shiitake's "Current

Affairs,” 10 hours for Dove’s “Talking Kites around the World” and Wendy’s “How Often Do You Clean Your Room,” 11 hours for Winnie’s “How Much Does It Cost,” and 12 hours for Lexa’s “English Drama and Performance” and Piske’s “Self-Directed Learners’ League.” In total, 63 hours’ classroom observation was conducted. During the process of observation, the researcher took down field notes and filled in the observation form. After each observation, she collected collected teaching materials used in class and the students’ assignments. A semi-structured interview was also conducted right after each observation regarding the participants’ time schedule. The time of every semi-structured interview varied from 5 to 60 minutes. At the end, 48 post-observation interviews were carried out. Each interview was audiotaped and the researcher took notes at the same time. The researcher compiled the field notes and observation forms and transcribed the interviews right after every observation. After the observations completed, a summative interview for each participant was used to draw on a conclusion of the whole observed lessons. After all of the data were collected, the data analysis began. Figure 6 shows the complete data collection procedure.



Figure 6. Data collection procedure.

Data Analysis

An interpretive style, emphasizing the creative involvement of the researcher (Mcmillan & Schumacher, 2001, p. 464), was employed in data analysis. The data analysis was separated into two stages. The first stage used content analysis to segment data into categories and themes and derived meaningful coding of the raw data

(Lichtman, 2012; Marshall & Rossman, 2006; Mcmillan & Schumacher, 2001). The data collected in classroom observations and post-observation interviews were analyzed through the strategy of editing and immersion (Marshall & Rossman, 2006). Based on these collected data, a graphic for each of the participants' complete unit/lesson topic design was generated with the principles or frameworks they used. The obstacles that the participants met and the instructional decisions they made, on the other hand, were inductively clustered and organized in diagrams to show the relationships (Marshall & Rossman, 2006). The coding system started from O, I, and D, which represented the three main data sources: observation, interviews, and documents (teaching materials and the students' assignments). What ensued was the date and year the sources retrieved. Then the participants' code name followed. D, S, L, P, W, and E stood for Dove, Shiitake, Lexa, Piske, Wendy, and Winnie respectively. After the code name was the theme for the data source. C, P, O, E, M, A, and U were taken from the initial letter of the following themes: content, process, outcomes, environments, materials, assignments, and unexpected events respectively. Accordingly, "O20200609WP" denoted one of the data resources of Wendy's teaching techniques in an observation on June ninth, 2020.

The second stage was to strengthen the credibility of the research findings. The first strategy was member checking, in which the participants were invited to examine the data and interpretations in order to "ask for reactions, corrections, and further insights" (Marshall & Rossman, 2006, p. 221). The second strategy was triangulation, where the researcher compared and contrasted different sources of data to enhance the validation of collected data (Denzin, 1978; Lincoln & Guba, 1985; McDonough & McDonough, 2014; Marshall & Rossman, 2006). Thus, with prolonged engagement, persistent observation, triangulation via multiple methods of data collection, and member checking, the trustworthiness of the study could be safeguarded.

CHAPTER FOUR

RESULTS AND DISCUSSION

To illustrate how the six participants implemented English gifted alternative curricula and what hindrances they experienced, findings for each participant are reported in a separate section, which first presents the teacher's curriculum design of one themed course with a diagram, and then moves on to the descriptions of the classroom environment she created and her implementation of the course, including teaching content, teaching process, and learning outcomes. Critical issues related to obstacles, solutions, and supports in EGRC are discussed.

Dove's Case

With 17 years of teaching experiences, Dove had been teaching Sun School's EGRC for 13 years. In Sun School, EGRC's curricular designs were flexible, so the teachers could offer all kinds of curricula. Last year, Dove registered on iEARN (<https://www.iearn.org/>), a platform with various projects of international education attracting worldwide teachers and educators. This semester, she joined in a project, "Talking Kites Around the World", focusing on children's rights. She developed her curriculum based on this project, because she regarded children's rights as an issue closely related to the students.

Dove's alternative curricula were in the domain of extracurricular activities, so all of the seventh graders took the class at the same time. With 18 seventh graders in class, the complete curriculum lasted five weeks in which Dove taught two periods per week. In the first two weeks, children's rights, related issues, and Jewish kids living circumstances during World War II (WWII) were introduced. In the third week, students read a picture book, *The Whispering Town* and watched excerpts from *Schindler's List* and *The Boy in the Striped Pajamas*. In the fourth week, the students searched information about some historical events during WWII, then they took turns presenting

how children’s rights were broken in these events. The story of the doctor Janusz Korczak was delivered, and cinquain (a five-line stanza) was taught and the students worked as a group to write a piece of cinquain based on the topic of children’s rights. After they finished their cinquains, every student put the materials together as a kite and wrote their cinquains on the kites. In the fifth week, the students were taken to the sports ground to fly kites. The structure of this curriculum was shown as Figure 7.

In the following subsections, the classroom environment is first presented, followed by descriptions of Dove’s curriculum implementation, including teaching content, teaching process, and learning outcomes.



Figure 7. Dove’s curriculum design.

Learning Environment

When the class began, Dove put the students in groups, so the tables and chairs were arranged in groups facing an interactive whiteboard and a blackboard (Figure 8). Although the students sat in groups, they never chatted away when Dove was speaking.

They paid full attention to Dove. She did not force her students to speak up in class. She just encouraged the students to answer or raise questions, but only one student would voluntarily speak up.

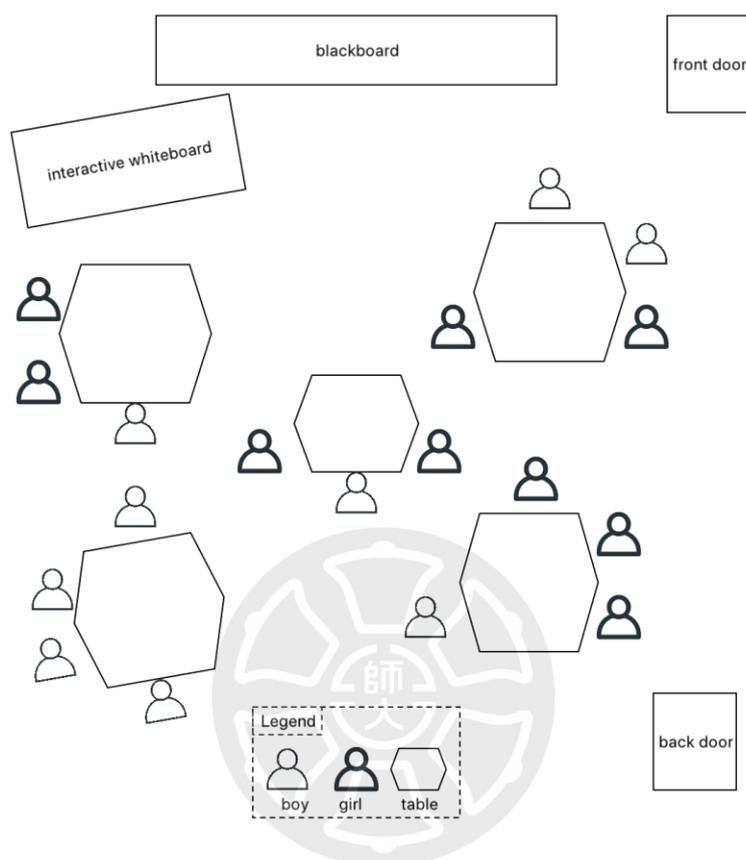


Figure 8. Dove's classroom arrangement.

Curriculum Implementation

Teaching Content

Advanced reading materials. Focusing on children's rights, Dove mainly used advanced reading materials involving concepts of children's rights. A picture book, *The Whispering Town* written by Jennifer Riesmeyer Elvgren, the story of Janusz Korczak (a doctor dedicated himself to protecting children's rights), and cinquains were taught in class.

Authentic and interdisciplinary materials. Supplementary teaching materials included two video clips reporting current issues of children's rights like child marriage

and Syrian refugee kids, excerpts from two movies (*Schindler's List*, and *The Boy in the Striped Pajamas*), and instructions of how to write a cinquain. It is noteworthy that the videos and movies were with Chinese subtitles. Moreover, the content was interdisciplinary with the field of social studies, and related to issues happening in authentic world.

Teaching Process

Encouraging collaboration. Collaboration was the main teaching technique used by Dove. In the first period of class, Dove divided the students into groups of four to five randomly, for she hoped that the students could learn how to work with different people.

I form groups randomly this time so as to prompt them to work with someone they are not familiar with. (I20200313DP)

Most of the in-class activities heavily relied on group work. Dove did not explicitly assign each student work, for she assumed that the students would allocate proper type of tasks to each group member through discussion among themselves. However, this could lead to some problems. For example, in one of the groups, one of the students was outgoing and talkative, so he was responsible for oral presentation every time. While his group members were discussing what to put on the poster or searching information online, he kept chatting with other students. Dove noticed it and asked what he had to do; he insisted that “it was not time for him to work.” (O20200306DU) Dove did not interfere; she gave the students full freedom to work out with their own groups.

Making inquiries. Dove’s curriculum involved teaching of reasoning skills, critical and creative thinking skills, prediction, and open-endedness. Basically, she developed in students’ these thinking skills through inquiries. Dove made inquiries about “facts” to build the students’ reasoning skills. For example, in the first week, when Dove introduced the concepts of rights and children’s rights, she asked the

students to explain what the right to speak meant and why the little girls had to get married at such a young age. (O20200306DP) After the students read *The Whispering Town*, she asked the students why the title of the picture book was “*The Whispering Town*.” (O20200311DP) In the third period, she told the story of Janusz Korczak and explained the project, Talking Kites Around the World. She asked the students what made Dr. Korczak save the Jewish kids and what the relation was between kites and children’s rights. (O20200313DP) For critical thinking skills, Dove asked the students to reflect on issues one step further. For instance, she asked the students why every nation emphasized children’s rights. (O20200306DP) Sometimes, she challenged the students to view one issue from different aspects. In the week the students read *The Whispering Town*, Dove asked the students whether the residents should be defined as bad or evil guys if they had not helped the Jewish boy and his mother. She also asked the students what they would have done if they had been in Annet’s situation (the protagonist of the picture book). (O20200311DP) After she showed excerpts from *The Boy in the Striped Pajamas* and *Schidler’s List*, she asked the students what would happen if they felt they were superior to others. (O20200311DP)

Using mind map. To boost her students’ thinking, mind map was often used apart from inquiries. Dove encouraged her students to use a mind map to organize the information they gathered. However, she did not provide explicit guidance and feedback for her students when they drew mind maps. She regarded it as a way to help her students think rather than to lay out a well-organized learning product. (I20200522DP)

Providing hands-on experience. Another teaching technique highlighted by Dove was “giving the students chances to experience.” Dove mentioned several times in the interviews that “the opportunities for experiencing” was pivotal to the students.

I hope that they can feel relaxed when they are here, but they can also experience

something in my class. (I20200306DP)

I insist that at the end of every project, the students should experience something, so the learning process will become more meaningful. (I20200320DP)

Every course should involve one issue discussion and one extended learning. The students will not just learn about the textbook. They can experience something else. (I20200522DP)

Therefore, in the last week, Dove took the students to the sports ground to fly the kites they designed, video-taped the activity, and to uploaded it on iEARN. The students experienced flying kites with students in other countries around Spring Equinox. (O20200320DP)

They think they really do something for the world. I think it is worth enough. Although the whole process has nothing to do with the monthly exams, they do have fun and learn. Then that is enough. (I20200320DP)

Learning Outcomes

The expected learning outcomes were designed from the understanding level gradually to the level of creating in Dove's curriculum.

Understanding as the priority. When asking her students to explain concepts or demonstrate their understanding, Dove usually required the students to use a mind map or a list to organize the information they gathered. In the first two weeks, the students defined and explained children's rights through a mind map or a list in groups. Figure 9 is one of the mind maps generated by the students. They categorized the first layer then used branches to extend explanations of the items. Without further elaboration, some of the items were hard to understand. For example, the branches for imagination, join family things, and team. Figure 10 is an example of using a list to demonstrate the content. This group of students simply listed down children's rights with phrases. They covered a wide range of children's rights and could be understood without explanation.

However, they did not show the relations between each item they listed.

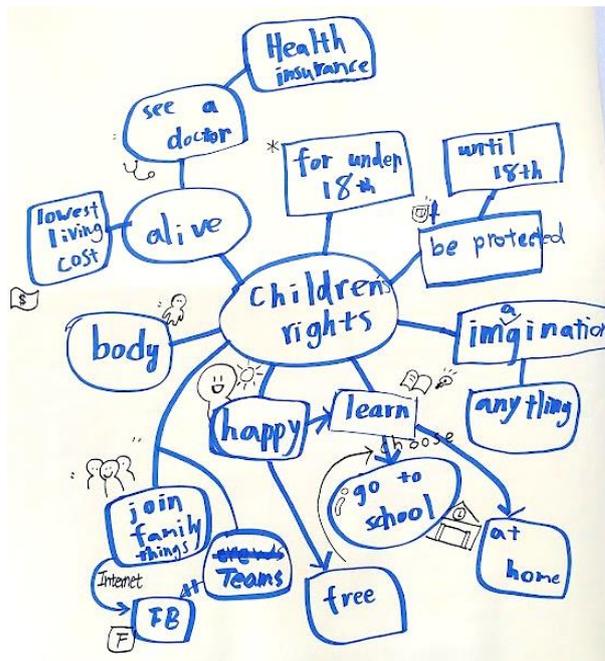


Figure 9. Mind map of children's rights.



Figure 10. List of children's rights.

Another example is the students used mind maps to explain assigned historical events during WWII, and demonstrated how and why children's rights were broken in these historical events to the whole class in the third week. Figures 11 and 12 are examples of the students' organization of how and why children's rights were broken. Most of the students used the same way as the mind map shown in Figure 11. The center of the mind map is the event/place. The branches are children's rights they defined previously in the curriculum. Then the students added sentences to explain how that children's right was broken. Figure 12 is an interesting example. Only one group of students used this way to generate their mind map. They developed their branches with crucial elements of Krystallnacht including time range, events that happened, the death, how it ended, and what the violated children's rights were. Icons were used to provide visual hints to the sub branches.

Occasional use of application and creativity. Soon, Dove raised the expected

learning outcomes to a higher level—application and creativity. In the fourth week, the students read a poem from Dr. Korczak and then created cinquains with their group members. Considering the limited space on kites and the difficulty of writing a poem, Dove chose “cinquain” due to its short length and simplicity to create an image in a short period of time. Dove created a simple form for the students to follow. The first line was a noun which should be a metaphor of the theme. The second line should involve two adjectives describing the noun. The third line used three action verbs connecting to the theme. The fourth line was a sentence to illustrate the theme. The fifth line revealed the theme in one word. The following were two example cinquains composed by different groups of students.

Diamond,

Free, shine,

Flying, playing, dreaming,

They are always children's love,

Kites (D20200318DA1)

Freedom,

Silly, happy,

Playing, eating, chatting,

They don't have brain,

Children (D20200318DA3)

The former seemed to have created a more abstract image but with a clear theme, while the latter seemed to be colloquial and some parts of it showed a weaker connection with the theme. Even so, Dove was still satisfied with the students' cinquains, for this was their first time to read poems and created a poem.

I learned this from a teacher in a workshop. My point is to give them a concept of how to write a poem, so today they have already tried, then I think I achieve my

original objective. (I20200318DO)



Figure 11. Mind map of what children's rights were broken in Auschwitz.

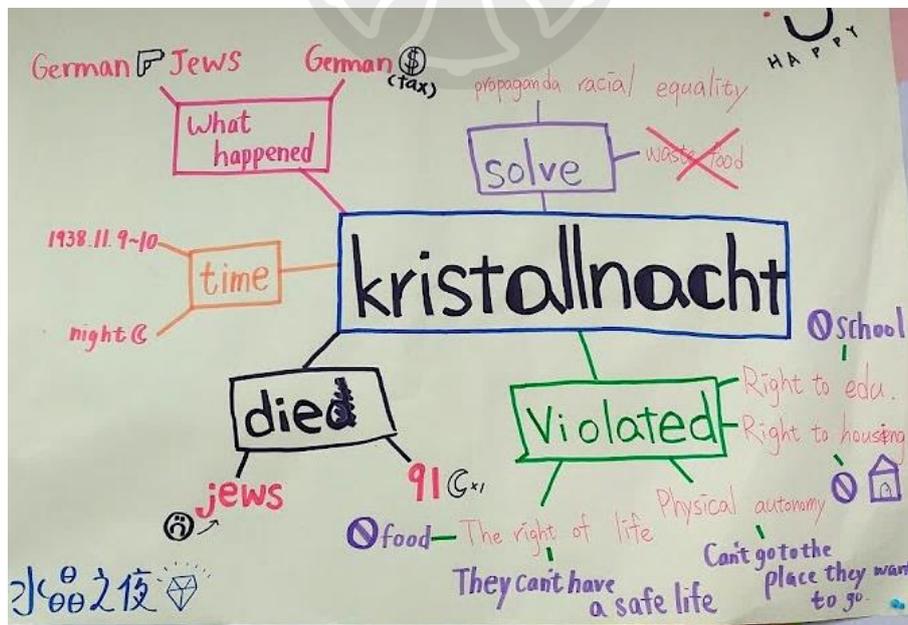


Figure 12. Mind map of what and how children's rights were broken in Kristallnacht.

No explicit rubrics for assessment. For the assessment of the learning outcomes,

Dove did not use any rubrics to evaluate. She claimed that as long as the students finished the assignments, they could get a score. By doing so, Dove hoped the students could stay comfortable in class. On the other hand, she thought it not necessary to distinguish their scores in detail.

In this kind of curriculum, I assess the students' learning outcomes through the process of inquiry and the final product. I do not further differentiate their scores.

I think this can release their stress, because every time when we talk about scores, they will feel stressful. Here, I only told them the goals of the curriculum clearly.

If they feel comfortable, I feel comfortable, too. (I20200522DO)

Discussion of Dove's Curriculum Implementation

Dove's curriculum, "Talking Kites Around the World" mainly used advanced reading and audiovisual materials as teaching content. The materials are interdisciplinary, following the content differentiation principles for verbally gifted students: sophistication (related to every-day issues) and novelty (involving discussion) proposed by Gallagher and Gallagher in 1994. The most dominant principle in Dove's curriculum is "interdisciplinary." Resulting from the interdisciplinary content, language components were not strongly stressed in the curriculum; the main focus was on the students' understanding of the topic. The teaching content was presented through open discussion, and flexibility to choose, and involved the students in reasoning, critical and creative thinking, which are in line with VanTassel-Baska's (1994c) and Maker's (1982a) principles. The learning outcomes Dove designed were mostly in accord with the first four layers of Bloom's cognitive taxonomy, that is, they knew and comprehended each part of the teaching content, and did a little application and analysis to the given topic. The level of creating was demonstrated through the students' collaborative writing of a cinquain at the end of the course. Because the focus of Dove's curriculum was not poetry, she did not spend much time helping the students interpret

and construct a poem step by step as Chuang (2013) did. Therefore, most of the students in Dove’s class did not produce cinquains with a clear image, neither did they evaluate or revise their cinquains. Dove was positive about all kinds of learning outcomes, thus creating a relaxing teaching and learning environment which gives rise to the students’ low level of anxiety. Overall, the focus on interdisciplinary content and few restrictions on learning outcomes indicate that Dove’s alternative curriculum design is more content-oriented. The teaching content is at the core of the curriculum implementation. The teaching process and learning outcomes were developed based on the teaching materials. Figure 13 shows the relation between the teaching content, teaching process, learning outcomes, and learning environment.

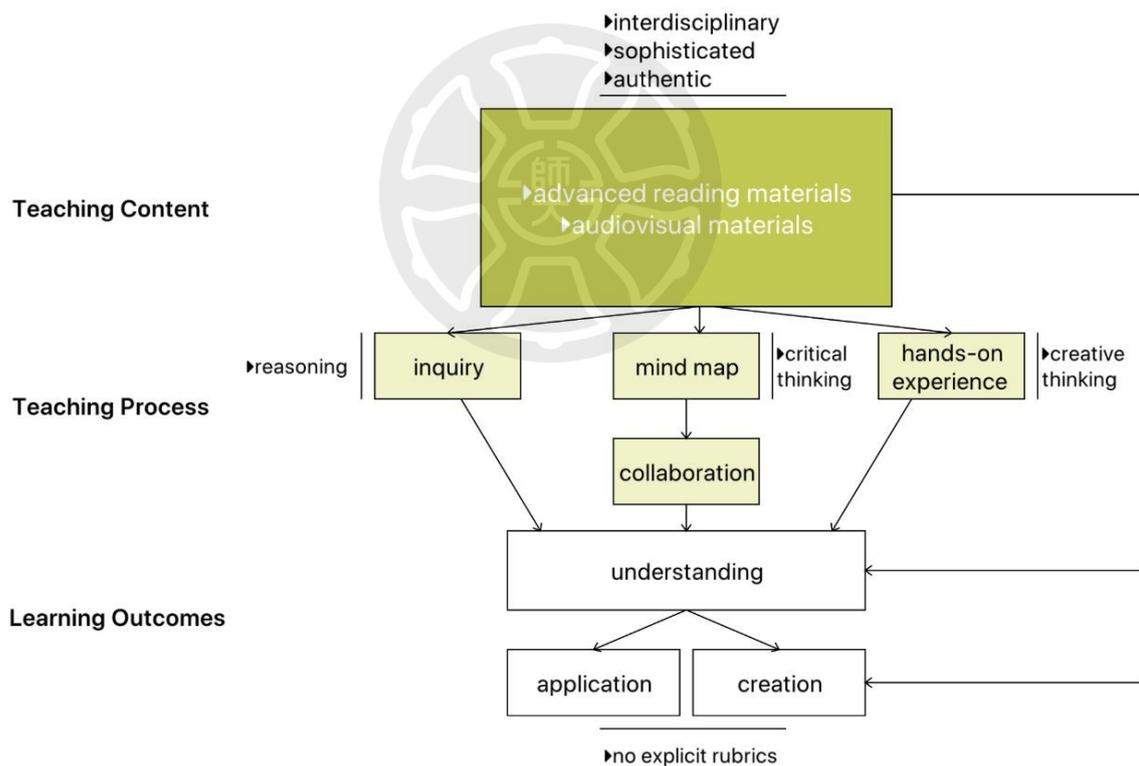


Figure 13. Analysis of Dove’s curriculum.

Shiitake's Case

Shiitake was a novice teacher and had been teaching for two years at the same school as Dove. Shiitake has joined several groups concerning issues on equality, democracy, politics, education, health, and arts, and has developed deep insights into these issues. Shiitake is also extremely concerned about current affairs. Shiitake hopes to help students stay up-to-date on them. Thus, as of the outbreak of COVID-19, she started to work on possible topics for her alternative curriculum in the upcoming semester. Although the issue might be tough to the students, Shiitake still insisted on addressing the causes and controversies of COVID-19 and the precautions different nations took to avoid massive contacts. Discussion on this topic continued for six weeks, with one class period per week, until the end of April when a litigation concerning a psychosis' killing of a railway police was given a verdict. The judges reached a verdict of not guilty, which soon triggered a wide public debate. Shiitake then collected information on mental illnesses and disabilities and discussed these sensitive issues for three class periods.

Shiitake taught eight groups of eighth graders. The group I observed consists of three students. In the first week, Shiitake focused on vocabulary and hands-on activities related to illness. In the following three weeks, Shiitake asked the observed group and the other seven groups of students to create e-books introducing COVID-19 for different groups of readers: the elderly, adults, and teenagers. The observed group chose teenagers as their target readers. Later, in the fifth and sixth weeks, Shiitake led several discussions on the rectification of COVID-19 and news related to Taiwan's precautions. Shiitake moved on to the next topic, mental illnesses and disabilities in the seventh, eighth, and ninth weeks. The final goal for the latter topic was to point out individual differences and uniqueness. She started from Asperger, Autism, and High-functioning Autism, and then she went on to Dissociative Identity Disorder and Psychosis. The

course map of Shiitake’s alternative curriculum is presented in Figure 14. In the following subsections, the learning environment, teaching content, teaching process, and learning outcomes of Shiitake’s curriculum will be presented respectively.

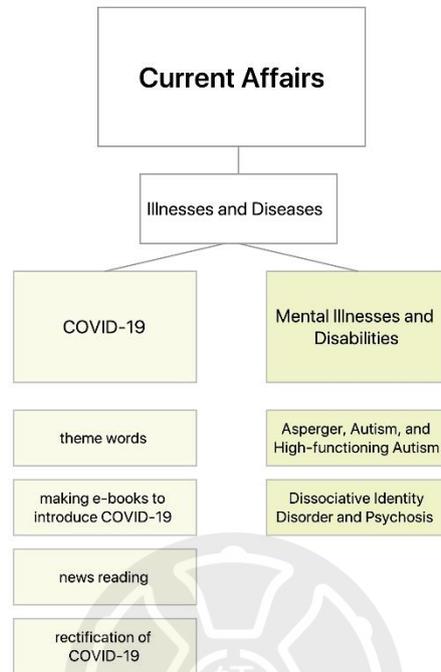


Figure 14. Shiitake’s curriculum design.

Learning Environment

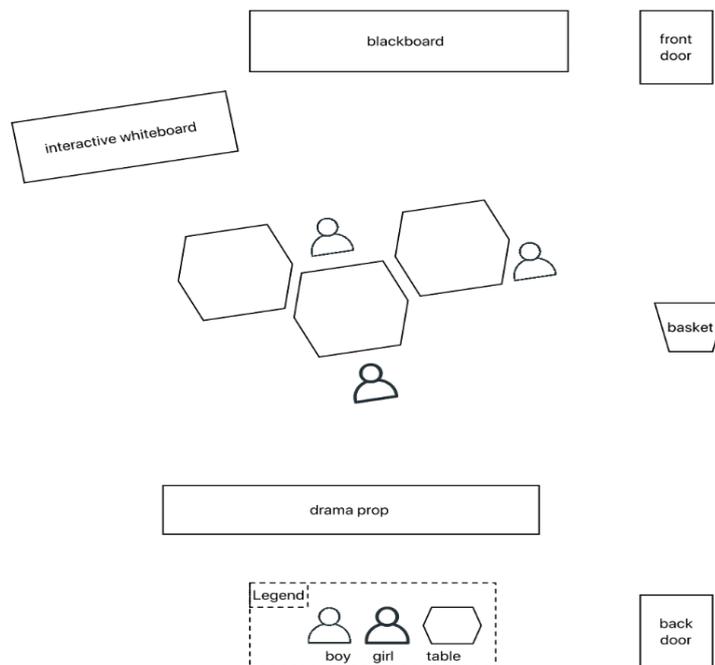


Figure 15. Shiitake’s classroom arrangement.

Shiitake's classroom was big enough to accommodate 30 students. With an interactive whiteboard and a blackboard, three hexagon-shaped tables were put together. At the back of the classroom, a huge prop they used for an English drama last semester created a big hole. A basket made of a paper box was hung on the top of the window. Sometimes the students came earlier to lie inside the hole or play balls in the classroom (Figure 15).

As Shiitake mentioned, she paid high attention to the students, especially their emotions and mentality. She knew each student's family background and personalities very well, so when the students stepped into the classroom, she could tell how they were. Shiitake never forced the students to follow her pace in class. If the students were depressed, Shiitake gave them some space to stay in silence and collect themselves. (O2020515SE) If the students were extremely excited, Shiitake gave them more chances to elaborate their ideas. (O20200417SE) The pace was relaxing in Shiitake's class. The students enjoyed full mobility and freedom in her class. Shiitake asserted that once the students felt content and trusted her, they could produce better learning outcomes.

From the very beginning till now, I always tell my students that as long as they can fully participate in class, they can either lie down or eat in my class. They are junior high school students. It is very important to meet their physical needs. I also discover that these gifted students need a place to release emotions, because they cannot really find someone in their original class to talk to. They trust me, so they tell me [their thoughts and feelings] voluntarily. Once they feel accepted "physically" and "mentally" [by me], I can be accepted [by them], too. They can be more involved in my class and produce high-quality learning outcomes.
(I20200515SE)

Curriculum Implementation

Teaching Content

First-hand and audiovisual materials. Shiitake did not edit or adapt the materials she collected to inform students of the current affairs. The students were exposed to first-hand information. For the topic of COVID-19, the teaching content was composed of videos made by youtubers to show how social distancing worked on musical scales (<https://www.youtube.com/watch?v=pf4Mg9aEEs4>) and the lifestyle in Spain during the pandemic time, and a piece of Time magazine's column article (<https://time.com/collection/finding-hope-coronavirus-pandemic/5820596/taiwan-coronavirus-lessons/>) written by Tsai Ing-Wen, the president of Taiwan. For the second topic regarding mental illnesses and disabilities, Shiitake used multiple audiovisual materials including (1) episodes from a Netflix original drama, *Atypical*; (2) a piece of online article with pictures posted by a photographer who recorded the life of his autistic son; (3) a music video of a Chinese song, *24 Billy*, resourced from a well-known non-fiction novel, *The Minds of Billy Milligan*, illustrating multiple-personality disorder; and (4) an excerpt of *The World Between Us*, a Taiwanese-produced drama, concerning the issues of mental illness, especially psychosis.

Besides keeping up with up-to-date domestic and international affairs, Shiitake also stayed abreast of educational trends. She was a member of a big teachers' online group where she accumulated teaching resources. Teachers in the online group regularly posted issues they concerned a lot, materials that could be used in class, or information of teaching trends. Shiitake saved the posts and categorized the materials based on the themes. When developing curricula, she referred to the piles of materials according to the core goal of her curricula. Shiitake did not restrict her materials to English resources, but she tried to integrate as many English materials as possible. (I20200505SC)

Advanced lexical items. Vocabulary words, idioms, and phrases related to illness

were also taught in the observed alternative curriculum (see Table 4). After implementing the curriculum, Shiitake would like to modify the list of the idioms and phrases to make it more closely related to COVID-19. Shiitake pointed out one possible solution—she should have analyzed more reports and newscasts on mass media to choose high-frequency words used in reports about COVID-19.

Although the students did memorize the meanings of the idioms and phrases, I still wanted to alter the selection of the idioms and phrases, making them more related to COVID-19. I also wanted to analyze more reports related to COVID-19 in advance. In the analysis, I would be able to find related words, so the words can be more closely connected to the topic. (I20200522SC)

Practical skills. After teaching these words, idioms, and phrases, Shiitake taught the students how to make an emergency stretcher, which seemed to be abrupt in the curriculum. Shiitake explained that she intended to teach the students a practical and simple skill related to illness. (I20200303SO)

Table 4

Vocabulary, Idioms, and Phrases Taught in “Current Affairs”

Vocabulary Words	slightly, badly, injured, wounded, disabled, paralyzed, cut, scrape, bruise, surgery, operation, cosmetic surgery
Idioms and Phrases	be the picture of heath, to look like death, to feel under the weather, to be on your last legs, to take a turn for the better, to take a turn for the worse, to be black and blue, to go under the knife, to take a tumble, pop your clogs, to be hanging by a thread

Teaching Process

Using Chinese. Shiitake used Chinese in class most of the time. The students also used Chinese to discuss and speak up. Shiitake hoped that the students could fully

deliver what they wanted to express and understand the issues she introduced in class, so she did not put much emphasis on the language used in class but put more emphasis on the content. To Shiitake, focusing on content could help the students develop competence. Shiitake further clarified that the students had received sufficient English language exposure in other classes. This motivated her to focus on content prior to language in alternative curricula, but she still expected to integrate more language into the curriculum if possible.

To me, the students can benefit from the critical and creative thinking skills and collaborative skills the teacher used in class. These are the so-called competence-oriented skills. And that is what I can do more in alternative curricula. However, if possible, I still want to add more language components. This is what I want to try more in the future. I think I can start with English instructions. (I20200522SP)

Maintaining flexibility and differentiation. Flexibility was one of the key techniques used in Shiitake's class. In the first, sixth, seventh, eighth, and ninth weeks, the teacher's talk time was at least 30 minutes in each class period, because Shiitake introduced fundamental concepts of the curriculum. From the second to the fifth week, the teacher's talk time dropped down to 5 to 10 minutes, for she left more time for the students to produce e-books and to evaluate their peers' e-books. Shiitake's students were given a high flexibility on making choices. For example, although the students read the same article, they could decide how to read it and what part to comment on. (O20200417SP; O20200508SP) The flexibility could also be found while the students were creating e-books about COVID-19. First, after the students chose their target audiences, they collected whatever information they needed and designed the whole e-book by themselves. No explicit instructions, specific forms, or a strict time frame was given. (O20200303SP; O20200310SP) Therefore, the e-books took various forms including pictures, tables, figures, recordings, and videos, apart from words. The

content of the students' e-books also varied. (O20200327SO) Second, the teacher did not assign every student a concrete role in the group. As long as they could finish the e-book, Shiitake would not interfere. (O20200303SP; O20200310SP) Third, after they finished their e-books, the students got a class period to review other groups' e-books. Then, they provided feedback in languages and forms they liked. (O20200327SP) Flexibility was also shown in the way that Shiitake adjusted her teaching pace and plan according to the students' learning pace.

The flexibility resulted in a lax time management, few interactions between students, and divergent learning outcomes. However, Shiitake did not feel bothered. She regarded it as a technique to differentiate her teaching process in response to her students' individual learning styles and personalities. She thought it was important for the students to make decisions by themselves, too.

I do not mind how they collaborate. Every group will have their own working mode. Some groups have a leader. Some groups just briefly discuss and then work on their own. I do not worry a lot. This is their learning style. (I20200303SP)

My class looks casual, but actually I have thought through every detail. I consider every student's language proficiency, how much they concern current affairs, their ability to collaborate, and how much time they can use after class. I think these are all ways to do differentiation. If the students need time, I will just wait. Some of them need much time to figure out what they are going to do. I will not make decisions for them. Although I have to spend much time on it, I think it is worth it. (I20200310SP)

Practice through games. To help the students memorize the vocabulary, idioms, and phrases, Shiitake designed two practicing games. One of the games was a matching game. Shiitake wrote the vocabulary words, idioms, and phrases on blackboard. She read Chinese meanings out loud, then every student took a gadget (e.g. a toy hammer

or a toy balloon stick) to hit the corresponding word on the blackboard. The students loved the game. When the students forgot the meanings of some target words, Shiitake repeated the words. They had several chances to try. (O20200303SO) Another game was assisted by technology. Shiitake used Kahoot! (<https://kahoot.com/>) to design a vocabulary test. Each question was a gapped sentence. The students chose one best answer to fill in the blanks. The system of Kahoot! automatically ranks the players question by question. This created a sense of suspense and the students always got a chance to beat each other, which motivated them to stay focused. (O20200410SO)

Open-ended discussion. Another crucial teaching technique in Shiitake’s class was to leave all discussions open-ended. She allowed her students to express any opinions in class. Moreover, she did not conclude the discussions based on her own opinions. Shiitake just raised multiple questions to boost the students’ thinking skills. In the fifth and sixth weeks, Shiitake led a discussion on whether COVID-19 should be rectified from Wuhan coronavirus to COVID-19 or not. She required her students to write down reasons to stand for and against this issue on post-it notes. Then she put them on the blackboard. Shiitake encouraged her students to search information online to back up their opinions. (O20200410SP; O20200417SP) At the end of the discussion, Shiitake threw out more questions to challenge her students. For example, “Was the name Wuhan’s coronavirus the main reason why Asians were discriminated during the pandemic time?” and “If you did not feel anything towards this topic, would that mean this issue did not exist?” (O20200417SP) This discussion topic was sensitive, but Shiitake still insisted on leading the discussion. She thought it could cultivate the students’ critical thinking skills and to teach them how to express their true feelings in a comfortable and rational way.

Some people actually feel uncomfortable when we talk about this issue because of their family backgrounds or political stands. That’s what I know. I want them to

express their feelings in the depth of their hearts, though. (I20200410SP)

Most people think we should not talk about sensitive and controversial issues in class, but I still think it is necessary to bring them into class. I want them to think from different aspects. (I20200303SP)

To me, the discussion procedure is more like a systems thinking process. The students see the problem first, then develop solutions, and come up with a final decision. (I20200515SP)

Shiitake believed that her ill-structured discussions could foster learner independence. The students gathered information and probed into the problems independently. (I20200515SP)

Learning Outcomes

Shiitake mostly required the students to demonstrate their learning outcomes through speaking and writing. The expected learning outcomes began from the understanding level to the evaluation or creativity levels.

Memory and understanding of facts and lexical items. In the first topic, COVID-19, the students had to recall and explain facts and basic concepts related to illness and COVID-19 every class period. As mentioned in the previous section, the students learned vocabulary, idioms, and phrases related to illness and they played two different vocabulary games to show if they remember the meanings of the English words. In the fifth period, the students read a column article written by Tsai Ing-wen individually. After finishing reading, they took turns summarizing the main idea of each paragraph.

Independent synthesis and creativity. From the second to sixth weeks, the three students synthesized the information they collected and then generated an e-book for teenagers. In the first page of their e-book, they made a table to compare and contrast SARS, H1N1, and COVID-19 (During the class observation, COVID-19 was still

reported with different names on mass media. nCOV was one of them.). They showed the infection routes, contagious power, fatality, and cures of these three epidemics (Figure 16). In the following pages the students edited several charts to demonstrate statistics of reported cases in different countries, and the impacts on China's industry. Figure 17 is one of the charts to show the economic decline in China's industries. The students referred to National Bureau of Statistics to gather the data and added emoji to represent their comments.

	SARS	H1N1	nCOV
Routes Of Infection	Droplets Or Touching	Droplets Or Touching	Droplets Or Touching
Infectious Power	Low	High	Medium(???)
Lethal Power	High	Mexico 2% Others Countries 0.1%	China 2.2% Others Countries 0.3%
Vaccine Or Drugs	No	Yes	Developing

Figure 16. A comparison between different epidemics.

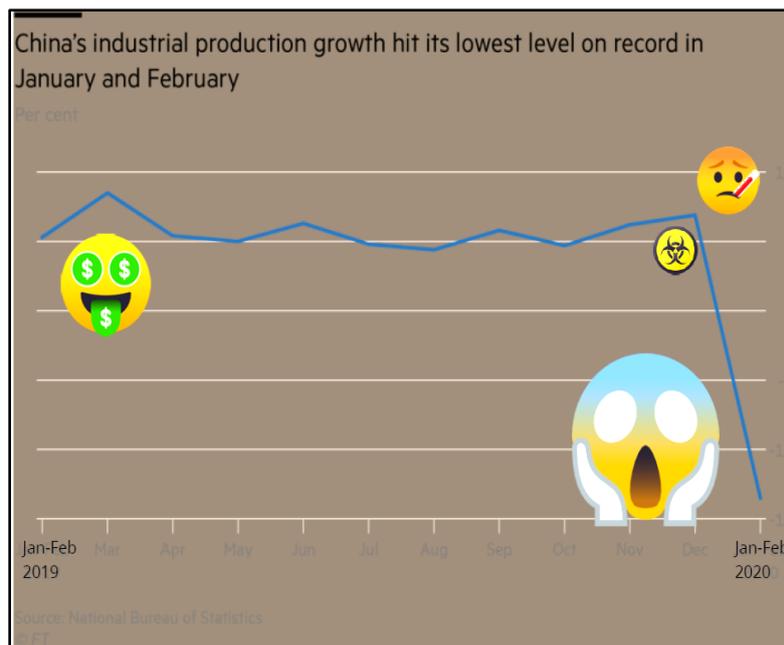


Figure 17. China's industrial growth after the outbreak of COVID-19.

In the last week, they compared and contrasted the influence brought by a pandemic's name. Some of the students noted that including a place in the name of the pandemic made it easier to memorize than using medical terminology. Some insisted that the origin of the pandemic should be involved as a record in the history. However, some of the students questioned the precision of the origin of the pandemic, so they considered it inappropriate to include the place in the name of the pandemic. Some further argued that if the pandemic's name contained a place, then it might bring discrimination against people there. (D20200410SA1)

Making personal interpretations. In the second topic, mental illnesses and disabilities, the students learned to distinguish different kinds of mental illnesses and disabilities. Several artistic works were brought to class for students to interpret the messages the works conveyed. For example, the students looked at pictures taken by a photographer for his autistic son and read short lines left by the photographer. Shiitake then asked the students to interpret the image that the photographer wanted to create and the conceptions he wanted to deliver through the pictures. (O20200515SO) Another example was about the music video of *24 Billy*. After the students watched the music video, Shiitake required them to analyze and interpret the characters in the music video. (O20200515SO)

Making connections to the real world. Other than ascending the levels of the students' learning outcomes, Shiitake assigned authentic tasks in this curriculum. For the first topic, the creation of e-books on COVID-19 led the students to explore real-life events. For the second topic, Shiitake asked the students to reflect on their own living experiences and think about how they were similar to or different from the protagonist in *Atypical*, the photographer's autistic son, and the people suffering from anxiety and depression described in various articles. One of the students mentioned that he found he would highly concentrate on what he was interested in but soon space out

when the topic was not intriguing, just like the protagonist in *Atypical*. Another student stated that the public might consider these people abnormal; if so, she herself was not normal, either. The other student implied that these people would experience more difficulties than he would. (O20200508SO)

No explicit rubrics for assessment. In the current alternative curriculum, Shiitake did not use rubrics to assess her students' learning outcomes. She valued the students' participation more, so she did not grade the students. She thought it would be enough if the students understood the topics she chose and discussed with her even after class.

Through the discussion and some informal talks with the students, I can understand whether they know the issues and how much information they digest. In other classes, I do use formal rubrics and paper and pencil tests to evaluate students, but for alternative curricula, I do not think grades are that important. I care more about participation. (I20200515SO)

Discussion of Shiitake's Curriculum Implementation

With an ambitious plan for leading the students to reach to current affairs, the content of Shiitake's alternative curriculum was mixed with multiple first-hand materials. She did not decide her teaching content based on language learning goals. Instead, she first collected materials related to hot issues, and then tried to integrate language skills, if possible. The selection of teaching materials corresponds to the principles proposed in previous research (Gallagher & Gallagher, 1994; Glow, 2007; Maker, 1982a): using complex and authentic issues (acceleration) regarding every-day life (sophistication). Based on these materials, Shiitake designed a lot of open-ended discussions without specific answers or conclusions in mind. To use open-ended questions was also promoted by Maker (1982a), because it is more likely to boost students' higher-level thinking than close-ended questions.

The structure of Shiitake's curriculum looks loose, but its development reflects the

view that sees curriculum as a process (Richards, 2017), which created a “lived” and “ecological” classroom. Shiitake minimized her role in the classroom with providing listening and reading materials to guide the students to think and explore. The teaching-learning process was dynamic and exploratory. Shiitake did not predetermine a specific assessment of learning; instead, she took the students’ participation and learning process more seriously. Shiitake brought her personal beliefs to the classroom and realized her own values in class; but she did not impose them on the students. She created opportunities for the students to do research on current affairs, to reach to every-day issues, and to connect what they learned in class to their life experiences. These practices are in agreement with principles for gifted curriculum design (e.g. Gallagher & Gallagher, 1994; Maker, 1982b; Richards, 2017; Tseng, 2016). However, Shiitake did not control the students’ learning process much. Sometimes, the learning process dragged on without a clear focus.

Figure 18 shows the interrelationships between teaching content, teaching techniques, and learning outcomes of Shiitake’s curriculum.

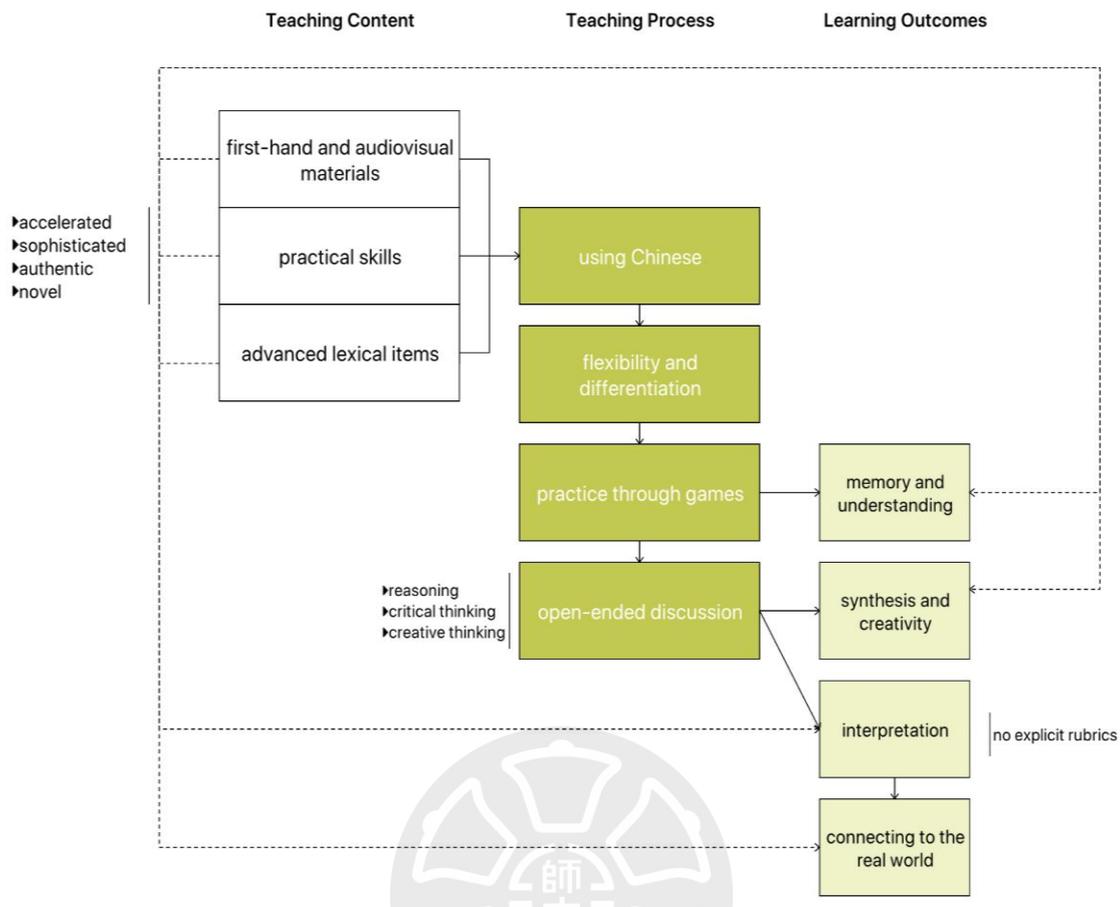


Figure 18. Analysis of Shiitake's curriculum.

Lexa's Case

Lexa had been teaching English for 12 years and in the most recent five years, she was teaching in EGRC in Park School. The alternative curriculum she developed for the spring semester was English Drama and Performance. Lexa was into drama. When she was in college, she acted as the main actress in the graduation project. She knew well the skills of acting English drama and writing scripts. In the present alternative curriculum, Lexa focused on the structure of a story, play writing, and performance. She led the four seventh graders in this class step by step to build up the skills in English Drama and Performance. The curriculum proceeded for 12 weeks with one period of class every week. In the first five weeks, the students learned basic structures and elements of writing a story. Then from the sixth to the seventh week, they began to work on adapting several world-famous fairy tales. Moving on to the eighth week, the students started to learn how to write a screenplay. Several theories, scripts, and monologues had been introduced since this week. From the eleventh to the twelfth weeks, the students created their own monologues and acted them out. Figure 19 shows the course map of Lexa's curriculum.

The next subsections report the learning environment, the teaching content, teaching process, and learning outcomes of the observed curriculum on English Drama and Performance.

Learning Environment

Lexa's classroom was divided into two parts. At the front of the classroom were a hexagon-shaped table facing a blackboard and an interactive whiteboard. Lexa used this part for whole-class instructions and discussions. At the back of the classroom were two groups of desks and chairs. Lexa used this part to arrange individual meetings with the students. The classroom was spacious and well-ventilated (Figure 20).

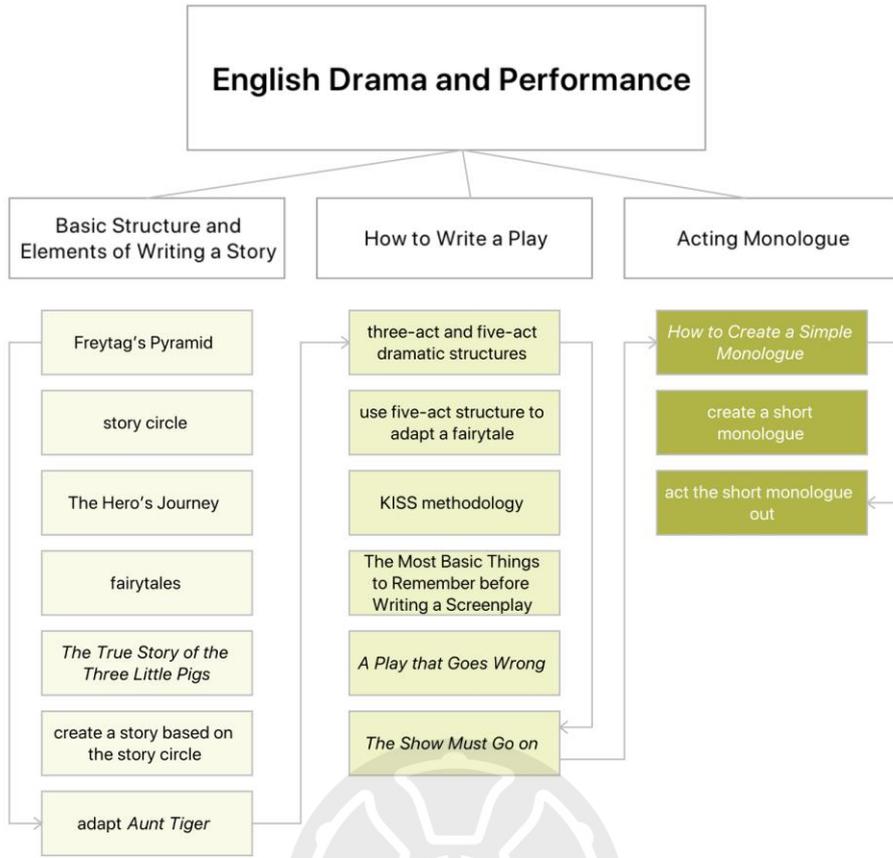


Figure 19. Lexa's curriculum design.

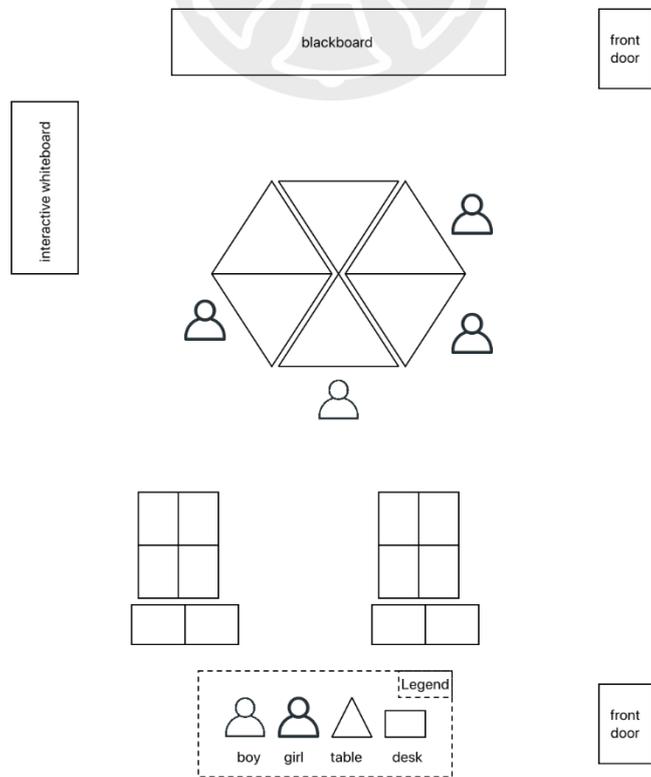


Figure 20. Lexa's classroom arrangement.

Lexa described herself as a harsh teacher (I20200629LE), but as observed, she was just serious and well-disciplined. Because the curriculum was scheduled on Friday, at the beginning of every class period, Lexa listed down the upcoming week's assignments and tests on the blackboard. The students were used to writing them down on their communication books after they entered the classroom. After announcing the upcoming schedule, Lexa started her lesson. Lexa controlled when the students could speak up. The students never chatted away in class or mentioned anything unrelated to the curriculum. In the students' presentations, Lexa pointed out their flaws and problems straight out no matter when they were presented (in front of the class or at individual desks). Some of the students were fragile, so they just burst into tears after receiving direct, negative comments. (O2020515LU) The learning atmosphere in class was not relaxing. The students were under great pressure. However, they did not complain. On the other hand, Lexa still gave the students some space for group discussions and individual meetings in class. The students were allowed to use Chinese to express their ideas and explain the concepts or their writing tasks. But in formal oral presentations and the final presentations, Lexa still required the students to use English to present.

Curriculum Implementation

Teaching Content

Knowledge of English playwriting. Clearly presented frameworks and basic elements of playwriting always came before practices in Lexa's curriculum. The frameworks and basic elements were mainly presented through reading materials. Consequently, Lexa provided abundant worksheets and handouts.

In the first five weeks, Lexa provided an article on *The Hero's Journey*; materials on the story circle and three-act and five-act dramatic structures; and a picture book, *The True Story of the Three Little Pigs*, written and illustrated by Jon Scieszka and Lane Smith respectively. Lexa used *The Hero's Journey* to explain the common principles

and steps of creating a story. The article broke down the structure of hero stories and built up a common pattern. (D20200306LM1) The article first elaborated how the authors of hero stories construct an unknown world for the characters in an ordinary world, who would struggle whether to adventure into the unknown. After their acceptance to the natural call, they would experience supernatural aids and gather helpers along the journey. The final step was to go through the final testimony. The last part of the article analyzes common roles that appear in the journey.

The story circle is a simplified version of *the Hero's Journey*. Lexa chose the story circle as the basic structure for the students to learn to develop stories, because it was commonly manifest in fictions and movies. The students could connect it to their previous experiences more easily.

The students need to learn how to write in a more structured way. That's why I pick this structure for them. The story circle gives them the concept of giving a story a climax and a turning point. And the protagonist will definitely go through the process of rebirth. (I20200306LC)

Three-act and five-act dramatic structures were introduced after the story circle. These structures were classic in drama and plays. Lexa used a diagram to illustrate the five-act dramatic structure. (D2020417LM2) While explaining these two structures, Lexa provided story examples to help the students know how to apply them. (O20200417LC) She also gave the students a chance to go to Story Berries (<https://www.storyberries.com/>) to read more fairy tales. The students could choose the tales they were interested in. The process helped them accumulate ideas for the ensuing tasks. (O20200424LC)

After the students learned the structures, Lexa directed the students' attention to "the point of view" in a story, which is also an important element in writing a play. She asked the students to read *The True Story of the Three Little Pigs*. This picture book

used another perspective to view the wolf which was a typical antagonist in the original fairy tale, *The Three Little Pigs*. The author of *The True Story of the Three Little Pigs* gave the wolf a chance to show that it was not evil at all. This was the main turning point of the curriculum. The students conceived how to adapt a well-known story creatively and help the typical villains in the story to justify their stands. (I2020501LC)

In the ninth week, Lexa prepared KISS (Keep It Simple, Screenwriters) methodology proposed by Ken Miyamoto to hone the students' story plots. In the tenth week, Lexa assigned a short stage play's script, *The Show Must Go On*, as reading materials. *The Show Must Go On* was a humorous play involving such writing devices as coincidence, conflict, and hooks. This was the students' first time to read a formal English drama script. Lexa elaborated the meaning of cast, conflict, and plot through the script. (D20200605LM1) Lexa selected another article, *How to Create a Simple Monologue*, written by Jakubowski for the students to refer to when they worked on the final product. This article helped the students think up a character and create a character profile for the character. (D20200605LM2)

Lexa mainly collected the materials on playwriting online by herself. To explain these materials, Lexa prepared several examples of stories. However, the students hardly knew the stories Lexa mentioned. (O20200306LC; O20200313LC; O20209320LC) Lexa highlighted that she should have refreshed her list of dramas, movies, and animations, so that the students could have got closer to her examples and applied the rules better.

The most difficult part today is that they did not understand the examples I listed. On the other hand, they know little about movies. For instance, they do not know The Hunger Games, Star Wars, The Wizard of Oz, and Romeo and Juliet. So when I talked about these movies, they could not quickly connect the structure or theory introduced to the movies I mentioned. (I20200306LC)

Audiovisual material. When teaching playwriting, Lexa used a short excerpt from a stage play, *A Play that Goes Wrong*, to show how to manipulate interesting story plots and create intriguing moments. (O20200529LC)

Teaching Process

Exercising high teacher authority. Lexa used a great degree of teacher authority in class. Like an expert, Lexa delivered theories and frameworks of drama performance and playwriting, arranged two individual meetings with her students, and requested her students to do two presentations. Lexa took great control of the pace of her class. Most of the interaction patterns were teacher-to-student. There was little student-to-student interaction. Regarding the language used in class, all of Lexa's teaching materials were written in English. She used English most of the time except when she clarified hard concepts and discussed with the students about their works. Though Lexa had struggled with whether to require the students to write and perform a drama in English, she still chose English as the priority language (I20200605LP). The students also fully obeyed the language-use rule she set up.

Making inquiries. In the first five weeks, Lexa relied on the technique of making inquiries to help her students build up a logical story. She led the students to analyze example stories and their own stories step by step. For example, in the second week, the students presented their short stories with the structure of the story circle. Lexa asked questions at the end of every student's presentation to help them cultivate meta-cognitive skills. One of the students created a story with Hundred's Years War as the background. The student created a splendid opening and an intense of suspense: An English man working for the English king investigated how to beat France down. He found a secret French town lying beneath London. However, to Lexa, the ending was not sensible: After the French people burnt the river, the protagonist was misunderstood by the English king and was soon imprisoned. Lexa asked the student why the

protagonist was so easily framed at the end given his abilities to overcome so many difficulties. She also asked the student how he could revise the plot. (O2020313LP)

Modeling. In the fourth week, Lexa asked the students to analyze *Romeo and Juliet*, a classic play from William Shakespeare with the five-act dramatic structure. Then she led the students to analyze the whole story with the assistance of the structure. The analysis became a model for the students to refer to when they were creating logical stories with the five-act dramatic structure. (O20200417LP)

Adopting various pacing and differentiation. After the short adaption practice of *Aunt Tiger*, Lexa differentiated the learning process. She allowed the students to adapt stories based on their interests and arranged individual meetings to provide each student concrete and personal suggestions. The discussions between Lexa and the students were deeper, too. When Lexa was discussing with one of the students, the other students prepared how to report their stories to Lexa or revised their stories. (O20200508LP)

From the eighth week, the focus was gradually directed from grasping ideas for playwriting to acting out the play. In the eighth week, Lexa spent a lot of time giving her students individual feedback and direct correction. (O20200515LP) She found it necessary to scaffold more before the students presented their final products.

It is obvious that some of the students do not know what kind of practices they should have done before they stand on the stage. Some students' slides are full of grammatical mistakes. If I had one more chance, I wish I could take a look at their slides beforehand and teach them some practicing skills. I am harsh today. Some of the students cried hard as you can see, but I hope they can improve after these uncomfortable moments. (I20200515LP)

In the last two weeks of this curriculum, Lexa differentiated the instructional process even more. She corrected the students' monologue scripts one by one and

critiqued on them thoroughly. (O20200612LP) She gave each student one chance to rehearse before their formal performances. (O20200619LP)

Integrating thinking strategies. Lexa introduced Mandala chart and jellyfish chart (see Figures 21 and 22), so that the students could use them as tools to do divergent thinking and generate creative ideas. (O20200501LT)

I think the jellyfish chart helps them more than Mandala chart. Their final products were quite successful. They produced a logical and creative story. (I20200501LP)

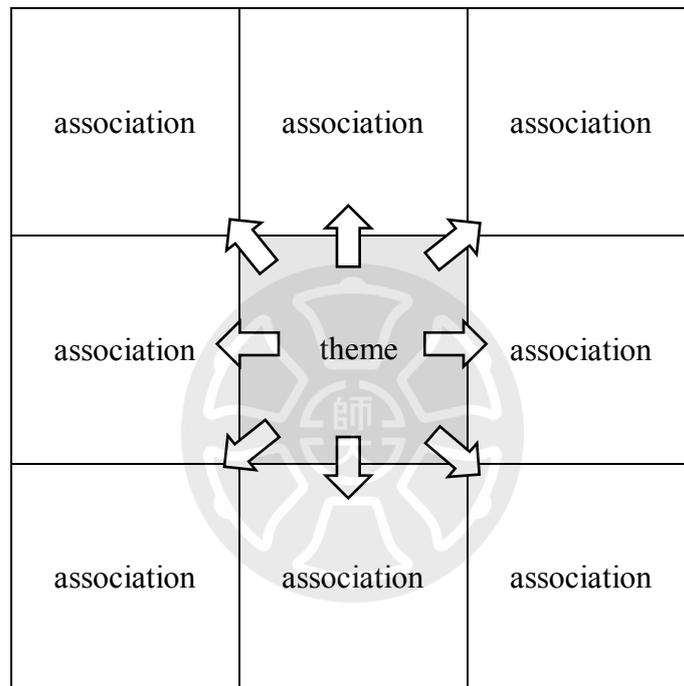


Figure 21. Example of Mandala chart.

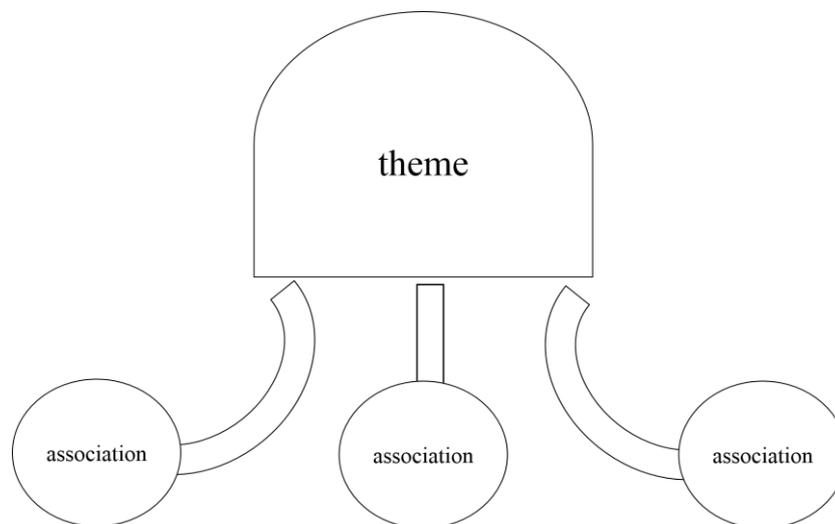


Figure 22. Example of jellyfish chart.

Lexa stressed that students' creative thinking skills could be boosted under the limitation of time.

When you give them a limited time and require that they should not provide overlapped stories, their creativity would be fostered. (I20200424LP)

In the ninth and tenth weeks, Lexa still emphasized on creative thinking skills. The students were asked to analyze the cast in *The Show Must Go On* and brainstormed how to construct a character. When she led in acting skills in these two weeks, Lexa exercised her students' creative thinking skills through discussion on other ways to express the emotions conveyed in the lines based on *The Snow Must Go On*. (O20200605LP)

Among all of the thinking skills Lexa promoted in class, she regarded creative thinking skills as the most difficult to promote. She claimed that creative thinking skills should be built on accumulating experiences and extensive reading. (I20200313LP) However, the students' living experiences were limited, so it was a challenge for them to come up with both proper and creative ideas.

Withholding collaboration. It is worth mentioning that Lexa hardly required the students to collaborate with their peers to complete the assigned tasks. She asserted that the students in a group would not put equal efforts to the tasks, based on her previous experiences. (I20200629LP) Another reason she did not require collaboration was that she thought creation and writing were personal. She aspired that each student could work on what he/she was interested in and produced distinctive messages and images. Lexa took the students' original ideas seriously. (I20200629LP)

Learning Outcomes

Application- and creativity-oriented products. Lexa allocated four major writing tasks to the students throughout the whole semester. These four writing tasks demanded creativity and application of learned knowledge/skills. The first writing task

was to write a synopsis with eight stages of a protagonist's transformation shown in a story circle: character establishment, the need of the protagonist, venture time, paying a heavy price, adaptation to the new environment, fulfillment, returning to the familiar situation, and rebirth. (D20200313LM2) Lexa considered this task a beginning for the students to experience how to draft the outline of a story. However, most of the products appear to lack creativity. For example, one student created a story about an online shopper, Jackie, who bought a computer on a strange website without listening to the warning of his mom. It turned out to be a fraud at the end of the story and Jackie promised he would never buy things on unreliable websites anymore. (D20200320LA4) The student followed the eight stages of the story circle, but his story was dull and without an intriguing climax. Another problem with the stories produced by the students was a weak or hasty ending. For example, a story tells that a twenty-year-old young man proposed to a girl, but he was turned down, so he decided not to have a girlfriend anymore. (D20200320LA2) After reading students' stories, Lexa thought she should have taught students to exercise creativity. (I20200313LO)

The second writing task was to adapt the folklore, *Aunt Tiger*. The students were expected to rewrite the story from the perspective of Aunt Tiger. Aunt Tiger was commonly seen as a villain, but Lexa invited the students to think about coincidences or reasons that might lead to the unfortunate ending, instead of making Aunt Tiger as a villain. Lexa spoke highly of one of the students who developed a story in a very surprising way: In a small village, a loving dad lived with his little daughter and new born son. The loving dad was a warrior that hunt tigers. Once he irritated the tiger god and was cursed. He was turned into a tiger. The curse can be lifted only if his son does not recognize him until ten years old. If his son recognizes him before turning ten, his son will be eaten by him as a tiger. The dad cut a bunch of his son's hair and put it around his neck. Then he left his family. When his son was going to turn eight years

old, the dad missed his children so much. So he disguised as his children's aunt and visited them when his wife went to her parents' home. The dad had a good time with his daughter and son. However, his daughter found that he was a tiger and tried to trap him. She asked the dad to climb up a tree to get them some apples and she prepared a hot pot of oil under the tree. The moment the dad climbed up the tree, the bunch of his son's hair fell to the ground. The two kids saw it and recognized that the tiger was their dad. The spell started to work. The dad could not help but grab his son and was about to devour him. When the dad was using all of his strength to fight against the spell, he and his son accidentally fell into the pot with boiling oil and died. (O20200508LO) This student created a prequel as a way to adapt the story and then connect it to the well-known story. She fully presented her creativity and deliberation. Although her English writing needed to be improved, her ideas were eye-catching and gripped Lexa and other students.

The third writing task was to use the five-act dramatic structure to adapt a fairy tale from a perspective different from the original. To direct the writing focus away from stories to screenplays, Lexa required the students to create scenes, not only story plots. However, the students wrote more like a novel than a screenplay. The way they described their protagonist in detail made it hard to act the story out. (O20200515LO) Moreover, some of the students did not really write the story from a perspective different from the original, as Lexa demanded. For example, one of the students narrated an adaptation of *The Little Mermaid* from the perspective of the antagonist, Ursula. But the adapted story was largely similar to the original story. The student might misunderstand Lexa's instructions, so she simply told the story again with Ursula as the protagonist. Lexa was unsatisfied with this product. She spent 20 minutes talking to this student. (O20200515LO)

The students were just explaining why the antagonists were so bad. They followed

the original plot. They added the antagonist's thoughts and reasons for doing evils things from the second scene on. That is why the story they produced did not differ from the original one in ending. (I20200508LO)

There is a huge gap between my expectation and their real performance. I did not expect that they would create such similar stories as the original ones. They did not have scenes in their mind, but scenes are especially important to screenplay writing. (I20200515LO)

Having said that, one of the students still grasped the tips of writing a screenplay and produced a successful work. He adapted *Hansel and Gretel* from the witch's point of view. In the adapted story, the witch was a member of the forest's cleaning team whose headquarter was the candy house. She vowed to find those who litter in the forest and punish them. When Hansel and Gretel came to the candy house, the witch noticed that they were those who littered bread scraps in the forest, so she caught them and punished them. (O20200515LO) The student made the witch become a round character. The witch was not purely evil or completely kind-hearted.

The fourth writing task was to write a monologue for a screenplay. Lexa used an article to teach the students principles and steps of writing a monologue, but she did not provide the students with sample monologues. The students could extend the stories they wrote in the previous writing tasks or work on a totally new story. Three of the students began a new storyline, and one of them extended her story created in the practice of five-act dramatic structure. This was the students' first time to write a monologue, so some of their first drafts were more like a speech than a monologue. Three of the students started their monologue with a self-introduction, such as "Hi, I am Titi. I am a dog living with my master and another white dog." They also tended to explain everything at the very beginning of the monologue. (O20200612LO) Lexa attributed this problem to students' immaturity.

What they wrote was more like a speech. They keep saying “I...I...I...,” but that is weird. In a monologue, you are alone. How would you talk to yourself like this? I discover that they have difficulty knowing how to do it. The way they wrote their monologues was quite “childish.” (I20200612LO)

Some of the students ignored the purpose of writing a monologue in which they should demonstrate a transformation of the protagonist. The issues and transformation displayed in their monologues were too trivial to strike a chord. (O20200619LO) Lexa explained the results by referring to students’ lack of life experiences and limited reading of literary works.

They did not put themselves into the context. One of the students wrote about a dog neglected by his master and the sadness it felt. It was hard for you to be into it. Some other examples are from other groups of students. One wrote about a seventeen-year-old girl, who wants to go travelling. I think this has nothing to do with a monologue. Another wrote about a fifty-year-old man losing his wife, bursting into tears, and condemning God. This student suffered a lot while he wrote this, because he could not precisely understand the feelings of losing a beloved one. I think they are not old enough to deal with some tough issues. (I20200612LO)

Metacognition through self-editing. After the students discussed their writing products with Lexa and presented in front of the class, they had to revise their writing within one week. Lexa invited her students to evaluate their own writing and propose possible modifications. The students monitor and assess their own learning outcomes, thus demonstrating their metacognition. (O20200320LO; O20200508LO; O20200515LO; O20200612LO)

High learner independence and autonomy. According to Lexa, learner independence and autonomy were expected learning outcomes. The students were

requested to read all of the reading materials before they came to class. Lexa did not go through the materials line by line. She asked different students to explain what they read in the articles and summarize every section. The students spent lots of time reading and taking notes before they came to class, so they would have better discussion with Lexa and other students.

Skills integration. In the final presentation, the students took turns acting out their monologues and Lexa videotaped them with a camera. Each of the students had eight minutes to act out their monologue. Lexa and other students offered feedback.

This presentation was aimed for integration of skills in cognitive, affective, and psychomotor domains, but most of the students demonstrated better skills in the cognitive domain—they memorized the lines well and read the lines fluently. (O20200619LO) The only exception was the student who acted Ursula as a loving step mother of Ariel and lamented over the misunderstandings between them. The student memorized her script very well and she used gestures and body language appropriately. She indulged herself in Ursula's frustration and bitterness. At the end of her performance, tears even dropped down her cheeks. (O20200619LO)

Discussion of Lexa's Curriculum Implementation

Lexa had clear curriculum objectives—guiding students to write a monologue for a screenplay and act the monologue out. The whole learning process involved application of learned knowledge/skills, creativity, metacognition, learner independence, and skill integration. To achieve the goals, Lexa chose advanced reading materials on drama structures to teach screenplay writing skills and audiovisual materials to teach drama performance. The teaching materials were in accord with the principles proposed in previous research on gifted curricula (Gallagher & Gallagher, 1994; Maker, 1982a; Van-Tassel Baska, 1996): using complex and advanced materials (acceleration) and showing stories and movies (authenticity). To stimulate students'

creativity, Lexa made inquiries when she provided examples. Moreover, she integrated thinking strategies to boost the students' reasoning, critical thinking, and creative thinking skills. On the other hand, Lexa showed high teacher authority when she differentiated her teaching process to allow various learning pace. She systematically scaffolded the students. The rigorous teaching process leveled up the anxiety the students to some degree, though. Overall, Lexa's curriculum design was more product-oriented and seemed to be consistent with backward design. She identified learning outcomes first. The planned learning outcomes influenced Lexa's choice of teaching content and teaching process.

Lexa self-reported herself as a teacher with little creativity (I2020313LE), but as observed, she led students to develop creativity with the aid of materials on playwriting. Her curriculum implementation is consistent with Maker's (1982b) idea of "being a teacher teaching creativity" rather than "being a creative teacher." Figure 23 presents the relations among the teaching content, teaching process, and learning outcomes of Lexa's curriculum.

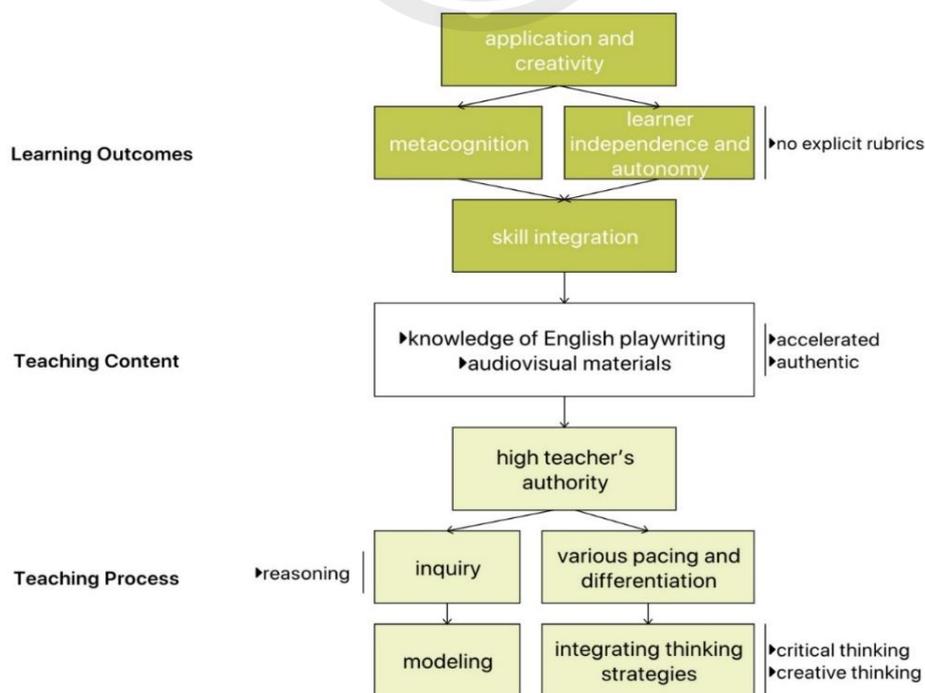


Figure 23. Analysis of Lexa's curriculum.

Piske's Case

Piske was another teacher from Park School. As a novice teacher, she taught in EGRC for two years. Piske was a flexible teacher who was willing to absorb new knowledge. The observed alternative curriculum, Self-Directed Learners' League, was an optional course aimed to help the students know what self-directed learning meant, understand how to do self-directed learning, and practice self-directed learning. Nine students enrolled in this course. Among them, two were seventh graders and seven were eighth graders.

Self-Directed Learners' League lasted 12 weeks with one class period each week. In the first two weeks, Piske led an open discussion on self-learning, where the students explored the meaning of self-learning and their expectations for this course. From the third to eleventh weeks, Piske gave the students chances to practice self-learning. The activities were progressively harder, requiring a higher level of learner autonomy and self-regulation. From the third to sixth weeks, Piske prepared three board games, TAPPLE (字母瘋火輪), The Resistance: Avalon (阿瓦隆), and The Message (風聲). Piske used TAPPLE as an example to teach the students how to play a board game. Then the students learned how to play The Resistance: Avalon and The Message with their group members. From the seventh week, the students designed and made dreamcatchers and aluminum wire accessories by themselves. Piske required the students to draft an action plan before they started making a dreamcatcher and an aluminum wire accessory. In the eleventh week, the students searched 30-minute recipes and cooked according to the recipe in class. The last week was the reflection week. The students reflected on what they learned in the whole semester, evaluated their learning process, and raised one question about self-directed learning. Piske invited a teacher from another school to listen to the students' sharing and provided them feedback. Figure 24 shows the design of Piske's curriculum.

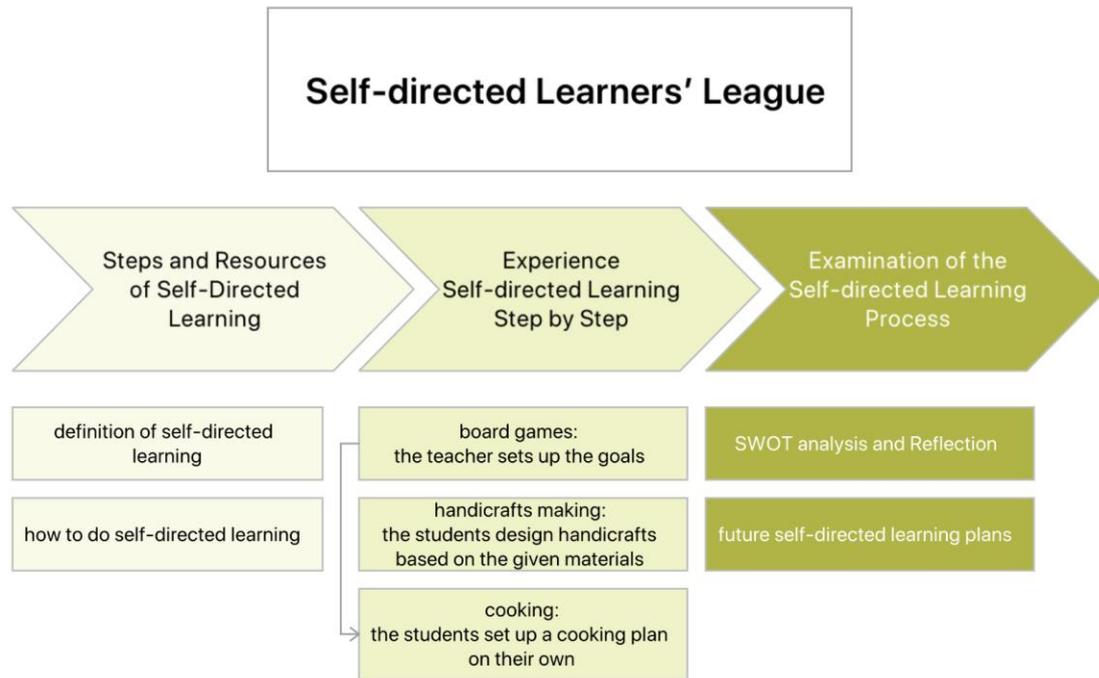


Figure 24. Piske's curriculum design

The learning environment, teaching content, teaching process, and learning outcomes of Piske's alternative curriculum is presented in the following subsections.

Learning Environment

Piske decorated her classroom and made it as cozy as home. The floor was so clean that the students took off their shoes before they entered the classroom. The classroom was separated into three parts. At the front part, there was a long square table for 10 students. In front of the table was a push-pull blackboard covering an interactive whiteboard in the middle. The middle part of the classroom included two sets of tables with chairs for the students to do group discussion or put their backpacks. The back part was a spacious place covered with puzzle floor mats and equipped with four small folding tables (Figure 25).

Piske observed her students thoroughly and she took their needs seriously. Piske could clearly tell her students' strengths and weaknesses, so in the last class period, she gave the students individualized feedback and suggestions. (O20200619PE) Piske allowed the students to go to any corner of the classroom while they worked on assigned

tasks. She gave the students full freedom to choose to either work alone or find a partner. As a caring teacher, Piske was able to make all of the students feel comfortable and accepted in class. Commenting on how to engage the students, Piske believed that only when she herself thought the issues to be discussed in class were important would the students take them seriously.

I hope they can always know that what I give them is what I think is important. I will show them the importance and lead them to experience the importance. I think this corresponds to the goal of the current curriculum, too. (I20200306PE)

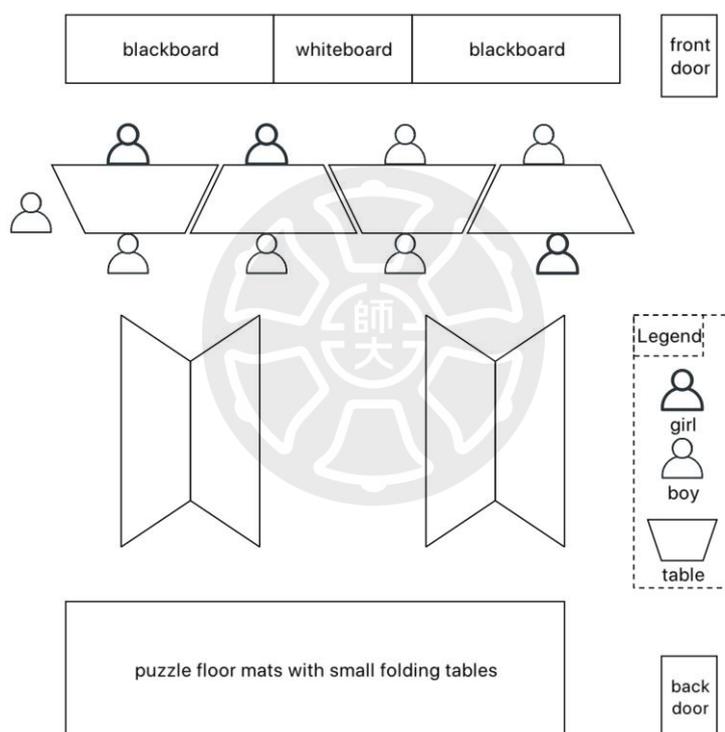


Figure 25. Piske’s classroom arrangement.

Curriculum Implementation

Teaching Content

Steps and resources of self-directed learning. To put self-directed learning into practice, Piske spent little time on lecturing. Rather than teaching subject knowledge, she mostly taught the students “how to” do self-directed learning and offered related

resources. In the first two weeks, she briefly defined self-directed learning, shared her self-learning experiences, taught students how to make learning plans, and introduced websites related to self-directed learning for students' reference.

At the end of the semester, Piske reflected on her selection of materials and activities in this alternative curriculum. She noted that she should have left more time for the students to select a self-learning theme and make a self-directed learning plan on their own. (I20200629PC) She accentuated the necessity of going through the process of exploration in what they exactly wanted to learn.

I want to change The Message into an easier game to shorten the self-learning time. I also want to remove one of the activities of craft making. Thus, I can make more time for students to explore by themselves, setting up a complete self-learning plan, putting it into practice, and then evaluating it themselves. I think it is necessary. (I20200629PC)

Teaching Process

Using Chinese. Piske's Self-Directed Learners' League was categorized in the domain of special-needs courses according to Park School's regulation. With a focus on the content delivered, English language learning was not the concern in this alternative curriculum. Piske upheld that using Chinese deepened the learning process. (I20200629PP)

Guiding students to assess their entry behaviors. At the very beginning of the course, Piske guided students' to assess their entry behaviors and needs by the following questions: (1) what abilities you will need to become competitive in the future; (2) what abilities you already have; (3) how you can bridge the gap between the abilities you have now and the abilities you should be equipped with in the future; (4) what are your expectations to the curriculum; and (5) what abilities you might need to be a self-directed learner. (O20200306PP; O20200313PP)

Encouraging reflective practice. Throughout the whole curriculum, Piske asserted that reflective thinking was crucial for learning.

This course is interesting to them, so they might maintain an attitude that they are here to play. That is why I insist that at the end of every class period, they have to reflect on what they learn in that period. This is a way for them to go back to the core of this course and “bring something back” after class. (I20200629PP)

At the end of every self-directed learning activity, Piske asked the students to think over the whole process and figure out the elements for successful self-directed learning. (O20200501PP; O20200529PP; O20200619PP) In the last class period of the course, Piske guided the students with sufficient time to examine their individual learning process with SWOT analysis (strengths, weaknesses, opportunities, and threats) and share their findings with the whole class. She engaged the students to raise questions based on their learning.

Implementing differentiation. The most note-worthy technique Piske used in her instructional procedures was “tiering.” From teacher-directed to self-directed, Piske made decisions for the students in the first stage of the curriculum, then provided options for them to choose in the second stage, and ended up involving the students in creating options on their own in the last stage. To be specific, at the very beginning, Piske decided the board games that the students should learn. (O2020327PP) Then, in making handicrafts, Piske provided different materials and forms for the students to choose; the students were also allowed to adjust their own learning pace. (O2020501PP; O20200529PP) At the end, the students decided what they wanted to cook and how they cooked. (O20200612PP)

Piske varied the students’ learning process based on their learning pace and interests. In the handicrafts making activity, two of the students had difficulty making dreamcatchers, while the others made dreamcatchers fast and accurately. Therefore,

Piske made the second handicraft activity optional. For those who were handy with making handicrafts and had already finished dreamcatchers, they could make aluminum wire accessories. For the two students who had difficulty making dreamcatchers, they got sufficient time to complete the task. (O2020529PP) In the cooking activity, Piske differentiated the students' learning process according to their interests. Some of the students made puddings, while some baked cakes. (O20200612PP) However, Piske worried about the students' diverse learning paces due to their mixed abilities. She thought that she should make more deliberate differentiation. (I20200629PP)

Piske mentioned that the way she prepared lessons now differed greatly from how she prepared lessons in her first year of teaching. In the very beginning of her teaching, she wrote scripts for each lesson. However, she taught four different groups of students. Although she basically used the same materials, she faced totally different classes of students. She had to adjust her lesson plans at least four times, for the four groups of students. Soon, she found it nearly impossible to follow her prepared scripts to teach. She left more space in her lesson plan to respond to students' differences. (I20200629PP)

Encouraging collaboration. Collaboration was encouraged throughout the curriculum. For example, Piske divided the students into two groups in which they learned to play *The Resistance: Avalon* and *The Message* with their group members. She did not provide a strong guidance, so that the students were pushed to rely on their group member. (O2020327PP) In the hands-on activities: making crafts and cooking, Piske still strongly encouraged the students to find a partner to work and discuss with. Piske expected her role to be an assistant rather than an expert in class.

They would discover that when two people work together, they would go faster. If you insist on doing everything by yourself, it is impossible to catch up with others. (I20200515PP)

They have to be conscious that in self-directed learning, they have to know how to

solve the difficulties they meet. Asking me (the teacher) should be the last choice. I am not a know-it-all. Some of their classmates are very capable, so they can learn from them. They can learn how to work with each other to make things easier.
(I20200629PP)

Providing hands-on experience. In the first stage of the curriculum, Piske led the students to experience how to do self-directed learning. She set the self-directed learning goal for the students: finding out how to play TAPPLE, The Resistance: Avalon, and The Message. Piske made the students figure out the rules through manuals and online information. She expected her students to transfer this learning experience to another similar self-directed learning context.

From the second stage of the curriculum, Piske designed more hand-on activities for the students to find solutions and overcome difficulties. When the students met problems, they sought for help, found online sources, and adjusted their directions and methods. For example, the students had to figure out how to create their own dreamcatchers and aluminum wire accessories with the materials given by Piske. (O2020501PP; O20200529PP) In the eleventh week, the students found recipes and cooked by themselves. Two of the students decided to make pancakes, but they did not know how to use an electric mixer to blend the ingredients into batter and what the right temperature was for cooking pancakes. They sought advice from Piske. Then she told them tips of using an electric mixer without showing them how to do it. The first two pieces of pancakes were burnt due to overheating. The students soon learned to turn down the heat and wait for the right time to pour a moderate amount of batter into the pan. When the students were trying, instead of being an authoritative know-it-all, Piske softly provided suggestions only when the students turned to her. After several tries, the students finally succeeded and gave pancakes a gorgeous golden color. (O20200612PP)

Learning Outcomes

Piske expected students to learn the following abilities in the curriculum: (1) the ability to understand self-directed learning; (2) the ability to apply learned knowledge to new contexts; (3) the ability to evaluate and reflect on their own learning outcomes; and (4) the ability to learn independently.

Basic understanding of self-directed learning. In the first two weeks, the students evaluated their current abilities and reflected on what they wanted to learn. They then built up their knowledge on self-directed learning. (O20200306PO; O20200313PO) Afterwards, the students connected what they absorbed and discussed in class and laid out an image of an individual they aspired to become via self-directed learning. (O20200313PO) Figure 26 is an example. The student put the skills she wanted to learn near the body part related to the skills. The skills included playing the guitar, making tasty desserts, getting her idol's news in the shortest time, and so on. (D20200313PA1)

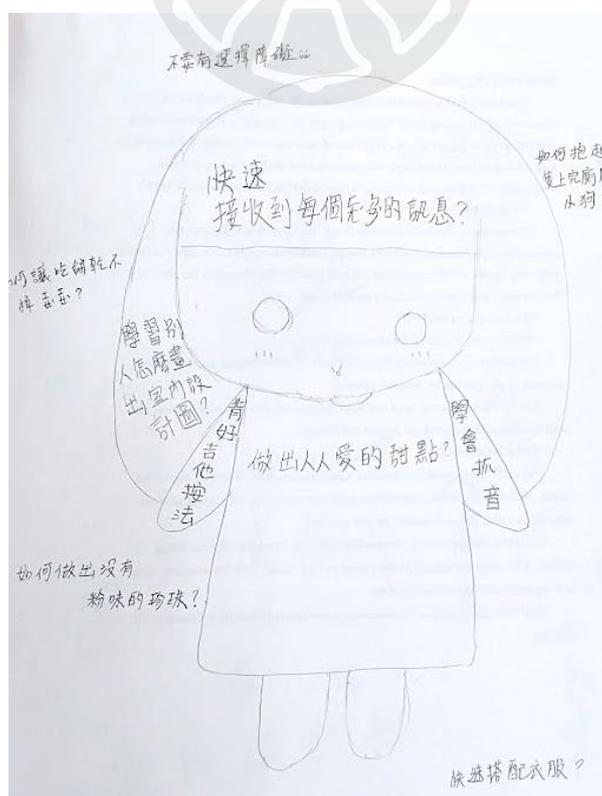


Figure 26. The image of a learner.

Application and reflection. In each hands-on activity, the students were guided to recall the concepts of self-directed learning discussed in class, use the concepts and rules in completing tasks, and propose new elements for self-directed learning based on evaluation of their learning process after they finished each task. For example, before the students learned and played the selected board games, they assumed that perseverance, concentration, collaboration, and intelligence were most needed in winning the games. (O20200327PO) At the end, the students were guided to reflect on their learning process, thereby evaluating their presumptions. They then proposed that in addition to the assumed collaboration, three other factors are essential for winning a board game: mastery of the rules, full engagement in the game, and effective communication. (O20200501PO) Moreover, when the students tried to figure out the rules of the board games on their own, they found it crucial to gather and synthesize sufficient information. They thus applied this understanding to the new learning task—making handicrafts, collecting a large amount of information before they started to work on the task. (O20200529PO) Later, based on their reflection on completing the cooking task, the students further highlighted the importance of setting up proper goals. (O20200612PO)

Self-evaluation. At the end of the curriculum, Piske designed a two-by-two grid of SWOT analysis (Table 5) for her students to step back and examine themselves. (D20200612PO) This activity was expected to enhance students' ability to evaluate their own strengths, weaknesses, and threats in their self-directed learning process, helping them develop a more workable plan in the next stage of self-directed learning.

Critical self-regulation and high learner autonomy. The final goal of the current curriculum was that the students could become self-directed learners and learn independently. In accord with the goal, the whole curriculum not only required but facilitated the students' high self-regulation and learner autonomy. The learning

outcomes mentioned above accumulated the students' independent learning skills. To complete the learning tasks, the students had to seek for help on time, be cautious of what they needed, and use a meta-perspective to monitor their own learning process in order to modify their learning procedures all the time.

Table 5
SWOT Analysis Diagram

Strengths What are your strengths?	Threats What are the threats that might prevent you from achieving your goals when you do self-directed learning?
Weaknesses What are your weaknesses?	Opportunities Based on your strengths, weaknesses, and threats, how can you implement your self-directed learning plan?

No explicit rubrics for assessment. Piske did not grade students' learning products. As long as the students handed in worksheets for reflection on their learning and spoke up in class, she counted them as fulfilling the course requirements.

Their learning outcomes were accumulating through the whole learning process, so I do not think I can give them a concrete grade. My ultimate objective for this curriculum is to make them conscious of self-directed learning and willing to try. The assessment should be on what they reflected on and showed in class, but that was abstract. So as long as they said it, I would regard them as meeting the objectives. (I20200629PO)

Discussion of Piske's Curriculum Implementation

Piske's curriculum features "high mobility," which is listed as the most essential principle in a qualitatively different curriculum for the gifted (Maker, 1982b). The

students could move to any corner of the classroom and find whoever they wanted to work with. Moreover, they were exposed to a variety of learning sources. Besides Piske's instruction, the students read manuals, searched online information, and asked their peers. This curriculum suggests that the teacher is not the only resource the students can refer to (Maker, 1982b). Piske also emphasized the importance of collaboration. To her, self-directed learning did not mean learning "solitarily."

Piske's curriculum design is similar to a four-stage model for self-directed learning framed by Treffinger and adapted by Maker and Shiever (2005): (1) teacher directed (students carrying out the work set by the teacher); (2) self-directed 1 (students having choice over the tasks set by the teacher); (3) self-directed 2 (students involved in creating options); and (4) self-directed 3 (students creating choices and self-evaluating). Under Piske's well-structured curriculum, the students processed and obtained self-directed learning skills *gradually* (Maker, 1982b, p. 327). The teaching techniques and the learning outcomes of "Self-directed Learners' League" began with the level of teacher-directed learning and ended up with self-directed learning—level 2. Playing board games is more teacher-directed, because Piske decided the content and assigned tasks to the students. When Piske started to provide the students options and yield more freedom for the students to make decisions independently in the activity of making handicrafts, they moved on to self-directed learning—level 1. Last, the cooking activity matches self-directed learning—level 2 because Piske only set the theme as cooking, but the students decided what they would like to cook and found ways to accomplish it on their own. The students were involved in options creating. At the end, a sharing session was arranged for the students to self-evaluate and for Piske to provide feedback. Self-directed learning—level 3 was absent in the curriculum due to time limitation. Overall, Piske's alternative curriculum is more process-oriented, because the teaching techniques and teaching activities weighed heavily with her and her students. The

teaching content only took a small part of the whole curriculum. Only through the teaching/learning process could the students build up their own self-directed learning concepts. Figure 27 shows how Piske’s teaching content, teaching process, and learning outcomes interact with each other.

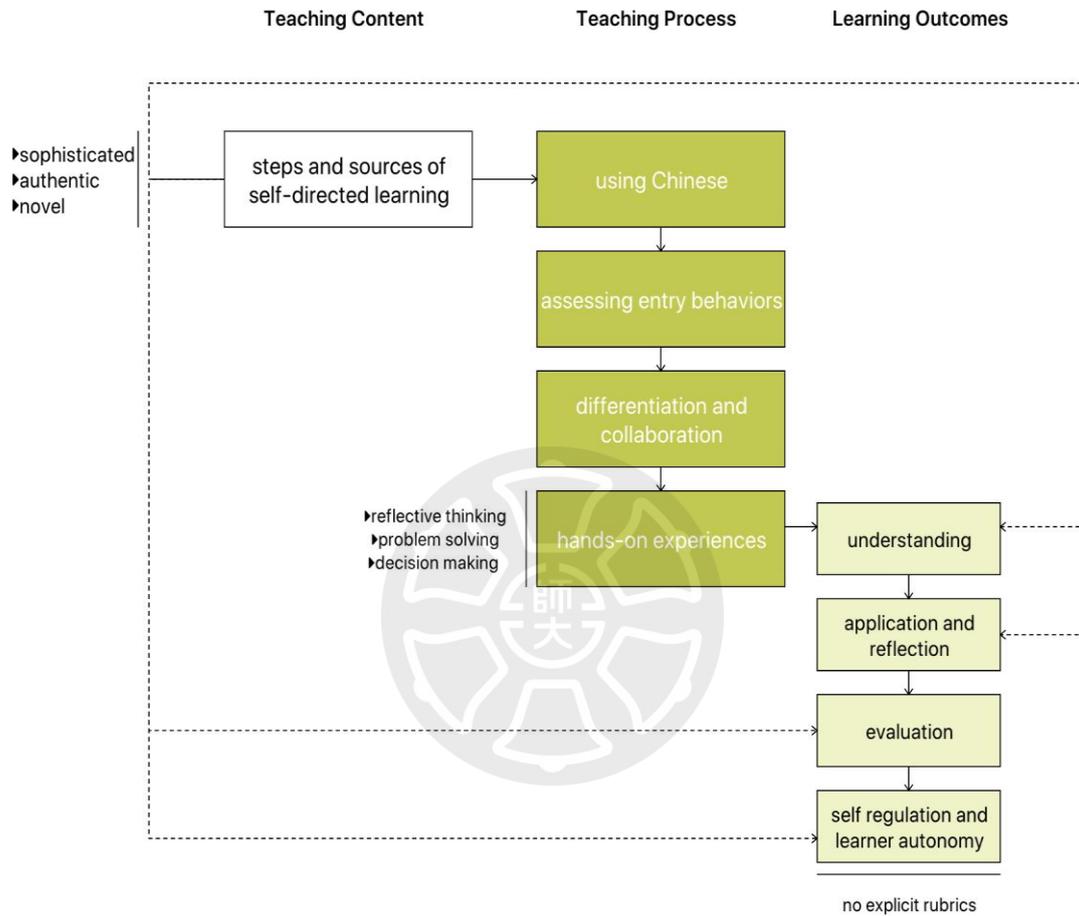


Figure 27. Analysis of Piske’s curriculum.

Wendy's Case

Wendy was an experienced teacher who had been teaching for 25 years with 13 years of teaching experiences in River School's EGRC. In River School, no specific time was separated for alternative curricula. Therefore, the teachers in River School integrated the elements of alternative curricula into regular English class periods. Wendy maintained a good relationship with every student and became their mentor. Also, she was an action researcher in class. From time to time, she seized every chance to go to workshops and in-service teacher training programs. With absorbing new trends in Teaching English as Foreign Language (TESOL) field, Wendy put the theories and techniques she liked into action. In recent years, Wendy had been trying to integrate Content and Language Integrated Learning (CLIL) into her teaching. She was especially interested in soft CLIL, which focuses on language but integrated with other subject matter knowledge. Every semester, she designed one lesson unit with the idea of soft CLIL. This semester, she chose one of the lessons from the English textbook to blend in soft CLIL. This lesson was related to cleaning and included adverbs of frequency. Wendy then connected it to the current affair—COVID-19. Her main focus was on the differences of four types of germs, how germs spread, and what the students could do for their personal hygiene.

Three seventh graders attended this course. In the first class period, Wendy led the students to read a picture book, *Inside Your Germs* to learn different types of germs. In the second class period, Wendy taught adverbs of frequency, the grammar focus of this lesson. Moving on to the third and the fourth class periods, Wendy compiled extended vocabulary words related to kitchenware and cleaning products. Wendy used an activity for the students to go over the dialogue in their textbook in the following two weeks. In the last four weeks, Wendy started her integration of "soft CLIL" in her words. Figure

28 shows the structure of Wendy's curriculum.

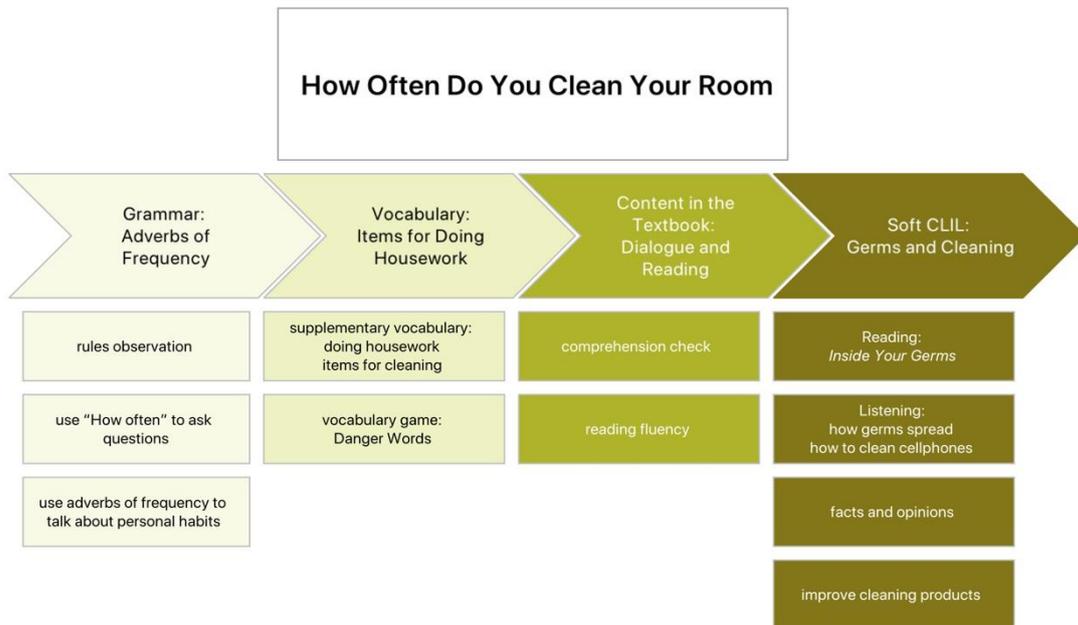


Figure 28. Wendy's curriculum design.

In the following subsections, the learning environment, teaching content, teaching process, and learning outcomes will be presented and discussed.

Learning Environment

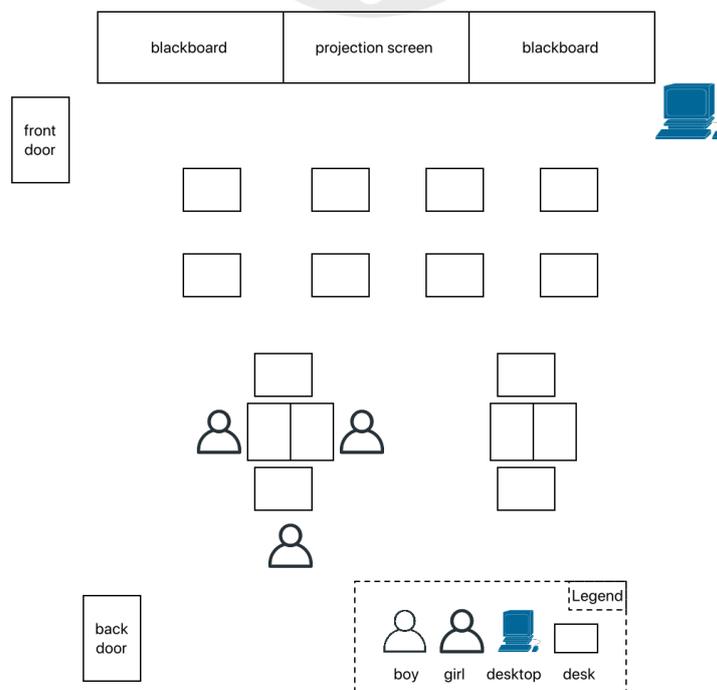


Figure 29. Wendy's classroom arrangement.

Because of timetable conflicts between EGRC's classes, Wendy and her students used math-and-science gifted resource classrooms. The classroom could accommodate 15 students. The front part was a push-pull blackboard covering an interactive whiteboard in the middle. The students sat together at the back of the classroom. Without Wendy's instructions, they were not allowed to move around the classroom (Figure 29).

The three eighth graders, Sally, Eileen and Anne, were from the same homeroom class. Each of them kept a close relationship with Wendy, so she knew their family backgrounds, personalities, social life at school, and academic performances pretty well. The students sometimes went to Wendy's office before class and shared their personal lives with her.

The students did not seem to get along with each other. This problem may have something to do with the students' language proficiency, learning styles, and personal traits, based on my observations and interviews with Wendy. Sally's English proficiency was the highest. She was also the most active student in class, because she wanted to perform well in class. She blurted out the answer as long as she knew it. Anne's English proficiency was much lower than that of Sally and Eileen. She had a small vocabulary size and had difficulty producing correct and complete sentences. Her logical thinking skills were also poor. Eileen's proficiency level was a little lower than Sally's. She was into math and science, for she was diagnosed as a math-and-science gifted student at the same time. Eileen felt Sally annoyed. If Sally kept answering questions, Eileen rolled her eyes and shut her mouth. Sometimes, when Wendy led a discussion, they did not listen to each other's opinions. They even spoke up at the same time. (O20200611WE) Once Wendy tried to give them a chance to collaborate with each other in the game, Danger Words. Wendy set up a rule—once the guesser got the winning word, the host and the guesser could both get a stamp, but if the guesser got

the danger word, the host and the guesser could not get any stamp. However, the students still enjoyed the time when the guessers got the danger word even if they themselves serving as the host could not get a stamp, either. (O2020615WO) Moreover, the three students belonged to different friendship groups in their homeroom class. Eileen and Anne were cliquy. Therefore, Wendy seldom deigned collaborative activities, because the students were reluctant to do so. The teaching activities were also limited by their tense relationship.

To reduce tension and create a sense of unity among the students, Wendy led group counseling in the students' spare time in the previous semester. She tried to build the students' consensus and mutual trust based on her experiences in a five-week overseas training program the previous summer, but the students' relationship was not significantly improved.

Last summer, the instructor said that once we reached a consensus before we worked on something, we could avoid conflicts. Therefore, when I went back from the program and met these students, I asked them to share what they cared a lot in the very first class. I also spent much time on building up their relationship. However, it did little impact on improving their relationship, but I will not give up.
(I20200611WE)

Curriculum Implementation

Teaching Content

In selecting teaching content, Wendy noted two important principles. The first one was related to herself. Due to Wendy's educational background, she not only had a strong interest in but was also good at social issues integration and interdisciplinary teaching. Once she found it possible to integrate English subject with other curriculum fields or current social issues, she gave it a try. Therefore, her teaching content was practical and related to daily life. The second principle was to take the students' interests

and needs into consideration. For example, one of the students in the observed class was a math-and-science gifted student at the same time, so if possible, Wendy involved scientific elements in her teaching. Wendy found that her students in this class were insufficient in logical reasoning skills, so she also trained students these skills through the selected issues. (I20200629WP)

The teaching content of the observed curriculum contained extension of the textbook content, advanced and interdisciplinary reading materials, supplementary listening materials, and distinction between facts and opinions.

Extension of the textbook content. In the observed curriculum, Wendy offered worksheets for “adverbs of frequency,” “supplementary vocabulary,” and “dialogue activity,” which were either directly based on or extended from the school textbook. Her worksheets were written in English.

In the second period, Wendy taught adverbs of frequency, the grammar focus of a unit in the school textbook. She used a number line to show the frequency of the following adverbs: always, usually, generally, commonly, regularly, mostly, often, frequently, repeatedly, sometimes, occasionally, seldom, hardly, rarely, barely, and never. Some of them (such as generally, frequently, and occasionally) were supplementary. Then Wendy used several example sentences with adverbs of frequency for the students to find out the rules of using them in declarative sentences and questions. (D20200611WM1)

In the third and fourth class periods, Wendy listed down 35 words related to kitchenware and cleaning products with picture cues (Figure 30). Wendy chose these words because of the needs for extension and practicality. First, the theme words in the unit were related to doing the housework, such as cleaning the table, mopping the floor, and doing the dishes. Wendy thought the amount of vocabulary was too little, so she found other words to expand the students’ vocabulary. These words were also related

to her soft CLIL lesson which she planned to conduct in the following class periods. Second, due to her personal experiences, Wendy asserted that the students should know the English names of the objects they reached in everyday life.

When I was a junior in college, I traveled abroad with my younger brother. At that time, I had already learned for at least eight years, but I did not know how to say eye drops, shampoo, facial cleanser, or lotion, these kinds of words that I used every day. So since then, I have determined to introduce more practical words in my English class. (I20200612WC)

Danger Words							Name: _____
A. a vase	B. a mug	C. a bucket	D. a rag	E. a mop	F. cushions	G. curtains	
H. a carpet	I. a bookshelf	J. an egg holder	K. a frying pan	L. a spatula	M. a soup ladel	N. a potholder	
O. a knife	P. an oven mitt(en)	Q. a whisk	R. a basket	S. a bowl	T. a stove	U. a lid/ cover	
V. a trash truck	W. a cutting board	X. a spice container	Y. a sponge	Z. an apron	1. an air conditioner	2. leftover	
3. a dishcloth	4. a sink	5. a faucet	6. a couch/ sofa	7. a pot	8. kitchen countertop	9. a robot vacuum cleaner	

⇒ Fill the words in the picture.




1. Two Words on a card. One is Winning Word; the other is Danger Word.

2. Say one word or one sentence as a clue. The others guess.

3. Take turn to be the person who gives the clues.






<https://www.youtube.com/watch?v=0kk5v3zPf8Y> <Mark Wahlberg and Ellen Play 'Danger Word'>

Figure 30. Word list with picture aids.

Later in the fifth and sixth periods, Wendy's focus was on the dialogue in the textbook. However, she did not directly explain the text in the textbook. Instead, Wendy spent more time on teaching the students how to ask relay questions before digging into the text, because she wanted the students to get clues from the answers and then guessed what was happening in the dialogue. (D20200616WM1) She briefly led the students to go over the text in the textbook without explaining much. (O20200616WC)

Advanced and interdisciplinary reading materials. Wendy used advanced and interdisciplinary reading materials beyond the textbook content. Before the first class period of the current curriculum, Wendy used Epic (<https://www.getepic.com/book/48169629/inside-your-germs>) for the students to access to a 30-page picture book, *Inside the Germs*, written by Karin Halvorson. On Epic, *Inside the Germs* was suggested for accelerated readers. The picture book mainly distinguished four kinds of germs: fungus, bacteria, virus, and protozoa, and described how these germs were spread and the ways to protect human beings. This book was categorized as 500L on the Lexile measure, which was suitable for grades 2 to 3 in the US to read; however, the content was not easy for the students. A lot of technical terms were involved in *Inside Your Germs*. The students might have heard these terms in Chinese because they were learning biology in the same semester, but when the terms were written in English, a language barrier appeared. However, the students were still interested in reading this challenging book. (O20200608WC)

Supplementary listening materials. Wendy usually trained students' listening comprehension skills through outside materials, *One Story a Day*, a book she bought several years ago. There was a five-minute narrative story in each chapter. In the first, second, fourth, and fifth class periods, Wendy led the students to go through four stories, *Tooth Fairy*, *Snow Under*, *Blind Man*, and *My First Day as a Teacher* respectively. She led students to listen to the story without providing them texts and checked their listening comprehension. After listening comprehension check, Wendy taught some advanced vocabulary words from the story. (O20200608WC; O20200611WC; O20200615WC; O20200616WC)

In the last four periods, Wendy used three videos as advanced listening materials. (D20200619WD1) The first one, *How Coronavirus Can Spread without Direct Contact with an Infected People* (<https://www.youtube.com/watch?v=tUA2h3yCtEg>), showed

the importance of cleaning hands often. Wendy used this as a lead-in based on the theme of her soft CLIL lesson plan. The second video, *Where Are the Most Germs Hiding* (<https://www.youtube.com/watch?v=ZvOXZQy-BoA>), was a newscast reporting five places the most germs are hiding. Through this video, Wendy taught the students how to find out the facts and analyze their feeling toward the facts. The third video clip, *Cell Phone Germs* (https://youtu.be/mY4kUP8_aGo), was also a newscast revealing how many germs left after scientists applied disinfection products on cell phones. Wendy introduced possible ways to clean cellphones and examined the experiments shown in the video clip in a scientific way. Wendy mentioned that the students were going to conduct independent research in the upcoming semester and this newscast could help them build up a basis of doing research. (I20200623WC)

Distinction between facts and opinions. In addition to scientific knowledge, Wendy put another emphasis on detecting facts and opinions when reading news, part of media literacy. She expressed the necessity to give the students useful skills to “survive” in the world, such as media literacy. (I20200616WC) To train students the ability to distinguish facts from opinions, Wendy read 12 example sentences (e.g., “Dogs are mammals” and “English is a useful tool”) for the students to check which were facts and which were opinions, followed by some explanations.

After teaching facts and opinions, Wendy moved on to the short article in the textbook. In addition to demonstrating how to read the article out loud with accurate pronunciation, intonation, and fluency, Wendy guided the students to go over the reading and analyze facts and opinions in the text. (O20200624WC)

Teaching Process

Using English. To provide more language input, Wendy tried her best to instruct in English most of the time. She also engaged the students to answer in English. Wendy said,

To me, English is a tool. I will not emphasize much on language forms in the latter part of my curriculum. But I still want to give them more language input and ask for more language output. So, basically, I use English in instructions and discussions. (O20200629WP)

Although Wendy tried to use as much English as possible, when she explained grammatical rules, she still had a hard time using English to teach. (O20200611WP)

Meaning-focused instruction. Wendy did not always put emphasis on language accuracy. Only in the periods of teaching adverbs of frequency and vocabulary did she require accuracy in students' speaking and writing. For picture book reading, relay questions asking, and soft CLIL lesson, emphasis was on meaning. If the students uttered a wrong sentence, Wendy just provided recast, without explicitly pointing out students' errors. (O20200619WP; O20200622WP; O20200623WP; 20200624WP)

When dealing with the dialogue and reading passage in the textbook, Wendy recommended the students familiarize themselves with the content and learn comprehension strategies instead of memorizing tricky and detailed language rules. (O20200616WP; O20200617WP)

They do not like to read texts in textbooks, because they have a sense of superiority, but they are actually not familiar with some of the content. Through this way, they can go through the text for at least five times. Then I think I can clearly present the content. I do not have to point out everything line by line. (I20200629WP)

Adopting inductive approach to teaching English Wendy often applied an inductive approach in which the students were exposed to a large number of language inputs. For example, in teaching adverbs of frequency, she presented many examples and then led the students to find out the rules. (O2020611WP) In one interview, Wendy talked about her changes in instructional approach:

At the very beginning of my teaching, I used grammar-translation approach to

teach sentence patterns. After I went to some workshops and on-the-job training, I started to change and took students' thinking abilities more seriously. Inductive approach helps the students observe and think. (I20200611WP)

Incorporating thinking skills training. At the end of the curriculum, Wendy led in ORID (Objective, Reflective, Interpretive, and Decisional) questioning to help the students ponder the newscast reporting the top five places where germs are hiding. Students were guided to ask objective questions (e.g., on what one saw) that help them identify the facts in the video. Reflective questioning was used to help the students reflect on their feelings about the video. Interpretive questions helped the students think and analyze why they felt in a particular way. Decisional questioning led the students to determine the best course of action in response to the problem shown in the video. Wendy asked the students to share their answers to these four types of questions at four corners in the classroom. (O20200619WP)

Wendy also incorporated mind mapping, in which her students were led to analyze the information structure of a given text. The students seemed well-trained in drawing mind maps. For example, before Wendy discussed *Inside Your Germs* in class, the students had already previewed the book and drew a mind map to deal with the massive information shown in the book. (O20200608WP) The students also drew mind maps when they did listening comprehension. (O20200608WP; O20200611WP; O20200615WP; O20200616WP)

Through this way [infographic], I am training the students to comprehend the texts. I do not think my role is to explicitly explain everything. My role is to teach them how to comprehend and analyze. The "how-to" can be a strategy they will benefit from in the future. (I20200611WP)

Making connections to real-life situations. Wendy was good at enhancing the relevance and practicality of the language taught in class by making connections to real-

life situations. For instance, after she taught adverbs of frequency, she put the students in pairs to use “How often...?” to ask their partners questions about their hobbies or habits. She then asked the students to use adverbs of frequency to describe themselves. In these activities the students connected the sentence patterns to conversational needs in a real-life context. (O20200611WP) When she taught how to differentiate facts and opinions, she challenged the students to recognize facts and opinions in the newscast, reading texts, and even news they read in daily life. (O20200624WP) At the end, Wendy required the students to evaluate current cell phone sanitizers and consider ways to improve the sanitizers. Note that this task not only enhances the relevance of classroom learning to life but boosts students’ creative thinking skills. (D20200629WD1)

Differentiating learning pace. Wendy also differentiated the students’ learning process in class. If the materials were more challenging, she gave the students time to learn and digest individually. For example, the picture book contained many technical terms, so Wendy asked the students to preview at home. This could help the students with lower English proficiency get better preparation before Wendy discussed the content in class. (O20200608WP) Another example was observed in the latter part of the curriculum. One of the newscasts Wendy selected was hard, so she did not ask the students to watch the video together. She gave each student a tablet and provided the link of the video on Voicetube (<https://tw.voicetube.com/>), an English learning website providing both Chinese and English captions for the newscast. When the students click on the words in the captions, the meaning of the word will be shown. Students can turn on/off the captions, search words’ definitions, replay, and pause based on their learning needs. (O20200619WP)

The learner with low proficiency can learn the material at her pace. If we watch it together, she cannot pause when she cannot understand. It is also embarrassing for her to ask questions when the video is played. If I give them more space to

learn individually, she can learn better and build more solid knowledge on the materials. (I20200629WP)

Withholding collaboration. Wendy hardly gave the students chances to collaborate with each other. The pair work Wendy designed in class did not require the students to collaborate with each other. The students were just a language practicing partner to each other. Wendy did so on account of the students' traits as earlier mentioned in the section of the teaching context.

Learning Outcomes

Wendy designed learning outcomes from the perspectives of cognition, learner autonomy, and self-regulation. In the cognitive domain, the learning outcomes included understanding the rules of adverbs of frequency, use of supplementary vocabulary words, and the content of the picture book; applying adverbs of frequency and those of definite frequency to a proper context; analyzing the given materials; creating a dialogue; critiquing on current cell phone sanitizers; and formulating possible solutions.

Understanding as the priority. Wendy expected students to understand the instructional materials. However, she did not use paper-and-pencil tests to ensure students' understanding of the materials, but through tasks and the process of questioning and answering. Take Wendy's listening comprehension training as an example. As mentioned in the previous subsection, Wendy trained the students' listening skills through *One Story a Day*. She allocated the students different tasks: one as a story reader and the others as note takers. All of the students listened to the recorded story for the first time; then the story reader read the story again. The note takers took notes while listening. The story reader raised three questions based on the story after finishing reading the story. The note takers competed with each other to answer the questions referring to their notes. At the end, Wendy added on more questions to check the students' comprehension toward the text. (O20200608WP; O20200611WP;

O20200615WP; O20200616WP) Through the question-and-answer process, the students (both the story reader and note takers) demonstrated their understanding of the text.

Contextualized Application. After the students learned adverbs of frequency, they used adverbs of frequency in a new context—make sentences describing themselves. For example, one of the students made the following sentence, “I seldom go to the movie theater.” (O20200612WP) Wendy then guided the students to use adverbs of definite frequency, which gives more precise frequency of the described event, to rephrase the previous sentence. She described her life with adverbs of definite frequency as examples, and then encouraged her students to rephrase their sentences. Following Wendy’s modeling, the student mentioned above rephrased “I seldom go to the movie theater” into “I go to the movie theater once in a year.” (O20200612WP) From the sentences the students made, Wendy could check if the students were able to apply adverbs of frequency and those of definite frequency in proper contexts.

Comprehensive analysis. The students were asked to draw a mind map to analyze and organize the information of the picture book, *Inside Your Germs*. Students’ performance on this task demonstrated their analytical abilities. Some of the students selected unparalleled items to develop branches and layers of the mind map (e.g. Figure 31), while one of the students accurately grasped the main idea and structure of the picture book (Figure 32).

As mentioned in the previous subsection, the students used ORID questioning to ponder the newscast reporting top five places the most germs hide. Among the four types of questions (Figure 33), the objective questions pushed the students to closely analyze the news and find out the facts while the interpretative questions helped them analyze the reasons behind their feelings toward the news. Students’ responses to these two questions revealed their analytical abilities.

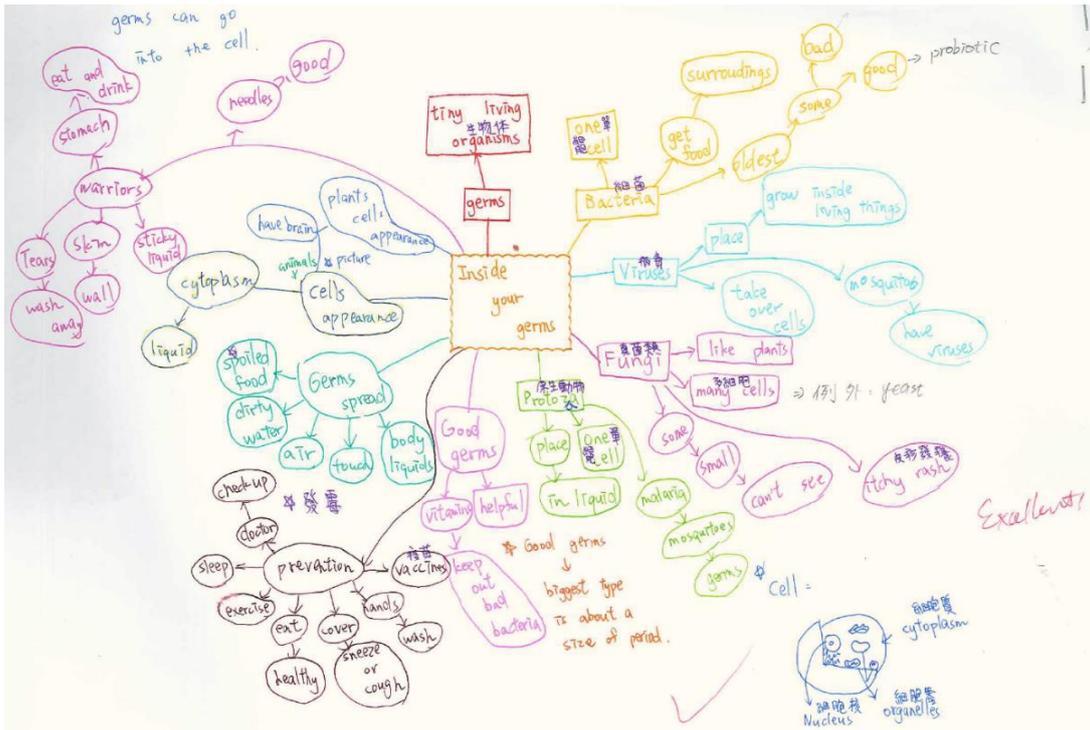


Figure 31. Mind map of *Inside Your Germs* (with unparalleled layers).

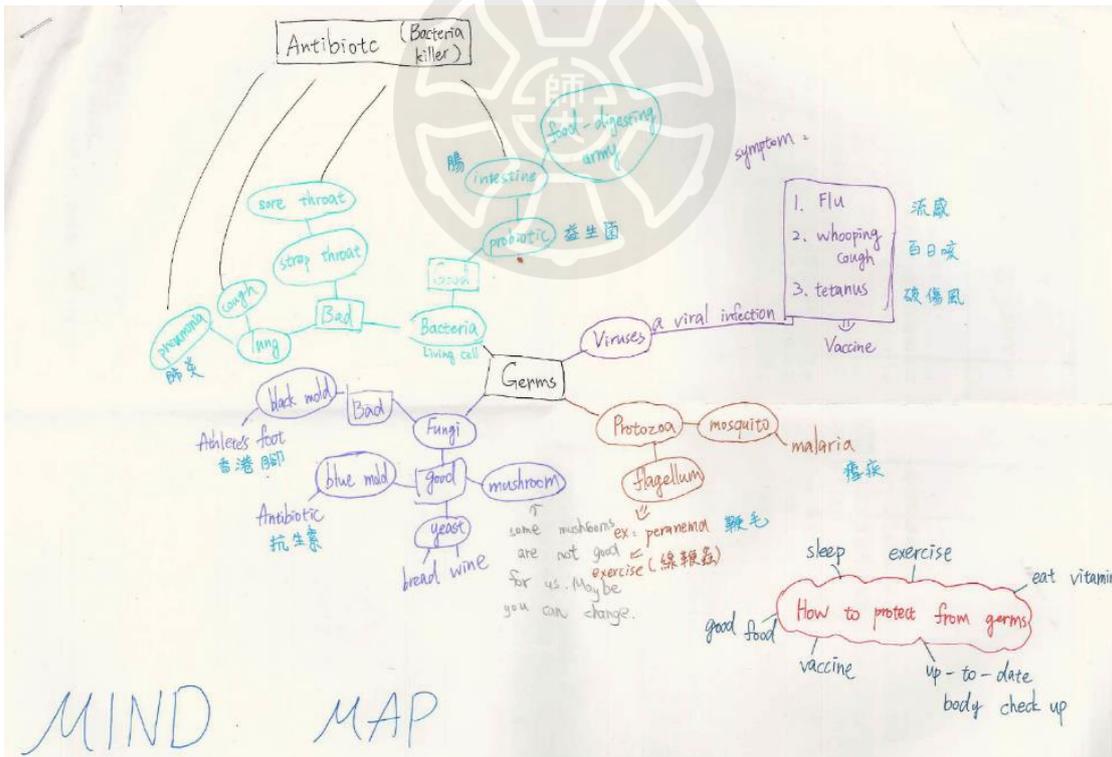


Figure 32. Mind map of *Inside Your Germs* (with clear categories).

Distinction of facts and opinions is another activity that Wendy designed to enhance students' analytical ability. Wendy read 12 sentences for the students to

practice distinguishing whether they were facts or opinions. During the practice, the students sometimes mistook common beliefs for facts rather than opinions.

(O20200624WO) They then applied the rules to differentiate facts and opinions in the newscast, *Cell Phone Germs* (Figure 34).

Objective 	Reflective 	Interpretive 	Decisional 
What did you see? What happened?	How do you feel? What impressed you?	What makes you feel.../ think of it in this way?	What can we do to change it?
germs tope 5 germs top	germs are everywhere I think it's cool, I live with germs.	If I can see the germs, I will be very happy. It's so cool.	I will still clean my phone every day.
#5 toilet bowl handle ; #4 clicker ; #3 Smartphone ; #2 light switches; #1 Door knobs			

Figure 33. Use ORID to ponder the newscast.

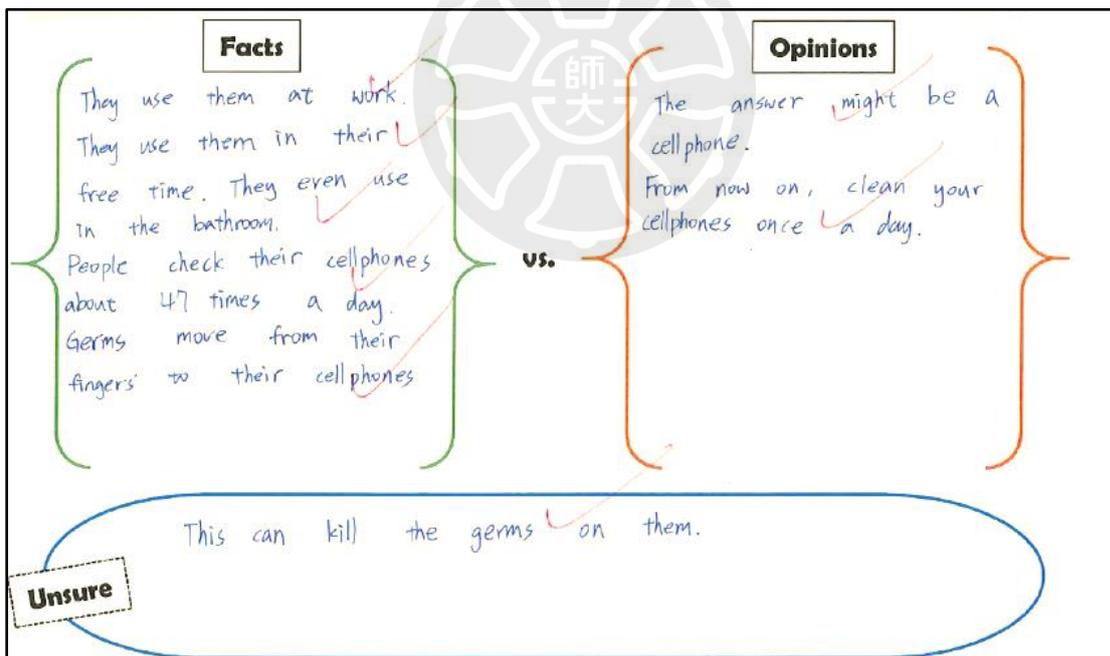


Figure 34. Example of students' distinction of facts and opinions in the newscast.

Evaluation and creativity. Wendy also expected her students to demonstrate abilities of evaluation and creativity. She required the students to ask questions based on two pictures extracted from the textbook and a given word cloud (Figure 35).

Wendy replied their questions according to the dialogue in textbook. The students then created a dialogue on their own based on the information they received in the questioning-and-answering process and recorded their own dialogues which were played in class. Wendy asked the students to compare and contrast the dialogues they created and the one in the textbook, and to critique on each other's dialogues.

(O20200617WO)



Figure 35. Picture prompts and a word cloud for dialogue creation.

At the end of the curriculum, the students evaluated one of the current cell phone sanitizers, justified their own stands, and provided possible improvements. This required the students' abilities of synthesis and creativity. One of the students claimed that a disinfectant was with odor and could not clean fingerprints. The solutions she proposed were to drop some perfume and to use a Terry cloth towel instead. (D20200629WD1) However, she did not provide a strong stand to support her evaluation, because other sanitizers were not fragrant, either. Moreover, the second

solution did not improve the product itself. Another student also evaluated a disinfectant. She provided three shortcomings of the product: relying on electricity, lacking portability, and having a bad smell. Her solutions were like a self-mumbling without a clear focus. (D20200629WD2) The other student chose to evaluate Terry cloth towels. She pointed out the reusability was reduced day by day. She suggested that people use a disinfectant to clean the towels at the same time. (D20200629WD3) Wendy was not satisfied with the students' work. She attributed it to little time to draft and evaluate. (I20200629WO)

Learner autonomy and self-regulation. Learner autonomy and self-regulation were also observed in class. Wendy gave the students full access to all of the teaching materials. She did not make them read beforehand or review after class, but she encouraged the students to do so. (O20200619WP) One of the students previewed the video clips before she went to class, so she had a better understanding of the new concepts introduced in class. (O20200624WP)

The students were also expected to regulate their learning and use appropriate learning strategies. One of the students was good at grasping the main idea, but she had difficulty taking care of details. Therefore, when she took notes, she used a list to help herself note down detailed information. (O20200608WO) Another student often got lost in the details and had difficulty seeing the whole picture. To regulate the learning problem, before she drew a mind map, she noted down details first to have a better organization. (O20200611WO) Another example was when the students created and recorded their own dialogues in a given time. Two of the students excelled at managing their time. They controlled their practicing time so that they did not miss the deadline. They made good use of their tablets to search information to help them pronounce accurately. However, the other student failed to control her own working time. By the time the other two students finished their task, she had not started yet. (O20200617WO)

Explicit grading policies for assessments. Wendy placed oral and writing assessments in the observed curriculum. Oral assessments accounted for 20 percent in a monthly report card. Wendy gave her students one stamp (equal to one point) when they correctly answered listening comprehension questions, used adverbs of frequency in sentences, or proposed questions. The students' final score for each monthly exam was the number of stamps plus 50.

Although the proportion [of the oral assessment] is small, the students still strive for it every time and I also take it very seriously. They can get more than 50 stamps every monthly exam. I give them a lot of chances to get stamps, because my purpose is to encourage them to speak up and engage in class. (I20200629WO)

Writing assessments accounted for 40 percent. The writing assessments in the observed curriculum were in the form of worksheets, such as creating a dialogue, using ORID questioning to analyze a newscast, and evaluating cell phone sanitizers. Wendy evaluated the students' worksheets from the following four aspects: completion, accuracy, creativity, and punctuality. She adjusted the proportion of each standard based on the content of worksheets, but punctuality always accounted for 10 points. For example, the students were not able to show much creativity in the worksheet for adverbs of frequency, so Wendy omitted "creativity." When the students handed in worksheets punctually, their score fell between a 92 to a 100, because Wendy said,

If they worked very hard, but because of the accuracy, they could only get an 80 or even a 70. That will demotivate them to work hard on worksheets. To me, this is not a test. This is a chance for both of us to check their learning process and outcomes. (I20200629WO)

Discussion of Wendy's Curriculum Implementation

"Interdisciplinary knowledge" is the core of Wendy's curriculum. The observed classes introduced differences of germs, how germs spread, and what the students could

do for their personal hygiene. “Interdiscipline” has been advocated by scholars (VanTassel-Baska, 1994c, 1996; Maker, 1982a) and promoted by the Ministry of Education in the new curriculum guidelines. Moreover, in Wendy’s curriculum, she integrated sophistication (related to every-day issue) and novelty (engaging in discussion and problem solving) according to Gallagher and Gallagher’s (1994) content differentiation principles.

Wendy planned her teaching activities and learning outcomes based on the content. She incorporated intellectually demanding techniques (Glew, 2007; Maker, 1982a, 1982b), such as top-down reading skills (Kou, 2007), mind mapping (Fisher, 1988; Maker, 1982a, 1982b; VanTassel-Baska, 1994c), and various strategies (Glew, 2007) in her curriculum. To emphasize not only content-based but also language-based learning, Wendy employed systematic grammar learning (Maker, 1982a; Tseng, 2016; VanTassel-Baska, 1996) through bottom-up generalization (Maker, 1982b).

Wendy’s teaching process involved various pacing (Maker, 1982a). Prior studies have reported the obstacles of differentiating teaching process or pacing (e.g. Glew, 2007; Guo, 2009; C.-T. Huang & C.-C. Lin, 2014; Kou, 2007; M.-Y. Lin, 2018). Due to the difficulty of implementing, Wendy did not always vary pacing in class, but her implementation still provided an insight into the possibility to achieve various pacing. When Wendy provided challenging listening materials, she distributed one tablet for each student. The students were given sufficient time to access the material and learned at their own pace. This task also gave the students a space to learn independently.

Wendy expected her students to connect to real-life situations as Maker (1982a) and VanTassel-Baska (1996) suggested, so she valued the authenticity of learning materials and tasks a lot. The students learned supplementary vocabulary words related to kitchenware and cleaning products, applied adverbs of frequency and adverbs of definite frequency to describe their own hobbies and habits, summarized newscasts in

real life, distinguished facts and opinions in news reports, and proposed ways to improve cell phone sanitizers. Figure 36 illustrates how the teaching content, teaching process, and learning outcomes relate to each other in Wendy's curriculum.



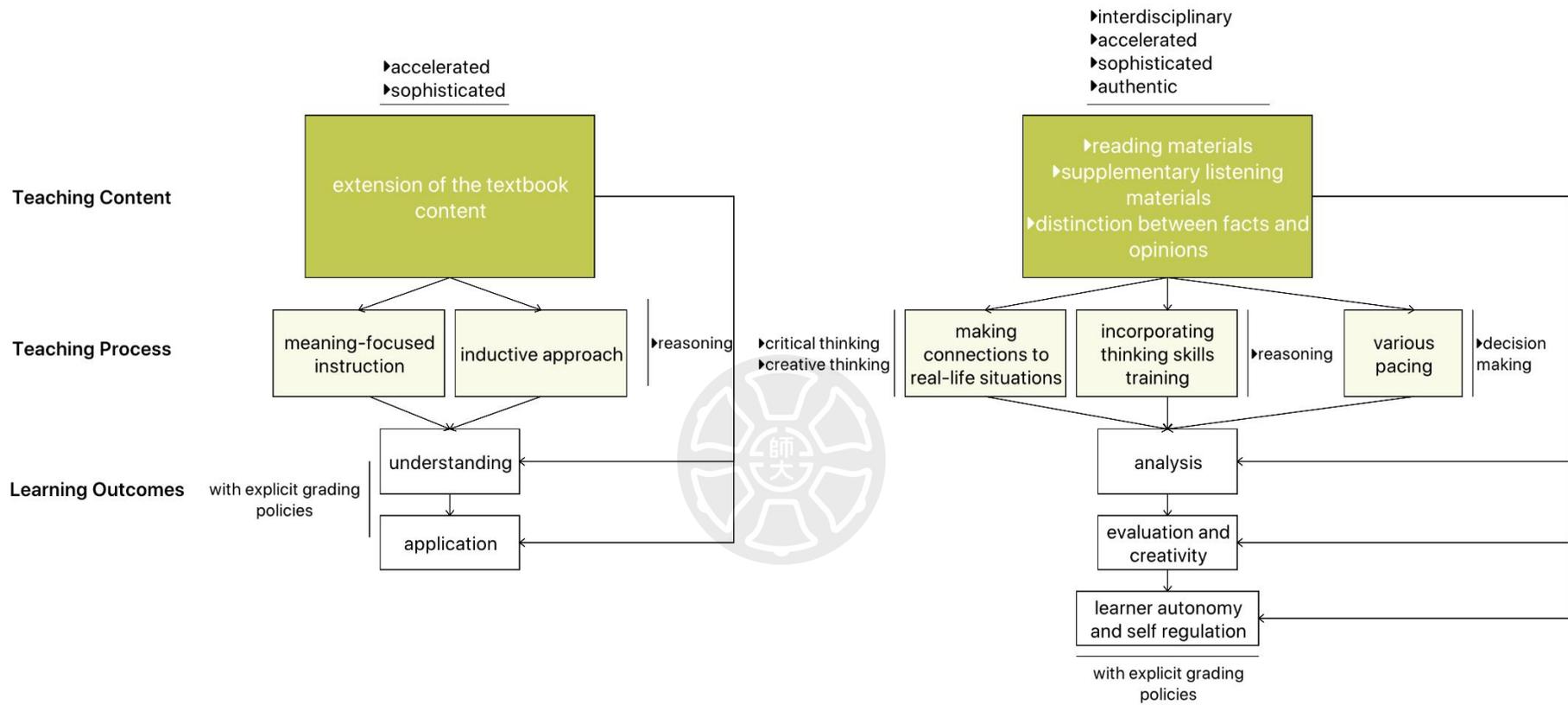


Figure 36. Analysis of Wendy's curriculum.

Winnie's Case

Winnie, a novice teacher in charge of teaching EGRC in River School, had been teaching for two years. Winnie was a gentle teacher with a good temper. She described herself as a teacher who was still exploring how to teach English gifted students. Winnie basically developed her curriculum based on the textbook content and then extended the given grammatical rules, word bank, and theme. She tended to focus on building students' solid knowledge foundation in language forms prior to uses and applications. Winnie spent the first two class periods explaining grammatical rules and how to say big numbers in English. Then the follow-up two class periods were spent on grammatical exercises. The fifth to the eighth class periods focused on vocabulary and the dialogue in the textbook. The ninth period was spent on the reading article in the textbook. The last two periods were extension activities about advertising, corresponding to the theme of the textbook unit. Figure 37 shows the course map of Winnie's curriculum. The following subsections present the learning environment, teaching content, teaching process, and learning outcomes in Winnie's curriculum.

Learning Environment

Three eighth graders participated in the observed curriculum. Winnie's class encountered a timetable conflict. Therefore, they could not use the same classroom every period of class. The one they used more often could accommodate ten students. The students put seven desks in a shape of arc facing the blackboard. At the back of the classroom were three desks, three chairs, bookshelves, and a bulletin board. The other classroom they used once in a week was much smaller. Although it could accommodate nine students, the desks were put close to each other and left no other space. The desks facing a whiteboard were put in three rows in the classroom. Both of the classrooms were equipped with a projector (Figure 38).



Figure 37. Winnie’s curriculum design.

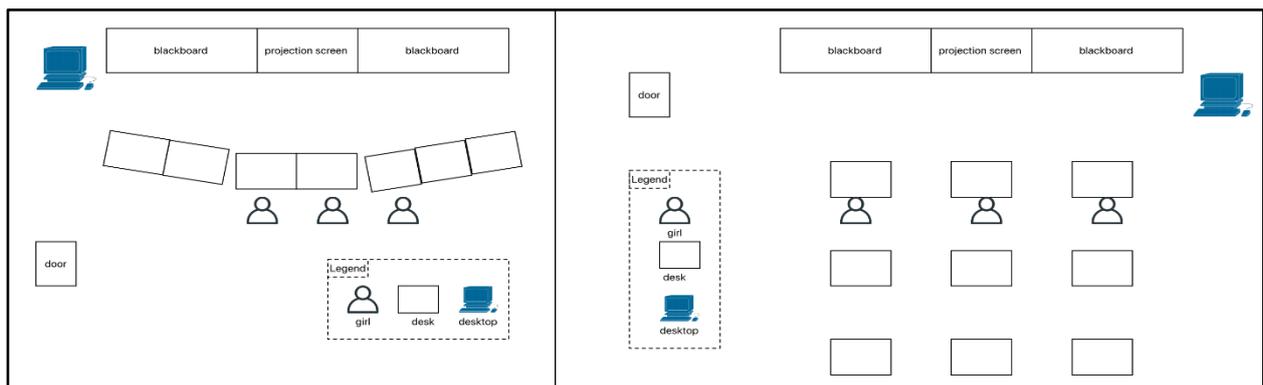


Figure 38. Two different classroom arrangements of Wendy.

The students were dynamic, lively, talkative, sociable, and witty. Laughter filled class time frequently. The students spiced the class up with a sense of humor when Winnie instructed for a long time. For example, once Winnie wrote down a phrase,

“beauty and grace,” on blackboard. One of the students frowned and said, “Winnie. You are too straightforward.” Winnie was bewildered and asked her why. The student then replied, “You wrote my name on the blackboard straight.” The students and Winnie burst out laughter and relieved boredom they felt in the long instruction.

The students established a close relationship with each other, willing to give each other a hand and to provide positive feedback. Winnie mentioned that she once tried to design a competitive task in class, but the students took care of those who got lower points. They yielded chances to others. Therefore, Winnie adjusted the tasks into an open discussion and made sure that every student got a chance to share.

The students said that they pursue harmony and peace, so they do not compete with each other in games. They “distribute” chances to each other fairly. So I change those competitive tasks into discussions or questions asking and make sure that they have a chance. The atmosphere in our class is warm, so the students feel supportive. (I20200629EE)

The students did not raise questions voluntarily, but they answered Winnie’s questions actively. They became highly attentive when Winnie introduced innovative ideas or knowledge they did not know. The students liked to share their experiences and feelings in class after they finished the assigned task and could not stop in time. This might be one of the possible reasons why Winnie could not finish her lesson on schedule.

Curriculum Implementation

Teaching Content

Textbook content and its extension. Most of Winnie’s teaching content came from the English textbook, including sentence patterns, vocabulary words, a dialogue, and one reading article. Besides the content in the English textbook, Winnie referred to the teacher’s manual provided by the textbook publisher to make handouts in which she explicitly listed grammatical rules of using spend, pay, take, and cost, and how to say

big numbers from 3-digit number to 13-digit number. (D20200529ED2) Note that the grammatical rules were written in Chinese. She gapped the rules for the students to fill in during her instruction. Winnie provided multiple choice questions and a cloze test for her students to practice. (D20200529EM1)

The dialogue and the reading article were all related to fake or exaggerated ads. The dialogue told that a man gave a boy a flyer and claimed that if the boy joined any of his programs, he could improve his English in three days. A girl shared her own experience to stop the boy from being cheated. The reading involved three ads exaggerating the effects of the products. Winnie thoroughly analyzed the sentence structures and supplemented related vocabulary words. (O20200605EC; O20200608EC; O20200611EC)

Vocabulary words in this unit were related to “time, money, and furniture,” such as cheap, price, sale, thousand, minute, second, couch, refrigerator, and washing machine. Winnie then supplemented additional furniture vocabulary words with picture aids. (O20200604EC; O20200605EC)

Advanced reading materials. After finishing the content in the textbook, Winnie demonstrated several strange products and fake print ads. For example, a box labeled strawberries were actually carrying grapes. A rinsing product claimed it could prevent colds and sore throats at the same time. (D20200612EM2) Then she provided an outside reading introducing six strategies for the students to spot fake ads to avoid getting scammed. (D20200612EM1) Winnie also showed creative print ads and discussed the innovative elements in them. Some of them were issue advocacy ads related to equity, environmental pollution, dangerous driving, and pandemic precaution. (D20200612EM2) At the end of the course, Winnie reported a trending issue in Taiwan. Aaron Nieh, a graphic designer, and Ray Du, a youtuber in Taiwan, ran an advertisement, “Taiwan can help” on New York Times. Winnie presented three different

versions of letters and the full-page newspaper advertisement. To further discuss if the advertisement attracted readers' attention, Winnie adapted an online article, *The 20 Most Powerful Words in Advertising* (<https://www.crazyegg.com/blog/power-words-online-advertising/>) for the students to read. (D20200612EM1)

Advanced listening materials. Winnie selected two talk show clips, *Billionaire Bill Gates Guesses Grocery Store Prices* (<https://www.youtube.com/watch?v=adhigXixRA>) and *Jimmy Kimmel Holds a Live Auction of His Andy Art* (<https://www.youtube.com/watch?v=YV4Ef5Bo-fA>) as advanced listening materials in class. Both of them were used as examples for learning big numbers. (D20200601EM1)

Winnie collected teaching materials every day. When she needed materials, she browsed her material list. (I20200529EC) She presented her teaching materials in English except grammar handouts.

Teaching Process

Explicit grammar teaching and drilling. Winnie adopted didactic and explicit teaching technique in teaching grammatical rules, and the dialogue and reading article in the textbook. She believed that the students needed clear presentation on the rules, so they could use the language form more accurately. (I20200529EP) She mentioned the necessity of providing drills, especially for practicing grammatical rules. (I20200529EC; O20200529EC; O20200601EC) She explained in several interviews,

I think the students need a complete and detailed introduction of grammatical rules, so I use the teacher's manual offered by the publisher to make grammar handouts and provide students with language drills. (I20200529EP)

Drilling is still necessary, because if I do not do so, they will not memorize the rules in mind. (I20200601EP)

I collect the handouts and correct them, so that they know what rules they are not familiar with. The exercises are also a kind of drilling. (I20200602EP)

For the grammatical rules, the dialogue, and the reading article, I hope they can focus on the language form in depth. I instruct first and they practice over and over again. The drilling can deepen their impression [on the target grammatical rules]. (I20200629EP)

Therefore, Winnie explained grammar in detail even when she taught the dialogue and the reading article in the textbook. (O20200605EP; O20200611EP) Winnie explicitly set out the grammatical rules in Chinese and noted down main grammatical points on blackboard. For example, Winnie used a table to explain the rules of using *cost*, *take*, *spend*, and *pay*, then she asked the students to translate Chinese sentences into English ones. When she taught them how to say 3-digit number to 13-digit number, she showed several big numbers and taught the students a tip, that is, to separate big numbers from right to left in units of three and marked a comma for each unit. She told the students they should start the big number with “thousand” when they met the first comma. When they met the second one, they should begin with “million.” When they met the third comma, the largest digit would be “billion.” When they counted to the fourth comma, they would start with “trillion.” After explicit explanations of the rules, Winnie had the students practice several times. (O2020601EP)

Implicit error correction. Although Winnie used explicit instruction, the error correction ways observed in class were implicit. The students were not forced to speak in English, but Winnie still expected them to use English. Therefore, sometimes she encouraged them to express their opinions in English. Most of the time, the students gave it a try. When they produced ungrammatical but understandable sentences, Winnie did not correct them explicitly. She just recast, because she believed by doing so, she could make the students more willing to express in English. (I20200605WO)

Open-ended questioning and inquiring. Winnie asked open-ended questions and encouraged the students to express their opinions. For example, before Winnie started

to talk about the dialogue in textbook, she led a small talk for students to share their experiences of seeing fake advertisements online. The students freely shared their opinions in either English or Chinese. (O20200612EP) When Winnie presented the print ads, she asked the students what they observed in the ad, how they felt when they read the ad, and what attracted them the most in the ad. She even invited the students to create an English slogan for the ad and translated the slogans into Chinese, which triggered a heated discussion. She boosted the students' critical and creative thinking skills through slogan creation and ads translation. (O20200615EP) In the reflective discussion, Winnie asked the students to comment on the print ads and point out the problems they detected in the ads. (O20200612EP) Also, she asked the students to choose a better version of the letters posted on New York Times and provide reasons. (O20200615EP). In the open-ended questioning and answering, Winnie did not presume any answers, and she welcomed all kinds of ideas. (O20200612EP)

Learning Outcomes

Memory, understanding, and application of teaching content. Winnie mainly planned the students' learning outcomes at the first three levels of Bloom's taxonomy. For example, after teaching the rules regarding the use of *cost*, *spend*, *take*, and *pay*, Wendy checked students' understanding and memory of the rules by asking them questions, such as "Is 'spend' used for time or money?" The students were also required to select the correct answer to multiple-choice questions. Students' application of the learned rules was then achieved by translating Chinese sentences into English with *cost*, *spend*, *take*, and *pay*. (O20200529EO) In another activity, with Winnie's step-by-step guidance, the students searched information online and wrote complete sentences in English to elaborate the time and cost of going to the observation deck of Taipei 101 to enjoy a cup of coffee. (O20200601EO)

Winnie also gave her students many opportunities to show their memory and

understanding of the supplementary materials. For example, to check if the students could spell the supplementary vocabulary words legibly, Winnie projected a picture with various furniture on the blackboard. The students were asked to write down the English name of each piece of furniture right next to its picture. Each student was required to write down at least three vocabulary words, but when they were not sure of the answers, they could discuss with each other. (O20200604EO) Similarly, after the students watched the talk show clips mentioned above, which did not contain captions, Winnie asked comprehension check questions, such as “What was the game Bill Gates playing about?” or “What does auction mean in this video clip?” (O20200602EO) After the students took turns summarizing the content of the dialogue and the reading article in the textbook (O20200605EO; O20200611EO), Winnie asked them questions to see if the students remembered the details, such as “What were the people doing?” “How much did the course cost?” and “What did the girl do?” (O20200605EO)

Personal interpretations and creativity. In addition to memory, understanding, and application, Winnie offered her students some, though not many, chances to demonstrate a higher level of learning outcomes. For example, the students were led to interpret the messages behind the print ads, such as one that showed an image of a lollipop with ants in lines, none of which crawled on the lollipop. The students guessed that the ants did not like the lollipop, thus inferring that the lollipop was sugar-free. (O20200612EO)

After interpreting the messages behind the print ads, the students had to come up with a slogan for the ads. By doing so, Wendy cultivated students’ creativity. For example, another print ad showed an array of sushi wrapped in plastic trash. The students soon grasped the concept the ad publisher attempted to convey. All of them agreed that it advocated using less plastic and highlighted the danger of using plastic. Therefore, the students designed the following slogans: “we are eating plastic now,”

“you are what you eat,” and “the garbage will be back to you.” (O20200615EO)

Another example for students to demonstrate creativity is the activity in which the students read four letters and a full-page advertisement on New York Times, as mentioned in the previous subsections. All of the students considered that the first version of the letters was much more powerful and demonstrated a contagious outrage. (D20200629EA1) Then the students designed their own ads to voice for Taiwan by showing Taiwan’s “soft power” on dealing with the pandemic. Two of the students used the image of “embrace” to show Taiwan’s protection and warm help (Figures 39). “Surgical masks” were also elements used by two of the students (Figures 40 and 41). One of the students mentioned that many masks were made in Taiwan and sent to other parts of the world. One of the students involved a concept of giving without asking anything in return. (D20200629EA2) The students used images and symbols together with words in the ads, which required them to bridge embodiment to abstraction.

No explicit rubrics for assessment. Instead of grading the students’ worksheets, Winnie left comments after she collected their worksheets. She regarded the worksheets as a medium for her to check the students’ comprehension and creativity, thus grading was not needed (I20200629EO).

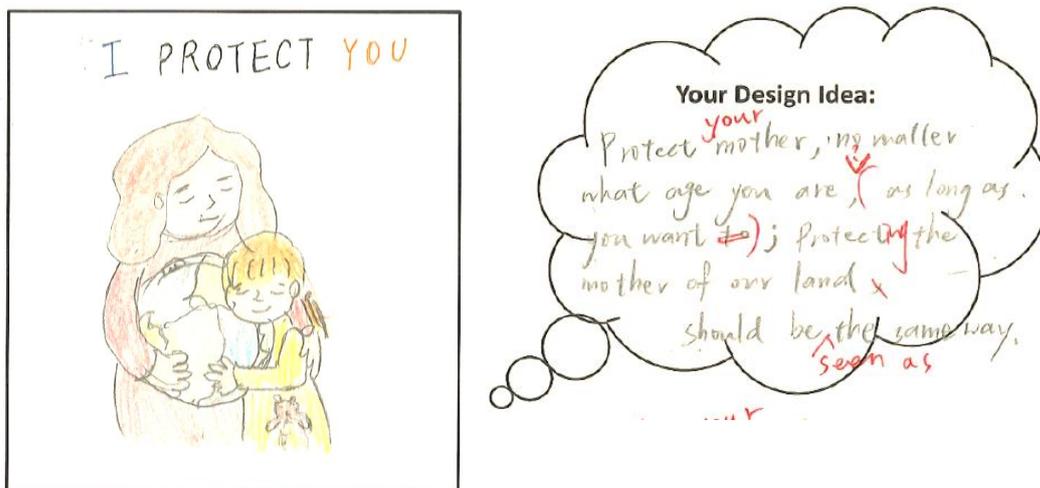


Figure 39. Taiwan’s protection and help through surgical masks.

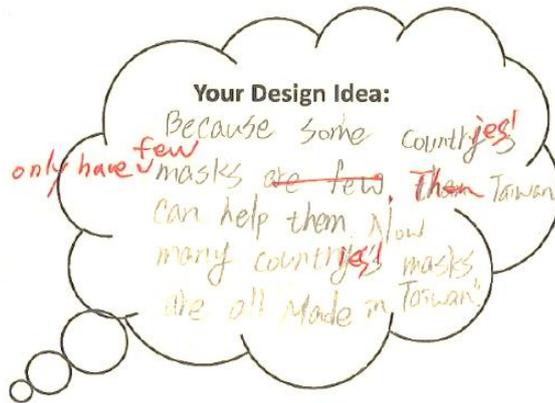
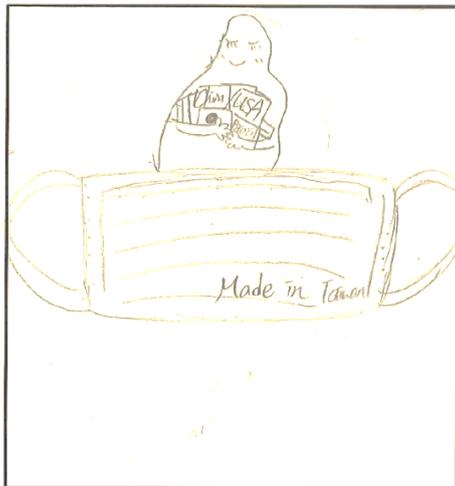


Figure 40. Taiwan gives without asking anything in return.

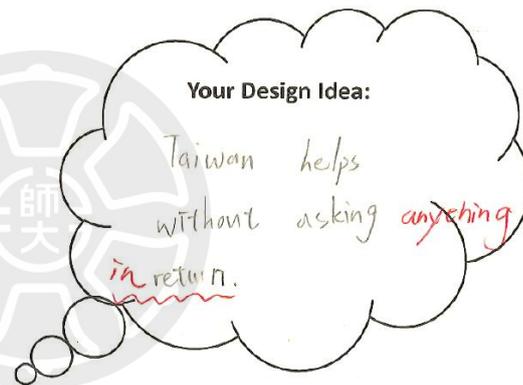
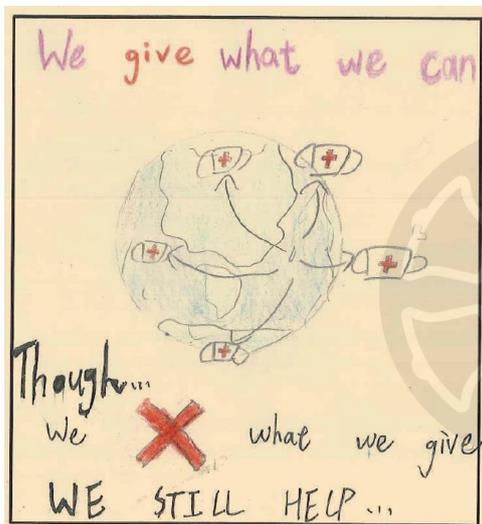


Figure 41. Masks are made in Taiwan.

Discussion of Winnie's Curriculum Implementation

River school did not separate time for alternative curricula, so Winnie had to mingle regular English classes with alternative curricula. Among the 11 periods of class, the content in the textbook and linguistic knowledge occupied nine periods. It is apparent from Figure 42 that the students' learning outcomes were heavily at the primary levels of Bloom's taxonomy: remembering, understanding, and applying. However, as mentioned in the literature review, higher level thinking skills and learning outcomes

should be incorporated into the design of gifted curricula (Gallagher & Gallagher, 1994; Maker, 1982a, 1982b; Tseng, 2008, 2016; VanTassel-Baska, 1994c, 1996) in correspondence with gifted students' outstanding language abilities and extraordinary cognitive performances (Y.-F. Chen, 1988; Dean 2002; Lewis, 1995; Porath, 1996; Tsai, 1989; VanTassel-Baska, 1996). Winnie's curriculum seems to have put too much emphasis on the fundamental skills and learning outcomes. This result may be due to Winnie's teaching belief. As defined by Richards (2017), a curriculum not only forms the selection and choices of materials, teaching methods, and procedures but reflects a teacher's belief and teaching philosophy. Winnie mentioned several times in the post-observation interviews that she believed her role was to lay a solid groundwork for language learning, because this could help her students perform better in achievement tests. These findings may not be interpreted as Winnie's curriculum is not suitable for the English gifted students, but they raise a similar question as Liu and Lien (2019)—how to decide what is “important” in class.

On the other hand, Winnie's curriculum is more content-oriented. All of the teaching techniques and teaching activities were developed based on acquiring the knowledge provided by the textbook and teacher. Besides, the learning outcomes were directly related to the teaching content. Figure 42 presents how the teaching content, teaching process, and learning outcomes connect to each other.

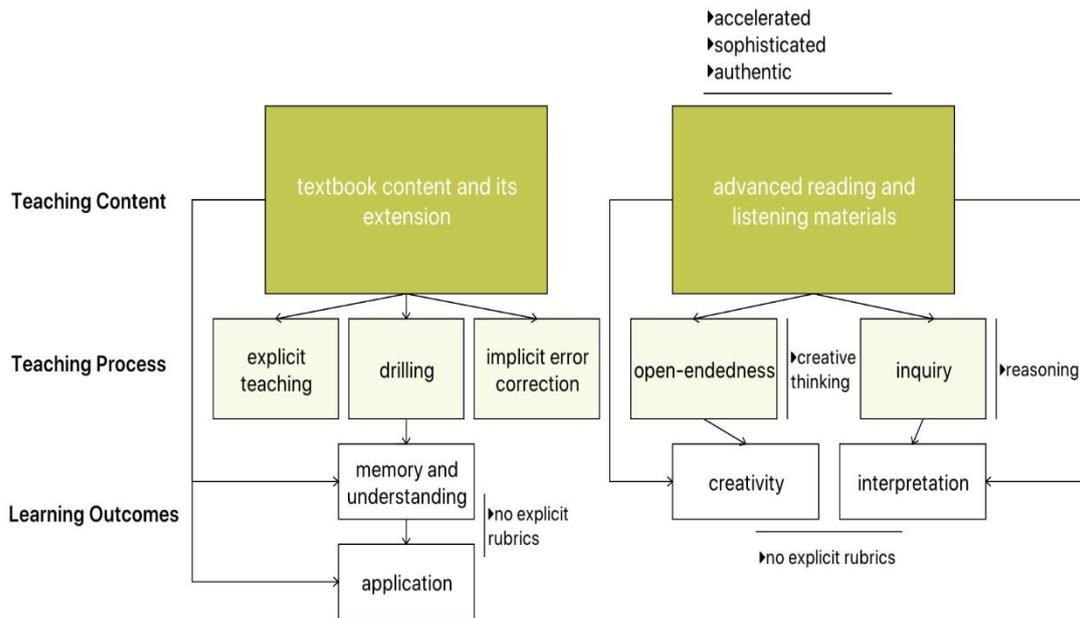


Figure 42. Analysis of Winnie’s curriculum.



Summary of the Alternative Curricular Implementation

The first research question concerns the principles or frameworks teachers of English gifted resource classes follow when implementing English gifted alternative curricula. The results of this study indicate that the six participants developed quite different alternative curricula. This finding of diversity in curriculum development and implementation is similar to those reported in Liang *et al.* (2002) and W-T. Wu (2006) more than one decade ago. Nevertheless, similarities could still be found in the participants' curriculum implementation in the current study. Some major findings regarding the participants' curriculum implementation are summarized below.

Regarding the learning environment, although not all of the participants created a learner-centered learning environment, each of the participant created an accepting environment for the students to learn and to speak up. The students were able to move and to group flexibly in Shiitake's, Piske's, and Wendy's classrooms; they were thus given more opportunities for independence. Shiitake and Piske further gave the students multiple accesses to information and knowledge, as Maker (1982a) highly recommended. In the other four observed curricula, teachers were still the "experts" and main "knowledge giver."

As regards the teaching content, all of the participants connected the teaching content to students' real-life experiences or social issues. They also selected materials from news reports and video clips to push the students to learn authentic language and advanced language skills, as Van-Tassel Baska (1996) promoted. Five of the participants used advanced reading and writing materials, three of them adopted advanced listening materials, such as excerpts from films, newscast, and talk shows, and only one of them integrated speaking training focusing on fluency rather than on accuracy. Three of the participants provided supplementary lexical items; moreover, two of these three participants taught grammatical rules with an inductive or an explicit

approach. The other three participants spent little time on teaching vocabulary words and grammatical rules. Two of them incorporated interdisciplinary knowledge (social studies and science). It is noteworthy that most of the participants did not adapt or revise the advanced reading materials. The selection of the teaching materials is correspondent to the needs and traits of the verbally gifted, who (1) are fluent readers (Dean, 2002); (2) can write up stories and make up characters with vivid accounts (Bailey, 1996; Lewis, 1995; Tsai, 1989); (3) are proficient in dealing with important social issues (VanTassel-Baska, 1996) and voicing for themselves (Dean, 2002); (4) think creatively (VanTassel-Baska, 1996); and (5) are good at making connections across related fields and new and old experiences (Chen, 1988; VanTassel-Baska, 1996).

To teach the selected materials, the participants more or less designed activities for developing the students' thinking skills, such as reasoning, critical and creative thinking skills, and problem-solving skills, which are stressed by researchers of gifted education (e.g., Chuang, 2013; Gallagher & Gallagher, 1994; Glew, 2007; Maker, 1982a, 1982b; Tseng, 2008; VanTassel-Baska, 1994). However, problem solving skills were only involved in Piske's self-directed learning curriculum in the current study. Collaborative skills were also emphasized by educators of the gifted (Glew, 2007; Maker, 1982a; VanTassel-Baska, 1994c, 1996). Collaboration was highly recommended by two of the participants. The rest of the participants, however, suggested that collaboration should be integrated based on the students' learning needs, learning styles, and personalities.

The data revealed several principles applied in the participants' design of teaching activities. The first one was various learning pacing and differentiated instruction in response to different students' needs and traits (Glew, 2007; Maker, 1982a). Wendy achieved various learning pace through the assistance of technology, and Lexa arranged individual meetings. Shiitake and Piske adjusted their ways of inquiries and tasks based on the students' personalities and learning styles. Second, every participant used open-

ended inquires and discussions to facilitate students' thinking. Third, one of the participants gave her students flexibility to make choices on how to learn and what to produce. Another interesting finding was that two of the participants mainly used English, while the others used Chinese as the main instructional language in class.

The planned learning outcomes were diverse due to the different curriculum implementations. Overall, the learning outcomes crossed from the remembering level to the evaluation or creation levels on Bloom's cognitive taxonomy. Half of the participants required their students to memorize vocabulary words and grammatical rules while all of the participants asked questions to check their students' understanding. Five of the participants expected their students to apply rules into new contexts. Note that most of the application was combined with creativity. The students transferred what they learned to create something, such as a piece of cinquain, an e-book, and a monologue. Three of the participants cultivated students' analytical skills by having them analyze the given text with mind maps. In addition to the cognitive learning outcomes, the affective learning outcomes have been stressed by scholars (Maker, 1982b; VanTassel-Baska 1994b), but affective learning outcomes only took up a small proportion or were absent in the participants' alternative curricula. As for metacognition, most of the participants mentioned that they expected their students to demonstrate learner autonomy and self-regulation, as emphasized in previous literature (Glew, 2007; Maker, 1982a, 1982b; Tseng, 2008; VanTassel-Baska 1994c). Another interesting finding was that only one participant designed a grading policy to assess the students' learning outcomes, while the others reported that as long as the students finished the requirements in class, they could get a good grade.

Together, for the alternative curriculum development, Dove, Wendy, and Winnie were more content-oriented. They took care of subject knowledge and made it as the core of the curriculum. In terms of Shiitake's and Piske's design, they were more

process-oriented, because they encouraged the students to employ their own learning strategies, focused more on how they processed what they learned, and created a dynamic teaching and learning process. Differently, Lexa's curriculum was more product-oriented. The learning outcomes played a dominant role in the curriculum implementation, which reflected a backward design. Note that no salient differences in curriculum implementation were found between novice and experienced teachers. Table 6 shows the comparison of the six participants.



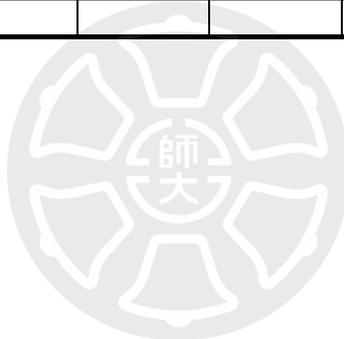
Table 6

A Comparison of the Teaching Context and the Curriculum Implementation of the Six Participants

Component \ Participant		Dove	Shiitake	Lexa	Piske	Wendy	Winnie
		Teaching Context	school	Sun School		Park School	
category of alternative curricula	teachers can design on their own		in the special needs domain (school-level regulation)		merged into regular English class		
using separated teaching time	v		v	v	v		
the students' grade	7 th		8 th	7 th	7 th and 8 th	7 th	8 th
the number of the students	18		3	4	9	3	3
curriculum development	content-oriented		process-oriented	product-oriented	process-oriented	content-oriented	content-oriented
Learning Environment	was:						
	accepting	v	v	v	v	v	v
	learner-centered		v		v		
	of high mobility		v		v	v	
	of independence		v	v	v	v	
Content	contained:						
	reading	v	v	v		v	v
	listening		v	v		v	v
	writing		v	v		v	v
	speaking					v	
	vocabulary		v			v	v
	grammar					v	v
	was:						
	interdisciplinary	v				v	
	accelerated		v	v		v	v
	sophisticated	v	v	v	v	v	v
novel		v		v			
Process	involved:						
	inquiry	v	v	v	v	v	v
	open-endedness	v	v	v	v	v	v
	various pacing			v		v	
	differentiation		v	v			
	collaboration	v			v		
	hands-on experience	v			v		
	practicing games		v				
	thinking strategies			v			
instructional language	Chinese	Chinese	English	Chinese	English	Chinese	

(continued)

Component \ Participant		Dove	Shiitake	Lexa	Piske	Wendy	Winnie
		Process	took care of the students' skills of:				
reasoning	v		v	v	v	v	v
critical thinking	v		v	v			
problem solving					v		
creative thinking	v		v	v	v	v	v
decision making				v	v		
Learning Outcome	involved:						
	remembering		v				v
	understanding	v	v	v	v	v	v
	application	v	v	v	v	v	v
	analysis			v		v	
	evaluation				v	v	
	creation	v	v	v	v	v	v
	interpretation		v				v
	synthesis		v				
	autonomy			v	v	v	
	self-regulation		v	v	v	v	
	metacognition			v	v		
	affective skills		v	v	v		
grading policy					v		



Obstacles and Solutions

The second question in this research was to explore the obstacles the participants met in implementing alternative curricula and to figure out possible solutions and supports they needed. When the six participants implemented their curricula, three major obstacles appeared: time limitation, difficulty of offering multiple curricula, and difficulty in incorporating language components. In this section, the obstacles are analyzed and possible solutions are generated.

Time Limitation

Time limitation was the most frequently mentioned obstacle among these six participants. Possible reasons to cause time limitation in teaching were related to school administration and policies.

Limitation caused by administrative arrangement. To conform to the policy of Taoyuan City that requires allocating at least 50 periods of classes in a week to each gifted resource class, Dove and Shiitake's school (Sun School) arranged alternative curricula in the morning recess and periods of extracurricular activities for seventh graders, while eighth graders had one period of class to implement extra curricula every week. This created an awkward situation. According to Sun School's regulation, the students were required to arrive at school no later than 7:50. However, the first class period of Dove's alternative curriculum began from 7:45. Though some students came later than 7:45, they claimed that they were not "officially" late. On the other hand, the students had to finish their cleaning jobs, or they could not leave their homeroom. In consequence, the class never began on time. The first 10 minutes were not directly related to the curriculum. Dove usually had a casual small talk with the students and waited for all of the students to show up. Due to the administrative arrangement, the participants were forced to cut down the teaching and learning time, which is consistent with L.-Y. Chen's (2007) survey. Shiitake, on the other hand, only had one period of

class for the alternative curriculum every week. As a result, when she required the students to do a big project (e.g. creating an e-book), the whole procedure lasted several weeks, making the learning process fragmented. Every week, the students consumed much time on reviewing their working progress, so that they could move forward.

Limitation caused by school curriculum policies. Although the teachers in Park School did not have to arrange their class periods in the morning recess or other spare time, the regulation in Park School clearly specified that the alternative curricula should fall in the category of courses in the special-needs domain (affect, leadership, creativity, and independent research). Furthermore, the teachers were required to offer the students these four types of alternative curricula in their three-year learning in the gifted resource class. Lexa and Piske both designed their alternative curricula in the domain of creativity. (I20200629LC; I20200629PC) Because of the school's curriculum policy, they only had one period of class for the current alternative curricula per week. In the whole semester, their teaching hours were deducted by monthly exams, school activities, and holidays. Hence, Piske's and Lexa's curricula dropped from 20 periods to 12 and 13 periods respectively. Lexa had planned to fully integrate performance and affective skills in the curriculum to help the students develop acting skills, to build their own world view, to choose a point of view, and to be aware of how the characters feel in order to get into the characters (I20200320LC). These expectations matched the third level of Krathwohl's affective taxonomy, valuing (Glew, 2007; Maker, 1982b; Silverman, 1994) and the affective skills of understanding others (VanTassel-Baska, 1994b). However, these were not completely realized in Lexa's curriculum, because she did not have sufficient time. This might explain why some of the students wrote shallow screenplays, felt awkward to act on the stage, and could not demonstrate the characters' emotions and status. (O20200619LO)

Piske also confronted time restriction in her curriculum. With an eye to limited

teaching time, the activities for self-directed learning—level 2 were conducted somewhat hastily, and the planned activities for self-directed learning—level 3 were even removed. The students did not have a chance to carry out a self-directed learning plan based on their own interests and arrangement. Inadequate periods of classes were part of the reasons for time restriction. The main reason was Piske’s time management. Piske adjusted her teaching pace based on the students’ needs. For example, noticing that the students were highly motivated to learn the rules of board games (self-directed learning-level 1) but were not able to figure them out in the given time, Piske extended the time. She thought it was important to complete the experiencing process. If she interrupted it in order to quickly move to the next stage of self-directed learning, the expected “gradual” learning process could not be fully and significantly experienced. (I20200629PT)

In River School, alternative curricula were not separated apart from regular curricula, so Wendy and Winnie had to integrate the elements of alternative curricula into regular English classes. They developed their curricula differently. Wendy restructured the content in the textbook, while Winnie followed the structure of the textbook content and created extension activities. According to Wendy, she had to finish teaching two units in each monthly exam. She used to spend much time on the first unit integrating many extensive and advanced materials and challenging activities, which restrained the time of teaching the second unit. This time, she hoped to make her lessons compacted to yield more time for the second unit, so she felt great time pressure. Unlike Wendy, Winnie got a different reason for time limitation. As mentioned in the previous section, Winnie consumed the bulk of time on teaching fundamental linguistic knowledge. The time for her to conduct lesson plans related to alternative curricula was thus reduced.

Difficulty of Offering Multiple Alternative Curricula

In addition to time limitation, difficulty of offering multiple alternative curricula was reported by some of the participants. The reasons lie in the participating teachers' limited field-specific expertise and a low possibility of co-teaching.

The participating teachers' limited field-specific expertise. Dove, Lexa, and Piske all pointed out that they hoped to provide various alternative curricula for the gifted. However, they were not adept at multiple subject fields and issues. Therefore, the teachers sought out for help. Dove joined an online teachers' community to absorb more interdisciplinary knowledge and include it in her alternative curricula. For example, she developed the observed curriculum that connected English to international education based on what she learned from the online teachers' community. Lexa's expectation on her alternative curricula was similar to that of Dove. She hoped to offer a wider variety of resources in alternative curricula to broaden her students' learning horizons and help them explore their interests. Lexa's expertise was in English drama and performance. She found that the places related to humanities and language arts were limited if she wanted to take the students on a field trip in alternative curricula, and she did not know who she could invite to class to deliver a speech in other subject fields. She expected the government could launch an accessible platform showing integrated resources for gifted education. (I20200629LC) Piske also stressed the needs of making alternative curriculum interdisciplinary as Dove and Lexa did. She was considering to develop an alternative curriculum of creating English picture books next semester, but she was not good at arts, so she was not capable of developing the curriculum by herself. Similar problems have been found in earlier works (C.-T. Huang & C.-C. Lin, 2014; K.-Y. Huang & C.-X. Huang, 2019). Teachers serving in gifted classes have to provide various courses, but they might not be proficient in all kinds of areas and issues.

Low possibility of co-teaching. The participants reported that co-teaching was

one of the probable solutions to the obstacle of providing various alternative curricula. However, this solution created another obstacle. Take Piske as an example. She wanted to get professional support and reliable resources for her teaching content when she developed interdisciplinary curricula. She tried to get familiar with the teachers from other curriculum fields. However, Piske was not able to reach many teachers from different curriculum fields in Park School, so the content of her alternative curricula was still limited when the current study was conducted. Piske advocated creating a supportive system in school for teachers to prepare alternative curricula together.

I strongly hope that we EGRC teachers can form a team to develop alternative curricula together. If I want to introduce issues from other curriculum fields, I can directly know which teacher in that curriculum field can give me a hand. Now when I am teaching something from other curriculum fields, I often feel anxious and bewildered. Now what I am doing is to propose a course map first, and then ask some of the teachers I am familiar with whether they are interested in the topic.
(I20200629PP)

Dove did try to collaborate with the foreign teacher in her school to provide more natural language inputs. However, the experience was not rewarding.

He (the foreign teacher) is a certified teacher, so I do not want to trouble him too much. Actually, before the class, I asked him what he would do if the students finished the tasks earlier. He just shrugged. That's why I was struggling if I should ask him [to teach]. I think the students really need a native speaker, so I still invited him, but the result was a little disappointing. This is a dilemma to me.
(I20200313DP)

Shiitake also got negative experiences in co-teaching. In her school, she was in charge of some curricula with another teacher who also taught eighth graders. However, their personalities, teaching styles, and what they concerned in teaching were worlds

apart. It was hard for them to reach a consensus and work together.

Difficulty in Incorporating English Language Components

Five of the participants highlighted that in alternative curricula, the English language components were not fully emphasized. Although some of them tried to blend in more English, they found it hard. For Lexa, she was struggling whether to focus on “producing and performing drama” or “producing and performing drama in English.” At last, she still required her students to use English to write and perform their monologues. Shiitake did not limit or address her teaching materials in English, because she thought she could involve more perspectives on the issues without the language limit. She also noted that she did not know how to effectively combine learning of English lexical items with the target issues. “If someone can tell me how to do so, I would like to try,” Shiitake said in one of the interviews. (I20200522SP) Piske also wanted to know what might be possible to design alternative curricula for students in EGRC. She tried to find workshops provided by the Ministry of Education. She could find many workshops related to TESOL and the gifted. However, hardly could she find a workshop specifically for “the English gifted.” Workshops and other on-the-job trainings directly related to EGRC and alternative curricula development for EGRC may help solve the obstacles.

Although most of the participants reported they had difficulty incorporating English components in alternative curricula, one of the participants, Wendy, still skillfully integrated English components, such as vocabulary recognition, sentence pattern exercise, speaking fluency, picture book comprehension, and newscast listening. Note that she incorporated in English components, but the focus was on meaning rather than form.

Summary of Obstacles and Solutions

Together, time limitation, difficulty of offering multiple alternative curricula, and

difficulty in incorporating English into the curriculum were major obstacles the participants encountered when developing and implementing alternative curricula. Previous studies have reported the problem of time limitation (L.-Y. Chen, 2006; Liu & Lien, 2019; Yang, 2007) and the difficulty of offering multiple alternative curricula (L.-Y. Huang, 2012; K.-Y. Huang & C.-X. Huang, 2019) for English gifted students. In these studies, a tight schedule was the main cause of time limitation; the heavy workload was the main reason leading to difficulty of offering various alternative curricula. However, in the present study, the reasons for the two problems were related to school administration and policies, the participants' field-specific expertise, low possibility of co-teaching, and insufficient guidelines for developing EGRC alternative curricula. On the other hand, difficulty in incorporating English into the curriculum is a rather new issue worth further exploring in developing alternative curricula for EGRC. Most of the participants did not know how to naturally integrate English language components (such as vocabulary, grammar, and other language skills) into the alternative curricula or how to determine a proper proportion of English language components in the curricula. Possible solutions to these problems could be done from the school-level administrative system via forming a strongly supportive organization culture. From the nation-level administrative system, workshops and on-the-job trainings specifically related to EGRC and alternative curricula should be offered to help in-service teachers learn how to develop and implement alternative curricula.

CHAPTER FIVE

CONCLUSION

The purpose of the present study was to examine the English alternative curricula implemented in Taoyuan City, which had the largest number of EGRC and students when the study was conducted in 2020. The first aim of the current research sought to investigate the implementation of alternative curricula. The second research question set out with the aim of analyzing the obstacles the teachers met and what support they needed.

Principles for Alternative Curriculum Development

This study analyzed six different alternative curriculum implementations under three school contexts. Congruent with the results found by Liang *et al.* (2002), Sun School, Park School, and River School arranged alternative curricula in their own ways. The observed curricula in Sun School were in the domains of extracurricular activities and other courses; those at Park school were put in the domain of special needs; those at River School were integrated into regular English classes. Although the number of participants was limited, with persistent observations and interviews, this study found several similar principles followed by the participants, which may provide insights into the implementation of alternative curriculum in EGRC.

Creating a Comfortable, Relaxing, and of High Mobility-Learning Environments

With respect to the learning environment, all of the EGRC took place in classrooms equipped with tablets. Sun School and River School also offered an interactive whiteboard in the classroom. All except one of the participants made efforts to create a comfortable and relaxing environment. The comfortable and relaxing learning environment gave the students more flexibility to learn and to produce learning outcomes. The key component, “high mobility” (Maker, 1982a), was just practiced in two of the curricula in the regard of freedom to move, flexibility to group, and access

to various material sources.

Providing Raw, Content-Based, and Meaning-Focused Learning Materials

The participants mainly used reading materials and seldom used speaking materials in the observed alternative curricula. “Raw” teaching materials (materials without modification and editing) were prepared for the students. English lexical items were taught but were not highly stressed. The participants cared more about whether the teaching content was related to everyday issues, which aligns with the principle of content differentiation (differentiating content for regular and gifted classes) suggested in previous research (Gallagher & Gallagher, 1994; Maker, 1982a; Tseng, 2016; VanTassel-Baska, 1994c, 1996). It is worth noting that five of the participants claimed that alternative curricula were content-based rather than language-based. They assumed that regular English classes already focused on teaching the language; therefore, they suggested “the issues and themes” should be more essential than “the language” in alternative curricula. One of the alternative curricula was even addressed in whole Chinese.

Adopting Open-ended Questioning, Thinking Skills Promoting, and Differentiated Instruction Strategies

To address the teaching content, the participants made inquiries and led open-ended discussion to boost the students’ higher-level thinking skills such as reasoning, critical and creative thinking skills, and problem-solving skills. Note that problem-solving skills were the least frequently addressed. The participants created hands-on experiences and made connections to real-life experiences in the observed teaching activities. In the teaching process, collaboration was encouraged but not required depending on the students’ traits and needs. Differentiation was implemented through adopting different ways of inquiry, setting different task requirements, turning to technology for assistance, and conducting individual discussion with students.

Although not every participant differentiated the teaching procedures, each of them gave the students freedom to make choices.

Emphasizing Metacognitive and Cognitive Learning Outcomes Without Assessment Rubrics

In the teaching and learning process, learner autonomy and self-regulation were stressed in most of the observed curricula. Moreover, the participants mostly expected students to show performances at different levels of Bloom's cognitive taxonomy. Although most of the participants aimed at higher levels of learning outcomes, such as evaluation and creation, one of the participants highlighted the importance of building a solid foundation and focused more on lower levels of cognitive learning: remembering and understanding of the materials. These two focuses collided with each other. Although the focus on low levels of cognitive outcomes was incongruent with the product differentiation principle for teaching gifted students and could not meet the needs of the gifted, it reflected the participant's teaching belief and her realization of the belief. On the other hand, the participants hardly required students to show affective skills or performances at different levels of Krathwohl's affective taxonomy. This study also found that the participants did not use explicit rubrics for assessments.

Obstacles and Solutions

In implementation of these alternative curricula, the obstacles the participants met were time limitation, difficulty of offering multiple alternative curricula, and difficulty in incorporating English language components into the curriculum. First, most of the schools in the current research only got one to two periods of class per week to implement alternative curricula, which led to insufficient and chopped teaching and learning time. Secondly, when implementing alternative curricula, the participants began with issues they concerned or skills they were adept at, thus creating a limited scope of the curricula. Recommended by the participants, seeking help from the

professionals can help establish interdisciplinary or deepened curricula. Co-teaching was expected to reduce teachers' pressure on designing vast and interdisciplinary teaching materials by some of the participants. However, it was particularly hard for EGRC teachers to find a co-teaching partner. Third, the participating teachers exhibited difficulty in incorporating English into the alternative curriculum even though it was designed for English gifted students. They required guidelines for determining the proportion of English use and learning in the alternative curriculum; they also demanded consultation and training on integrating English learning into the curriculum.

Implications for Practice and Policy

The findings of this study have several implications for instructional practices and curriculum policies.

Firstly, varying learning pace was not often observed in this study though previous studies highly recommended it as one strategy for differentiated instruction in gifted classes. Because the small number of students in each class should have facilitated teachers' use of varied pacing, this finding suggests that the participating teachers might lack awareness of the importance of varying learning pace or knowledge and skills of implementing it. Based on the present study, interests and abilities differentiation, tiering activities, and assistance of technologies appear to facilitate teachers in varying learning pace. The government should offer more training programs or workshops that incorporate the above-mentioned techniques along with other strategies to enhance teachers' abilities to differentiate instruction through various pacing, abiding by the concepts of gifted education.

Secondly, this study found that all of the participating teachers developed alternative curricula based on their own beliefs and will. It becomes difficult to evaluate the effectiveness of the curriculum. The MOE may have to offer clearer guidelines and criteria to help teachers develop and evaluate alternative curricula for EGRC.

Most importantly, the participating teachers all struggled with deciding whether and how to integrate English into the alternative curricula for English gifted students. Without specific curriculum guidelines and suggestions from the authorities concerned, teachers are given much room to offer curricula different from regular English classes. The result is content-based and meaning-oriented alternative curricula that focus on development of thinking skills, at the cost of English language skill development. More thought should be given about whether this decision meets the goal of the English gifted curriculum. Clarification about the role of alternative curricula in English gifted education and guidelines for curriculum design should be provided by the government.

Limitations and Future Directions

The major limitation of the current study is the small sample size due to the constraints of time and researcher. As a qualitative approach was adopted to examine six EGRC teachers' implementation of alternative curricula in depth, generalization of the findings is impossible and in fact, not the research goal. Another limitation is that the current study did not involve students' point of view because the researcher hoped to gain a more comprehensive but focused perspective on teachers. In light of these limitations, future research could aim at involving a larger sample size and examining alternative curricula from students' point of view.

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APPENDICES

Appendix A

Observation Form

Date: _____ Time: _____ Instructor: _____ Class: _____

I. Classroom Setting (seats arrangement, equipment, etc.)

II. Teaching Procedure

III. Teaching Context

No.	Item	Observed	Not Observed
1	Showing learner centeredness in the course design <i>Comment:</i>		
2	Getting acceptance from the teacher and peer <i>Comment:</i>		
3	High mobility <i>Comment:</i>		
4	Allowing students' freedom to ask questions or express feelings <i>Comment:</i>		
5	Making students attentive and involved <i>Comment:</i>		
6	Students feeling comfortable and relaxed <i>Comment:</i>		
7	The teacher being aware of students' needs <i>Comment:</i>		

IV. Teaching Content

No.	Item	Observed	Not Observed
1	Teaching goals/objectives <i>Comment:</i>		
2	Based on students' level of comprehension <i>Comment:</i>		
3	Literary works/other advanced reading materials <i>Comment:</i>		
4	Writing or composition <i>Comment:</i>		
5	Oral communication <i>Comment:</i>		
6	Advanced listening materials <i>Comment:</i>		
7	Language study (form/structure/...) <i>Comment:</i>		
9	Acceleration <i>Comment:</i>		
10	Sophistication <i>Comment:</i>		
11	Enrichment <i>Comment:</i>		
12	Interdisciplinary content <i>Comment:</i>		

V. Teaching Process

No.	Item	Observed	Not Observed
1	Smooth, sequenced, and logical presentation <i>Comment:</i>		
2	Appropriate error correction <i>Comment:</i>		
3	Giving students flexibility to make choice <i>Comment:</i>		
4	Differentiation <i>Comment:</i>		

5	The amount of teacher talk time and the extent of teacher authority <i>Comment:</i>		
6	Various interaction patterns (teacher-peer/peer-peer) <i>Comment:</i>		
7	Open-endedness in teaching activities <i>Comment:</i>		
8	The proportion of English use in class <i>Comment:</i>		
9	Involving reasoning skills <i>Comment:</i>		
10	Involving creative thinking skills <i>Comment:</i>		
11	Involving critical thinking skills <i>Comment:</i>		
12	Involving problem solving <i>Comment:</i>		
13	Involving students' collaboration <i>Comment:</i>		

VI. Learning Outcomes

No.	Item	Observed	Not Observed
1	Recall facts and basic concepts <i>Comment:</i>		
2	Explain facts or concepts <i>Comment:</i>		
3	Use information in the situations <i>Comment:</i>		
4	Draw connections among ideas <i>Comment:</i>		
5	Justify a stand or decision <i>Comment:</i>		
6	Synthesis of information <i>Comment:</i>		
7	Integration of skills <i>Comment:</i>		

8	Interdisciplinary <i>Comment:</i>		
9	Interpretation <i>Comment:</i>		
10	Self-regulation (cautious use of strategies/ metacognition/ ask for help/ ...) <i>Comment:</i>		
11	Multicultural perspectives <i>Comment:</i>		
12	Appreciation <i>Comment:</i>		
13	Learner Independence/ autonomy <i>Comment:</i>		
14	Authentic tasks <i>Comment:</i>		
15	Originality/ innovation <i>Comment:</i>		

VII. Unexpected Incidents

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VIII. Questions to Ask / Comments

Appendix B

Pre-Observation Interview Guideline

I. Educational Background and Teaching Experiences

1. Please share your educational background.
2. How long have you been teaching?
3. How long have you been teaching in EGRC?
4. What are some of the difficulties you have met in teaching?
5. What are the most fulfilling teaching experiences that you have?
6. What are some of the changes or similarities in your years of teaching?

II. Class Information

1. Please describe the unit/lesson topic I am going to observe.
2. How old are your students? How many students are there in your class?
3. Please describe the characteristics of your students.
4. How many class periods do the students in this class have per week?

Appendix C

Post-Observation Interview Guideline

1. What are the teaching objectives/goals in this class?
2. What are the teaching principles or frameworks used in today's class?
3. What are the difficulties you encountered in today's class? How did you solve them?



Appendix D

Summative Interview Guideline

I. Teaching Content

1. What are the teaching materials you want to add, to remove, or to revise? Why?
2. What is the most important principle or element in selecting these teaching contents?

II. Teaching Process

1. What is the core objective of this curriculum?
2. What is important instructional strategy you use in the unit/lesson topic I observed?

III. Learning Outcomes

1. What do you expect students to achieve at the end of the lesson? Do they achieve?
2. How can you assess students' achievements?

IV. Learning Environments

1. How to create a comfortable environment for you (the teacher) and the students in the current lesson?
2. What do you do to make the teaching environment suitable for the current lesson?

V. Other Question

1. What is the biggest obstacle you encounter in the unit/lesson topic I observed? How do you overcome, or how can you overcome?
2. What are some of the changes in your years of teaching? Do they affect your curriculum development in the unit/lesson topic I observed?
3. What kind of support or changes are needed for the alternative curricula in gifted education?

Appendix E

Consent Form 研究參與者同意書

親愛的 老師：

您好，非常感謝您願意參與十二年國教特教課綱中資優課程實施的研究(以下簡稱本研究)，這份研究參與者同意書(以下簡稱本同意書)主要是要向您充分的說明有關本研究的相關資訊。若您在參與本研究的過程，對本研究仍有任何疑問，歡迎隨時向研究者提出。如果您決定參與本研究，請在這一份研究參與者同意書上簽名以代表您同意參與本研究。

一、 研究計畫簡介

回顧資優教育發展歷史，數理資優班從1980年代即開始設置，語文資優班直到2003年才設置第一班，所以相關研究較為不足。2014年，十二年國教新課綱上路，特教特殊類型教育(特殊教育、藝術才能班)課程綱要也有所調整，彈性課程是為資優教育中重要的一環。此外，自2019年10月教育部的資料可知，桃園市設置了15個英語資優班，居全臺灣之冠。因此，本研究的目的是在於檢視桃園市英語資優班彈性課程之設置與實施，以期提供政府與教育工作者英語資優彈性課程實施之建議。

本研究將採用教室觀察與半結構式訪談，透過資料分析、歸類與編碼，來勾勒出英語資優彈性課程實施的原則或架構，並且產出圖表來顯示實施過程中所遇之困境、解決方法以及所需的支持系統。本研究預計在一零八學年度第二學期觀察您教授一個單元或一個主題，並且在每次課室觀察後進行簡短半結構式訪談，以釐清課室觀察中有趣或是想深入了解的內容。完整觀察完後，會進行總結性訪談，整理出整個單元或主題的課程架構與脈絡。課室觀察與訪談內容會著重在下列四大部分：教學內容(teaching content)、教學方法(teaching techniques)、學生產出內容(learning products)、學習環境(learning environment)。

二、 保密原則

本研究希望能夠透過錄音的方式記錄課室觀察內容以及訪談內容，本研究將依法把任何可辨識您身分之紀錄與您的個人隱私資料視為機密來處理，不會公開，也不會向與本研究無關的人員透露。所有研究的原始資料在經由統計或分析之後，並在研究結束、研究成果撰寫成結案報告，以及撰寫成論文在學術研討會或學術期刊上發表後，加以銷毀，原則上為研究結束後三年，若因結案報告或論文尚未撰寫完成，或其他法規或命令的要求，而有延長的必要時，最長也不會超過十年。

研究者簽名：	簽署日期：
研究參與者簽名：	簽署日期：

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