

Principles of Programme Development in English for Gifted and Talented Senior High School Students in the Context of Taiwan

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Abstract

The present study aimed to establish a set of principles, based on which an English curriculum for gifted/talented high school students can be developed. The study first explored the literature concerning curriculum development, curriculum modifications for the gifted and language arts programme development. Based on the results of literature review, a set of preliminary principles were constructed and made into a questionnaire for later surveys. To verify and consolidate these principles, a small group of five experts was formed to construct content validity of the questionnaire. Modifications were made as suggested. Then the modified questionnaire went through three rounds of the Delphi survey. There were 20 experts, 10 college professors and 10 high school teachers, forming a panel of experts to respond to the questionnaire. The final result yielded a set of 119 principles for developing English gifted/talented curriculum. Based on the importance values attached to the principles and whether they evoked convergent opinions, the principles were further categorized into three groups - primary, secondary and tertiary importance. Principles of primary importance were incorporated first in developing this programme.

INTRODUCTION

The so-called “English gifted programmes” or “language gifted programmes” are quite a new development in the senior high school curriculum in Taiwan as they were not officially established and conducted until 2003. Since then, programmes of this kind have been established in both public and private high schools at a rapid rate. Despite the prevalence of such programmes, we cannot be sure that the development and implementation of such programmes will fulfill the requirements for gifted programme development and reach achievements that would otherwise not have been accomplished. A gifted programme

involves not just quantitative modifications in class hours of English courses. More importantly, a gifted programme should be qualitatively different from the normal curriculum for the average student (Marland, 1972; Maker, 1982; Javits, 1988; VanTassel-Baska, 1994; 1994b; Ho, 1998; Feldhusen and Jarwan, 2000). It is believed that provision of qualitatively different programmes for gifted students work more effectively to help them shine in the fields they demonstrate special talents and abilities in. But to develop a suitable differentiated programme for English gifted/talented students is by no means easy. It requires expertise in both TESOL and gifted education, and not many teachers have both. Therefore, if there is a set of principles for developing English gifted/talented curriculum for school teachers or administrators to depend on, programmes of this kind will be better developed and live out the true essence of gifted education

LITERATURE REVIEW

Curriculum Components

In developing a curriculum, there are elements that programme developers need to pay special attention to so that a full-fledged curriculum can be derived. Brown's (1995) systematic approach to curriculum, which is modified based on the models prior to his (Tyler, 1949; Inglis, 1975; Nicholls and Nicholls, 1972) includes six components, and each of them is connected in such a way that completeness of one component is dependent to a certain degree on completeness of the previous one, while also influencing the fulfillment of the

following component. The six components are *needs analysis, goals and objectives, testing, materials, teaching, and evaluation* (Brown, 1995). Pratt (1994), in his elaboration of curriculum planning, also includes six components, with some variation of those from Brown. They are testing vs. assessment, materials vs. resources, teaching vs. curriculum and instruction. To render a more comprehensive inclusion of curriculum components, I combine Brown's and Pratt's categorizations and produced a new set of components of curriculum, including *needs analysis, goals & objectives, materials & resources, courses & teaching, testing & assessment and evaluation*. The components also hold true when developing a special programme for English gifted students. Programme developers need to cater to each component so as to render a most appropriate curriculum for the gifted.

TRAITS OF STUDENTS WHO ARE VERBALLY TALENTED

What makes a student who is verbally talented? How do we know if a student is gifted in language? Piirto (1992) points out that students who are gifted in language start writing and reading at a very young age. They are very focused, engage themselves in the literary world, passionate and imaginative, and enjoy intellectual stimuli and challenges from language. Tsai (1989) also points out four features shown in the language development of gifted learners: (1) *Vocabulary* — a larger vocabulary, more sophisticated diction, interest in words and phrases and a more precise way of choosing words or phrases; (2) *Linguistic fluency* — good at expressing themselves, using longer sentences and more beautiful diction,

showing better abilities in learning foreign languages, and speaking more than two languages fluently; (3) *Reading ability* — precocity and love in reading efficiently and extensively, and (4) *Writing ability* — better penmanship, and better ability to write sentences, letters, stories, prose, and poems. Chen (1988) proposed three criteria to identify learners who are gifted in languages. They are: (1) *high sensitivity to language* — they show a very good command of language through their use of difficult words and ability to delicately manipulate those words; (2) *rich imagination* — the imagination is produced through experience and integration; and (3) *sensitivity to life* — their writing is not only “composition”, but it embraces life and reveals enthusiasm and tremor toward life. Lewis (1995) and Bailey (1996) also make observations conforming to the above traits. Ho (1998) suggests these traits be taken into consideration by teachers in identifying students who are gifted in language. According to VanTassel-Baska (1996a), verbally gifted learners are students who read well and fluently, and read often and outside of class. They are interested in words and word relationships, able to use an advanced vocabulary and enjoy verbal puzzles and games. Besides, they enjoy talking about literature. When reading, they are able to process key ideas about what is read and write descriptively to communicate a story. In short, they enjoy playing with language in its oral and written forms, and exhibit understanding of the structure of language in speaking and writing.

The English Gifted/Talented Programme

Many educators in the field of special education argue for the importance of differentiated programmes for gifted students. It is believed that provision of qualitatively differentiated programmes for gifted students works more effectively to help them shine in the fields in which they demonstrate special talents and abilities (Marland, 1972; Maker 1982, VanTassel-Baska, 1994a, 1994b; VanTassel-Baska et al., 1996b; Ho 1998; Feldhusen & Jarwan, 2000). To design appropriately differentiated programmes for gifted students, Maker (1982) proposes modifications of four dimensions in a programme. The four dimensions include modifications in *content, process, product* and *learning environment*. Content modifications involve abstractness, complexity, variety and study of methods; process modifications include higher levels of thinking, open-endedness, discovery, evidence of reasoning, freedom of choice, faster pace and a wider variety of procedures; product modifications involve more professional-type products directed toward real problems and self-evaluation; learning environment modifications focus on student-centeredness, independence fostering, openness, acceptance, complexity and high mobility. To produce optimal learning and teaching results, educators should incorporate one or more of these modifications in a differentiated programme for the gifted.

To provide more specific elements to add to the programme, VanTassel-Baska (1994b) proposes seven components of a language programme for gifted students. These components

serve as helpful guidelines for language gifted programme development. They include *reading and literature, bibliotherapy, exploitation of library resources, creative writing, linguistics, oral communication, and foreign language learning*. Application of these components makes it feasible and practicable to build upon the characteristics unique to the gifted students and also to validate curricular modifications mentioned earlier. To develop an appropriate curriculum for students who are gifted in English, the above modifications should be taken into account.

METHODOLOGY

Instrument

The preliminary questionnaire was constructed based on the results of literature review. It comprises 110 principles covering six components of a curriculum. The construction of content validity of the questionnaire was accomplished by consulting 5 professors, 3 from the field of gifted education, the other 2 in the field of TESOL. Through their examination and evaluation, some modifications were made. In the end, the final principles remained at 110, with one being deleted and one added. The finalized questionnaire would undergo the Delphi surveys so as to establish a set of principles for developing gifted/talented English curriculum for senior high schools in Taiwan.

Participants

The participants of the Delphi surveys included 10 college professors in the fields of TESOL, special education and programme evaluation, and 10 high school English teachers who are either coordinators of the English gifted/talented programmes of their respective schools or teaching English gifted classes. The participants constituted a panel of experts who provided personal opinions and professional judgment concerning English gifted curriculum development and evaluation. The consensus reached among the experts served to establish the principles for English gifted/ talented curriculum development and criteria for English gifted/ talented programme evaluation.

Data Collection Procedures

The Delphi technique is a quantitative technique that is used to obtain the opinions of groups, often for needs assessment studies. In Brown's (1995) classification, however, it belongs to the qualitative category of information gathering (p. 231). Such divergence is caused by how the results from the application of the method are used and interpreted. The method makes use of a series of mailings of specially styled questionnaires to respondents, aiming to reach consensus among a group of respondents without necessarily bringing its members together for a meeting. It offers individuals' feedback on what others think about the issue in question without laying pressure on them to express conforming views, and it enables a record of divergent opinions to be reserved (Worthen et al., 1997; Weir & Roberts,

1994; Linstone, 1978; Whitecotton, 1992; Thomas, 1990; Killian, 1993). The process has been successfully adopted in educational situations (Judd, 1972; Killian, 1993). Cyphert and Gant (1971) comment that the Delphi procedure is regarded as “useful in educational planning at all levels” (p. 272). In a classic Delphi survey, respondents are asked to write down their opinions on an issue in the first round. A modified Delphi technique was employed in this study to gather experts’ opinions so as to validate the principles for English gifted/talented curriculum development and criteria for English gifted/talented programme evaluation. The researcher finalized the list of curriculum development principles and mailed it to the panel of experts to gather their responses to the principles and collect more information from them. The experts responded to the questionnaire, provided more ideas if necessary, and then mailed it back to the researcher. Then the researcher summarized experts’ opinions and calculated experts’ responses and tabulated them, and sent the results to the panel. In each circulation, the experts were to rate the importance of each criterion and to comment if there were any changes to be made. They may also make changes to their previous response(s) if they find it necessary. Or they may choose to maintain the original responses. When they chose to maintain the original responses which were outside of the interquartile range, they were required to give further explanation as to why they held a different point of view from the broad consensus. The whole procedure is repeated until final consensus is reached.

Data Analysis Procedures

Both quantitative and qualitative analyses were done for data from the Delphi surveys. The responses from each round of survey were tabulated and statistically analyzed. The first and third quartiles (Q_1 and Q_3), the interquartile ranges ($Q_3 - Q_1$), the medians, the means, and variances were calculated for each principle. The scale of importance for each criterion is in the form of Likert-type scale, the larger the number is, the more important the principle or criterion is, with 5 indicating very important, and 1 indicating not important. The median for each criterion indicates the importance assigned to the specific principle by the respondents. The higher the median, the more important the principle. The mean score also serves as an indicator. For a principle which got a mean score of 3 or above, it would be kept on the list for further exploration. Otherwise, it would be eliminated from the list. Meanwhile, the interquartile range ($Q_3 - Q_1$) reflects the degree of consensus concerning a principle (Linstone, 1978; Goodwin, 1987; Whitecotton, 1992; Thomas, 1990). The smaller the interquartile range, the higher the degree of consensus. For respondents whose responses in the previous round of survey fell outside of the interquartile range and they decided to diverge from the group consensus and maintain their original responses which are in the minority, they were required to explain their reasons. The items with interquartile ranges larger than 1 are considered of lower degree of consensus and would go through another round of survey until a consensus is reached.

Another way to examine the consistency of responses among experts is through Kolmogorov-Smirnov one sample test through SPSS for Windows. This is a nonparametric statistical test. It is important to note that the results from Kolmogorov-Smirnov test may not be exactly the same as the interquartile range test. This is because the former test through SPSS software relies on standard deviation to derive the value Z . In other words, such a test would be under more influence from the extreme values given by the respondents. Principles with responses at the two extremes may pass the interquartile range test as reaching consensus, but are identified as not reaching consensus through Kolmogorov-Smirnov test. In order to examine the influence from extreme responses, both tests would be applied to double check the consistency of responses among experts. Besides, through such procedures, more attention can be directed to principles that cause extreme responses, which are worthy for further discussion. Wilcoxon matched-pairs signed-ranks test through SPSS for Windows is the analysis method applied to examine whether the difference between two rounds reaches level of significance. The responses in two successive rounds underwent Wilcoxon matched-pairs signed-ranks test. If the calculated p does not reach the required level of significance .05, that is, $p > .05$, then the change in the variance of responses is not significant. The insignificance of change means that no more iteration of the Delphi procedure is needed. The survey may stop. On the other hand, if $p < .05$, then the change in the variance of responses is significant. In this situation, more rounds of the survey will be required. However, if the

latest round of survey reveals consensus is reached among experts, no more iteration of survey would be required. Finally, to better understand if there are significant differences between college professors' and senior high school teachers' responses, tests through Kruskal-Wallis One-Way ANOVA through SPSS for Windows would be applied. If the calculated Chi-Square does not reach .05 level of significance (i.e. $p > .05$), then there is no significant difference between the responses from the two groups of experts. On the other hand, if $p < .05$, it is indicative that significant differences exist between the two groups and that it deserves further discussion to explore what caused such divergence.

RESULTS AND DISCUSSION

There were three rounds of Delphi surveys conducted. In the first round, there were 3 principles being modified, 9 principles being added, and 11 of them having interquartile ranges larger than 1 (see Table 2). With the 9 added principles, there are 119 principles in total. The principles listed in Table 2 would require more examination from the experts, while the rest of the 96 principles had evoked more convergent opinions.

In the second round of survey, the 3 modified and the 9 added principles all received a very high importance value and K-S test Z value reaching the .05 level of significance except principle 13.3 (with median 4.0 and $p = .95$). The 11 principles with an interquartile range larger than 1 were given new consideration, and this time none of them had an interquartile range larger than 1. The results are summarized in Table 3. As can be seen from Table 3, only

principle I1.5 did not reach the .05 level of significance in Kolmogorov-Smirnov test. A third round of survey was conducted, in which the experts were asked to double check their choice concerning each principle and to further explain if they chose to remain in the minority group. They could also choose to change their responses to conform to the broad consensus. As a result, there were 42 principles that were assigned new values of importance. To further ascertain if the changes of opinions between Round 2 and Round 3 were significant, Wilcoxon Signed Ranks test was applied. The results confirmed that there was no significant change between the results of the last two rounds of survey, which suggested no further iteration of survey was required. In the last round of survey, all the principles had an interquartile range not larger than 1, suggesting that the experts held convergent opinions regarding the importance of all these principles. Of the principles with an interquartile range of “1”, 12 of them, as Table 4 shows, after Kolmogorov- Smirnov test, yielded Z’s not reaching the .05 level of significance. These principles had elicited more extreme responses among the experts than other principles with the same interquartile range.

Table 2. Summary of principles for further examination from the 1st round Delphi survey

Principles

Modified	I2.3	Teachers' needs of training on teaching of advanced courses <i>in English</i>
	IV2.2	Acceleration of common courses <i>in English</i>
	IV2.3	Enrichment of common courses <i>in English</i>
Added	II.7	Students' expectations of themselves
	I2.5	Teachers' needs of assistance from co-workers in conducting teaching activities
	I3.3	Parents' awareness of their share of responsibility in educating the gifted
	III.9	Teaching materials help to enhance students' four language skills
	III2.5	Self-study materials provide exercise in four language skills
	III3.4	Available resources and assistance from parents
	III4.3	Budget for additional teaching materials
	V2.6	Assessment activities are able to measure students' critical thinking abilities
V2.7	Assessment activities are able to measure students' creativity	
Q ₃ -Q ₁ >1, p>.05	II.2	Students' needs for learning other subjects
	II.5	Students' other needs related to overall learning
	III3.2	Native speakers of English as teachers
	IV3.5	Advanced courses of literature in English
	IV3.6	Advanced courses of English grammar
	IV4.1	Courses in second foreign languages
	IV4.2	Multiple choices of second foreign languages
	IV5.3	Extended advanced programmes on weekends or vacations
	IV5.5	Exhibitions/ performance of student achievements
	V2.1	Differentiated ways of assessment from regular classes are applied
	VII.7	Students' learning outcomes correspond with parents' expectations of the programme

Table 3. Summary of principles given new considerations in the 2nd round

Principles		Round	Mean	Median	Q ₃ -Q ₁	K-S Test	
						Z	p
II.2	Students' needs for learning other subjects	1 st	3.800	4.000	2.000	.997	.279
		2 nd	3.550	4.000	1.000	1.347	.046*
II.5	Students' other needs related to overall learning	1 st	3.950	5.000	2.000	1.007	.263
		2 nd	3.700	4.000	1.000	1.234	.095
III3.2	Native speakers of English as teachers	1 st	4.050	4.000	1.250	1.018	.252
		2 nd	3.950	4.000	0.000	1.489	.024*
IV3.5	Advanced courses of literature in English	1 st	4.000	4.000	2.000	.948	.329
		2 nd	3.850	4.000	0.250	1.475	.026*
IV3.6	Advanced courses of English grammar	1 st	3.650	4.000	1.250	.988	.283
		2 nd	3.500	4.000	1.000	1.401	.040*
IV4.1	Courses in second foreign languages	1 st	3.850	4.000	1.250	1.180	.123
		2 nd	3.900	4.000	0.000	1.589	.013*
IV4.2	Multiple choices of second foreign languages	1 st	3.800	4.000	1.250	1.043	.227
		2 nd	3.800	4.000	1.000	1.354	.051*
IV5.3	Extended advanced programmes on weekends or vacations	1 st	3.650	4.000	1.250	.787	.565
		2 nd	3.450	3.000	1.000	1.614	.011*
IV5.5	Exhibitions/ performance of student achievements	1 st	4.053	4.000	1.500	1.060	.211
		2 nd	3.950	4.000	0.000	1.459	.028*
V2.1	Differentiated ways of assessment from regular classes are applied	1 st	4.158	4.000	1.500	1.238	.093
		2 nd	4.200	4.000	1.000	1.464	.027*
VII.7	Students' learning outcomes correspond with parents' expectations of the programme	1 st	4.000	4.000	2.000	1.109	.171
		2 nd	3.800	4.000	0.250	1.784	.003*

*p<.05

Table 4. Summary of principles with Z not reaching level of significance in the 3rd round

Principles	Mean	Median	Q ₃ – Q ₁	Kolmogorov-Smirnov Test	
				Z	p
I3.2 Native speakers of English as teachers	4.050	4.000	1.000	1.234	.095
I3.3 Parents' awareness of their share of responsibilities in educating the gifted	3.650	4.000	1.000	1.234	.095
III.6 Goals respond to societal needs	4.200	4.000	1.000	1.177	.125
III.8 Goals are different from those of regular curriculum	4.200	4.500	1.000	1.244	.090
II.6 Accomplishment of objectives can be reached timely	4.250	4.000	1.000	1.252	.087
III.3 Available manpower from community	3.550	4.000	1.000	1.315	.063
IV.6 Application of collaborative learning techniques	4.250	4.000	1.000	1.129	.156
IV.7 Connection with literature, art, music, social studies and other relevant areas of study	4.250	4.000	1.000	1.129	.156
IV.2.1 Core courses offered for regular students	4.150	4.000	1.000	1.238	.093
IV.5.1 An emphasis on bibliotherapy	3.400	3.500	1.000	1.041	.288
IV.5.4 Overseas study tours	3.600	3.500	1.000	.784	.571
IV.5.6 Arrangement of curricular variations facilitates achievement of programme goals and objectives	4.250	4.000	1.000	1.231	.097

p < .05

Opinion Divergence between Two Groups of Experts

To further examine whether divergence of opinion exists between the two groups of experts, the results of the final round of survey underwent Kruskal-Wallis One-Way ANOVA. The results confirmed that the two groups indeed held divergent opinions with regard to certain principles. Table 5 demonstrates that there were seven principles which elicited significantly different responses from the two groups of experts. High school teachers attached more importance to principles concerning learners' needs for learning other subjects and having native speakers as teachers. The reasons for the above preference are understandable. For one thing, not unlike the students, high school teachers have to face the pressure from entrance exams. It's natural that teachers care about the need to learn other subjects as well. After all students have to take exams on other subjects too. The reason that prompted teachers to resort to native speakers is very likely related to the fact that parents have a false belief that native speakers make better English teachers. This expectation has

influenced the teachers. For the other five principles, the professor panel attached more importance to them than the teacher panel did. As far as evaluating the programme and teaching materials, teachers seemed to take a more hesitant attitude compared with the professors. That has much to do with teachers' heavy teaching load and the fact that most teachers are void of knowledge and training on programme evaluation. If this is to be implemented, provision of in-service training will be desirable and indispensable.

Table 5. Summary of divergent opinions from two groups of experts

Principle	Expert group	Mean Rank	Kruskal-Wallis Test	
			Chi-Square	<i>p</i>
I1.2 Students' needs for learning other subjects	Professors Teachers	7.30 13.70	7.384	.007*
III1.8 Teaching materials are evaluated periodically	Professors Teachers	13.00 8.00	5.220	.022*
III3.2 Native speakers of English as teachers	Professors Teachers	7.60 13.40	6.714	.010*
IV1.3 Teaching methods and skills help to enhance growth of meta-cognitive awareness and control in students	Professors Teachers	12.55 8.45	3.736	.053
VII.2 To conduct periodical evaluations of the programme	Professors Teachers	12.50 8.50	4.648	.030*
VII.3 Students' learning outcomes reflect effectiveness of specially chosen teaching materials	Professors Teachers	13.05 7.95	5.308	.021*
VII.9 To make adjustment to the programme based on evaluation	Professors Teachers	12.50 8.50	4.750	.029*

* $p < .05$,

Importance of Principles

Based on the importance attached to each principle and the degree of convergence of experts' opinions, the principles were categorized into three groups. Principles that have the median value of 5, interquartile range not larger than 1 and Kilmogorov-Smirnov Z reaching the .05 level of significance belong to *Principles of primary importance*. Principles that have the median value between 4 and 5, interquartile range not larger than 1, and Kilmogorov-

Smirnov Z reaching the .05 level of significance belong to *Principles of secondary*

importance. The rest of the principles go to the category of *Principles of tertiary importance*.

Tables 6-8 summarizes the principles of the three categories.

Table 6. Principles of Primary Importance

Principle	Importance (Mdeian)	Mean
<i>Needs Analysis</i>		
I1.1 Students' needs for learning English	5.0	5.000
I1.6 Students' expectations of the programme	5.0	4.550
I1.7 Students' expectations of themselves	5.0	4.450
I2.1 Teachers' needs of enhancing knowledge and awareness on gifted education	5.0	4.700
I2.2 Teachers' needs of training on special teaching techniques	5.0	4.700
I2.3 Teachers' needs of training on teaching advanced courses in English	5.0	4.850
I2.4 Teachers' needs of assistance from administrators in conducting teaching activities	5.0	4.650
I2.5 Teachers' needs of assistance from co-workers in conducting teaching activities	5.0	4.500
I4.1 Administrators fully understand their share of responsibility in implementing the programme	5.0	4.700
<i>Goals and Objectives</i>		
II1.1 Goals are clearly stated.	5.0	4.800
II1.2 Goals are reasonably set.	5.0	4.700
II1.3 Goals respond to learners' needs.	5.0	4.850
II1.4 Goals respond to learners' special gifts.	5.0	4.950
II1.7 Goals provide visions.	5.0	4.400
II2.1 Objectives reflect goals set for the programme.	5.0	4.700
II2.2 Objectives are specifically stated.	5.0	4.700
II2.3 Objectives are accessible.	5.0	4.350
II2.4 Objectives are measurable.	5.0	4.800
II2.5 Objectives are reasonably set.	5.0	4.750
II3.1 Students fully understand programme orientation, goals and objectives.	5.0	4.650
II3.2 Teachers fully understand programme orientation, goals and objectives.	5.0	4.900
II3.3 Administrators fully understand programme orientation, goals and objectives.	5.0	4.750
II3.4 Parents fully understand programme orientation, goals and objectives.	5.0	4.500
<i>Materials and Resources</i>		
III1.1 Teaching materials correspond to students' level of proficiency.	5.0	4.900
III1.2 Teaching materials encompass a wide variety of topics.	5.0	4.750
III1.3 Teaching materials encompass broad world visions and cultural diversity.	5.0	4.600
III1.4 Teaching materials are presented in different genres.	5.0	4.450
III1.5 Teaching materials enhance the development of critical thinking in students.	5.0	4.800
III1.6 Teaching materials enhance development of creative thinking in students.	5.0	4.800
III1.7 Contents of teaching materials correspond to programme goals and objectives.	5.0	4.750
III1.8 Teaching materials are evaluated periodically.	5.0	4.650
III1.9 Teaching materials help to enhance students' four language skills in English.	5.0	4.750
III2.1 Self-study materials cover a wide variety of topics.	5.0	4.750
III2.2 Self-study materials cover different genres.	5.0	4.650
III2.3 Self-study materials serve as enhancement of what is taught in class.	5.0	4.650
III2.4 Students are given freedom to choose extended self-study materials.	5.0	4.500
III2.5 Self-study materials provide exercise in four language skills in English.	5.0	4.600
III3.1 Available teachers for advanced courses	5.0	5.000
III4.1 Budget for additional courses	5.0	4.600
III4.2 Budget for extracurricular activities	5.0	4.600
III4.3 Budget for additional teaching materials	5.0	4.600
III5.1 Well-equipped language labs	5.0	4.600
III5.2 Sufficient computer and information facilities	5.0	4.500
III5.3 Resourceful library with abundant books and journals accessible to students.	5.0	4.850
<i>Courses and Teaching</i>		
IV1.1 Teaching methods and skills help to foster critical thinking in students.	5.0	4.750
IV1.2 Teaching methods and skills help to foster creative thinking in students.	5.0	4.750

IV1.3 Teaching methods and skills help to enhance growth of meta-cognitive awareness and control in students.	5.0	4.650
IV1.4 Teaching methods and skills help to encourage active learning in students.	5.0	4.950
IV1.5 Teaching methods and skills help to raise students' awareness and appreciation of cultural diversity.	5.0	4.600
IV1.8 Teaching methods and skills help to foster independence in students.	5.0	4.700
IV1.9 Exploration of issues of significance by using a variety of research techniques is encouraged.	5.0	4.500
IV1.10 Application of differentiated teaching methods and skills facilitates achievement of programme goals and objectives.	5.0	4.550
IV2.2 Acceleration of common courses in English	5.0	4.500
IV2.3 Enrichment of common courses in English	5.0	4.650
IV3.1 Advanced courses of reading in English	5.0	4.600
IV3.2 Advanced courses of listening in English	5.0	4.500
IV3.3 Advanced courses of speaking in English	5.0	4.700
IV3.4 Advanced courses of writing in English	5.0	4.700
IV3.7 Courses of independent study	5.0	4.350
IV3.8 Advanced courses in English facilitate achievement of programme goals and objectives.	5.0	4.400
IV5.2 An emphasis on cultural diversity	5.0	4.500
IV6.1 Good preparation for teaching advanced English courses	5.0	4.850
IV6.2 Special training on testing	5.0	4.500
IV6.3 Special training on gifted education	5.0	4.700
IV6.4 Special training on curriculum development	5.0	4.650
IV6.5 A programme committee constituting of language teachers with training on both language teaching and gifted education	5.0	4.750
IV7.1 To provide necessary administrative assistance in holding activities	5.0	4.850
IV7.2 To hold activities and events that help enhance English performance of students	5.0	4.900
IV7.3 To provide students with information and assistance related to English learning and testing	5.0	4.600
IV7.4 To provide teachers with information and assistance related to teaching and professional enhancement	5.0	4.800
IV7.5 To provide parents with information and counseling related to gifted education	5.0	4.550
IV7.6 Administration benefits programme implementation	5.0	4.750
Testing and Assessment		
V1.1 Specification of requirement to meet for students who want to enroll in the programme.	5.0	4.750
V1.2 Identification tools are both valid and reliable.	5.0	4.900
V1.3 Process of identification includes activities that assess students' four language skills of English.	5.0	4.750
V1.4 Multiple procedures of identification are applied to select the gifted.	5.0	4.850
V1.5 Identification is viewed as an ongoing process throughout the programme.	5.0	4.750
V2.2 Diverse ways of assessment are applied.	5.0	4.850
V2.3 Assessment activities are able to measure students' four skills of English.	5.0	4.800
V2.4 Different types of tests are applied to assess students' learning.	5.0	4.750
V2.5 Assessments reflect objectives and goals of each course.	5.0	4.750
V2.6 Assessment activities are able to measure students' critical thinking abilities.	5.0	4.474
V2.7 Assessment activities are able to measure students' creativity.	5.0	4.526
Evaluation		
VII.1 To form an evaluation committee to conduct evaluation.	5.0	4.450
VII.2 To conduct periodical evaluations of the programme.	5.0	4.600
VII.3 Students' learning outcomes reflect effectiveness of specially chosen teaching materials.	5.0	4.550
VII.4 Students' learning outcomes reflect effectiveness of differentiated courses.	5.0	4.450
VII.5 Students' learning outcomes reflect effectiveness of differentiated teaching skills.	5.0	4.400
VII.6 Students' learning outcomes satisfy their learning needs.	5.0	4.850
VII.8 Students' learning outcomes correspond to programme objectives.	5.0	4.750
VII.9 To make adjustment to the programme based on evaluation results.	5.0	4.800

Table 7. Principles of Secondary Importance

Principle	Importance (Median)	Mean
<i>Needs Analysis</i>		
I1.2 Students' needs for learning other subjects	4.0	3.550
I1.3 Students' needs for learning 2 nd foreign languages	4.0	3.650
I1.4 Students' needs for extracurricular activities related to enhancing the learning of English	4.5	4.500
I1.5 Students' other needs related to overall learning	4.0	3.650
I3.1 Parents' expectations of students	4.0	3.650
<i>Goals and Objectives</i>		
III.5 Goals respond to world trends in gifted education	4.5	4.350
<i>Materials and Resources</i>		
III.2 Native speakers of English as teachers	4.0	3.950
III.4 Available resources and assistance from parents	4.0	3.800
<i>Courses and Teaching</i>		
IV.3.5 Advanced courses of literature in English	4.0	3.850
IV.3.6 Advanced courses of English grammar	4.0	3.500
IV.4.1 Courses in 2 nd foreign language are offered	4.0	3.900
IV.4.2 Multiple choices of 2 nd foreign languages are offered	4.0	3.800
IV.5.5 Exhibition/ performance of student achievements	4.0	3.950
<i>Testing and Assessment</i>		
V2.1 Differentiated ways of assessment from regular classes are applied	4.0	4.050
<i>Evaluation</i>		
VII.7 Students' learning outcomes correspond to parents' expectations of the programme	4.0	3.800

Table 8. Principles of Tertiary Importance

Principle	Importance (Median)	Mean
<i>Needs Analysis</i>		
I3.2 Parents' expectations of the programme	4.0	4.050
I3.3 Parents' awareness of their share of responsibilities in educating the gifted	4.0	3.650
<i>Goals and Objectives</i>		
III.6 Goals respond to societal needs	4.0	4.200
III.8 Goals are different from those of regular curriculum	4.0	4.200
II.2.6 Accomplishment of objectives can be reached timely	4.0	4.250
<i>Materials and Resources</i>		
III.3.3 Available manpower from community	4.0	3.550
<i>Courses and Teaching</i>		
IV.1.6 Application of collaborative learning techniques	4.0	4.250
IV.1.7 Connection with literature, art, music, social studies and other relevant areas of study	4.0	4.250
IV.2.1 Core courses offered for regular students	4.0	4.150
IV.5.1 An emphasis on bibliotherapy	3.5	3.400
IV.5.3 Extended advanced programmes on weekends or vacations	3.0	3.450
IV.5.4 Overseas study tours	3.5	3.600
IV.5.6 Arrangement of curricular variations facilitates achievement of programme goals and objectives	4.0	4.250

CONCLUSION

1. It is a formidable task to develop a gifted/talented English curriculum for high school students. Considerations about curriculum development, differentiated curriculum design, and gifted education need to be taken into account. With a set of principles as proposed

by this study, school teachers and administrators have something to rely on in developing a curriculum, instead of arranging a “false” gifted programme which fails to conform to the principles of gifted education.

2. The 119 principles for developing a gifted/talented English curriculum for high school students do not receive equal importance from the experts, suggesting that some principles are more important than others in the mind of experts. With limited resources, it is advisable to fulfill principles of primary importance first.
3. For principles of secondary and tertiary importance, they are also important in developing a special programme for students who are gifted in English. It may well be that high school teachers and college professors approached these principles from different perspectives, so the importance value was not so consistent. Teachers need more training on gifted education to take on the task of educating the gifted, while pressure from college entrance exams also need to be catered to when such a programme is carried out. Therefore, more communication and planning is necessary when considering the principles of secondary and tertiary importance.

REFERENCES

- Bailey, J. M. (1996). Literacy development in verbally talented children. In Joyce D. VanTassel-Baska, T. Johnson, & L. N. Boyce (Eds.), *Developing verbal talent* (pp. 97-114). Boston: Allyn and Bacon.
- Brown, J. D. (1995). *The elements of language curriculum*. Boston: Heinle & Heinle.
- Feldhusen, J. F., & Jarwan, F. A. (2000). Identification of gifted and talented youth for educational programmes. In K. A. Heller, F. J. Mönks, R. J. Sternberg, & R. F. Subotnik (Eds.), *International Handbook of Giftedness and Talent* (2nd ed.) (pp. 271-282). Oxford: Elsevier Science.
- Ho, C. L. (侯秋玲). (1998). 語文資優生的學習特質與課程設計原則之探討。 *資優教育季刊*, 67, 24-27.
- Inglis, F. (1975). Ideology and the curriculum: The value assumptions of system builders. In M. Golby, J. Greenwald, & R. West (Eds.), *Curriculum Design*. London: Croom Helm.
- Javits, J. K. (1988). Gifted and Talented Students Education Act. Title IV, Part B of P. L., 100-297.
- Killian, J. K. (1993). *A Delphi Study: Perceptions of effective methods of teaching critical thinking skills in Secondary Gifted and Talented programmes*. Doctoral dissertation, East Texas State University.
- Lewis, G. (1995). *Bringing up your gifted child*. Sydney: Angus and Robertson Publishers.
- Linstone, H. A. (1978). The Delphi technique. In Fowles (Ed.), *Handbook of Futures Research*, 273-300. Westport, Con.: Greenwood Press.
- Maker, C. J. (1982). *Curriculum development for the gifted*. Austin, Texas: PRO-ED, Inc.
- Marland, S. (1972). *Education of the Gifted and Talented*. Report to the Congress of the United States by the U.S. Commissioner of Education. Washington, DC: Government Printing Office.
- Nicholls, A., & Nicholls, H. (1972). *Developing curriculum: A practical guide*. London: Allen and Unwin.
- Nielsen, M. E., & Buchanan, N. K. (1991). Evaluating gifted programmes with locally constructed instruments. In N. K. Buchanan & J. F. Feldhusen (Eds.), *Conducting Research and Evaluation in Gifted Education* (pp. 275-310). New York: Teachers College Press.
- Piirto, J. (1992). Does writing prodigy exist? In N. Colangelo, S. G. Assouline & D. L. Amborson (Eds.), *Talent Development* (pp. 387-388). Unionville, NY: Trillium Press.
- Pratt, David. (1994). *Curriculum Planning: A Handbook for Professionals*. Fort Worth, TX: Harcourt Brace, Inc.

- Passow A. H. (1996). Talent identification and development in the language arts. In J. D. VanTassel-Baska, T. Johnson, & L. N. Boyce (Eds.), *Developing Verbal Talent* (pp. 23-33). Boston: Allyn and Bacon
- Thomas, C. (1990). *A Delphi Study: Developing a Model for Improving the Process of Evaluating the School Principal*. Doctoral dissertation, East Texas State University.
- Tsai, C. C. (蔡崇建).(1989).*您的孩子資優嗎？*台北：時報。
- Tyler, R. W., Gagne, R. M., & Scriven, M. (Eds.). (1967). *Perspectives of curriculum evaluation*. Chicago: Rand McNally & Company.
- VanTassel-Baska, J. D. (Ed.). 1994a. *Comprehensive Curriculum for Gifted Learners* (2nd Ed.). Boston: Allyn and Bacon.
- VanTassel-Baska, J. D. (1994b). Language arts curriculum for the gifted. In J. D. VanTassel-Baska (Ed.), *Comprehensive Curriculum for Gifted Learners* (pp. 129-165). Boston: Allyn and Bacon.
- VanTassel-Baska, J. D. (1996a). The process of talent development. In J. D. VanTassel-Baska, T. Johnson, & L. N. Boyce (Eds.), *Developing Verbal Talent* (pp. 3-22). Boston: Allyn and Bacon.
- VanTassel-Baska, J. D. (1996b.) Creating a new language arts curriculum for high-ability learners. In J. D. VanTassel-Baska, T. Johnson, & L. N. Boyce (Eds.), *Developing Verbal Talent* (pp. 193-217). Boston: Allyn and Bacon.
- VanTassel-Baska, J. D. (1997). What matters in curriculum for gifted learners: Reflections on theory, research and practice. In N. Colangelo & G. Davis (Eds.), *Handbook of Gifted Education* (pp. 126-135). Boston: Allyn and Bacon.
- VanTassel-Baska, J. D., Johnson, T., & Boyce, L. N. (Eds.). (1996a). *Developing Verbal Talent*. Boston: Allyn and Bacon.
- VanTassel-Baska, J. D., Johnson, T., & Boyce, L. N. (1996b). A study of language arts curriculum effectiveness with gifted learners. *Journal for the Education of the Gifted*, 19(4), 461-480.
- Worthen, B. R., Sanders, J. R., & Fitzpatrick, J. L. (1997). *Programme evaluation: Alternative approaches and practical guidelines*. (2nd ed.). New York: Addison Wesley Longman.
- Weir, Cyril & Roberts, Jon. (1994). *Evaluation in ELT*. Oxford: Blackwell.
- Whitecotton, R. A. (1992). *A Modified Delphi Technique Identification of Prioritized Social Norms Recommended for Inclusion in Secondary School Curricula*. Doctoral dissertation, Northern Illinois University, Illinois.