

Catering for the Needs of Gifted and Talented Students by Defining an Appropriate Curriculum

WONG Kam-kuen, Doris

The Salvation Army Tin Ka Ping Primary School

INTRODUCTION

Gifted education is a universal issue that raises public attention in recent decade. The mission of education is to ensure that the educational needs of all students are met so that their potential can be fully developed. It follows that gifted and talented (G&T) students require 'special' education because of their extraordinary abilities and intelligence. When the development of gifted education in Hong Kong is still in its early stage, the Education Department and other related institutions have taken positive steps in planning and expanding the future development. Particularly, some literature studies assert the development of curriculum on gifted education is of great importance for accommodating the educational needs of G&T students. In this essay, I would like to discuss the issues about catering for the needs of gifted and talented students by designing an appropriate curriculum. A case study about a pilot school that undertakes the 'school-based programme for academically gifted students' highlights the implications for the school as a whole. In order to nurture high potential students with appropriate learning opportunities and challenges, the development of curriculum on gifted education is a critical aspect that requires considerable attention.

GIFTED & TALENTED STUDENTS VS EDUCATIONAL CURRICULUM

There are so many definitions to describe the term 'Gifted and Talented children (G&T)'. Personally speaking, I like Ogilvie's definition (cited in George, 1992) most. The author stated that "Gifted and talented children are those identified by professionally qualified persons, who, by virtue of outstanding abilities, are capable of high performance. These are children who require differentiated educational programmes and services beyond those normally provided by the regular school programme in order to realize their contributions to themselves and society." From another article 'Growing up Gifted' by B.Clark (1983), there is another clear and precise meaning: "gifted children usually exhibit the ability to generalize, to work comfortably with abstract ideas, and to synthesize diverse relationship to a far higher degree."

Due to their exceptional ability and performance, the regular school programmes are inadequate to cater for the educational needs of these students. The journal 'Gifted and Talented Children' by T. Darling (1986) highlighted the importance of differentiated programme for these students. Darling suggested that if the G&T student's potential is developed fully, a different strategy and programme should be derived in order to satisfy their needs. More importantly, as a parent, teacher or educator, our job is to make every effort in helping these students to develop their abilities

through a proper channel. In this way, their talent and intelligence will not be wasted but catered for. It follows that a special programme other than the regular curriculum should be prepared.

According to the journal 'A Differentiated Curriculum in Mathematics' by Rae Deeley (1996), the aim of such a special programme is to create, foster and nurture a total learning environment for the gifted and talented students with the objective of enabling them to develop to their potential within a directing or interesting environment. Deeley argues that "the basic curriculum is unlikely to be sufficient for gifted learners." Instead, they want and need extra materials to extend their knowledge and potential. The author further states that deepening and widening their learning content and giving them challenges are effective ways for strengthening their thinking skills. In other words, we need to provide opportunities for G&T students to engage in open-ended tasks to a level of complexity to which they are satisfied. Although the above journal puts focus on mathematics teaching, the ideas can be applied to all other subjects.

When the importance of developing a special curriculum for G&T students is widely recognized, how to design an appropriate curriculum is another issue that raises my attention. Particularly, the quality and characteristics of a school's curriculum are vital ingredients to the eventual realization of the student's capacity. It is of great importance to create an optimal match between the students and the curriculum. In order to deliver an effective curriculum to these children, O'Day & Smith (1993, cited in Colangelo & Davis, 1997, Chapter 10) have suggested several elements for designing a successful curriculum for gifted learners:

- Meaning-based: it emphasizes depth over breadth; concepts over facts. Learning is grounded in real-world issues and problems that students care about or required to know. High-ability students will lose their intensity in uninteresting busy work or lack of depth in the subjects.
- Higher-order thinking (analysis, synthesis, and evaluation): it provides students the opportunity of demonstrating their understanding in advanced content and ideas. It also cultivates modes of 'professional thinking'. Gifted students engage in higher level and abstract thinking and they prefer hard and challenging work.
- Self-learning: it allows students' involvement in planning, monitoring and assessing their own learning. Active learning and problem solving are promoted.
- Intra-and interdisciplinary connections of subjects.
- Technology-relevant: new technologies are used as tools for the learning process.
- Provisions for acceleration and compression of content since gifted learners can master new material in shorter time than typical learners.
- Integration of content by key ideas, issues, and themes.
- Opportunities for independent learning based on students' interest and capacity.
- Use of inquiry-based instructional techniques.

Theoretically, a comprehensive curriculum for G&T students will be produced if the above elements are included in the design. It is hoped that the special curriculum can accommodate the educational needs of G&T students so as to attain optimum levels of learning.

GIFTED EDUCATION AND CURRICULUM DEVELOPMENT IN HONG KONG

As I have mentioned previously, a well-designed curriculum will enhance G&T students' potential and extend their ability. Being the responsible educators, we must not just 'throw' these students into the designed curriculum without giving further guidance, assistance and support. Rather, we should "remain an active partner in the educational process, reinforcing and complementing the activities with the gifted and talented students." (Lavin & Rothman, 1991) Therefore, implementing gifted curriculum and programmes will bring significant influences to the school as a whole. For instance, it is vital to understand the school head's involvement in supporting the curriculum development; to assess teachers' knowledge, skills and attitude in designing the appropriate curriculum contents; to evaluate the response of G&T students towards the curriculum; to ensure the availability of sufficient resources for implementing the curriculum; and to foster parents' understanding and support to the curriculum development. Thus, many practical challenges and implications are foreseeable when the curriculum on gifted education is being implemented in the mainstream schools.

CASE EXAMPLE—A PILOT SCHOOL UNDER THE “SCHOOL-BASED PROGRAMME FOR ACADEMICALLY GIFTED STUDENTS”

The Education Department in Hong Kong stresses on quality education. Teachers and schools are encouraged to pay attention to individual differences in learning. In 1990, the Education Commission Report No.4 (ECR4) recommended the development of a school-based programme in mainstream schools with the aim to meeting the needs of academically gifted students. Then, 19 primary schools were invited by the Department to try out the school-based curriculum scheme for academically gifted students. The objective of this pilot project was to develop the potentials of gifted students and to cater for their educational needs.

The primary school at Shatin in this case was the one that took part in the pilot. According to the headmistress, to satisfy the teaching needs and educational ideals was the main reason of joining the scheme. The school wanted to go deeper in gifted education. Besides, it could obtain more teaching resources from the Education Department.

Creative teaching as the theme of curriculum development

In this school, the teachers-in-charge have implemented creative teaching as the theme for developing curriculum on gifted education. The curricular contents, strategies, activities and programmes were all designed for promoting creative teaching. Most importantly, the essence of the design was to meet the learning needs of G&T students.

Following the theme of the school's gifted curriculum, teachers wanted to promote students' creative thinking ability. It also aimed at satisfying the element of 'meaning-based' in the design of a high quality curriculum for gifted learners. Through the discussion of open-ended questions with "6 W" (Why, What, Where, Who, When and How), students were encouraged to provide creative, flexible answers. Answering these questions provided opportunities for students to think deeply, and it also trained students to solve real world problems. As students were free in answering questions, they would feel less bored and their learning interest would be stimulated accordingly. Moreover, students could also develop their self-learning ability. Having high reading ability, they would solve their

own problems by reading extra books and other subject-related materials. In addition, students were taught new information technologies. They were then required to develop, or to create advanced products (e.g. compositions, graphic design) by using these technologies. Furthermore, creative thinking was emphasized on every subject so that the intra- and interdisciplinary connections were established.

Through the creative teaching approaches and activities, students in this school found satisfaction in what they had learned. However, some other elements for developing successful gifted curriculum are still excluded. Thus, there are rooms for these pilot schools to further develop their curriculum on gifted education.

The major forces influencing the design and implementation of gifted curriculum

School heads

The headmistress claimed that she had learned a great lesson from the pilot scheme as she realized her role as an initiator of gifted education. Recalling from her experience, she had performed ‘multiple’ roles in curriculum development, as a director, a supporter, a coordinator and a policy-maker.

In order to design and implement an appropriate curriculum for the school, the headmistress needed to consider whether the proposed curriculum was compatible with the school ethos, the mainstream curriculum, as well as cooperation between students and teachers. Thus, she largely focused on teacher training, team spirits and participation so as to motivate teachers’ contributions. In fact, the responsible teachers agreed that the headmistress’ passionate support and assistance had created a good atmosphere for developing the gifted curriculum.

In addition, the headmistress had played an important role in organizing resources and in establishing connections with schools outside. For example, she made effort in obtaining more resources from the Education Department in designing the teaching contents, approaches and related activities. Guest speakers had been invited for introducing creative teaching to teachers. Other professional speakers were also invited for sharing their experience and knowledge about creativity with the students. In this way, students’ learning interests were promoted and they had acquired more useful knowledge from curricular activities.

Teachers

According to the headmistress, the appointment of mature, experienced and trustworthy teachers-in-charge was one of the key elements that contributed to the success of designing and implementing a gifted curriculum. Especially, the quality of the gifted curriculum was largely dependent upon their level of involvement, commitment about gifted education, understanding and handling approach towards G&T students. It was because teachers were those who planned, implemented and evaluated the curriculum.

However, the teachers-in-charge and a few other responsible teachers claimed that their knowledge and skills were inadequate for designing and implementing a ‘suitable’ curriculum. This explained why the school’s gifted curriculum did not include all of the necessary elements for developing a successful gifted curriculum as discussed previously. Moreover, many teachers also complained that their workloads were heavier because they needed to spend extra time and effort in developing the curriculum. Sometimes, they found difficulties in resource allocation and time management.

In order to deal with these problems, the headmistress decided to enhance teacher training on gifted curriculum

planning, development and evaluation. Teachers were encouraged to take further study. At the same time, workload reduction was granted to allow teachers more time to plan for creative teaching during the curriculum try out. Teachers were advised to utilize the limited resources more fully by means of sharing.

Students

Regarding the effectiveness of the gifted curriculum, students' response must be taken into account. After evaluating the implementation of creative teaching in gifted curriculum, the headmistress recognized that the progress was too compressed. Students were not given adequate time for in-depth thinking. Furthermore, many students faced difficulties when they were required to handle some questions that required thinking. This was largely the result of the traditional teaching approach. In addition, there were time limitations which constrained students to learn effectively.

Obviously, these learning difficulties discouraged students' participation and their enthusiasm about the curricular activities. The design of gifted curriculum was good and appropriate, but students could not achieve the best results to develop their potential in full. As such, the objective of catering the educational needs of gifted students was just unachievable.

Parents

On the other hand, the headmistress perceived the message of gifted education had not been spread widely. Thus, many parents did not understand the concept and advantages related to the development of gifted curriculum. For instance, some parents worried about the extra time that their children needed to spend on joining the curricular activities. They did not understand the importance of these activities would eventually maximise their children's abilities and intelligence. Because of these reasons, the effectiveness of the gifted curriculum was adversely affected.

In order to increase parents' participation, the headmistress realized there was a need to strengthen communication with parents. She gave strong consideration to organizing school-based activities and providing support to parents. It was expected that these activities would further facilitate the development of gifted curriculum.

CONCLUSION

Many literature theories assert the view that gifted education should aim at facilitating students of high potential to explore and develop their abilities and intelligence. While the curriculum and activities on gifted education should be designed to cater for the needs of G&T students, several important elements are recommended. In the course of designing and implementing the curriculum for gifted students, the pilot primary school in the case example highlighted the particular role and the likely implications regarding to the reform. Anyhow, when a well-designed, well thought out curriculum takes place and if it is supported by educational leadership, the opportunity of maximising the G&T students' potentials would be significantly enhanced.

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