DIFFERENTIATED TEACHING APPROACH TO SUPPORT HIGHLY ABLE STUDENTS IN MIXED CLASSROOMS

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ABSTRACT

Issues about fulfilling needs of highly able students have been discussed since some years ago. Most highly able students along with their outstanding potential are considered as important aspects of a country's bright future. Their innate gifts which are outstanding need to be nurtured appropriately in order to meet success in their future life. Providing positively supporting environment is essential for them (Tomlinson, 1996). It is inevitable that those highly able students spend most of their time at schools. The support or provision for highly able students is generally far from enough since it is usually given by schools in terms of highly able counselors or learning support for highly able students (Waters et al, 2003). Hardly do schools provide highly able students with challenges within the subjects or curriculum enrichment. Meanwhile, possibility to adjust curriculum by using differentiated teaching approach in order to meet their need is possible. In this paper, I analytically describe the reasons or justification of giving special supports to highly able students in general mixed classrooms. Some components on how to adjust curriculum to meet or fulfill highly able students' needs are also revealed. This differentiated teaching approach, even though mostly intended to support highly able students, is also beneficial for other students in the classrooms.

Keywords: differentiated teaching approach, highly able students, mixed classrooms

INTRODUCTION

There are various types of characteristics used by many experts to identify highly able students. Three major characteristics are mostly all about their ability to finish their work in short time, their ability to probe advanced and demanding questions, and their special interest which is usually different from that of other students and peers in general (Pfeiffer, 2002). They tend to keep asking questions to their teacher or surroundings. The types of questions being addressed are usually advanced questions which demand deep analysis and understanding. They also have specific interests which are usually the interests of older people or adults (Fox, 1981; Ericsson et al 1993). These general characteristics need to be considered and accommodated in providing challenges to them to meet their needs in classrooms (Tomlinson, 1995b).

Generally, teachers are the ones who know more about certain knowledge than students. Yet, when dealing with highly able students, it commonly happens that students know more about certain knowledge than teachers (Pfeiffer, 2002). Teachers should be able to respond this situation positively. This can be a good chance for teachers to provide challenges to them. Instead of putting themselves as

the more knowledgeable people or source of knowledge, teachers can posit themselves as facilitator for students. Teachers can even benefit this situation to develop students' autonomy during the teaching and learning process as well, e.g. by letting students finish tasks with only limited guidance (Waters et al, 2003; Tomlinson, 1996; National Research Council, 2000).

Rational for Providing Special Challenge or Provision to Highly Able Pupils

Highly able students are students with exceptional ability. They have their own special innate ability and capacity to surpass others or peers in specific or certain fields. Even though most highly able students perform outstanding strengths of intellectuality in some fields, they also sometimes become low or under achievers. This is assumed to have been caused by lack of challenges or inappropriate supports at schools so that they get bored, unmotivated, and unchallenged (Waters et al, 2003). Meanwhile, they spend most of their time at school. Thus, providing appropriate challenge to fulfill their needs at school seems to be essential. Some reasons taken into account for supporting highly able students in the formal education are as follows: prosperity or economic point of view and the issue of equity (Waters et al, 2003).

The future of people in a country is considered to be influenced and determined by their own efficiency or productivity as well as their ability to be creative. Thus, the government has provided huge number of fund to support disadvantaged people in order to develop their potential. It is assumed that failure in catering highly able students could end up with putting them as disadvantaged groups or society (Waters et al, 2003). Thus, supporting them by providing appropriate challenge is reasonable. In order to deal with the issue of egalitarianism in providing support to highly able students at the classroom, we can assume that all students in the classrooms are highly able. By doing so, none of the students in the classrooms will be disadvantaged (Tomlinson, 1996; Waters et al, 2003).

Waters et al (2003) says that by considering all students highly able, we start to avoid the notion of hampering highly able students to explore and perform their high potentials. Thus, providing special challenges to highly able students at schools will benefit all other students whether they are outstandingly highly able or just normal students with average ability.

People's literacy is said to be the most determining factor of a nation's future and prosperity (Waters, 2003). When people are literate, they will be able to be productive and even create innovations in their daily life. The other factor that might affect the nation's future is the leaders of

that country who support knowledge development and solve problems in the country. It is assumed that highly able students when appropriately supported often end up being leaders in the future. In other words, they have outstanding innate ability in leaderships (Bloom, 1985; Pfeiffer, 2002; Tomlinson & Allan, 2000). Nevertheless, there is another statement disagreeing with this notion by saying that highly able students sometimes are outstanding in certain academic fields or performance but lack of social and leadership ability (CCEA, 2006). Thus, again it is essential to provide appropriate or special provision to highly able students for the sake of their future and people's future.

There are some other reasons behind the issue of supporting special needs of highly able students. One of them is the issue of innate intellectual giftedness and how this giftedness can meet success in the future. This means that those children are benefited naturally. Even though they are naturally born with such special gifts, this is not enough to guarantee that their future development will be as bright as their innate ability. The influence of home and school environments really effects their development (Collins 2001 in Waters et al, 2003).

Tannenbaum (1989) argues that we might see some special gifts owned by kids at their early ages. Yet, it does not guarantee that they will gain success when they are adults later on. Precociousness owned at the early stage and success at adult age needs to be bridged by providing challenges and positively supporting environment to them (Tannenbaum, 1989). It is inevitable that success is determined or influenced by many factors, but it is also undeniable that any deficit in supporting their development could be the reason of their failure or becoming under-achievers (Waters et al, 2003).

A comprehensive study related to highly able students and their academic development has revealed the role of stimulation, challenge, and support from the environment around their development, especially school environment (Gagne, 1991). It is said that the main area to address related to this issue is the environment of learning or schools. During their development, pupils need challenging environment to sharpen their knowledge and potential and drive them to the direction they are targeting. Differentiated provision seems to be appropriate to promote equity and focus on the individual development at the classroom since every pupil is different regarding the issue of individual development and style of learning (Gagne, 1991; Tomlinson, 1997; Waters et al, 2003).

Some other studies (Reis et al, 1998; Tomlinson, 2001; CCEA, 2006) reveal that most highly able children spend their time in their classroom. This means that their development is really influenced and

determined by the classroom instruction. Sadly, there are some experts arguing that instruction in regular or public classroom is usually far from sufficient in meeting their special needs and different learning styles (Archambault et al, 1993; Waters et al, 2003). This condition is also assumed to be the cause of failure for some highly able students in achieving their high potential. It even sometimes causes them to be underachievers even though they are highly able (Waters et al, 2003).

Given that circumstances above, the responsibility of teachers is twofold. First, responsibility is providing highly able students with appropriate challenges to facilitate them to maximise their high potentials. Second of all, teachers should be able to maintain the classroom community or classroom heterogeneity since the highly able students are studying in heterogeneous or mixed classrooms. Thus, the purpose of providing challenges for highly able students in heterogeneous classroom is, then, to provide a learning situation or classroom where the highly able students can develop their special abilities as well as maintaining their involvement in the classroom (Tomlinson, 1997).

This provision is rather demanding for both the highly able students and the teachers. The most common practice or status quo is by putting the highly able students in a special group or by giving them special project or assignments to accomplish (Cox et al, 1985; Parke, 1989). Therefore, the conventional or status quo regarding challenging the highly able students should be well considered in planning or providing challenges to highly able students in heterogeneous classroom. Another consideration should be taken into account is the dynamics of the classroom, so that the challenges will not disadvantage the other students (Tomlinson, 1996)

The issue of providing challenges for highly able students is also challenging for all teachers, leaders and policy makers as well. Many have suggested the focus of supporting highly able students especially in general class (Tomlinson, 1996; Pfeiffer, 2002; Waters et al, 2003; CCEA, 2006). The government needs to provide support to highly able students in the classroom by asking schools to deal with this issue so that those highly able students have bright chances to develop their potential and also promote the same chances to other students in the classroom (Batterham, 2000).

Type of Instructions Needed to Support Highly Able Students

Teaching highly able students in general or mixed classroom is challenging for teachers. They have to be able to provide special differentiated teaching materials to accomodate the diversity of students' needs (Ness & Latessa, 1979; Parke, 1989; Callahan, 1990; Archambault et al, 1993; Tomlinson, 1996).

In a heterogeneous classroom, there are students whose interests are in language; they can easily decode some words, comprehend meaning of texts easily, or communicate with the language well. Yet, there are also other students whose interests are far from language but in sports, science, or music. Some students are best in working or learning alone and some, in contrast, prefer to work in groups. In general, there is no unanimity in their needs and learning styles. Thus, differentiated instruction plan seems to be a good strategy to meet their diversity in academic needs and learning styles (Tomlinson, 1996). Basically, teachers need to be able to identify needs, interests, and learning styles of highly able students. By that, appropriate instructions can be designed to support them. While they are learning, their knowledge will develop and they can also be independent learners.

DIFFERENTIATED TEACHING APPROACH TO PROVIDE SUPPORT TO HIGHLY ABLE STUDENTS

Each student differs from one another in respect of the needs and style of learning. All of those different needs and styles in learning should be positively accommodated in the classrooms (Hall et al, 2003). Differentiated teaching or instruction is developed based on the theory that teaching approaches should accomodate all students' diversity; learning needs, styles, and interests. This type of instructional teaching demands teachers to be susceptible to curriculum adjustment (Hall et al, 2003). Besides, it also requires teachers to permit curriculum alteration instead of demanding students to change their ways of learning to meet the demand of the curriculum (Tomlinson, 2001). This type of teaching approach is assumed to be so flexible and lessens constraints that often block students in learning (Rose & Meyer, 2000a).

Applying differentiated teaching approach means accommodating various students learning ability, styles and needs in the classroom. It is intended to positively exploit every individual student's success in learning (Hall et al, 2003). In my opinion, this approach is suitable to respond and fulfill the needs of highly able students since it focuses on individual student within the classroom. Thus, every student can benefit as well.

Curriculum Adjustment as Form of Differentiated Teaching Approach

There are three factors of curriculum which can be modified in developing differentiated teaching approach, they are: content, process, and product of the curriculum (Tomlinson, 2001 in Hall et al, 2003). Below are the explanations of curriculum adjustment in order to respond highly able students (Hall et al, 2003 p. 5-8).

Content Adjustment

Some teaching elements and materials can be adjusted and differentiated to modify the content of the curriculum. This covers

performance, general idea, principles, and skills in teaching which can be differentiated based on the classes' context.

Objectives, goals, and tasks of the teaching and learning should also be differentiated. The adjustments or alignments of those three elements are very essential since those three elements are the core of teaching and learning in the classroom. Instructional design should be developed broadly. This means that it should pay attention to the concept of broad-learning and should not focus on every single minute guided activities to the students. Teachers facilitate students to develop their knowledge, understanding upon certain concepts being learned, and skills to be autonomous learners out of the classroom. The content being given to student should be the same for whole students in the class room, but the level of difficulty and complexity should meet individual learners (Hall et al, 2003).

Process Adjustment

Grouping the students is still essential but it should be flexible and is used consistently. Flexible grouping means that there should be dynamic change of the group members which could be based on the topics, learning interests, learning styles, and project being discussed or developed. This grouping is intended to promote students' interaction, team work, and sharing knowledge. In order to make the groups work effectively, teachers can address some tasks to complete at the end of the group work (Hall et al, 2003).

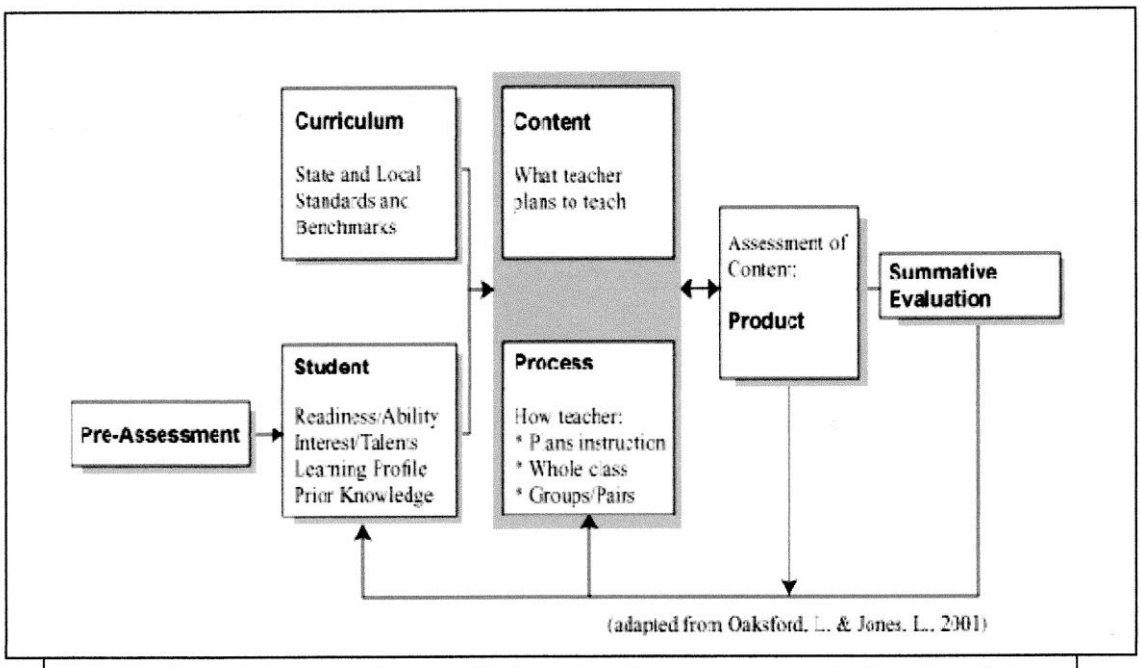
Effective management of the classrooms is advantageous for teachers as well as students. Since the type of teaching approach being used is differentiated teaching, teachers must be able to organize and deliver the concepts effectively. This classroom management can also affect the dynamic of the teaching and learning process. Teachers should bear in mind that highly able students are easy to get bored with anything that seems to be monotonous for them (Hall et al, 2003).

Product Adjustment

Assessment is the fatal issue to focus on. The focus of assessment should be on the point of readiness and progress of students in learning. The way teachers assess should be done prior to, during, and at the end of teaching learning process. These assessments are intended to inform teachers to relate to some issues in supporting students, such as type of methods, approaches, techniques which are suitable for students; needs of students; interests of students; and students' learning style. Thus, teachers can always improve their teaching every time (Hall et al, 2003).

Challenging Materials are suggested to be given to students. The level of the challenge should be a little bit above the students' current knowledge. Yet, teachers

have to be able to predict that even though the level of difficulty of materials is slightly above students' current knowledge, the chance of students to accomplish that tasks or materials should also be considered. Students will be frustrated if they feel that they fail to accomplish tasks given by teachers. Indeed, the purpose of giving challenging materials is to direct students to do exploration during learning or accomplishing the tasks. Each student should be given different types of responsibility in the classroom. They are encouraged or supported to perform their understanding in various ways (Hall et al, 2003).



Picture 1: Learning Stages in Differentiated Teaching Approach (Oaksford, L. & Jones, L., 2001 in Hall et al 2003).

Some suggestions given to teachers to gain differentiation in the classrooms (Hall et al, 2003) are:

- Elucidate main concepts in teaching. Teachers are suggested to clearly explain all key ideas and concepts they are delivering and explaining to students so that students can fully understand the instruction.
- Use effective assessment as part of teaching instrument or tool rather than use it as a way to assess teaching and learning process. Thus, teachers should do assessment at initial, on-going, and following the teaching and learning process. Assessment is intended to improve teaching as

well as support students' development.

- Promote high order thinking skills; critical thinking and creative thinking of students. Teachers are suggested to design tasks which demand critical analysis, critical thinking, and creative thinking of students. Thus, students will not only be targeted to understand concept but also apply it during or after the class.
- Get students engaged in classroom interaction and discussion. This can be applied by asking students to work in groups, discuss certain issues or topics, and express their ideas upon certain issues.

Feasibility of Implementing Differentiated Teaching Approach.

This approach is developed based on readiness of students' knowledge. The materials given are slightly above students' current or possessed knowledge. The basis of these premiss is the theory of social constructivism and the notion of Zone of Proximal Development (Lev Vygotsky, 1978). Social constructivism is a theory that was founded by Bruner with other colleagues of him such as Tolman, Lewin, Bigge, and Allport (Baden and Major, 2004). Social constructivism puts learners' prior knowledge as the basic elements used by learners to develop and construct new knowledge by engaging with peers and more able people, such as teachers (Baden and Major, 2004).

Other experts have applied this differentiated teaching approach and found the effectiveness of it. The application of this differentiated teaching approach covered effective classroom management, asking all students to work with peers in groups, and getting students engaged with peers (Tomlinson 2001; Waters et al, 2003).

CONCLUSION

Differentiated teaching approach is developed to support highly able students with appropriate challenges based on their needs, learning interests, and styles. This is beneficial for both students, regardless of their high ability or not, and teachers. First of all, this challenge gives more opportunity to students to maximize their ability and gain high potential. Students have various different levels of competence and ability, learning interests, needs, and styles. Differentiated teaching approach is essential to respond this situation. A second benefit is related to the development of other students. Both groups of highly able and general students are studying in the same class. Teachers can take benefits of stimulating and developing others students' ability while supporting highly able students. This provision is given to all students at the same time. Level of difficulty of the materials and time allocated to finish tasks

can be different for each student but, indeed, all students get the same provision. A third benefit is related to the issue of responding social relationship which is also promoted as the paramount issue in this provision. All students need and have to be able to communicate with peers or teachers especially during the teaching and learning process. This provision also considers that point by emphasizing on group work among students. A fourth benefit is that this provision is a challenge for teachers. Most teachers work hard to teach and equip students with all skills demanded and instructed in the curriculum. Adjusting curriculum in order to bring a better development and progress for students is always challenging.

Differentiated instruction or teaching approach is intended to respond and fulfill special needs of all students from many different backgrounds. Regardless of students' highly able, they are different from one another by nature. Thus, they need different stimulation, provision, and support during the teaching and learning process. Responding these differences by providing different stimulus, support, and provision is suitable. In addition to that, by adjusting the curriculum from three elements: content, process, and product, teachers are, indeed, accommodating and supporting highly able students' need without neglecting the needs of other students. On top of all, this approach benefits all students and teachers in developing their potential for the sake of bright future of all.

REFERENCES

A report for the Council of Curriculum, Examinations and Assessment (CCEA). 2006. Gifted and talented children in (and out) of the classroom.

Archambault, F., Westberg, K., Brown, S., Hallmark, B., Zhang, W., & Emmons, C. 1993. Classroom practices used with gifted third and fourth grade students. *Journal for the Education of the Gifted*,16 (2), 13-28.

Baden, S. M. and C.H. Major. 2004. *Foundation of Problem Based Learning*. New York: Society for Research into Higher Education & Open University Press.

Batterham, R..2000. *The Chance to Change*. Canberra: Commonwealth of Australia.

Bloom. B. 1985. *Developing Talenti in Young People*. New York: Ballentine.

Callahan, C. 1990. A commissioned paper on the performance of high ability students on national and international tests. *Unpublished paper*, University of Virginia, Charlottesville.

Cox, J., Daniel, N., & Boston, B. 1985. Educating able learners: Programs and promising practices. Austin, Texas: University of Texas Press.

Ericsson, K. A., Krampe, R., & Tesch-Romer, C. 1993. The role of deliberate practice in the acquisition of expert

performance. *Psychological Review*, 100, 363-406.

Fox, L. H. 1981. Identification of the academically gifted. *American Psychologist*, 36, 1103-11.

Gagné, F. 1991. Toward a differentiated model of giftedness and talent. In N. Colangelo, & G. A Davis (Eds.), *Handbook of gifted education* (pp. 65-80). Boston: Allyn and Bacon.

Hoh P. 2005. The Linguistic Advantage of the Intellectually Gifted Child: An Empirical Study of Spontaneous Speech. *Roeper Rev.,* Spring, 27(3): 178-185.

Hall, T., Strangman, N., and Meyer, A. 2003. Differentiated Instruction and Implications for UDL Implementation. National Center on Accessing the General Curriculum (NCAC): the U.S. Department of Education, Office of Special Education Programs

Maker, J. 1982. C*urriculum development for the gifted.* Rockville, MD: Aspen Systems Corporation.

National Research Council. 2000. How People Learn.: Brain, mind, experience, and school.Washington DC: National Academy Press.

Ness, B. & Latessa, E. 1979. Gifted children and self-teaching techniques. *Directive Teacher,* 2, 10-12.

Parke, B. 1989. Gifted students in regular classrooms. Boston: Allyn & Bacon.

Pfeiffer, S. I. 2002. Identifying Gifted and Talented Students: Recurring Issues and Promising Solutions. *Journal of Applied School Psychology.* 19 (1), 31-50 .

Reis. S. M., Kaplan, S. N, Tomlinson, C. A., Westbert, K. L, Callahan, C. M., & Cooper, C. R., 1998. How the brain learns, A response: Equal does not mean identical. *Educational Leadership,* 56, (3).

Rose, D., & Meyer, A., 2000a. Universal design for individual differences. *Educational Leadership,* 58(3), 39-43.

Tannenbaum, A. J. 1989. Gifted children: Psychological perspectives. New York: Macmillan.

Tannenbaum, A. J. 1997. The meaning and making of giftedness. In Colangelo, N. & Davis, G. A. (Eds). Handbook of gifted education (2nd ed., pp. 27-42). Boston: Allyn & Bacon.

Tomlinson, C. 1995b. Deciding to differentiate instruction in middle school: One school's journey. *Gifted Child Quarterly,* 39, 77-87.

Tomlinson, C. 1996. Good Teaching for One and All: Does gifted education have an instructional identity. *Journal for the Education of the Gifted.* 20.

Tomlinson, C. A., & Allan, S. D. 2000. *Leadership for Differentiating Schools and Classr*ooms. Alexandria, VA: ASCD.

Tomlinson, C. A., 2001. How to differentiate instruction in mixed-ability classrooms. 155-174.

VanTassel-Baska, J. 1998. Excellence in educating gifted & talented learners (3rd ed.). Denver: Love Publishing Co.

Van Tassel-Baska J. 2000. The on-going dilemma of effective identification practices in gifted education. *The Communicator,* Vol. 31.

Vygotsky, L. 1978. *Mind in Society*. Cambridge, MA: Hardvard University Press.

Watters, J. J., and Diezmann, C. M. 2003. The gifted student in science: Fulfilling potential. *Australian Science Teachers Journal* 49(3):46-53.