



<i>Presentation Title</i>	How School-Based Curriculum Development (SBCD) can facilitate Curriculum Differentiation
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How School-Based Curriculum Development (SBCD) Can Facilitate Curriculum Differentiation (CD)

Colin J MARSH

School of Education, Curtin University

Abstract

The terms “curriculum differentiation” and “School Based Curriculum Development” occur frequently in the literature. The former is used to describe how individualised instruction can be developed for individual students. The latter refers to students too but in the wider context of the total school population. What has not been realized until quite recently is the overlap between the two terms and the advantages of examining the complementary nature and synergy between them.

Keywords: SBCD, curriculum differentiation, teacher leadership

Introduction

At first glance it might be argued that there is very little in common between School-Based Curriculum Development (SBCD), and Curriculum Differentiation (CD). According to Skilbeck (1984), SBCD “is the planning, design, implementation and evaluation of a programme of students’ learnings by the educational institution of which those students are members (p.2)”.

Curriculum differentiation is defined as “the process of modifying or adapting the curriculum according to the different ability levels of the students in one class (UNESCO, 2004, p.14)”, Tomlinson (2001) contends that “in differentiated classrooms, teachers provide specific ways for each individual to learn as deeply as possible and as quickly as possible, without assuming one student’s road map for learning is identical to anyone else’s (p.2)”.

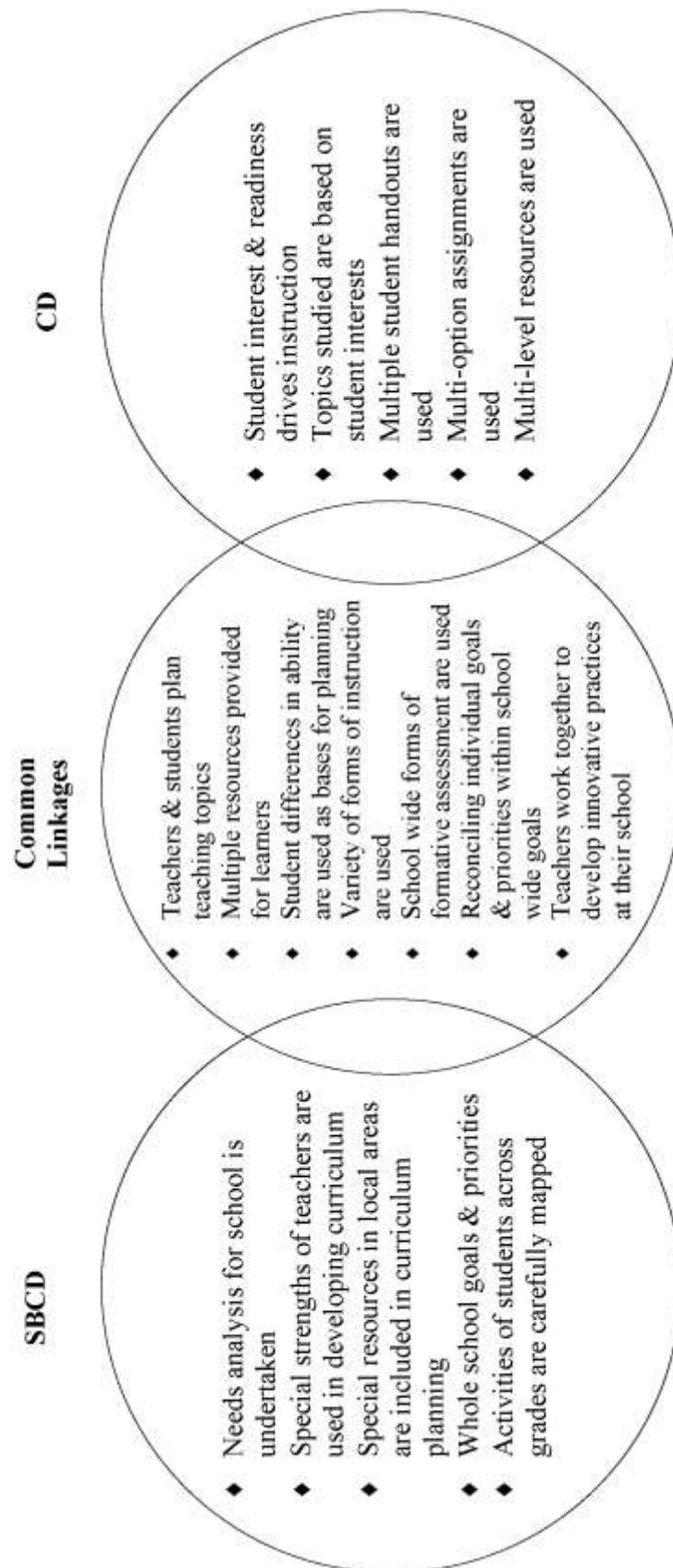
Yet, further reflection can reveal that the two terms represent related levels of interest, namely, a school focus and an individual student focus. A major reason for doing SBCD is to produce a curriculum that is especially relevant to students in a local context – to build on local resources, interests. That is, the needs of students are of major significance.

At the classroom level, a teacher can vary or differentiate his/her curriculum in terms of content, pedagogy and assessment to tailor the needs and interests of individual students.

Curriculum differentiation has a major focus on the needs of individual students but it also has to do this within the parameters of school-wide policies.

It can be argued therefore that the two terms of SBCD and curriculum differentiation are closely linked and that they complement each other. The argument can be extended further by using a Venn diagram to illustrate commonalities between the two (see fig. 1). Details of these commonalities are discussed later in the paper but first, it is necessary to develop an understanding of the two terms separately before focusing on commonalities.

Fig.1 Linkages between School Based Curriculum Development (SBCD) and Curriculum Differentiation (CD)



SBCD

SBCD in its various guises of “decentralisation” and “school-focused” is proposed by politicians in many countries. Currently, SBCD is a vogue priority in a number of Asian countries such as Singapore, China, Hong Kong and Taiwan (Juang, Liu, Chan, 2005). It is not a new approach. It has been widely practised in Israel for over 30 years (Ben-Peretz and Dor, 1986).

In the UK, politicians are advocating personalised learning which encourages teachers to seek out and promote individualised learning in local settings (Miliband, 2004), but also high on their agenda are standards and accountability priorities across the system.

Similarly, it might be argued that at the school district level in the USA, school-managed activities are practised, yet the advent of the No Child Left Behind legislation (2001) brought out centrally planned and controlled standards which are now firmly in place, especially for core subjects.

A literal definition of “school-based” might imply that all educational decisions are made at the school level. Apart from independent and “alternative” schools operating as separate entities, it is highly unlikely that this situation pertains to systemic schools (for example, government schools, schools operating within a school district). The term “school-focused” is a weaker interpretation in that it suggests that decision-making, at whatever level it occurs and by whom, is undertaken in terms of the interests and needs of school communities. This latter term could apply to a whole range of highly centralised decision-making activities. Expressed along a continuum “school-based”, is closer to the extreme of individual schools being responsible for all curriculum decisions, whereas “school-focused” could be represented as a middle position between the centralised and decentralised extremes.

Gopinathan and Deng (2006) coined the term ‘school-based curriculum enactment’ with reference to Singapore. They argue that teachers in Singapore can be curriculum developers within a context of centralised curriculum development.

The term “curriculum development” has wide connotations and is used to describe the various curriculum processes of planning, designing and producing, associated with the completion of a particular set of materials. It can also include teaching activities associated with the implementation and evaluation of a set of materials. One might ascribe such elaborate activities to a well-funded curriculum project team, but the scale and range of these activities could well be beyond the scope of individual school communities. As a result, the term “curriculum-making” is preferred, because it signifies a less grandiose range of activities for school personnel.

SBCD can involve creating new products or processes, but that can also involve selecting from available commercial materials and making various adaptations.

The latter two processes, of course, require less time and funds and a lower level of commitment from participants. Yet, it can be argued, that SBCD tasks should be embarked upon only if they are manageable and can be achieved within a reasonable time frame.

There is yet another interpretation of curriculum development, which is far less materials-oriented than those mentioned above. It can be argued that teachers should not

merely be involved in activities which enable them to implement curriculum materials more effectively, but that they should engage in wide ranging inquiries of concern to them. Connelly and Ben-Peretz (1980) argue that teachers' engaging in educational enquiry will grow professionally from these activities, even though, as a result of these experiences they may be less inclined to implement curricula designed by others.

Without doubt, education systems and agencies have used the term SBCD as a *slogan*. It conjures up action at the local level, it connotes participation, grass-roots control, and many other attributes which are held to be near and dear to the general public. In a more cynical vein, it could also be stated that SBCD has been used by senior officers in some education systems to deflect the blame for educational crises or is used as a means of cost-cutting from head-office budgets (Dimmock, 1993).

Other writers argue that SBCD is an amalgam of ideas, which can be construed as an *educational philosophy*. Skilbeck (1990), puts together such terms as "teacher and learner working together to produce a curriculum", "freedom for both teacher and pupil", and the "school's responsiveness to its environment" to produce a theoretical position about SBCD. He argues at length for structures and policies to be developed at the school-level and for there to be shared decision-making by all participants, especially teachers and students. Fullan (2002), supports teacher involvement in change at the school level, and he has produced various factors and strategies, which could be viewed as a model for SBCD. Other writers have commented on educational philosophies that are closely linked to SBCD. For example, Kelly (2009) argues for a democratic underpinning to curriculum planning and development. He states that democracy is a moral system-the major elements of this moral framework are equality, freedom and respect for the rights of the individual. "In a genuinely democratic society, the government's policies must accords with these elements" (p.268).

The literature is also replete with various accounts of SBCD as a *technique*. Case study accounts in particular have focused upon particular techniques which seem to work. Some writers have produced particular procedures such as person-centred approaches (Department of Education, 2007) or management-centred approaches (Joyner, Ben-Avie, Comer, 2004). Others have concentrated upon ways of making SBCD work more effectively by the training of special in-house consultants (Sabar, 1983); and leadership skills and qualities for school principals (Leithwood and Menzies, 1999).

Priorities in education can be ephemeral. As indicated above, SBCD has been practised in a number of countries over several decades. It has not achieved overwhelming support. So what is the evidence on the success or otherwise of doing SBCD?

Undertaking SBCD can be both fulfilling and draining. For teachers there are the attractions of involvement in an SBCD project, with all the bonhomie, excitement and camaraderie that can develop, and a welcome relief from classroom isolation, but this is only the positive side. On the negative side, there is a very real danger that a person will over-extend himself/herself and become fatigued.

Consequently, it is difficult for teachers to find the time to carry out research on their SBCD. Usually, it is external facilitators who produce case-study reports. Not unexpectedly, many of these case studies are superficial and non-probing even though they are usually positive in their descriptions.

Examples include Cocklin, Simpson and Stacey's (1995) analysis of a secondary school in

New South Wales, Australia; Day's (1990) analysis of a primary school in the UK; Hannay's (1990) study of a high school in Canada; Ramsay et al's (1995) study of 18 secondary schools in New Zealand.

Cousins, Goh and Clark (2006) studied 4 secondary schools in Canada. They concluded that the role of the school principal was crucial.

Macklin's (2004) case studies of a primary school in Queensland and a Prep-Year 9 school in Queensland demonstrated the value of teachers in the school experimenting with innovative pedagogies within an action research framework. Chen and Chung (2000) studied 12 primary schools doing SBCD in Taiwan. They concluded that the most significant factor to bring about successful SBCD was to have a standing committee for curriculum development.

Ben-Peretz and Dor's (1996) fascinating thirty-year longitudinal study of 28 schools doing SBCD in Israel, concluded that "for SBCD to be a viable process, the school must have a unique ethos and a distinct philosophy and must also have the power to maintain pedagogic and economic autonomy" (p.25).

Jung, Liu and Chan (2005) developed a web-based performance support system using three critical factors of continuity, sequence and adaptability. This was implemented in a primary school in Taiwan over a two-year period, with successful results. The authors acknowledge that "SBCD is a complex and highly knowledge-intensive task but that the four web-based modules did assist teachers with the main SBCD processes of analysis, design, implementation and evaluation.

Over recent years in Singapore there have been a number of case studies published which illustrate workings in individual schools (Poo and Thye, 2006; Su Ying, 2006).

Curriculum differentiation

"Curriculum is a way of planning, assessing and teaching a heterogeneous group of students in one classroom, where all students are learning at the optimal level 4, (UNESCO, 2004, p.9).

Various terms have similar meanings to curriculum differentiation. For example, Tomlinson, (1996) uses the term "differentiated instruction". Pettig (2000) uses the term "multi-level instruction". The roots of curriculum differentiation can be traced back to a number of child-centred philosophers such as Dewey and Rousseau. It can also be linked to mastery learning, individualised instruction programs such as IDEA.

It appears that individualised programs continue to appear and reappear in the literature. What makes curriculum differentiation more persuasive at the present time are a number of factors, namely:

- teachers are being encouraged to provide more personalised learning for students (UK) and to enable all students including minority/disadvantaged students to achieve similar levels of success. (No Child Left Behind Act, USA, 2001)
- there is a realisation that all students need to be able to achieve minimum standards in literacy and numeracy to have reasonable life chances.
- as a result of major advances in computer technology, there are now many individualised instruction programs available for use in classrooms.

Tomlinson (1996) notes that the most effective teachers modify some of their instruction for students some of the time. However, she calls for far more consistent, robust plans to provide

greater opportunities for curriculum differentiation.

It is evident that effective curriculum differentiation requires both careful individual planning by a teacher as well as wide ranging collaborative planning with others. In terms of individual planning it is very necessary for a teacher to find out about and appreciate the needs, abilities and interests of individual students. It is also necessary for each teacher to reflect on his/her teaching experiences and preferred learning/teaching styles.

Collectively, teachers can achieve major gains in curriculum differentiation by sharing their observations and working collaboratively with others in small groups.

This can involve examining ways of modifying the content; varying methods of presentation to students; varying methods of practice and performance; and varying the methods of assessment.

It will depend upon the subjects and age levels as to the extent to which the content can be varied using a variety of texts, reference and trade books. Learning centres within a room can enable a teacher to have different content levels provided at different locations.

Providing a variety of different teaching aids such as pictures, posters objects, video clips, enable a teacher to vary the forms of presentation that he/she can adopt. Similarly, the methods of practice can vary, largely due to the computer-based packages now available. Some variations on assessment types can be achieved through multi-level assessment opportunities.

Research on curriculum differentiation, by its nature, is relatively sparse.

Commonalities between SBCD and curriculum differentiation

As noted in the beginning of this paper, and by reference to figure 1, it might be argued that although SBCD and curriculum differentiation are at different levels of generalisation (whole school versus single classroom), there are common linkages, which are worth exploring.

- Teachers and students involved in planning topics.

Although it will depend upon ages of the students, it is conceivable that this activity could occur both as a school wide activity as well as an individual class activity. Students have a great deal of knowledge about the local community, and this could be quite valuable in assisting teachers in developing teaching topics that are geared toward community. Similarly, it can be argued that students could be very useful in assisting a classroom teacher in either the planning of topics or assisting with seeking out resources needed or even helping to develop rubrics for various assessment tasks.

- Providing multiple resources for learners.

At the school level, students and teachers might both be involved in collecting local community data, photographs, records and paraphernalia which could be of value for the teaching of specific units. At the classroom level students might be encouraged to provide a range of resources in addition to what the teacher is able to produce.

- Student differences in ability are used as a basis for planning,

At the school level it would be very necessary for teachers to have a good understanding of the ability levels of students across all grades, as well as other significant facts about the total school student population. Hopefully, this information would be used in making decisions about the type and range of courses to be included in any SBCD program. At the classroom level, it would be quite crucial for a teacher committed to curriculum differentiation to be aware of various intellectual /emotional differences between students in his/her class and to make adjustments for this in the style of teaching provided.

- Variety of forms of instruction used

At the school level, teachers would want to make use of particular resources and facilities available within the local area, and this might then lead to using some forms of instruction rather than others. For example, it could mean that field trips, and the use of local guest speakers might figure prominently because of their availability within a school community. At the classroom level, it would be essential for the teacher to provide as wide a range of instruction as possible to cater for the various interests and abilities of his/her students.

- School wide forms of formative assessment are used.

Recent research indicates the importance of formative assessment, especially for lower ability students. At the school level, it would be crucial that policies were put in place to ensure that all teachers on a regular basis, undertook formative assessment so as to improve the opportunities for all students, both academically able and the less able. At the classroom level, the teacher committed to curriculum differentiation would of course be using a number of opportunities for formative assessment to get feedback for the student, and also to provide feedback on his/her teaching successes.

- Reconciling individual class goals with school wide goals.

It is argued that these two targets are complementary. To a certain extent, an individual teacher would be designing goals, especially for his/her classroom. But these would nevertheless have to be within the parameters of the goals devised for the school as a whole. If there was appropriate communication and collaboration between teachers then it might be expected that this would indeed be the case.

- Teachers work together to develop innovative practices at their school

At all levels, whether it be school wide curriculum development, or whether at the individual classroom level, there are many advantages for teachers to work together to plan, share and develop innovative approaches to teaching. It would of course depend upon the leadership style of each school, and the commitment that senior managers promote to have teachers work together collaboratively.

Summary and conclusions

Globalisation forces are causing countries to re-examine their existing educational systems. Although many countries have developed centralised systems there have been initiatives to

allow greater school autonomy especially in terms of school-based curriculum development (SBCD).

Another important initiative is to examine how equity issues in schools can be addressed and so various approaches to curriculum differentiation have been proposed in recent years.

In this paper it was argued that SBCD and curriculum differentiation have complementary roles. Although there are differences between the two concepts in terms of level of activity, there are also many commonalities in priorities especially with regard to teacher/student planning, use of a variety of forms of instruction pertinent to the school and students, the use of formative assessment to assist teachers and students, and the need to reconcile individual and school wide goals.

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Author

Colin J MARSH

School of Education, Curtin University