

A Reform Initiative: The Barbadian Experience

Barbara Parris

Abstract

This paper examines the reform initiative that is being undertaken by the Ministry of Education, Youth Affairs and Culture in collaboration with Erdiston Teachers' Training College to improve the quality of education for all students in Barbados. The Education Sector Enhancement Programme, commonly referred to as EduTech 2000, seeks to accomplish this reform. The two main theories that underpin the philosophy of this reform program are the theory of constructivism and that of child-centered learning. The emphasis on collaborative forms of learning in the nation's classrooms will help students to live and work in harmony and develop skills in creative and critical thinking. With these skills, students will be prepared to function effectively in a technologically advanced society. This paper examines the four major components of the program—(1) civil works, (2) institutional strengthening, (3) procurement and installation of hardware and software, and (4) teacher training and technical assistance—and shows how each of these factors will contribute to the attaining of the reform goals.

This paper examines the reform initiative that is currently being effected by the Ministry of Education, Youth Affairs and Culture in collaboration with Erdiston Teachers' Training College.

Universal access at both the primary and secondary levels of education has been provided by successive governments for the past 40 years for all students from ages 5 to 16. However, an analysis of the external examinations for a number of years indicated that about 30% of the student population leaving school had received inadequate certification in regional and extra-regional examinations.

It was also noted that there were general deficiencies among students in the areas of critical thinking and problem-solving skills. In addition, it was recognized that preparation for the workplace should be a focal point and that educators need to be cognizant of the social and emotional needs of students. It is in this regard that the White Paper on Education Reform (Ministry of Education, Youth Affairs and Culture, 1995) indicates that reform is necessary and that any reform that takes place should benefit the majority.

The foregoing is supported by John O'Neil (2000), who observes that school reforms are a product of the cultural, political, and economic forces of their times. In response to the question by John O'Neil (2000) and *Educational Leadership* staff as to what helps sustain a change in schools, Larry Cuban notes that, "One of the biggest factors seems to be that the reform reflects some deep-rooted social concern ... for equity, or for preparing students to lead fulfilling adult lives" (p. 6).

The above are in consonance with the statement expressed in EduTech (Ministry of Education, Youth Affairs and Culture, 2000, p. 6), where the Ministry of Education states that "it is intended to significantly increase the success rate of the system by making it possible for all children to fulfil their potential, while preparing them for active participation in an increasingly demanding technological age." The document further states that it (the Ministry) is committing "itself to reforming the education system and to make it more responsive to national development" (p. 6).

The two main theories that underpin the philosophy of this reform program are the theory of constructivism and that of child-centered

learning. Slavin (1997, p. 369) notes that the “constructivist theories of learning state that learners must individually discover and transform complex information, checking new information against old rules and revising rules when they no longer work.” The author further observes that teachers must now teach “in ways that make information meaningful and relevant to students by giving opportunities to discover or apply ideas themselves and by teaching students to be aware of and consciously use their own strategies of learning.”

Roblyer et al. (1997, p. 70) concur with this view. They write, “Learners construct knowledge themselves, rather than simply receiving it from knowledgeable teachers.” The foregoing gives rise to the notion of child-centered learning, since it assumes that the child is at the center of the learning process. Roblyer et al. (1997) note that students work in cooperative groups instead of individually; and the teacher, instead of setting the goals and delivering most of the instruction, now arranges for required resources and acts as a guide to students.

Slavin (1997) supports the view postulated by Roblyer et al. (1997). He opines, “In a student-centered classroom the teacher becomes the ‘guide on the side’ instead of the ‘sage on the stage’ helping students to discover their own meaning instead of lecturing and controlling all classroom activities” (p. 270). According to Lucas (1999), one of the features of the constructivist classroom is multifaceted technology, which is used in order to develop a wide range of skills, dispositions, and concepts. It should be noted here that the integration of technology across the curriculum (with special emphasis on the computer) is one of the initiatives used to assist the development of child-centered learning activities.

The principal’s functioning is critical to the advancement of the reform process. Costello (1997) indicates in his research that leadership is a key to successful implementation of technology. In this regard, he cites Mergendoller who posits that the “role of the principal is crucial in promoting school technology use ... organizational change research has consistently found that change efforts do not succeed without active administrative leadership, particularly by principals....”

In this context, Leithwood, Jantzi, and Steinbach (1999) remind principals that they should adopt a participative leadership style. They contend that “the substantially increased demands placed on school leaders by changing context and expectations could best (or only) be met by moving towards forms of shared leadership” (p. 12).

With special reference to the area of early childhood education and the use of technology, research data seem to favor the use of computers in early childhood education, but not before the age of 3 because computer use does not match the learning style of children under 3 years old. Haugland (1999) (who provides the theoretical framework for this section of the paper) observes that children younger than 3 learn through their bodies and are full of movement, changing focus frequently. In addition, these children are learning to master the developmental skills—crawling, walking, babbling, talking, among others—gaining control of their bodies and in the process learning about themselves and their environment. Haugland (1999, p. 26) cites several studies that point out that

What teachers tend to do most (drill and practice) is the opposite of what is recommended: encouraging children to solve problems and be creative. Using computers with young children should be a process of exploration and discovery for both teacher and children.

Writing in the January 2000 issue of *Young Children*, Haugland cites her earlier research in which she argues that for computers to have an impact on children’s learning, computer-based activities must mesh with children’s educational goals. She contends that it is only when computers are integrated into the curriculum that children demonstrate gains in conceptual understanding, develop abstract thinking, increase verbal skills, and have gains in problem solving. She cites research that reveals that placing computers in classrooms rather than in labs is more effective in learning. Haugland (2000) maintains that computers empower young children. However, she cautions that if computer experiences are not developmentally appropriate, children would be better served with no computer access.

Central to the Education Sector Enhancement Programme is the training and retraining of all

teachers and administrators in the educational system. This emphasis is of significant import since the program deals essentially with curriculum reform. This is not to suggest that the content per se is being radically changed, but the emphasis is on the methodologies.

Strawderman and Lindsey (1995) observe that the effectiveness of inservice training programs to prepare new and practicing professionals for the increasingly complex and diverse demands of public school teaching is a concern permeating all areas of education reform. They point out that some training programs are being restructured so as to provide teachers with the skills and knowledge to work effectively with all students.

The aforementioned authors also cite other researchers (e.g., Tymitz-Wolf, Landers et al.) who postulate that collaboration and teaming are critical to all school reform models. This view is largely at variance with current practice. Hargreaves (1994, p. 167) maintains:

Most teachers still teach alone, behind closed doors, in the insulated and isolated environment of their own classrooms. Most elementary schools still have what Lortie described as an egg-crate-like structure to them; segregated classrooms dividing teachers from one another so they see and understand little of what their colleagues do.

In this regard, the Barbados model is seeking to encourage collaboration among tutors, student teachers, and school-based staff (*Erdiston Teachers' College Handbook, 2000-2001*). This stance is in consonance with the view expressed by Hargreaves (1994) as he argues that collaboration and collegiality are widely viewed as securing effective implementation of externally introduced change. He reiterates that the creation of supportive collegial relationships among teachers has long been seen as a prerequisite for effective school-based development.

Hargreaves and Fullan (1998, pp. 53, 76) effect a powerful alliance between the teacher and technology as they write,

Teaching methods are one of the great rhetorical battlegrounds of educational reform.... New

technology will insinuate itself into more and more aspects of our lives. The challenge for teachers is to turn this inevitable intrusion into a powerful tool for learning.

On examination, one notes that there are four major components to the Education Sector Enhancement Programme: (1) civil works, (2) institutional strengthening, (3) procurement and installation of hardware and software, and (4) teacher training and technical assistance.

Civil Works. Civil works involve repairs (extensive, where necessary) to 73 of the 105 public primary and secondary schools in the island. These repairs are necessary because the Barbadian school plant is very old, and periodic major renovations have not been undertaken. Attention will also be paid to electrical and security aspects. The refurbishment is being undertaken at the rate of about 20 schools per year over the duration of the program.

Institutional Strengthening. In order to manage the implementation of the program efficiently, there has been the establishment of the fully staffed and equipped Programme Unit (at the Ministry of Education, Youth Affairs and Culture); the Shell Antilles and Guianas Media Resources Review Centre, where teachers can go to review and select available software and other materials; and a National Educational Evaluation and Research Centre set up at the University of the West Indies to assist the Ministry in carrying out its objective regarding the ongoing monitoring and evaluation of the program.

Procurement and Installation of Hardware and Software. This component of the program will provide for the widespread introduction of technology into all of the island's primary and secondary schools and will include the provision of hardware, software, and the necessary networking infrastructure.

Teacher Training and Technical Assistance. All teachers in the system will be re-trained within the seven-year period in the areas of child-centered learning, special needs education, and the integration of technology into the teaching/learning process. The training, which is predominantly "hands on," will be inservice and, in some instances, site based.

Training (for two terms—full-time) is also provided for three persons from each school (School IT Leadership Team). This team comprises the Principal or Deputy Principal, the Curriculum Coordinator, and the Information Technology Coordinator. The teachers are invited to access training in the evenings after school. It should be noted that not only teachers and principals are being trained but also other support staff such as school secretaries, clerk-typists, secretary-treasurers (accounting officers), and library assistants.

Technical assistance entails training for Education Officers in the Ministry of Education, namely, School Supervision and Management, Curriculum, Testing and Measurement, and Audio Visual Aides units, relevant support staff, as well as Tutors from Erdiston Teachers' Training College.

In conclusion, in words from the White Paper on Education Reform (Ministry of Education, Youth Affairs and Culture, 1995, p. 2), we in Barbados recognize that for us:

The major challenges, which are in part the result of changes in the economy and the labour market, remain the improvement of educational quality and the reduction of the lag in the reform of the education system to keep pace with economic and technological change.

Consequently, the central administration (of education) in Barbados has embraced the view expressed by Hargreaves and Fullan (1998, pp. 7, 74-75) that

Schools can no longer pretend that their walls will keep the outside world at bay.... We have no choice in deciding whether technology will affect us. The only choice is figuring out how we will change ourselves and each other to respond to it and turn it to our advantage. Educators equipped with a clear and sophisticated approach to teaching and learning can use technology to deepen, extend, and invigorate students' learning.

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