

BENEFITS AND DRAWBACKS OF BLOCK

SCHEDULING AND INTEGRATION:

A CASE STUDY

RP
81
01

by

Faten Jibai

M.A. in Education, Emphasis: Educational Management

Project submitted in partial fulfillment of the requirements for the degree of Master of Arts in Education, emphasis: Educational Management

Under the Direction of

Dr. Mona Nabhani

Division of Education

LEBANESE AMERICAN UNIVERSITY

November 2007

Project Approval Form

Benefits and Drawbacks of Block Scheduling and Integration: A Case Study

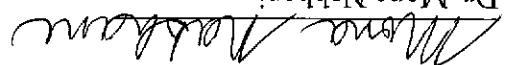
Research Project by

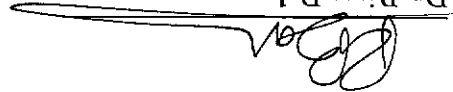
Faten Jibai

Submitted to the Lebanese American University in partial fulfillment of the requirements for the degree of Masters in Education

November 2007

Approved as to content and style by:


Dr. Mona Nabhani
(Advisor and First Reader)


Dr. Rima Bahous
(Second Reader)

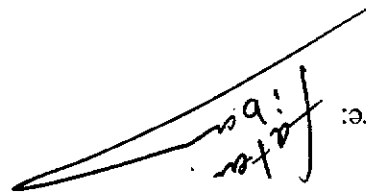
November 2007

Plagiarism Policy Compliance Statement

I certify that I have read and understood LAU's Plagiarism Policy. I understand that failure to comply with this Policy can lead to academic and disciplinary actions against me.

This work is substantially my own, and to the extent that any part of this work is not my own I have indicated that by acknowledging its sources.

Name: Faten Jibai

Signature: 

Date: November 2007

I grant to the LEBANESE AMERICAN UNIVERSITY the right to use this work, irrespective of any copyright, for the University's own purpose without cost to the University or its students and employees. I further agree that the University may reproduce and provide single copies of the work to the public for the cost of reproduction.

*To my main support in life, my mother and to my precious and beloved husband Wael
who played a major supporting role in constantly encouraging me finish my project!
To my son to be...*

Dedications

ACKNOWLEDGMENTS

I would like to convey my sincere gratitude to Dr. Mona Nabhani for her continuous support, valuable assistance, encouragement and patience while guiding my work on this project. It is definite that if it weren't for your tireless effort, this work wouldn't have been finished. Thank you for all guidance and advice!

I extend my special gratitude to Dr. Rima Bahous who constructively contributed to the improvement of this project and who constantly provided me with moral support throughout my undergraduate and graduate studies at the Lebanese American University. Thank you for all what you have done!

Special thanks go to the Department of Education at the Lebanese American University, especially Dr. Hadia Harb, Dr. Iman Osta, Dr. Ahmad Queini, and Dr. Kette Sarouphim. Thank you for your on-going guidance you constantly provided me with throughout my enrollment at LAU.

I am thankful to Mr. Kamal Jaroudi and Mr. Nabil Badran for their constant help at the library of the Lebanese American University.

I acknowledge my sincere gratitude to my school director and leader Mr. Omar Salloum for his valuable support, on-going advice, and constant encouragement for this project. I am also thankful to my colleagues at work and the administrative staff at the German School Beirut for sharing their experiences while conducting the project.

My special gratitude is extended to my beloved family, my brother Abdallah, and my sister Rania whom I shared with her my most valuable memories and experiences in life.

I am deeply grateful to my husband who has given me the will, motivation, and non-stop encouragement to finish my work. You were a great source of inspiration! Thank you!

Last, I grab this chance to express the extent to which I am deeply and forever grateful to my beloved mother, for her love, patience, and moral support throughout my entire life. Mom, you assisted me in reaching high. I am and will always be grateful to all what you have done to me and you are still doing...

In order to create a cooperative group of critical thinkers and independent learners, researchers have shifted from the use of traditional modes of education and scheduling system in the elementary schools to innovative modes of teaching and scheduling such as curriculum integration and block scheduling. Block scheduling is ideal for integrated learning. Its influence on the elementary classrooms has for long become an essential topic to be studied and observed. This case study was based on two fundamental research questions: 1) what are the benefits and drawbacks of block scheduling and integration? 2) How can block scheduling and integration affect teachers' instructional methods and students' motivation? Regarding block scheduling and integration, data were collected by semi structured interviews with the school principal and the vice principal of the case study, classroom observations, and questionnaires administered to the elementary school teachers, coordinators, one vice principal, and the school principal. The main objective behind this research was to discern the outcome which the implementation of integration and block scheduling in a private school in Lebanon has left on the learners' incentive to acquire new concepts and enhance the teachers' methods of teaching. This case study has revealed the benefits and drawbacks of implementing integration and block scheduling and suggested innovative ways for the reform of school scheduling and teaching approaches.

ABSTRACT

TABLE OF CONTENTS

Dedication.....	i
Acknowledgments.....	ii
Abstract.....	iii
Table of contents.....	iv
Chapter 1	1
Introduction.....	1
Purpose of the study.....	3
Rationale and Significance of the Study.....	3
Case Study.....	5
Chapter 2	8
Literature Review.....	8
Chapter 3	22
Research Design and Methodology.....	22
Sample.....	22
Methods and Instruments.....	24
Semi-Structured Interviews.....	25
Questionnaires.....	25
Observation Checklists.....	26
Data Analysis.....	27
Ethics in Research.....	29
Chapter 4	30
Data Presentation and Analysis.....	30
Chapter 5	48
Findings.....	48
Chapter 6	57
Conclusion and Recommendations.....	57
References.....	59
Appendices.....	64
Appendix A.....	64
1. Principal's Interview Questions.....	64

2. Vice Principal's Interview Questions.....	65
Appendix B.....	66
1. Teachers' and Coordinators' Survey Questions.....	66
Appendix C.....	71
1. Observation Checklist	71
Appendix D.....	72
1. Observation Checklist I.....	72
2. Observation Checklist II.....	73
3. Observation Checklist III.....	74
4. Observation Checklist IV.....	75
5. Observation Checklist V.....	76
6. Observation Checklist VI.....	77
7. Observation Checklist VII.....	78
8. Observation Checklist VIII.....	79
Appendix E.....	80
1. Teachers' Survey Results.....	80
Appendix F.....	83
1. Coordinators' Survey Results.....	83
Appendix G.....	86
1. Summative Classrooms' Observations Checklist Results	86

CHAPTER ONE

Introduction

Block scheduling has rapidly flourished in the mid-1990s. This encouraged many schools to implement block scheduling for many reasons: "providing course flexibility", "enhancing the quality of students' educational experiences", "improving instructional strategies", and "providing enhanced time for learning" (Hackmann, 2004, p.699). Block scheduling supports the major principle on which constructivists base their theories. "Constructivism principles should be the driving force behind any decision to implement block scheduling" (Hackmann, 2004, p.702). In a way, constructivism advocates the active role of the students in the learning process and focuses on the teacher's role as a facilitator. Learners will be encouraged to create their own methods of receiving knowledge and thus build their understanding accordingly. Using such a strategy will foster the students' motivation (Bill, 2003; Queen, 2003; Lybbert, 1998). In addition, it will develop long term memory, so learners will grasp the material more easily when it is presented thoroughly and systematically. As a result, the brain can easily recall the information already available in long term memory. Furthermore, block scheduling will allow educators to cover the material in more depth (Bill, 2003; Queen, 2003). This contradicts the behaviorist theories which merely focus on lecturing as a technique and students as recipients. The method of teaching and learning of the behaviorists revolve around drill, practice and repetition. The teacher's major role is seen as a trainer and provider of rewards and punishments. Therefore, a regular forty five minute session would be enough for them to introduce the newly explained concepts to their students but would not serve the target of the constructivism (Hackmann, 2004; Hounshell & Loudon, 1999).

With regards to integration, research in "cognitive psychology" suggests that

students learn best when ideas are interrelated to one another because the brain always searches for interconnections when formulating meaning (Caine & Caine, 1991). It recommends that students at the elementary level are encouraged to perceive the concepts better when they are correlated because it is easier for them to analyze the ideas concretely (Cook & Dehart, 1996; Mason, 1996). For this reason, the constructivists emphasize the integrated curriculum because it puts less stress on memorization. This complies with the views of John Dewey and other researchers who supported integration proposing that knowledge should be taught from a holistic

perspective including "inquiry learning" and "child-centered approach" (Bruner, 1966; Dewey, 1939; Wortham, 1996). However, this doesn't comply with the beliefs of the behaviorists who introduce information as fragmented concepts, which would hinder the ability of the learners to grasp the materials in depth and comprehensively. All views agreed that integration motivates students since it puts less emphasis on memorization and is often organized around student-selected themes. This would enhance students' motivation (Mason, 1996; Wortham, 1996).

"Integrated teaching and block scheduling enhance the understanding and application of material for students" (Salvatera & Adams, 1997, p.80). Researchers have advocated that teachers implement their integrated activities during block scheduled sessions since this strategy goes with the goal of "creating a cooperative group of critical thinkers through block scheduling" (Salvatera & Adams, 1997, p.80). They suggested that block scheduling is "ideal for integrated learning" since the longer periods of learning promote the use of integrated activities: Students become actively engaged in the process of learning, construct their knowledge by their own and get involved in "inquiry activities" (Salvatera & Adams, 1997, p.80).

Purpose of the Study

The influence of integration and block scheduling on classrooms has for long become an essential topic to be studied and observed. Such a research would as a result leave a strong imprint on professional development in the educational system in the country. The main objective behind this project is to discern the outcome which the implementation of integration and block scheduling will leave on the learners' incentive to acquire new concepts and enhance the teachers' methods of teaching. Moreover, this study will examine the efficiency of the teachers' methods for engaging learners during block scheduling due to integration programs. The research questions are as follows:

1. What are the benefits and drawbacks of block scheduling and integration?
2. How can block scheduling and integration affect teachers' instructional methods and students' motivation?

The methodology was qualitative in nature and involved a case study. Data were collected by semi structured interviews, classroom observations, and questionnaires conducted with teachers, coordinators, one vice principal, and the school principal.

Rationale and Significance of the Study

The study was conducted in a private school in Beirut, a multicultural school whose students come from different backgrounds and engage in main programs that are tailored to meet their needs. According to the mission statement, the main aim of the school is to graduate long life learners. The approaches of teaching implemented in the school stimulate students' thinking. Teachers act as facilitators who encourage students to state their points of views and teach them how to act in multiple situations.

Lately, the school has been implementing block scheduling and teaching strategies such as integration that infuse innovative schedules in its system.

It was worth investigating the school since it has implemented integration and block scheduling simultaneously for the elementary students. In fact, its administration did not follow one standard model of application, but it has blended several models applied all over the world and came up with a unique one that meet the students' needs. This case study would reveal the benefits and drawbacks of implementing integration and block scheduling in a Lebanese school and would suggest innovative ways for the reform of school scheduling and teaching approaches.

Operational Definitions

Block Scheduling

It is a process that joins two regular teaching sessions into one large block of time. The main objective behind block scheduling is to provide teachers and students with more time to achieve the assigned learning objectives (Hackmann, 2004; Lybber, 1998; Queen, 2003). It reduces the fragmentation of instruction by providing learners with more quality time to get engaged in the learning process, as well as it covers the material in more depth, and permits the usage of varied and creative forms of instruction.

Integration

It is a teaching strategy that entails planning and organizing curriculum in a way that the subject matters in various disciplines are incorporated so that the learners will no longer be exposed to materials as isolated concepts (Freeland & Hammons, 1998). Rather it encompasses concepts from different subject areas under one general theme and 'real life' situations (Mason, 1996). Still, its importance lies in the

enhancement of students' developmental needs and its relation to real life experiences

(McClelland, Powell, Rovengo, & Sumal, 2000, p.9).

Case Study

In the selected school, which serves 300 students, the principal had a vision of implementing the block scheduling and integration programs together. It took the principal and educators in the school nearly a year of preparation before implementing the program. The researcher has selected this institution to examine the extent to which the implementation of block scheduling and integration affects teachers' instructional strategies and students' motivation.

The principal found that the need to achieve integration among all academic disciplines and to shift to a new teaching schedule that consists of a seventy seven five minute period a day to provide adequate teaching for the lower elementary students. It took a well structured plan of action and the teachers played a vital role in the accomplishment of this system. One of the steps taken included the recruitment of staff that have the capacity to cooperate and work in a team. This step required peer teaching where two teachers responsible for two different subjects had to work closely together in order to present for their pupils a wide array of educational activities during the same block.

Still, integration in itself generated modifications in the schedule, whereby a regular period of forty five minutes was no longer sufficient in conveying a rich and comprehensive lesson to the students. For after integrating subjects, teachers became the facilitators inside their classrooms, and students became exposed to two interrelated thematic disciplines during the same block. For example, rather than studying math or social studies in isolation, a class might study a unit called "The Sea", using math to calculate pressure at certain depths and social studies to

understand why coastal and inland populations have different livelihoods. Another class might study a unit called 'Numbers', using Math to identify whole numbers and music to sing songs related to the theme so that learners would identify the whole numbers smoothly.

In this way, teachers will have the opportunity to review with their pupils the concepts explained in one subject matter in all of the remaining subjects. Indeed, in this educational system, all teachers worked together to fulfill the previously defined objective. They had specified time each week for teacher planning and for collegial presentations on innovative instructional techniques. Meanwhile, teachers managed to help each other in sharpening their skills and improving their teaching methods. This type of work increased the number of meetings that were extremely useful in discovering the mistakes and the weaknesses of some teachers, especially those who opposed the change. When mistakes were noted, the principal worked on minimizing the number of mistakes through supervision of the teachers' progress and implemented a follow up program on daily plans and strategies of instruction. The main aim behind this supervision plan was to collect feedback from the interaction between teachers and students during the implementation process and assess varied instructional strategies such as problem solving, group discussion and inquiry learning. The purpose is to introduce necessary adjustments to the plan of action when needed.

After one year of the program's implementation, teachers who understood the mechanism of the change supported it because they were able to accomplish more during a seventy to seventy five minute period. In addition pupils liked it because they were able to concentrate on fewer blocks per day to experience hands-on activities, and work individually with their teachers.

Integration and block scheduling play a vital role in motivating learners to be involved in the subject matter rather than being passive receivers. Consequently, this would reflect positively in the learners' achievement and eagerness to learn more. Chapter two discusses the educational advantages and disadvantages that have resulted from block scheduling and integration in elementary schools, and how block scheduling provides opportunities to use a variety of instructional strategies that help students master concepts and finish their tasks within a class period.

CHAPTER TWO

Literature Review

Introduction

The purpose of this chapter is to examine how teachers motivate students during the block scheduling and integration programs and how the teachers' understanding of how they use instructional strategies influenced their lessons.

Block scheduling

Problems with Traditional Scheduling

The process of bringing about constructive changes to the traditional six or seven periods in a school day focuses on the extent to which time is being used effectively. Lybber (1998) and Queen (2003) argued that barely 20 to 28 minutes of effective teaching is being utilized appropriately in the 50 minute class. The remaining time is usually spent in getting across information, taking attendance, dealing with classroom management, and explaining instruction (which might consume 10% of the time). Such a schedule is believed to provide inadequate time for probing ideas in depth and discourages the usage of a variety of learning activities.

Furthermore, monotony may result from such lecturing system which, unfortunately, most teachers abide by while communicating with their learners. Students may feel tense in their own school environment and anxious to deal with the given assignments and tests later on at home. They may not have enough time to deal with topics in depth or to work on projects with other students (Albanese, Baily & Crew 1998).

Moreover, teachers feel frustrated during the day when they are expected to apply effective instructional methodologies with a large number of students and meet

the needs of different learning styles in a restricted number of minutes (Lybbert, 1998; Mason 1996; Queen, 2003; Zirkle, 2004).

Due to the above reasons, educational reformers found alternative ways to schedule a school day in order to maximize the students' learning times.

Block Scheduling as an Alternative

School reformers have found, as an alternative, that block scheduling replaces the traditional 50-minute class period with longer blocks of 70 to 90 minutes. So, the six to seven classes per day are basically replaced with four main blocks a day.

“Change always sparks feelings of fear, but the fear of stagnation can be

greater” (Gaskey & Queen, 1997, p.158). Undergoing changes in scheduling system of schools is a radical process which entails continuous efforts in both teaching and learning. Such a change requires open minded educators with compliant spirits and devotion to the effective implementation of this system (Lonardi, 1998; Stidham, 2001).

Shortt and Tayler (2000) have warned that when undergoing such a change, educators and administrators must guarantee enhanced teaching and learning opportunities which consequently necessitate more instructional planning and thorough examination of the various academic needs of students.

Other researchers stated the advantages and disadvantages of block scheduling for teachers and students. They stated that the benefits of block scheduling are many; yet they warned that the disadvantages must be noted and dealt with to ensure a successful implementation of the system (Albanese, et al., 1998; Hackmann, 2004; Irmsher, 1996).

Benefits of Block scheduling

Mowen and Mowen (2004) explained that block scheduling is a new educational strategy that has multiple objectives. It aims at training learners on timed activities and providing them with wider variety of effective learning activities that focus on the content. They argue, moreover, that this system gives teachers additional time for evaluating the degree to which pupils have grasped the intended learning objectives. Similarly, Imsher (1996) clarified that block scheduling works on widening students' critical evaluation of concepts and on broadening their scope of thinking over short periods of time. Consequently, this method would lessen the burden of homework since students are expected to get home having assimilated the concepts in the classroom.

Thomas (2001) has elaborated on other advantages of the system. Students earn better grades and are at less risk of failing than those attending traditional classes. It enhances the quality of instruction and consequently would result in student progress (Lybber, 1998; Queen, 2003).

Instructional Strategies

Gaskey and Queen (1997) highlight the importance of teachers' diverse modes of presentations when applying the block scheduling system effectively. Creativity improves when implementing various methods of teaching strategies such as "cooperative learning", "inquiry learning", "curriculum integration", "teaming", "simulation" and "performance assessments" all of which can increase the pupils' interest and performance (Stidham, 2001). The strategies will become more effective during the block sessions if they are modified every 20 to 30 minutes for this will maintain students' attentiveness and concentration.

Mayers and Zepeda (2001) stress the smooth transition between different activities so as to maintain an appropriate environment in block scheduled sessions. For example, teachers might apply simple tactics, like assigning one student to distribute papers, organize student movement and reduce the tension of sitting for long periods of time.

Hounshell and Loudon (1999) studied the effectiveness of student-centered strategies in block scheduled sessions. These studies compared the teaching strategies implemented in 20 different schools in California, some implementing block scheduling and others applying traditional scheduling. Data were collected by using questionnaires, interviews, and observations. The findings revealed the importance of following the student-centered approach in the block scheduled sessions. Students had the opportunity to observe, conclude, compare, and integrate taught concepts using cognitive skills. Such an outcome necessitated the presence of longer class periods. The studies also showed that students who are accustomed to this kind of instruction score significantly higher on tests than students in classes with teacher-centered instruction.

Teachers using block scheduled sessions need to train their students in using the scientific method to solve problems or the inquiry approach which mainly focuses on identifying problems, collecting data by formulating yes-no questions, asking questions and employing the results to formulate hypotheses about the solution to the problems presented. It is the teacher's responsibility to direct the students in how to test their hypotheses and discuss necessary steps used to solve the problem. In sum, inquiry is an effective approach to attract the students' attention especially when practiced during the extended hours of teaching (Queen, 2003).

Classroom Management

Many researchers argue that in order for educators to implement effective lesson plans and instructional methodologies, teachers should maintain an effective classroom management especially during block scheduled sessions. Shortt and Thayer (2000) stressed that under block scheduling, class tardiness is reduced and the number of students missing their classes is lessened because educators apply varied teaching methods in their extended sessions, which would enhance the student's attention and reduce class management and discipline problems. Consequently, this would lead to a better chance to develop individualized learning strategies (Gaskey & Queen, 1997;

Lybbert, 1998).

Stidham (2001) stated that block schedule ensures an improved school climate. Teachers and students will develop better relationships under a similar system hence creating a more relaxed and less tensed teaching environment. Similarly, other researchers have advocated that teachers have the opportunity to get to know their students better, which helps them to come up with specific instructions that would meet the need of the students and thus achieve better. Teachers concluded that time will be fully allocated to effective learning and that a similar schedule will fortify students' interpersonal relationships. This would consequently help them achieve academic success and better grades.

Teachers' Collaboration and Training

In order to implement innovative instructional strategies within block scheduled sessions, teachers should cooperate with each other in order to set common ideas and meet mutual goals. Moreover, the school administration should allow teachers to attend workshops and train them in the best instructional strategies to be able to accept the change and apply new methods of teaching using effective time

successfully. DiRocco (1999) emphasizes the implementation of a successful block scheduling system, for it demands cooperation among teachers, a deep level of planning and solid team work (Irnsher, 1996; Rettig & Canady, 2003). In fact, the block sessions permit teachers to dwell on the explained concepts and expose students to more engaging activities (Albanese, et al, 1998).

Schools that have implemented innovative strategies should encourage their teachers to work as a team in order to design effective solutions to the school's problems. Such a strong yet harmonious team work will lead to a more positive atmosphere whereby teachers will feel more at ease working together (Dyson & O'

Sullivan, 1998).

Teachers' training is an essential component of a successful application of block scheduling. Principals should be ready to motivate teachers and provide in service workshops in order to support them in developing activities to overcome the fear of change. Such workshop should stress the frequency and sequence of courses that are offered, exchanging classroom management techniques, examining effective assessment techniques, and monitoring students' results during block sessions (Shortt

& Thayer, 2000).

Drawbacks

Despite all the above mentioned advantages of block scheduling, many researchers have disclosed some uncertainty about the efficiency of such a program. They claimed that the presence of block scheduling might not prevent teachers from acting as lecturers in their classrooms. Teachers might fail to fully employ their students in active learning. As a result, students may lose focus on mastering the intended learning objectives. This subsequently contradicts the main objective of the block scheduling approach as promoted by constructivist principles. Thus, teachers

should pay careful attention to the method they employ so that students develop critical thinking (Lybber, 1998; Queen, 2003).

Another concern that researchers have noted is that under block scheduling, a one day absence means that students will miss an equivalent of two days of instruction under the traditional system. Such an absence may cause a student to fall behind (Rettig & Canady, 2003). Moreover, Thomas (2004) has highlighted the risk that students with concentration problems might face in such a schedule because such learners need more time to grasp the concepts given in a specified time. This might cause them to fall behind in the class especially with the presence of high ability students. So educators should take their precautions when implementing such a program.

Samples of Block Scheduling Models

Queen (2003) outlined the organizational methods of block scheduling which are divided into four types: the "4x4 block schedule", which is known as the "accelerated schedule", the "A/B block schedule", which is known as the "alternative schedule", and the "modified block schedule".

The Accelerated (4x4) Block Model

This model of block scheduling consists of classes of 90 minutes each and is offered on a semester basis. There are only four courses offered per one semester. As a result, learners can take eight different courses on a yearly basis. At the same time, teachers will teach three courses per semester and will enjoy the remaining period of their teaching day for planning. This involves preparing the lesson and coming up with different instructional strategies to meet the varied needs of students. This system focuses the students' concentration on four classes per semester. It exposes the

students to less assignments, tests and quizzes per day and makes them focus more to new topics (Lybbert, 1998).

The Alternating Block (A/B) Model

This model of block scheduling changes periods within the day or week. The subjects are offered every other day for extended teaching sessions or they are shortened in length and taught on an alternating base and on a daily basis for the whole academic year. The A day schedule has 4 different classes and the B day schedule has 4 different classes. Other adjustments might be introduced to the A/B model, doubling a blocked class so that A days are Monday and Tuesday, followed by B days on Wednesday and Thursday. In this model, the students are not focused on four courses on a semester basis, but they are exposed to eight different courses at a time (Albanese et al., 1998; Lybbert, 1998).

The Modified Block

This model provides students with the opportunity to take a variety of courses varying in lengths of time between 30 and 180 minutes. Sometimes, if classes extend over 90 minutes, one period of the day may be divided into two forty five minute sessions, allowing students to take an additional course (Queen, 2003). Most schools have modified a grade level, subject area, or both to accommodate the needs of their students.

Integration

Another methodology that the case study school has implemented is integration of basic subjects such as Arabic, Math, and English with other subjects such as Art, Music, and physical education. Indeed, with the block periods, integration is also used in order to help students become aware of how learning is interrelated.

Curriculum integration has been considered as important in the modern educational systems. It is a teaching strategy that involves planning and organizing curriculum and instruction so the subject matters are related to one another in a way that meets the developmental needs of the students (McClelland et al., 2000, p.9). Based on this definition, an integrated curriculum entails aspects from different disciplines and correlates them with real-life themes or situations (Mason, 1996). Its importance lies in the fact that students will perceive ideas as unified aspects rather than fragmented concepts. Therefore, the comprehension of material would be as a whole (Beane, 1997; Drake & Burns, 2004; Ireland & Hammons, 1998).

Benefits and cautions

Researchers found that integration widens the critical thinking of students, improves their reasoning and comprehension skills as well as challenges them to move beyond memorizing facts and merely gathering information. Under integration, students can manage to make analogies among explained concepts, and consequently become more engaged in constructing knowledge (Zirkle, 2004). Thus, students enrolled in integrated programs gain better skills than students in traditional programs (Greene, 1991; Mason, 1996; McClelland et al., 2000).

Moreover, with integration the school for both students and teachers will become a more alluring place to spend time in (Zirkle, 2004). The reason is that teachers will be more motivated with the learning processes applied in this program, and students will surely become more engrossed in the class (Drake, 1998).

Furthermore, Loepf (1999) argues that under integrating curricular disciplines, students will be the main focus of attention in all lessons explained. He stated that they will come up with links among the various disciplines such as Languages, Mathematics, and Science. Moreover, they will show more enthusiasm in attending

classes. However, Loepf warns that educators should be aware of coming up with relevant integration among all subject matters.

Lake (1993) advocates that training the learners in "student centered approach" is an essential component in the efficacy of the integration program. This can include reinforcing the student to apply problem solving techniques in their daily learning process, and teachers presenting to their students a certain problem that they face in their society helping them think about ways to solve this problem (Loepf, 1999). Therefore a teacher is the catalyst in the classroom and the mentor to the students. Her/ his role would be restricted to the provision of the appropriate guidance

and direction to the students' thinking (Johnson, 2000).

Modes of Curriculum Integration

Drake (1998) describes the process of curriculum integration development through various approaches such as the "multidisciplinary", and "interdisciplinary" approaches.

Multidisciplinary Approach

In this approach, integration depends on the disciplines and the teachers infuse skills and knowledge into the curriculum (Drake & Burns, 2004). For example, language teachers are expected to integrate reading, writing and communication in language arts, and science teachers integrate the perspectives of sub disciplines such as, physics, chemistry and biology.

Drake (1998) discussed the "Standards-Based Multidisciplinary Program" in which the disciplines are connected through a theme that is studied simultaneously in different classrooms. This requires from teachers to organize standards of the curriculum planning around a theme such as "Olympics" and infuse it into several subjects such as science and technology, language arts and history (p. 50).

Interdisciplinary Approach

Most approaches related to integration are interdisciplinary. It is a curriculum that has different models that emphasize different ways to approach the integration.

The "theme approach" to the curriculum used the "webbed" model in which teachers select themes and construct a curriculum that encourages higher order thinking skills and that is integrated with multiple intelligences as way to plan for activities (Fogarty, 1991). Then, different ideas and activities would emerge from all disciplines. This model can be combined with the 'threaded model' (p.66) and have a skill threaded through it in every subject area such as the research skill. For instance, if the theme were about environmental issues, then surveys, graphs, and problem solving would be applied under mathematics, journal writing, and letter writing would be applied under language Arts, and ozone, and rain forests would be applied under science, and dancing would be applied under physical education.

"The interdisciplinary concept model with essential questions" (p.71) goes a step further and uses a theme that emphasizes questions that allow students to connect the content (Jacobs, 1989). It necessitates a great deal of planning among educators. The first step in planning the integrated unit is to identify a theme to plan integrated activities. The next step involves brainstorming ideas through using the 'brainstorming wheel' (p.74), with the chosen theme at the center. On a paper, teachers should draw arrows that connect this theme to a variety of guiding questions related to different subjects. Under each subject heading, educators create a number of activities that would enhance student learning. Then they create guiding questions which should be connected to a range of disciplines that meet the students' needs. For each generated question, they create a list of planning activities. The learning

activities need to include thinking processes that lead to a desired performance, or behavior outcome within the context of Bloom's Taxonomy.

Researchers emphasize that no one approach is preferable. All approaches seem to be similar if educators integrate their planning with effective teaching strategies, practices and skills (Lake, 1994). Thereby, educators can use any of these approaches at any level of education and implement them in their elementary classes

(Drake, 1993)

Drawbacks and Cautions

However, Mason (1996) argues that there are certain concepts that ought to be explained separately, thus their integration wouldn't serve the purpose intended. For example, some topics in mathematics are strictly mathematics such as the number theory and some ideas in science are best understood without being infused with other subject matter (Drake, 1998). Therefore, teachers should be cautious when selecting the activities in order to enhance students' understanding of important concepts.

Another obstacle is when teachers lack thorough knowledge about important concepts especially when dealing with such an advanced program. Consequently, this will hinder the ability of the teacher to acquire the assigned goal. To avoid such a fall back, teachers as a start should be acquainted with the basics of integration and must be trained ahead of time before taking the step of applying such a program (Witte, 2004). Moreover, motivation to work in such a system should start from within, whereby teachers should have the willingness to cooperate and have adequate collaboration with other teachers (Drake, 1998, Ireland & Hammons, 1998).

Change is another concern some educators fear. Some teachers who are not familiar with such innovative teaching strategies might lack confidence and prefer using the traditional techniques. For effective teaching practices, it is recommendable

that school principals provide time for teachers to go into any change (Drake, 1998; Whorham, 1996).

One difficulty that often arises while planning is distinguishing between core subjects such as English, math, and science and non core subjects such as art, physical education, and music. It is considered a misconception when heavy emphasis is put on core subject while undervaluing the importance of other non core matters. Thus, while preparing such a program, it must be taken into consideration that both core and non core subjects are of equal importance. For example, the inclusion of Art is important to learning because learning art skills enhance other skills (Drake, 1998).

Assessment

Lake (1993) argues that the application of integration among subject matters will allow teachers to use a wider variety of assessment tools. The mode of assessment should vary and should not be restricted to a paper-pencil test. He states that teachers should make sure to employ diversified assessment techniques to evaluate the performance of the students. Therefore, schools that are implementing integration should rely on portfolios, presentations, plays, and activities to evaluate their students rather than the traditional methods of assessment (Loepp, 1999). Such techniques play a crucial role in developing students' skills and in shaping their personalities (Loepp, 1999).

Conclusion

Block scheduling and integration are student-centered approaches that implement inquiry and promote meaningful learning experience. It is noteworthy to remind educators, especially those who are willing to implement both systems: block scheduling and integration, that modifying their traditional modes of teaching even their beliefs as educators is a must in order to fulfill the basic needs of both systems.

This would hopefully leave a positive imprint in the minds of educators regarding the comprehensive role of schooling and education.

Research Design and Methodology

CHAPTER THREE

This chapter describes a case study methodology of an integrated curriculum that is implemented during block scheduled sessions in the elementary level and explains the procedure for conducting the study. It as well examines the three primary means of collecting data in this qualitative research which are semi-structured interviews, observations, and structured questionnaires. It presents procedures for data analysis, reliability, validity, and ethics. The chapter presents the data collection

methods used to answer the two fundamental research questions of the study which are 1) what are the benefits and drawbacks of block scheduling and integration? 2) How can block scheduling and integration affect teachers' instructional methodologies and students' motivation?

This case study provides the readers with cases and examples of real life situations of a private school in Lebanon to comprehend the purpose and details of the research study more clearly (Cohen, Manion & Morrison, 2000). Its major objective is to determine whether implementing integration and block scheduling affects the learners' incentives to acquire new concepts and whether the teachers' methods of teaching engage learners during class. The selection of this research design fits this research topic because case study research focuses on a holistic description and analysis (Flick, 2006; Merriam, 2001). It also gathers various participants' opinions by applying various methods of data collection (Cohen et al., 2000; Tellis, 1997).

Sample

The participants consist of one principal, one vice principal, five coordinators, and all the fifteen lower elementary teachers at the school. The researcher gathered

points of view and detected similar perceptions of the implementation of block scheduling and integration in the lower elementary classes (Frankel & Wallen, 2003). The teachers participating in this study are mostly Lebanese, teachers. They teach basic subject matters such as Math, Science, English and Arabic and integrating subject matters such as Art, Music, Physical Education, and Social Studies. These participants transmit their real life experience about integration and block scheduling in their classrooms such as the use of instructional strategies and time management, the preparation methods and the type of interaction with students.

The coordinators guide the work of teachers and teach the same or higher level as their teachers. They are crucial to the research since they monitor other teachers' planning work and evaluate their use of instructional strategies during curriculum integration and block scheduled sessions. Moreover, they reflect on their own use of instructional methodologies, planning and level of interaction with their students.

The vice principals assist the principal in the school administration by helping to set new schedules, evaluate teachers, interview and accept new students, provide feedback and search for innovative ideas. The selected vice principal of the study is knowledgeable and experienced about the lower elementary school curriculum. Thereby, she can contribute important information to the study since she is an administrator and at the same time an English elementary teacher who implements integration during the block scheduled sessions. She has direct relationship with the principal, teachers, and students and can talk about her experience from two points of views, an administrator and a teacher at the same time.

The researcher used "purposeful sampling", that is, using previous knowledge to set specific criteria for choosing the participants of the study. It is crucial that the selected participants of the study provide the research with useful data and allow the

reader and the researcher to gain a great deal of information that is important to the purpose of the research study. This would allow the researcher and the readers to gain better knowledge about many issues that are vital to the study (Aitrasian & Gay, 1992; Flick, 2006; Meriam, 2001). For example, the researcher decided that in order to ensure that the participants were effective contributors to the study, they had to have been with the school for at least two years during the implementation of integration and block scheduling (Burns, 2000; Meriam, 2001).

Methods and Instruments

The three methods of data collection used were developed specifically for this study, adapted from questions based on themes from the literature review that help address the two research questions of the study. The selection of these three instruments provides triangulation of points of views and findings. It increases the validity and reliability of these findings by comparing and contrasting the collected data from different participants, sources and search for similar results (Meriam, 2001), and checking analysis and interpretations with participants in all parts of the research (Cohen et al., 2000).

Reliability in case studies is "focused on the extent to which there is consistency in the findings" (Burns, 2000). In this study, it is addressed by using triangulation. Reliability can be increased through repeating the interview with the principal or the vice principal several times or making the teachers and coordinators fill out the questionnaire several times. Nevertheless, the researcher did not have enough time to go through these steps (Frankel & Wallen, 2003). The reliability of this study is increased through the presence of the collected documents, observation checklists, questionnaires results, and transcribed interviews presented in appendices (Yin, 2003).

Semi-Structured Interviews

The semi structured interviews allow the interviewers to perceive feelings from the interviewees' tones of voice and facial expressions (Bell, 1993). Moreover, they permit both interviewer and interviewee to discuss topics in detail and allow the interviewee to provide facts and opinions (Burns, 2000). The questions focused on the benefits and drawbacks of block scheduling and integration and their influence on teachers' instructional strategies and students' motivation.

The principal and vice principal were subject to semi structured interviews

2001).

Questionnaires

Following the interview, the data were reviewed for consistency. The school administration was asked to grant permission for the researcher to conduct the study with the lower elementary teachers and coordinators at the end of May 2007. The questionnaires were given to the 15 teachers and 5 coordinators, who were provided with a written letter explaining the purpose of the study. They filled them individually in the administration office and returned them to the researcher the same day.

The closed questionnaire items were set according to "Likert Scale" that included statements in which the participants indicate their agreement or disagreement with each statement along a five point scale ranging from strongly agree to strongly

disagree represented by numbers ranging from 1 till 5, having 1 as strongly agree and 5 as strongly disagree (Burns, 2000, p. 559; Cohen et al., 2000; Yin, 2003) (See Appendix B). The items of the questionnaire were coded. Teachers filled in these questionnaires indicating their agreement or disagreement with the statements through marking checks (David, Glenn & Robert, 1999). Such a method is considered important in this research for it is based on empirical data rather than subjective outlook, on facts not opinions (Burns, 2000).

The eight open-ended questionnaires allowed teachers and coordinators to elaborate on their answers about curriculum integration and block scheduling more clearly with clear examples and detailed explanation.

Observation Checklists

Finally, the researcher used direct observations to examine whether the sample participants acted in their classrooms the same way they claimed in the questionnaire or interviews (Bell, 1993). The observed data would triangulate emergent results from the interview and questionnaires (Flick, 2006). The researcher collected data through observing students in grades one, two, and three from May 2007 until mid June 2007. The main aim was to observe students in action during integration and block schedule sessions. The researcher observed the lower elementary teachers of basic and integrating subjects for three weeks to ensure that all teachers across all selected levels have the same understanding of the integrated curriculum and the block scheduling system. The number of observed blocks was eight. Observations were recorded on checklists whose items were derived from the data collected through teachers' questions, principals' interview and the literature review (See Appendix C). The researcher focused on the types of activities and instructional strategies the teachers are using as well as the extent to which students are focused and participating

in class. Observations showed that students have shown motivation and were engaged in many classes during the Math and Sciences block, the English and social studies block, and the Arabic and Arts block. They participated actively during the sessions. They were always involved in getting extra projects and presenting new ideas to their peers and teachers. This has shown their interest in the topics being explained.

The researcher was non-participant primarily observing what was happening in classes and recording the behavior of the participants with a minimal level of interaction (Burns, 2000). This is to focus on the events taking place in the classrooms and the level of interaction between the students and teachers (Yin, 2003). The researcher worked hard not to affect the observed situation. The intent was to record behavior as it normally occurred and to remain uninvolved with participants (Atrisian & Gay, 1992; Burns, 2000).

The researcher prepared eight checklists to fill out during classroom observations concerning whether students are showing motivation during their learning process and whether teachers' instructional strategies have been enhanced (See Appendix D).

Data Analysis

Semi-Structured Interviews

For data analysis, the interview data was transcribed and coded which ensures that everything is "preserved for analysis" (Merriam, 2001, p. 60). The transcribed files entailed the exact interviews as they took place with the interviewees (Cohen et al., 2000). They were read and major themes that answer the research questions of the study were highlighted and coded to show their significance to the study (Walliman, 2001). The themes were identified by scanning the data in the interviews for categories, subcategories, and relationships among them. When the generated

categories and subcategories were identified, there was a back look through the data to determine how these categories and subcategories describe the individual's participants' views on the implementation of integration during block sessions (Atrisian & Gay, 1992; Burns, 2000). Data from the interviews were then categorized under the appropriate and relevant categories and subcategories using index cards (Nias, 1991; Burns, 2000). At the end, all the categorized data of the index cards were associated with the research questions of the study to be analyzed. Hence, the qualitative data was interpreted through using analytic inductions (Burns, 2000).

Questionnaires

For data analysis, the open-ended questionnaires were "content analyzed" (Burns, 2000). For the closed questionnaires, the number of checks marked by the teachers for each item of their survey was added and the sum was presented as percentages. The results of the coordinators' questionnaires were put into a separate table and analyzed in the same way the researcher followed to analyze the teachers' questionnaires. These tables were made to identify patterns of comparisons between teachers' and coordinators' questionnaires (See Appendices E-F)

Observation Checklists

The items of the checklist focus on students' motivation, teachers' role in class, the methods of instruction and some climate issues such as teachers and students relationships. In order to analyze the data, the researcher prepared a new checklist that included the same items with four empty columns on the side. The checks for every item of all checklists were added. On each column, it was respectively written "always", "sometimes", "rarely", and "not observed" and underneath it the sum of the number of checks for every item from all the checklists. These numbers were presented as percentages. This would show the uniformity or the

differences between the results of the study concerning whether the teachers are sharing similar methods and strategies to increase students' motivation during the integrated block scheduled sessions. The results that emerged from the observation checklists were classified under the themes that were set by the researcher from the literature review and research questions (See Appendix G).

Ethics in Research

Ethical issues were observed in many ways. The researcher took permission for conducting the study and was given the approval before carrying out with the inquiry. The teachers and the coordinators were notified of the purpose of the study

beforehand and were promised anonymity. The students were informed that the researcher will observe their participation during the integrated block sessions with their teachers. The objective and the educational advantages of the interviews were presented to the school principal and vice principal ahead of time. The researcher ensured the confidentiality and discretion of the information presented and that no modification in the results afterwards was done (Airasian & Gay, 1992; Burns, 2000). In conclusion, the case study methodology was beneficial since it allowed the researcher to collect data from various participants by using various methods of data collection which ensured triangulation of data results.

The following chapter will present the findings from data analysis of the interviews with the principal and the vice principal, the teachers' and coordinators' questionnaires, and the observation checklists in the lower elementary classes. The data analysis from the interviews, questionnaires, and observation checklists will be compared and contrasted to the theories and findings in the literature review (Cohen et al., 2000).