BENEFITS AND DRAWBACKS OF BLOCK SCHEDULING AND INTEGRATION: A CASE STUDY

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Dedications

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…

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ABSTRACT

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.

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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 behaviourist theories which merely focus on lecturing as a technique and students as recipients. The method of teaching and learning of the behaviourists 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 & Louden, 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" (Salvaterra & 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" (Salvaterra & 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" (Salvaterra & 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; Lybbert, 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, & Sunal, 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 to seventy 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. Lybbert (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, Irmsher (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 (Lybbert, 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 Louden (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 (Irmsher, 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 (Lybbert, 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; Freeland & 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, Loepp (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, Loepp 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 (Loepp, 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, Freeland & 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; Whortham, 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 underestimating 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.

CHAPTER THREE

Research Design and Methodology

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; Meriann, 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 (Airasian & 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 that lasted for 30 minutes each in duration (See Appendix A). It was essential to interview them since they have the potential to contribute to the understanding of the school program. The interviews were conducted in the principal's office and they were tape recorded. The questions were open ended to give the interviewees the chance to elaborate on their viewpoints and responses freely (Burns, 2000; Meriam, 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 (Airasian & 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" (Meriam, 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 (Airasian & 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).

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

This chapter presents data that describe the benefits and drawbacks of block scheduling and curriculum integration implemented in an elementary school.

The researcher compared data from observations in the classrooms with the answers of the interviewees, teachers and coordinators and presented findings from these data.

The researcher analyzed the findings of the questionnaires, interviews, and observation checklists based on the themes that are present in the literature review and revolve around the two research questions: 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? The subtitles of the sections are relevant to the themes that emerged from data analysis.

Questionnaire

In the following sections, the researcher based the presentation of closed and open ended questionnaire on themes that emerged from the literature review and research questions of the study.

Section One: Closed Questionnaire Results

A. Block Scheduling

Many teachers and most of the coordinators agree that block scheduling minimizes discipline problems and improves students' attendance and provides enough time for students to learn and to acquire the given concepts in depth and consequently improve students' learning. A few teachers and coordinators agree with the statement "block scheduling reduces teachers' daily preparation". All teachers and

coordinators believe that during block sessions, educators focus more on students' needs, vary their instructional strategies and use more hands-on activities.

Many teachers and most of the coordinators believe that block scheduling improves school climate by promoting better relationship between teachers and students. Nevertheless, they did not witness a significant improvement in the student-student relationship, but they noted a decrease of stress on students. Most of the teachers and coordinators agree that block scheduling has led to more integrated activities during the session. All of the teachers and coordinators disagree that students with weak cognitive abilities achieve poor results in the presence of students with high ability and that block scheduling increases students' boredom. Most of the teachers and coordinators agree that absences cause students to fall behind in achieving the requirement intended but disagree that block scheduling leaves a negative impact on performance in classes such as Music and Art.

B. Curriculum Integration

All teachers and coordinators believe that students have the chance to become more engaged in constructing knowledge of subjects on their own, and pupils show more enthusiasm and motivation when making analogies between subjects. They agree that students understand the material better when concepts are connected in a meaningful way, and that educators are more motivated with the integrated learning system which is based on interactive teaching with students, and that less management and attendance problems are encountered during the integrated session. All teachers and coordinators believe that integration allows teachers to vary the usage of instructional strategies and depend less on lecturing. Most of the teachers and all coordinators believe that there is a wider variety of performance assessment tools and more innovative ideas that are implemented in the classroom as a result of the

integrated concepts. Most of the teachers and coordinators believe that integration enhances students' learning and educators do a better job understanding students' needs when integrating subjects.

Section Two: Open Ended Questionnaire Results

A. Block Scheduling

Students' Attentiveness and Learning

The majority of teachers noted that block scheduling has a positive impact on students' learning by providing students with ample time to accomplish their tasks, ask questions, share opinions, express their ideas freely, and reflect on their work. Students can apply the newly learned skills and concepts during the same session. This helps them grasp the concepts easily, and make sense of what they are learning through practicing the skills directly without postponing it to another session. All teachers added that during block sessions, students become more attentive and more focused on the given tasks. Moreover, educators focus on the students' needs more and vary the given tasks accordingly.

The majority of teachers and coordinators believe that students will not find it difficult to maintain focus for a whole seventy five minute session when it is properly planned. They emphasized that when varied instructional strategies are used, and smooth transitions between activities are made, students will not lose concentration during the block. Therefore, educators play a vital role in making the block scheduling successful through engaging students in challenging activities that require critical thinking skills.

Absences

Many teachers and coordinators noted that absent students can catch up with the missed information because teachers review the learned concepts explained in

class several times through stories, songs, discussions, and simulations. In addition, the same concept explained in a class such as Math is reinforced in other integrating subjects such as Science or Music. The subject teachers usually prepare a daily packet of all materials missed by the students and hand them to the homeroom teachers who make an appointment for absent students to help them with the missed material through application exercises, and review activities to do at home. Other teachers explained that not all information that is covered during the block can be covered efficiently with absent students. They explained that during block sessions, students participate in activities and discussions whereas absent students will not be exposed to the extended activities and communication taking place during the block. In other terms, absent students would catch up with the missed concepts, but not as when they attend block sessions.

Students' Motivation

The majority of teachers and coordinators explained that when teachers recognize how to maintain discipline in class, use varied instructional strategies, and implement activities that cater to students' needs, students will be motivated and achieve better results in their classes. Moreover, teachers added that students will express their ideas more freely and openly, work on extra projects, and present their new ideas to higher and lower grade levels. They added that low achievers are given time to enhance their skills and increase their motivation for learning especially if the block contains clear instruction, and sheets that are age appropriate, and activities that are based on integrated projects.

Drawbacks and cautions

Most of the teachers and coordinators stated that there should be no drawbacks for the block scheduling system if the sessions are well organized including good

planning, relevant materials, and smooth transitions between activities. Nevertheless, they warned that if the session followed the lecturing system, students will get bored. This is due to the age level of students who constantly require challenging activities to capture their attention. Other teachers added that they might face some difficulties with longer time of preparation for classes.

B. Curriculum Integration

Curriculum Integration Model

All teachers and coordinators noted that the main aim of curriculum integration in the elementary school is to deepen the students' understanding of common concepts with other subject areas. They explained that teachers meet with teachers from other content areas to develop integrated units reinforcing concepts, topics, and skills. Teachers set common objectives and examine whether the integration they made is relevant to students' needs. For example, in an English class, the teacher might provide an overview of words beginning with "A" and the art teacher teaches them how to draw an acorn. The art teacher can bring real acorn with the help of the English teacher and discuss with the students its features and where it grows. In story reading sessions, the English teacher can share reading the story with the students and the art teacher can help students draw the characters of the story, color them, cut and paste them on the bulletin boards. This would reinforce major details of the story in students' minds. The same applies to Music sessions where the English teacher can review with the students the "alphabets" and the music teacher teaches students a song about them. This would help students learn new vocabulary and reinforce their communication skills. Thereby, with integration, Art and Music subjects become more meaningful to students' learning and experience. In social studies, students inquired about human needs and in the English class, they inquired

about animals' needs and wants. In science, students investigated weather changes and in Math they read the temperature using thermometers and subtracted the difference between temperatures in different countries. In Math, students studied about measurement and in physical education they measured the distance they ran using the metric system.

In sum, integration is being well planned between the teachers to make the learning experience of the students more enjoyable. All subjects are linked through connections that encourage critical thinking skills and challenge. Nevertheless, all teachers have the full freedom to integrate their ideas with any other subject they found relevant. Thereby, they do not only abide by their own set schedule of integration.

Students' Motivation

The majority of teachers and coordinators noted that curriculum integration widens the students' understanding of the concepts in different contexts. Students have fun when they have interrelated activities with art, music, physical education, and social studies. They get engaged with a variety of activities which help them gain knowledge and use it in different subjects. Students use their critical thinking skills and visualize the bigger picture of the explained concept since it is applied in different contexts, which make them more involved in the learning process. All teachers and coordinators found that this motivates students to learn.

Drawbacks and Cautions

One of the major drawbacks teachers noted about curriculum integration is imposing integration on students. This was found to be sometimes artificial to students' learning experience. Moreover, it has resulted in allowing some subjects to dominate the others during the block sessions, which defeats the whole purpose of the

integration system. All coordinators and teachers added that the integrating activities implemented during block sessions should be well planned between teachers, and that teachers should be trained to implement the student-centered approach in their classes, otherwise, students will lose focus during the session. They noted that teachers should always be ready to update their information through constant research, in-service training, and meeting with peers from other departments and that if knowledge and flexibility are present during the sessions, students will sense that and feel comfortable.

In sum, if curriculum integration was properly implemented, and there was a proper follow up by the teachers and the administration, there would be no drawbacks.

Benefits for Teachers and Students

The majority of teachers and coordinators stated that the implementation of integration and block scheduling has helped teachers in having a well planned class that is organized around introductory activities, group work activities, application and a closure phase. It has allowed teachers to answer students' questions, increase outdoor activities, and prepare more performance tasks and parental activities. Teachers have practiced varied management techniques in the classes, and have enhanced their usage of instructional strategies and assessment techniques. They became more creative and enriched with new knowledge since they are constantly exposed to different content subjects. They had better relationships with other teachers as well their students. Moreover, they focused more on students' needs which eventually has resulted in students' motivation.

As a conclusion, the implementation of block scheduling has contributed to the success of the integration system in the lower elementary level and vice versa.

Moreover, the success of block scheduling and curriculum integration is determined by the ability of teachers to incorporate a variety of teaching strategies within the time frame of a block scheduled session. Indeed, teachers should receive training so that they can serve the needs of their students better. Eventually, teachers are responsible for preparing a variety of strategies for effective students' learning and motivation.

Semi-Structured Interview Results

A. Block Scheduling

Students' Attentiveness and Learning

The school principal and the vice principal have emphasized that the implementation of block scheduling has forced the elementary teachers to come up with as many activities as needed to deliver concepts, help students acquire skills and deliver the activities in an effective way. In this way, students will not get bored and the teachers will be trained to increase the students' level of attentiveness. Thereby, students will feel at ease during the block and so will the teacher. However, the principal has cautioned that the block should be well prepared and depend less on lecture.

The vice principal has emphasized that block sessions have permitted educators to integrate center activities during block sessions, something that teachers could not introduce beforehand in a forty five minute session.

At the end, the principal and the vice principal have discussed the relaxation time during the block sessions and explained that teachers always plan for five to ten minutes of relaxation where students would clean up their desks or sit together at the beginning or in the middle of the session. Hence, this would help students pay attention for longer periods of time.

Absences

The principal and the vice principal explained that it would be more difficult for absent students to make up for a seventy five minute session than for a forty five minute session. Nevertheless, the principal assured that the school's main policy is that "no child is left behind". Therefore, the teachers found a way to make up for students' absences through parental involvement activities, application and revision sheets. They also added that in most cases, teachers have more than one activity and varied instructional strategies to deliver a single skill or a concept which means that the child would have the chance to grasp whatever he or she has missed.

Students' Motivation

The vice principal assured that students will feel motivated when they are engaged into challenging tasks during the block sessions. The principal and the vice principal found that students feel motivated during block sessions when they are relaxed and that when there is more time for the process of learning, the teachers will feel at ease and consequently the students will sense this. In other terms, when the teachers do not rush things, they will have more time to answer open ended questions and offer the chance for the students to express what they like and what they don't like about the topics being explained.

Drawbacks and Cautions

The principal emphasized that teachers must be creative and hardworking; otherwise, the lessons would become boring. He clarified that the teachers who did not cope well with the block scheduling system could not come up with enough motivating activities. Thus, in one way or another the administration could actually pinpoint which teachers resisted the change and were not ready to teach the

elementary level. The vice principal noted that with such teachers, students will be agitated and will lose motivation.

In sum, both the principal and the vice principal encourage recruiting effective teachers who are up to the program level and would be able to capture the attention of the students the whole time.

B. Curriculum Integration

Integration Model

The principal and the vice principal explained that integration deepens students' understanding of concepts and makes their learning experience enjoyable. Children can see subjects as one holistic experience and having a seventy five minute session has given the teachers ample time to integrate different subject matters and has forced them to introduce their lessons through engaging types of activities. For example, when integrating math and science, students made a survey about their favorite food which was later used to create bar graphs in Math. The principal and the vice principal explained that teachers teach skills through particular concepts and topics. They believe that English can be taught in association with Music, Art, and Physical Education. This also applies in Arabic and other subject areas such as Math and Science. The vice principal reflected on her experience as an English teacher in the elementary level through providing relevant examples of subject matter integration of how the concepts that were taught in English were given in music in the form of songs and were given in physical education in the form of games. This would help emphasize the concepts or the skills even further.

Students' Motivation

The principal and the vice principal assured that the child especially at the elementary level is given the chance to be part of the educational process. The principal noted that "feeling a part of something would automatically make the person more motivated about it". Both added that, nowadays, students are thus able to relate all subjects to each other, and their thoughts become more interconnected than before. This allows them to grasp the concepts and skills at a faster pace. The principal assured that one of the major things he focuses on when educating his students is preparing them for life. Therefore, when they go out to the real world, they feel that everything is integrated together. In sum, when students visualize life as integrated, then this would be a great motivation for them.

Drawbacks and Cautions

The principal and the vice principal emphasized that drawbacks occur when teachers do not know how to integrate two subjects in a smooth way and that if the whole block is oriented towards one subject, students will get bored. For example, if there is music and English and the whole block is integrated towards only English because the music teacher is not interested or vice versa, then that is a major drawback and is considered to be a waste of time. Therefore, in order to have proper integration, the school should recruit star teachers that do not resist change.

Benefits for Teachers and Students

Instructional Strategies

Both the principal and the vice principal emphasized that integration and block scheduling benefited teachers in many ways. It has provided them with time and flexibility to plan their integrated curriculum with effective teaching strategies. For example, teachers can read engaging stories for the students and integrate center

activities into their block sessions. Students can work in groups and have more time to complete a certain worksheet with clear directions from the teacher. Teachers had the chance to be flexible with the scheduling and with what should be given in each session because there is time to give the whole theme in a relaxed way. Moreover, the school administration has basically trained the teacher to implement activities, to focus on skills, and implement performance assessments and integrated activities during the block sessions. Therefore, there is no way for the teachers to lecture for a long period of time.

Performance Classes

Music and Art teachers need time for preparation of material and getting the students in groups and sometimes students may find it difficult to finish a certain activity in a forty five minute session. With block scheduling and integration, this was no longer an obstacle for teachers who had the chance to integrate their sessions with other subjects during the same session. Therefore, they can take enough time from the session to focus on the music or art part as well. For example, if the music teacher wants to teach students a certain technique such as playing the flute, he/ she will have his/her part from the session to teach students mainly the techniques of using the flute and students might have the chance to practice this technique by the help of the other subject teacher present in the class.

Climate Issues

The principal and the vice principal explained that integration and block scheduling have enhanced team spirit. For example, all teachers knew one another and had to know what is happening in each others' classes in order to adopt certain teaching strategies. This has helped teachers in team work because they are planning each block and theme together. They added that students had also the chance to get to

know each other and work together through group work activities. They both clarified that when students see their teachers getting along, they tend to get along as well with their friends, and when they see two teachers teaching two different subjects in the same class and working together, it encourages students to sit and work together as well.

In conclusion, the principal and the vice principal shared common points of view about the implementation of integration and block scheduling at the elementary level. Both recommended the use of these two programs in the school communities bearing in mind that the administration needs to have dedicated teachers to go along with such special programs.

Observation Results

A. Block Scheduling

Students' Learning and Attentiveness

Students participated actively during the observed block sessions. They shared ideas regarding the given topics orally and in written form. Students had enough time to solve sheets independently, share them with their peers and complete integrated activities within one block session. The teachers focused on strengthening essential skills such as communication skills, analytical and critical thinking skills. However, some students felt bored during the music block session due to the unclear management techniques the teacher had implemented. In fact, the teacher could not introduce the notes of the songs in an engaging way which pushed students to lose focus during the session. The math, science, Arabic, and English teachers maintained proper discipline during the block and were able to organize the block session around brainstorming activities using the KWL chart techniques, and performance assessment activities that were based on presentations and plays. It was clearly noted that the

English teachers succeeded in implementing effective techniques of relaxation such as moving, chatting, or listening to music. This has increased the level of attentiveness of students.

Absences

All absent students were given equal opportunities to make up what they missed. The teachers prepared for absent students similar sheets that were done in regular classes to complete with the help of the homeroom teachers and detailed newsletters about what they missed to be given to their parents. Absent students were also helped by their peers during group work activities. This has allowed the students to learn the missed concepts and acquire the missed skills.

Students' Motivation

Students were highly motivated during the block and integrated sessions. They experienced real life situations that are relevant to their needs. Students acted as eager learners who wanted to participate in extra curricular activities and research about the concepts being explained. They brought extra projects and were always ready to help others. However, the blocks that were dry failed to meet the educational goals of the school.

Drawbacks and Cautions

The presence of effective teachers contributed to the success of the integration program. Teachers integrated the activities in a smooth way and showed interest in students' needs. However, students got bored during the art block session where the teacher should have introduced the concept in an engaging way. Students needed constant encouragement and clearer directions for the activity. They also needed breaks and clearer management techniques to calm them down during the long periods of learning. However, the other teacher present in class put an effort in

created a model for the community they live in. Grade two students identified their location on the map and the social studies teacher trained the students in some techniques that help them read the map and the globe. Grade three students researched the benefits of plants. This was integrated with music where students prepared different songs about plants' benefits.

During the Arabic integrated sessions, grade one and two students learned about colors using proper language and in art they drew paintings related to the colors taken in Arabic and presented them to the parents. Grade three students learned about different cultures in Arabic and in music they created songs related to the studied cultures such as the Indian, Lebanese, French, and Egyptian.

The integration between subjects was relevant to students' needs. It was well planned between teachers. The integration met the objectives of the lessons given. This motivated students and reflected the team spirit present in the school.

Drawbacks and Cautions

There were no drawbacks for the curriculum integration idea implemented in the elementary classrooms. However, teachers should be cautious about the quality of planning during the block session and about the way they deal with others when teaching in the same class. This means that the ideas presented in class should be harmonious between teachers; otherwise, negative relations will be reflected on students' thoughts and behavior.

The observed sessions were well planned and the teachers were well trained and acted in a harmonious way. However, some teachers such as the art and the Arabic teachers lost their temper in front of the students. This increased the risk of losing the management in class and has created a tense atmosphere which was transmitted to students' thoughts and attitudes. In other sessions, some teachers

seemed to be bothered while explaining their concepts and integrating it with other subjects due to the lack of planning and random choice of integration. For example, some concepts in English could have been better explained during pure English blocks rather than being explained during physical education blocks.

Benefits for Students and Teachers

Instructional Strategies

Regarding the instructional issues, the lessons reflected thorough organization. There was adequate time for introducing and wrapping up the lessons. Students had the chance to reflect on what they liked and what they did not like about the session. The management techniques were effectively implemented in most sessions. Some of the effective instructional strategies teachers implemented during the integrated blocks are eliciting from the students all words that are associated with the topic explained such as food and animals. Students had to classify the words that have been listed on the basis of something they have in common. Then, they should label the groups such as "reptiles", " amphibians", "mammals", "fish" and "birds". Other teachers used the KWL chart to activate students' prior knowledge about certain topics. For example, during the integrated science and math session in grade two, the teachers asked students "what do you know about food processing?", "what do you want to know about it", and at the end of the lesson, "what did you learn from the lesson?" Other language teachers gave each student a different letter of the alphabet. Then they asked each student to think of one word or idea beginning with that letter.

The sessions were rich with instructional strategies because of the long period of learning and the integrated activities that have motivated students and urged them to participate in most of the class discussions, and ask questions for further research. It was noted that without the use of such instructional strategies, the block sessions

would not be implemented effectively and the integration of subject matter would be meaningless.

Assessment

Regarding the assessment techniques, students worked on worksheets and performance assessment activities such as projects, posters, creating graphs, drawing, written reports, matching activities, and awareness campaigns. For example, grade three students prepared an awareness campaign about the importance of animals and plants and the ways people can take care of them. They then prepared activities to beautify school campus and presented their ideas to their parents.

Climate Issues

There was a mutual relationship between teachers and students. Students showed respect to their teachers and teachers dealt with their students in a cooperative way. Students highly interacted with their teachers in the classes and with students from other grades in the playground. Students approached visitors such as parents and inspectors in a friendly way. Teachers also got to know each other better due to the frequent conversations they had during planning time. In sum, the school climate seemed to be friendly and encouraging.

In conclusion, the above showed common findings from the data collected from the questionnaires, interviews, and observation checklists.

CHAPTER FIVE

FINDINGS

In this chapter, the researcher combined the common themes that emerged from the data collected from the questionnaires, interviews, and observation checklists and used them to address the three fundamental research questions of the study. Findings were then compared and contrasted to those presented in the reviewed literature.

Question 1: What are the benefits and drawbacks of block scheduling and integration?

A. Benefits

Block Scheduling

Students' Attentiveness and Learning

The questionnaire results indicate that during block scheduled sessions, students are provided with enough time to apply the learned skills and complete the given tasks on time. Teachers should always challenge students' thoughts and engage them into a variety of integrated activities that meet their needs.

The interview results indicate that students have enough time to learn and teachers have more time to introduce the topics through engaging activities, integrated planning, group work activities and relaxation timing. This would lead to an increase in the level of attentiveness of students during block sessions.

The observation results reflected the attentiveness of students to the given subjects during the block sessions. Students worked in groups most of the time and had enough time to work on problem solving and organize data into graphs, tables, and charts. However, some students showed boredom during the music sessions that had no clear management techniques.

The above data analysis indicates common perceptions of the students' attentiveness and learning during block sessions and of how teachers manage their blocks efficiently to allow students to complete work. This was a great benefit for students since the topics and concepts became less fragmented and students became more attentive. There is more time to conduct extended activities, integrated activities and group work activities with students.

Research studies showed that block scheduling trains students to finish their tasks on time and provide them with a variety of engaging activities that focus on the concepts explained (Mowen & Mowen, 2004). Studies also showed that block scheduling broadens students' critical thinking skills and widens their scope of thinking, which has resulted in the progress of students' academic achievement all over the years (Irmsher, 1996; Queen, 2003; Thomas, 2001).

Curriculum Integration

Integration and Students' Learning

The questionnaire and interview results reflected similar views about integration: its main aim is to deepen students' understanding of common concepts with other subject areas and make their learning experience enjoyable. All teachers develop integrated units to reinforce concepts, topics and skills with other disciplines. The observations revealed that integration has encouraged students to participate more actively during the block sessions. Students got engaged in hands-on activities, explored new concepts and had time to participate in center activities, and plays. This has increased students' attentiveness.

The above data results show that the integration between subjects went smooth due to the effective planning of teachers. Students had the chance to link their ideas to other content subjects and real life situations and explore new ideas through inquiry.

These findings are aligned with many research studies that students, under the integration system, are able to perceive ideas as unified aspects rather than fragmented concepts (Freeland & Hammons, 1998). Studies also showed that integration widens the critical thinking of students, and improves their reasoning skills. Students become more engaged in constructing knowledge on their own and can easily come up with links among the various disciplines (Zirkle, 2004).

Block Scheduling and Curriculum Integration

Climate Issues

The team spirit between teachers, students, and parents has increased. Teachers became closer during planning and became more knowledgeable about other topics through departmental meetings. Students got to know better each other and work together through group work activities. Block scheduling and curriculum integration have led to an increase in students' attendance and early arrival to classes and minimized discipline problems in classes. The observation results showed that the integration and block scheduling programs have resulted in a positive school climate. Students can address any visitor or parents they meet in a courageous way. Teachers are always around asking others if they are in need of any help. Teachers succeeded in implementing better management techniques which minimized discipline problems.

The above findings are aligned with many research studies that indicate that block scheduling and integration ensure an improved climate in which teachers and students develop better relations since teachers get to know their teachers better and vice versa (Drake, 1998; Stidham, 2001). Studies also showed that teachers will be more motivated with the learning processes and students will become more engaged in class (Drake, 1998; Zirkle, 2004).

Performance Classes

The majority of teachers and coordinators believe that music and art became more relevant to students' experience. The interviews results showed that music and art teachers had the chance to integrate their sessions with other subjects during the same session and focus on the music or art part as well. Observations showed that block sessions provided students and teachers with enough time to perform integrated activities and finish them on time. Hence, these classes became more interesting and thematic.

Studies showed that performance classes have become more relevant to students' needs when they are implemented under the block and integrated system since students can make better connection between ideas and have enough time to complete their tasks (Salvaterra & Adams, 1997).

B. Drawbacks and Cautions

Block scheduling

Absences

Questionnaire data showed that students can catch up with the missed information because teachers usually review the learned concepts several times through revision sheets, but not as when they attend block sessions.

The interviews revealed that absent students grasp the missed concepts, and the teachers find a way to make up for students' absences through activities. However, students will not communicate their ideas with others during classes. The observation results showed that absent students learned the missed concepts, but students felt bothered exerting more effort in achieving a certain task using more time than others.

Studies showed that absenteeism may cause a student to fall behind since a one day absence means that students will miss and equivalent of two days of instruction under the traditional system (Rettig & Canady, 2003). Studies did not show ways to solve the problem as the above findings did.

Lecturing

Questionnaire and interviews results indicate several drawbacks about block scheduling such as the lecturing system, which some teachers might implement leading students to feel bored and restless during the session. They showed that the block sessions should be full of student-centered activities and teachers should know how to manage their time when planning their sessions. Moreover, the principal and school administration is to encourage teachers to attend workshops and in-service training to enhance their teaching practices. Observations showed similar results.

The researcher reported that the implementation of block scheduling requires qualified teachers who can accept the change and can capture students' attention all the time. Otherwise, students will feel restless and the block session implementation would be meaningless.

This is aligned with studies which showed that when implementing the block scheduling, some teachers might fail to engage students in the process of learning. Thus, many researchers have cautioned that teachers should pay attention to the instructional strategies they implement so that students stay focused during the block session (Lybbert, 1998; Queen, 2003). Research also showed that the school administration should motivate teachers to attend workshops and train them in the best instructional strategies to be able to apply new methods of teaching (DiRocco, 1999; Irmsher, 1996; Rettig & Canady, 2003; Shortt and Thayer, 2000).

Integration

Meaningless Integration

Data results from the questionnaires show that when some subjects dominate others during the block sessions, the implementation of integration strategy would be meaningless. The interviews showed that when one of the teachers loses interest during the block session while teaching, the class will be chaotic, and the presence of two teachers will be meaningless. Observations indicated that integration became meaningless when teachers integrated the concepts randomly with other concepts.

Research studies showed that when teachers integrate all concepts in subject matters just for the sake of implementing an integrated program, thus their integration wouldn't serve the purpose intended. Therefore, teachers should be cautious when selecting the activities in order to enhance students' understanding of important concepts (Mason, 1996).

Teachers' Knowledge

Questionnaire and interview results show that teachers who lack knowledge in basic subject matters will cause students to lose interest in the topics given. Observation results indicated that teachers who updated their information through constant research, and meetings with peers from other departments have had successful classrooms.

Research studies showed that when teachers lack knowledge about important concepts, the implementation of integration would be meaningless. Researchers recommended that in order to avoid such a fall back, teachers must be trained before taking the step of applying such a program (Drake, 1998, Freeland & Hammons, 1998).

Question 2: How can block scheduling and integration affect the teachers' instructional methodologies and students' motivation?

Instructional Strategies

Questionnaire results show that integration and block scheduling sessions broaden teachers' knowledge about various subjects. Teachers became well trained to select appropriate instructional strategies such as group activities, problem solving, subject matter integration, KWL charts, and performance assessments.

The interviews results showed that teachers had the freedom to implement their integrated curriculum during block sessions using varied instructional strategies. The administration was supportive to the methods of teaching the teachers were selecting. Teachers were able to complete full lessons using a variety of activities. Observations also showed that that there is an increase in the use of various instructional strategies during block sessions.

With block scheduling and integration, there is more focus on varied instructional strategies and complete learning cycles.

Research showed that when the connection between block scheduling and integration is well rooted in the thoughts of teachers, teachers must select varied instructional strategies during lesson preparation (Hackmann, 2004). This would increase students' performance (Gaskey & Queen, 1997; Irmsher, 1996; Stidham, 2001). Studies also showed that "student centered approach" is considered to be important in the efficacy of the block scheduling and integration program since it requires from students to solve problems and use their critical thinking skills (Hounshell & Louden, 1999; Queen, 2004).

Students' Motivation

Data from the questionnaires indicates that block scheduling and integration increase students' motivation when students investigate new ideas through inquiry leaning. The interviews showed that students feel motivated when there are teachers that make them feel relaxed and understand the material better in a fun way. Observation results showed that students' interpersonal skills are enhanced.

The above findings are aligned with studies that showed that students get motivated to the process of learning under the integration and the block scheduling system. This is due to the implementation of inquiry learning which makes students feel themselves at ease and more independent learners with higher level of thinking. Thereby, they automatically participate more and get engaged in more discussions with their peers and teachers (Mason, 1996; Salvaterra & Adams, 1997).

Conclusion

The chapter presented the study findings and compared them to those in the reviewed literature. The common findings from the three instruments reflect the shared views of the teachers, coordinators, principal and vice principal towards integration and block scheduling implemented in the elementary school. In fact, integration serves block scheduling and vice versa. For example, block scheduling has allowed for more time to implement the integrated activities using varied instructional strategies and integration has made the block session filled with more creative ideas and tasks to do. They have enhanced teachers' instructional methodologies, students' motivation, and the overall school climate. Students became more enthusiastic about learning and had higher critical thinking skills. Teachers became more knowledgeable about their own subjects as well as other subjects.

Conclusions, limitations, and recommendations for further research are presented in the next chapter of this project.

CHAPTER SIX

CONCLUSION AND RECOMMENDATIONS

As a closing note, school administrators and principals should be cautious when infusing block scheduling and integration as a tool for change in their school system. Both approaches would introduce a major change in the elementary classrooms and require constant professional improvement through staff development. Therefore, for the block scheduling and curriculum integration to be successful, teachers should spend ample time sharing ideas and concerns, and preparing integrated activities with their colleagues. Moreover, teachers should put an effort in varying their instructional strategies and help students acquire skills and solve real life situation problems. Therefore, students will have the chance to acquire varied strategies and skills and use all subjects interchangeably using their critical thinking skills (Vogt, 1997).

Implications for Practice

As a suggestion for further research, it will be interesting to conduct the study in middle and secondary schools to observe the effect of block scheduling and integration on students' level of thinking as they grow up. It is hopeful that this study provides educators with the eagerness to change in their school scheduling systems and implement innovative strategies such as the curriculum integration for all levels of students.

It is necessary that schools implement the best models of integration and block scheduling in their system in order to meet their students' needs. This requires of all staff members to be committed to change and innovations.

Limitations of the Study

This study was conducted in one small elementary school. The number of its participants is small which would not allow the generalization of the case to all the elementary schools in Lebanon. Moreover, the study would have led to better explanations of the findings if the sample consisted of participants from more than one school. Another limitation of the study is that it is based on a few observation sessions. Future research should be done on the impact of block scheduling and integration on students and teachers by conducting further investigation of models and systems in different private schools in Lebanon.

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APPENDIX A

Principal's Interview Questions

1. What is the reason for implementing block scheduling at the elementary level? What form did it follow?
2. Describe the form of integration you are applying at the elementary school level.
    a) Would you focus more on the concepts or the skills or the topic itself to integrate the subjects? Give examples.
    b) Are all subjects integrated together? How?
3. What are some benefits of block scheduling?
4. Have you ever noticed any drawbacks on the performance classes such as music or art sessions? Or did block scheduling benefit them?
5. Have integration and block scheduling improved students' motivation?
6. How did the implementation of integration and block scheduling help the teachers modify their instructional strategies?
7. What are some drawbacks of block scheduling? How did they affect students' learning outcome?
8. What are some drawbacks of curriculum integration that you have noticed?
9. Did you face any difficulties when you implemented these programs in the school, from the parents, from the students, from the culture itself?
10. Have block scheduling and integration improved the school environment, culture, and rapport between teachers and students, teachers and teachers and students and students? How?
11. Has block scheduling affected the relationship between students? How?
12. Has the school become a more enjoyable place for students? How?
13. Do you have any additional comments?

Vice Principal's Interview Questions

1. Is there any difference between the block scheduling system implemented at the elementary level and the traditional one that was implemented before?
2. Can you describe this form of integration you are applying in the school now?
3. What are some benefits of the block scheduling for students?
4. Would you like to add anything else about the impact on students' learning and motivation?
5. Please comment on the impact of block scheduling on Music and Art sessions?
6. Have integration and block scheduling improved students' motivation? If so how?
7. How did the implementation of integration and block scheduling help the teachers modify their instructional strategies?
8. What are some drawbacks of block scheduling?
9. What are some drawbacks of curriculum integration?
10. Did you face any difficulties when you implemented these two programs in the school whether from the parents, from the students, from the culture itself?
11. Have block scheduling and integration improved the school's climate/ environment/ or the relationship between the teachers and students or the teachers and teachers themselves?
12. Does it have any impact on students' interrelationships? How do you know?
13. Do you think that the school became a more enjoyable place for the students?
14. Do you have any additional comments to add?

APPENDIX B

Teachers' and Coordinators' Survey Questions

Section One: Demographic Data

1) Number of years teaching experience:

2) Subject (s) area taught: _____

3) Gender: _____ Male _____ Female

Section Two: Likert Scale Questionnaire

Please take a few minutes to complete the items below. The aim behind this survey is to get feedback on a number of issues related to block scheduling and integration after being implemented in your institution. You should indicate your agreement or disagreement to 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. Use the following scale to answer each item:

SA= Strongly Agree, **A**= Agree, **N**=Neutral, **D**= Disagree, **SD**=Strongly Disagree

Implementing Block Scheduling	**SA**	**A**	**N**	**D**	**SD**
1. Fewer management and discipline problems than before were encountered.					
2. Block scheduling has improved students' attendance.					
3. More class time provides enough time for each individual to learn.					
4. Block scheduling has reduced teachers' daily preparation.					
5. Dealing with the students' capacities and needs at different levels is focused on.					

6. There is appropriate time for in-depth learning of concepts.					
7. The information covered in the block is equivalent to that in traditional scheduling program.					
8. An increase of diverse instructional methods was implemented during classes to keep the students actively engaged.					
9. More time than before for hands-on activities is arranged.					
10. More cooperation than before between teachers from different grade levels and other subject areas is observed.					
11. An increased positive teacher-student relation is observed.					
12. An increased positive student-student relation is observed.					
13. An improved school climate is ensured.					
14. Reduced stress throughout the day is noticed in students.					
15. Block scheduling has improved students' learning.					
16. More integrated teaching has occurred since block planning time.					
17. Absences cause students to fall behind in the requirement intended.					
18. Block scheduling has led in an increase in student boredom.					
19. Students with weak cognitive abilities fall behind in the class with the attendance of high ability students.					
20. Block scheduling has had a negative impact on performance classes (Music, Art, PE).					

Implementing Curriculum Integration	SA	A	N	D	SD
1. Students have the chance to become more engaged in constructing knowledge of subjects on their own.					
2. Students show enthusiasm when making analogies between subjects.					
3. Students understand the material better when ideas and concepts are connected in a meaningful way.					
4. Teachers are more motivated with the adaptive learning processes applied in this program.					
5. More time is spent in interactive teaching and with students.					
6. Less management and attendance problems than before are encountered.					
7. Integration has allowed teachers to increase the use of varied instructional strategies.					
8. Integration has reduced the amount of teachers lecturing in class.					
9. An increase in the variety of performance assessment tools is noted.					
10. Innovative ideas have been implemented in the classroom as a result of the implementation of integrated concepts.					
11. Difficulties are faced when cooperating with other teachers to implement the integration program.					
12. Integration has improved students' learning.					
13. Teachers do a better job at understanding students' needs.					
14. Integration has made classes more interesting.					
15. Integration makes a school a more enjoyable place to be.					

Section Three: Open- Ended Questionnaire Items

Please take a few minutes to answer the questions below.

A. Block Scheduling:

1. What was the impact of block planning time on students' learning? Won't the students find it difficult to pay attention to the same subject and the same teacher? Explain.

2. Don't students, when returning from absences, have more difficulty making up seventy minutes than traditional 45 minutes? Explain.

3. How does block scheduling motivate students?

4. What are some drawbacks of block scheduling?

B. Curriculum Integration:

5. How do you integrate the subject you teach with other subject matters? Explain briefly through giving relevant examples.

6. How does curriculum integration motivate students?

7. What are some drawbacks of curriculum integration?

8. As a teacher, how did you benefit from implementing both integration and block scheduling inside your classroom? Explain through providing relevant examples (e.g., use of instructional strategies, classroom management techniques).

APPENDIX C

Observation Checklist

Block (s) : **Grade:**				
Students' Motivation	**Always**	**Sometimes**	**Rarely**	**Not Observed**
Students constantly ask questions and seek information				
Students get engaged into various hands-on activities				
Students build their knowledge on their own				
Students show enthusiasm when making connections				
Students maintain focus during the block session				
Students feel relaxed during the block session				
Teachers' Role	**Always**	**Sometimes**	**Rarely**	**Not Observed**
Teachers focus on students' needs				
Teachers lecture the lesson				
Teachers act as facilitators				
Teachers vary the use of instructional strategies				
Teachers focus on integrated activities				
Instruction	**Always**	**Sometimes**	**Rarely**	**Not Observed**
Demonstrations of concepts precede application				
There are links between new and acquired knowledge				
Cooperative learning activities are used				
Suitable pace maintains students' engagement				
Smooth transitions between activities are maintained				
Climate Issues	**Always**	**Sometimes**	**Rarely**	**Not Observed**
Few management problems were encountered				
A positive student-student relationship is observed				
A positive teacher- teacher relationship is observed				
A high number of absent students is noted				

APPENDIX D

Classroom Observation Checklist I

Block (s) : Math and Science **Grade:1**				
Students' Motivation	**Always**	**Sometimes**	**Rarely**	**Not Observed**
Students constantly ask questions and seek information	✓			
Students get engaged into various hands-on activities	✓			
Students build their knowledge on their own	✓			
Students show enthusiasm when making connections	✓			
Students maintain focus during the block session	✓			
Students feel relaxed during the block session	✓			
Teachers' Role	**Always**	**Sometimes**	**Rarely**	**Not Observed**
Teachers focus on students' needs	✓			
Teachers lecture the lesson				✓
Teachers act as facilitators	✓			
Teachers vary the use of instructional strategies	✓			
Teachers focus on integrated activities	✓			
Instruction	**Always**	**Sometimes**	**Rarely**	**Not Observed**
Demonstrations of concepts precede application	✓			
There are links between new and acquired knowledge	✓			
Cooperative learning activities are used		✓		
Suitable pace maintains students' engagement	✓			
Smooth transitions between activities are maintained	✓			
Climate Issues	**Always**	**Sometimes**	**Rarely**	**Not Observed**
Few management problems were encountered	✓			
A positive student-student relationship is observed	✓			
A positive teacher- teacher relationship is observed	✓			
A high number of absent students is noted				✓

Classroom Observation Checklist II

Block (s) : Math and Science **Grade: 2**				
Students' Motivation	**Always**	**Sometimes**	**Rarely**	**Not Observed**
Students constantly ask questions and seek information	✓			
Students get engaged into various hands-on activities	✓			
Students build their knowledge on their own	✓			
Students show enthusiasm when making connections	✓			
Students maintain focus during the block session	✓			
Students feel relaxed during the block session	✓			
Teachers' Role	**Always**	**Sometimes**	**Rarely**	**Not Observed**
Teachers focus on students' needs	✓			
Teachers lecture the lesson				✓
Teachers act as facilitators	✓			
Teachers vary the use of instructional strategies	✓			
Teachers focus on integrated activities	✓			
Instruction	**Always**	**Sometimes**	**Rarely**	**Not Observed**
Demonstrations of concepts precede application	✓			
There are links between new and acquired knowledge	✓			
Cooperative learning activities are used		✓		
Suitable pace maintains students' engagement	✓			
Smooth transitions between activities are maintained	✓			
Climate Issues	**Always**	**Sometimes**	**Rarely**	**Not Observed**
Few management problems were encountered	✓			
A positive student-student relationship is observed	✓			
A positive teacher- teacher relationship is observed	✓			
A high number of absent students is noted				✓

Classroom Observation Checklist III

Block (s) : Math and Science **Grade: 3**				
Students' Motivation	**Always**	**Sometimes**	**Rarely**	**Not Observed**
Students constantly ask questions and seek information	✓			
Students get engaged into various hands-on activities	✓			
Students build their knowledge on their own	✓			
Students show enthusiasm when making connections	✓			
Students maintain focus during the block session	✓			
Students feel relaxed during the block session	✓			
Teachers' Role	**Always**	**Sometimes**	**Rarely**	**Not Observed**
Teachers focus on students' needs	✓			
Teachers lecture the lesson				✓
Teachers act as facilitators	✓			
Teachers vary the use of instructional strategies	✓			
Teachers focus on integrated activities	✓			
Instruction	**Always**	**Sometimes**	**Rarely**	**Not Observed**
Demonstrations of concepts precede application	✓			
There are links between new and acquired knowledge	✓			
Cooperative learning activities are used		✓		
Suitable pace maintains students' engagement	✓			
Smooth transitions between activities are maintained	✓			
Climate Issues	**Always**	**Sometimes**	**Rarely**	**Not Observed**
Few management problems were encountered	✓			
A positive student-student relationship is observed	✓			
A positive teacher- teacher relationship is observed	✓			
A high number of absent students is noted				✓

Classroom Observation Checklist IV

Block (s) : English and Art **Grade: 1**				
Students' Motivation	**Always**	**Sometimes**	**Rarely**	**Not Observed**
Students constantly ask questions and seek information	✓			
Students get engaged into various hands-on activities		✓		
Students build their knowledge on their own	✓			
Students show enthusiasm when making connections	✓			
Students maintain focus during the block session		✓		
Students feel relaxed during the block session		✓		
Teachers' Role	**Always**	**Sometimes**	**Rarely**	**Not Observed**
Teachers focus on students' needs	✓			
Teachers lecture the lesson			✓	
Teachers act as facilitators	✓			
Teachers vary the use of instructional strategies	✓			
Teachers focus on integrated activities	✓			
Instruction	**Always**	**Sometimes**	**Rarely**	**Not Observed**
Demonstrations of concepts precede application	✓			
There are links between new and acquired knowledge	✓			
Cooperative learning activities are used		✓		
Suitable pace maintains students' engagement	✓			
Smooth transitions between activities are maintained	✓			
Climate Issues	**Always**	**Sometimes**	**Rarely**	**Not Observed**
Few management problems were encountered		✓		
A positive student-student relationship is observed		✓		
A positive teacher- teacher relationship is observed			✓	
A high number of absent students is noted			✓	

Classroom Observation Checklist V

Block (s) : English and Social Studies **Grade: 2**				
Students' Motivation	**Always**	**Sometimes**	**Rarely**	**Not Observed**
Students constantly ask questions and seek information	✓			
Students get engaged into various hands-on activities	✓			
Students build their knowledge on their own	✓			
Students show enthusiasm when making connections	✓			
Students maintain focus during the block session	✓			
Students feel relaxed during the block session	✓			
Teachers' Role	**Always**	**Sometimes**	**Rarely**	**Not Observed**
Teachers focus on students' needs	✓			
Teachers lecture the lesson				✓
Teachers act as facilitators	✓			
Teachers vary the use of instructional strategies	✓			
Teachers focus on integrated activities	✓			
Instruction	**Always**	**Sometimes**	**Rarely**	**Not Observed**
Demonstrations of concepts precede application	✓			
There are links between new and acquired knowledge		✓		
Cooperative learning activities are used		✓		
Suitable pace maintains students' engagement	✓			
Smooth transitions between activities are maintained	✓			
Climate Issues	**Always**	**Sometimes**	**Rarely**	**Not Observed**
Few management problems were encountered	✓			
A positive student-student relationship is observed	✓			
A positive teacher- teacher relationship is observed	✓			
A high number of absent students is noted			✓	

Classroom Observation Checklist VI

Block (s) : English and Music **Grade: 3**				
Students' Motivation	**Always**	**Sometimes**	**Rarely**	**Not Observed**
Students constantly ask questions and seek information		✓		
Students get engaged into various hands-on activities	✓			
Students build their knowledge on their own	✓			
Students show enthusiasm when making connections		✓		
Students maintain focus during the block session		✓		
Students feel relaxed during the block session			✓	
Teachers' Role	**Always**	**Sometimes**	**Rarely**	**Not Observed**
Teachers focus on students' needs		✓		
Teachers lecture the lesson		✓		
Teachers act as facilitators		✓		
Teachers vary the use of instructional strategies		✓		
Teachers focus on integrated activities	✓			
Instruction	**Always**	**Sometimes**	**Rarely**	**Not Observed**
Demonstrations of concepts precede application		✓		
There are links between new and acquired knowledge	✓			
Cooperative learning activities are used				✓
Suitable pace maintains students' engagement		✓		
Smooth transitions between activities are maintained			✓	
Climate Issues	**Always**	**Sometimes**	**Rarely**	**Not Observed**
Few management problems were encountered			✓	
A positive student-student relationship is observed			✓	
A positive teacher- teacher relationship is observed			✓	
A high number of absent students is noted			✓	

Classroom Observation Checklist VII

Block (s) : Arabic and Art **Grades: 1**				
Students' Motivation	**Always**	**Sometimes**	**Rarely**	**Not Observed**
Students constantly ask questions and seek information	✓			
Students get engaged into various hands-on activities	✓			
Students build their knowledge on their own	✓			
Students show enthusiasm when making connections	✓			
Students maintain focus during the block session	✓			
Students feel relaxed during the block session	✓			
Teachers' Role	**Always**	**Sometimes**	**Rarely**	**Not Observed**
Teachers focus on students' needs	✓			
Teachers lecture the lesson		✓		
Teachers act as facilitators	✓			
Teachers vary the use of instructional strategies	✓			
Teachers focus on integrated activities	✓			
Instruction	**Always**	**Sometimes**	**Rarely**	**Not Observed**
Demonstrations of concepts precede application	✓			
There are links between new and acquired knowledge	✓			
Cooperative learning activities are used		✓		
Suitable pace maintains students' engagement	✓			
Smooth transitions between activities are maintained		✓		
Climate Issues	**Always**	**Sometimes**	**Rarely**	**Not Observed**
Few management problems were encountered	✓			
A positive student-student relationship is observed	✓			
A positive teacher- teacher relationship is observed	✓			
A high number of absent students is noted			✓	

Classroom Observation Checklist VIII

Block (s) : Arabic and Music **Grade: 3**				
Students' Motivation	**Always**	**Sometimes**	**Rarely**	**Not Observed**
Students constantly ask questions and seek information		✓		
Students get engaged into various hands-on activities	✓			
Students build their knowledge on their own	✓			
Students show enthusiasm when making connections		✓		
Students maintain focus during the block session		✓		
Students feel relaxed during the block session			✓	
Teachers' Role	**Always**	**Sometimes**	**Rarely**	**Not Observed**
Teachers focus on students' needs		✓		
Teachers lecture the lesson		✓		
Teachers act as facilitators		✓		
Teachers vary the use of instructional strategies		✓		
Teachers focus on integrated activities	✓			
Instruction	**Always**	**Sometimes**	**Rarely**	**Not Observed**
Demonstrations of concepts precede application		✓		
There are links between new and acquired knowledge	✓			
Cooperative learning activities are used				✓
Suitable pace maintains students' engagement		✓		
Smooth transitions between activities are maintained			✓	
Climate Issues	**Always**	**Sometimes**	**Rarely**	**Not Observed**
Few management problems were encountered			✓	
A positive student-student relationship is observed			✓	
A positive teacher- teacher relationship is observed			✓	
A high number of absent students is noted			✓	

APPENDIX E

Teachers' Survey Results

Implementing Block Scheduling	SA	A	N	D	SD
Fewer management and discipline problems than before were encountered.	2 13%	6 40%	5 34%	2 13%	0
Block scheduling has improved students' attendance.	0	10 67%	5 33%	0	0
More class time provides enough time for each individual to learn.	6 40%	8 53%	0	1 7%	0
Block scheduling has reduced teachers' daily preparation.	0	1 7%	0	13 86%	1 7%
Dealing with the students' capacities and needs at different levels is focused on.	7 47%	8 53%	0	0	0
There is appropriate time for in-depth learning of concepts.	11 73%	4 27%	0	0	0
The information covered in the block is equivalent to that in traditional scheduling program.	1 7%	7 47%	2 13%	5 33%	0
An increase of diverse instructional methods was implemented during classes to keep the students actively engaged.	9 60%	6 40%	0	0	0
More time than before for hands-on activities is arranged.	7 47%	7 47%	1 6%	0	0
More cooperation than before between teachers from different grade levels and other subject areas is observed.	2 13%	8 53%	5 34%	0	0
An increased positive teacher-student relation is observed.	4 27%	6 40%	4 27%	1 6%	0
An increased positive student-student relation is observed.	2 13%	3 20%	10 67%	0	0
An improved school climate is ensured.	3 20%	7 47%	5 33%	0	0

Reduced stress throughout the day is noticed in students.	3 20%	9 60%	3 20%	0	0
Block scheduling has improved students' learning.	6 40%	8 53%	1 7%	0	0
More integrated teaching has occurred since block planning time.	5 31%	8 53%	0	2 13%	0
Absences cause students to fall behind in the requirement intended.	1 7%	7 47%	3 20%	3 20%	1 7%
Block scheduling has led in an increase in student boredom.	0	0	1 7%	11 73%	3 20%
Students with weak cognitive abilities fall behind in the class with the attendance of high ability students.	0	0	0	13 87%	2 13%
Block scheduling has had a negative impact on performance classes (Music, Art, PE).	0	0	1 7%	12 80%	2 13%
Implementing Curriculum Integration	**SA**	**A**	**N**	**D**	**SD**
Students have the chance to become more engaged in constructing knowledge of subjects on their own.	5 33%	10 67%	0	0	0
Students show enthusiasm when making analogies between subjects.	9 60%	6 40%	0	0	0
Students understand the material better when ideas and concepts are connected in a meaningful way.	12 80%	3 20%	0	0	0
Teachers are more motivated with the adaptive learning processes applied in this program.	6 40%	8 53%	1 7%	0	0
More time is spent in interactive teaching and with students.	7 47%	8 53%	0	0	0
Less management and attendance problems than before are encountered.	4 27%	5 33%	5 33%	1 7%	0
Integration has allowed teachers to increase the use of varied instructional strategies.	7 47%	8 53%	0	0	0

Integration has reduced the amount of teachers lecturing in class.	6 40%	9 60%	0	0	0
An increase in the variety of performance assessment tools is noted.	3 20%	11 73%	0	1 7%	0
Innovative ideas have been implemented in the classroom as a result of the implementation of integrated concepts.	7 47%	8 53%	0	0	0
Difficulties are faced when cooperating with other teachers to implement the integration program.	1 6%	4 27%	3 20%	7 47%	0
Integration has improved students' learning.	9 60%	5 33%	1 7%	0	0
Teachers do a better job at understanding students' needs.	1 7%	12 80%	2 13%	0	0
Integration has made classes more interesting.	7 47%	8 53%	0	0	0
Integration makes a school a more enjoyable place to be.	7 47%	8 53%	0	0	0

APPENDIX F

Coordinators' Survey Results

Implementing Block Scheduling	SA	A	N	D	SD
Fewer management and discipline problems than before were encountered.	2 40%	2 40%	1 10%	0	0
Block scheduling has improved students' attendance.	2 40%	2 40%	1 10%	0	0
More class time provides enough time for each individual to learn.	5 100%	0	0	0	0
Block scheduling has reduced teachers' daily preparation.	0	0	2 40%	3 60%	0
Dealing with the students' capacities and needs at different levels is focused on.	5 100%	0	0	0	0
There is appropriate time for in-depth learning of concepts.	3 60%	2 40%	0	0	0
The information covered in the block is equivalent to that in traditional scheduling program.	2 40%	3 60%	0	0	0
An increase of diverse instructional methods was implemented during classes to keep the students actively engaged.	5 100%	0	0	0	0
More time than before for hands-on activities is arranged.	4 80%	1 20%	0	0	0
More cooperation than before between teachers from different grade levels and other subject areas is observed.	3 60%	0	2 40%	0	0
An increased positive teacher-student relation is observed.	1 20%	3 60%	1 20%	0	0
An increased positive student-student relation is observed.	1 20%	2 40%	1 20%	1 20%	0
An improved school climate is ensured.	1 20%	3 60%	1 20%	0	0

Reduced stress throughout the day is noticed in students.	1 20%	2 40%	2 40%	0	0
Block scheduling has improved students' learning.	1 20%	4 80%	0	0	0
More integrated teaching has occurred since block planning time.	1 20%	3 60%	1 20%	0	0
Absences cause students to fall behind in the requirement intended.	0	5 100%	0	0	0
Block scheduling has led in an increase in student boredom.	0	0	1 20%	3 60%	1 20%
Students with weak cognitive abilities fall behind in the class with the attendance of high ability students.	0	0	0	5 100%	0
Block scheduling has had a negative impact on performance classes (Music, Art, PE).	0	0	0	4 80%	1 20%
Implementing Curriculum Integration	**SA**	**A**	**N**	**D**	**SD**
Students have the chance to become more engaged in constructing knowledge of subjects on their own.	5 100%	0	0	0	0
Students show enthusiasm when making analogies between subjects.	4 80%	1 20%	0	0	0
Students understand the material better when ideas and concepts are connected in a meaningful way.	3 60%	2 40%	0	0	0
Teachers are more motivated with the adaptive learning processes applied in this program.	3 60%	2 40%	0	0	0
More time is spent in interactive teaching and with students.	2 40%	3 60%	0	0	0
Less management and attendance problems than before are encountered.	1 20%	3 60%	1 20%	0	0
Integration has allowed teachers to increase the use of varied instructional strategies.	3 60%	2 40%	0	0	0

Integration has reduced the amount of teachers lecturing in class.	**3 60%**	**2 40%**	**0**	**0**	**0**
An increase in the variety of performance assessment tools is noted.	**1 20%**	**4 80%**	**0**	**0**	**0**
Innovative ideas have been implemented in the classroom as a result of the implementation of integrated concepts.	**2 40%**	**3 60%**	**0**	**0**	**0**
Difficulties are faced when cooperating with other teachers to implement the integration program.	**0**	**1 20%**	**1 20%**	**2 40%**	**1 20%**
Integration has improved students' learning.	**2 40%**	**3 60%**	**0**	**0**	**0**
Teachers do a better job at understanding students' needs.	**2 40%**	**3 60%**	**0**	**0**	**0**
Integration has made classes more interesting.	**3 60%**	**2 40%**	**0**	**0**	**0**
Integration makes a school a more enjoyable place to be.	**2 40%**	**3 60%**	**0**	**0**	**0**

APPENDIX G

Summative Classrooms' Observations Checklist Results

Students' Motivation	Always	Sometimes	Rarely	Not Observed
Students constantly ask questions and seek information	6 75%	2 25%		
Students get engaged into various hands-on activities	7 87.5%	1 12.5%		
Students build their knowledge on their own	8 100%			
Students show enthusiasm when making connections	6 75%	2 25%		
Students maintain focus during the block session	5 62.5%	3 37.5%		
Students feel relaxed during the block session	5 62.5%	1 12.5%	2 25%	
Teachers' Role	**Always**	**Sometimes**	**Rarely**	**Not Observed**
Teachers focus on students' needs	6 75%	2 25%		
Teachers lecture the lesson		3 37.5%	1 12.5%	4 50%
Teachers act as facilitators	6 75%	2 25%		
Teachers vary the use of instructional strategies	6 75%	2 25%		
Teachers focus on integrated activities	8 100%			
Instruction	**Always**	**Sometimes**	**Rarely**	**Not Observed**
Demonstrations of concepts precede application	6 75%	2 25%		
There are links between new and acquired knowledge	7 87.5%	1 12.5%		
Cooperative learning activities are used		6 75%	2 25%	
Suitable pace maintains students' engagement	6 75%	2 25%		
Smooth transitions between activities are maintained	5 62.5%	1 12.5%	2 25%	
Climate Issues	**Always**	**Sometimes**	**Rarely**	**Not Observed**
Fewer management problems were encountered	5 62.5%	1 12.5%	2 25%	
A positive student-student relationship is observed	5 62.5%	1 12.5%	2 25%	
A positive teacher- teacher relationship is observed	5 62.5%		3 37.5%	
A high number of absent students is noted			5 62.5%	3 37.5%