DEMOCRATIC AND POPULAR REPUBLIC OF ALGERIA

MINISTRY OF HIGHER EDUCATION AND SCIENTIFIC RESEARCH

UNIVERSITY OF ABDLHAMID IBN BADIS MOSTAGANEM

FACULTY OF FOREIGN LANGUAGES

DEPARTMENT OF ENGLISH LANGUAGE

MASTER

Didactics and Applied Languages

The Impact of Summer Vacation on Pupils'Academic Achievement

The case of Second –Year Pupils at Ben Abd El Malek Ramdane Secondary school of Mostaganem.

Presented by:

Sahraoui Sid Ahmed

Board of Examiners

Chair: Mrs.Saadi Fatima Zohra	**University of Mostaganem**
Supervisor: Mrs. Adnani Rajaa	**University of Mostaganem**
Examiner: Dr. Ould Si Bouziane Sabrina	**University of Mostaganem**

Academic Year: 2019-2020

Table of Contents

Dedication

I dedicate this humble work to my family and my friends. A special thank you to my loving parents, who always pray for my success and are always pushing me to do my best. To my big brother Hamza who is always at my side. To my cute little sister Firdaus for always cheering me on and sending me her love and to my younger brother Hadjou who just won't leave me alone even if I ask him to. Thank you for everything you've done for me.

Acknowledgements

My endless gratitude goes out to my teacher and my inspiration **Mrs. Adnani** who accepted me as her supervisee and guided me throughout my research.

I want to thank all my teachers who thought me throughout my years at University for always being supportive and a source of comfort for me. A special thanks to the teachers who encouraged me and gave me hope to carry on this research.

I would also like to thank the teachers and students who participated in this study, and for giving me the chance to conduct my research, and **Ms. Kerdagh** for inspiring me to choose this topic.

Thanks to all of you.

Abstract

When it comes to the question of how to enhance student academic achievement in Algeria, the impact of summer vacation is almost entirely missing from the discourse. Little attention is given to the ramifications that long absences from school have on pupils, and to what extent it could hinder or regress their learning outcome. The nine-month calendar is a byproduct of an agrarian era lacking the technological means to deal with the challenges it faced at the time. This research analyzes the impact of summer vacation on pupils. The experience took place two weeks after the coming back of pupils to school after vacations, and before the official starting of the new curriculum. Participants are second-year pupils, each student from two different classes was given a test that is similar to the one they had taken the previous year in the final exam of the third semester. Additionally, a separate interview was arranged with the teachers of both classes on a later date. While the two exams were nearly identical, the average results reveal an alarming gap between the one taken prior, and the one taken after the summer holidays.

Keywords: pupils' academic achievement, summer vacation, learning outcome, nine-month calendar, secondary school.

General Introduction

For decades scholars have warned of the negative impact summer vacation has on students. The earliest records of criticism over the summer months date as far back as a century ago. Long interruptions from schools leave students vulnerable to academic deterioration and are a prime breeding ground for undesired habits such as procrastination. Sadly, these consequences often burden the poorer and least fortunate students, who cannot afford to acquire the necessary resources and professional assistance that are needed to develope outside the classroom. Ron Fairchild perfectly captures this injustice in one sentence, by describing summer vacation as a time where the rich get richer and the poor get the poorer.

The traditional 9-month school calendar was introduced at the beginning of the 20th century to adapt to a changing social structure that saw an unpreceded increase in urbanization rates and to spare children from the insufferable heat of summer classrooms. Since then, it has become a ruminant of the past in many countries, obsolete at the advent of air conditioning and proper school transportation. While most countries on earth still have summer vacation, which often happens to be the longest vacation in the entire school year, many shifted away from the traditional school calendar and have adopted a new kind of approach, giving students numerous short breaks across the year instead of one sizable vacation that lasts for the entire summer. It is thus only logical for Algerian authorities to reconsider the dated 180-day school year and design a modern school calendar that aligns with today's circumstances and puts the student's development before anything else. Unfortunately, initiating positive change is often far from simple and changing summer vacation is especially so.

In the Algerian psych, summer vacation evokes themes of relief and leisure. A time where students can recuperate from the stressful days of school and entertain themselves in whatever matter they see fit, be it spending time with family, engaging in recreational activities with friends or simply sleeping on the clock and waiting for the day to pass. To

parents, summer is time where they can bond with their children, go on extended trips without having to worry about disrupting their Children's education by causing them to miss school days.

Moreover, teachers can do the same with their families and take advantage of their extended vacations to prepare for the new school year. Additionally, summer vacation is at the epicenter of many large-scale industries and small businesses that rely on the summer months to reach their profit margins and who employ a large sector of the population; hence, contributing to the economy. Last but not least, most if not all school funding across the country is adjusted to the 9-month school calendar, and both legislators and headmasters rely on the long-lived school breaks to balance their already stressed budgets. It does not come as a surprise then that objection to school reform comes from a diverse audience and for various reasons.

Statement of the problem

It is a common observation among teachers that students need a few weeks of revision to recover what has been lost during summer vacation. Student academic achievement and long-lasting progress should be at the heart of every decision made related to the wider school spectrum. The debate should not be about cutting down on vacation days but rather rearranging them throughout the year. The question remains, what impact does summer vacation have on Algerian students? And what can be done about it?

The Purpose of the Study

This research aims to showcase the summer learning loss Algerian students' experience, how prevalent it is, and how it affects them according to their level of achievement. This research attempts at creating a positive step towards breaking the silence concerning this issue and allocating the necessary funds and planning towards fully addressing it.

The research questions

- How does the 9-month school calendar impact Algerian students?

- What is the perception of summer vacation among Algerian teachers?

- How does summer vacation impact students of different skill levels differently?

Hypotheses

- The 9-month school calendar negatively affects Algerian high school students and causes to lose considerable academic.
- Algerian high school teachers are aware.
- Low-achieving students are hit the hardest by summer learning loss while high-achieving students are only slightly affected.

Chapter One
A time of leisure

1.1 Introduction

This chapter provides an overview of the history of Summer vacation. How it became the 3-month long school break we know, and when scholars started noticing its effects on student's learning outcome. To grasp the background of the issue in the Algerian context and how it relates to other countries, this chapter starts with the history of summer vacation in colonial Algeria and then moves to its origins in the United States where criticism of the practice first emerged. The chapter then explores what other non-academic impacts summer has on students and why the traditional school calendar is so difficult to replace.

1.2 Summer Slide

The term summer slide refers to the academic regress that students experience after summer vacation. More commonly referred to as "Summer Learning Loss"; it is a popular subject among educational scholars and policymakers that is centered around the negative impact long interruptions from school have on students and how they hinder their academic achievement.

1.2 History of Summer Vacation

It is important to mention the history of summer vacation in different places of the world with a special focus on Algeria as it is mainly the place the researcher is interested in.

1.2.1 History of Summer Vacation in Algeria

It is unclear how the Algerian school calendar took on its current form. Sources on the matter are scarce and are often hard to obtain. Algeria after independence inherited an educational system that showed a near-complete disregard to the native population and was almost entirely centered around the European settlers and their needs exclusively. Algerians, while outnumbering the Pied- noir 8 to 1, only made up roughly 1/5 of all high school

students and 1/10 of all university attendants. By the year 1954, a staggering 1.8 million Algerian children did not enjoy the privilege of enrolling in primary schools (Alf et al, 1973). It is thus understandable that a once independent Algeria had little interest in how the school calendar should look like. It, however, dedicated most of its attention and resources to broadening an educational network that could only cover a tenth of the population it now had to teach and to end a history of institutional racism that left nearly 90 percent of native Algerians illiterate. Matters are further complicated by the fact that French oversea territories and departments define their school calendars differently and adopt their school holidays which differ from those of mainland France (French ministry of education, n.d). This does not allow to project the latter onto colonial Algeria, as it may likely have been particular as well.

1.2.2 History of Summer Vacation in the United States of America

Looking at the history of the traditional school calendar in other countries might provide an insight into why it was adopted by the Algerian government. Perhaps the most famous and well documented of all might be the United States. The popular belief within the country holds that U.S summer vacation was the byproduct of an agrarian era. Children of rural families would suspend their school duties to help their families during times of planting and harvest. While this explanation does hold merit of truth, it is refuted by the fact that in most American regions neither planting nor harvesting occurs in summer, but in spring and autumn respectively. William (2006) states that up until the late 19th century, the U.S populace consisted largely of small farmers who relied partially on their children's assistance in working their farms.

Their helping hand had to be available at a moment's notice and as such their education was very flexible. Low levels of urbanization and a poor infrastructure meant that schools were often single-room buildings that would encompass students aged from 5 to 18. Most schools did have summer terms and those who did not were those who could not afford to. Additionally, teachers during this time frame followed a skill-specific approach where they would teach children according to their progress, the materials they had available and where they had previously cut off before resuming their education. This method of teaching,

though far from ideal, went great lengths in creating an educated population and was arguably the most suitable path at the time. It would not be until the introduction of age-graded schooling in the 1840s, and compulsory attendance laws almost a century later, that talks about standardizing the school calendar were initiated. In age-graded schools, students were divided into age-segregated classes. Teachers were able to focus on a whole class at once, as students were of similar capacity and were taught with the same material, cutting the cost of education and allowing for consistent progress to take place.

However, these advantages came with a caveat, since an ever so increasing urbanization rate and social mobility created the need for a standard school curricular across the nation. Students moving from one school to another had to find that both were in line in terms of lessons taught, a chronology of semesters and classes are taken. As for summer being the season of choice for a long school break, many factors played into the decision. For one, the absence of air conditioning meant that urban areas and their schools would become so unbearably hot during summer months that families had to flea them (Ron, 2011). Furthermore, the period between 1880 - 1920 marked the rise of urban Americans as the foremost social and economic group in the U.S which led to an unprecedented increase in family mobility. Long summer vacation was the optimal time for households to move, as there was no bad weather that could disrupt the process. Meanwhile, non-movers benefited from a long summer break as well, since it offered them the opportunity to go on extended vacations without interfering with their Children's education.

1.2.3 Summer Vacation Around the World

On the international stage, the transition to a long summer break appears to be the norm rather than the exception and often seems to have emerged as a result of the same factors that shaped the US summer break. All 22 members of the Arab League (of which Algeria is a member) make use of school calendars that are quite similar to that of the US. June marks the start of the summer vacation and September its end and by extension the start of the new school year. The same holds for Europe, with the difference that the continent is home to a wide array of summer break durations which can range from six weeks in Germany to twelve weeks in Spain (William, 2006). In France, summer vacation went through various changes

since its inception in 1875, going from spanning 1.5 months to 2.5 months to becoming the eight-week long school break it is today (The Local Fr, 2019). In the southern hemisphere, where seasons are inverted, the longest school breaks usually span the months of December to February. As it is the case in Southern Africa and most of Latin America. Asia is perhaps home to the nations with the most distinctive school calendars. In the Philippines, school usually starts around the beginning of June with the longest holiday spanning the months of April and May. Brunei's school year starts around the first of January and is proceeded by a one-month long break in December. The Japanese school calendar is famous for its rather unusual chronology, where the second week of April marks the beginning of the first term followed by the longest vacation in the year starting from the end of July till August. (public holidays in Asia, n.d).

Although school calendars differ significantly in terms of length of holidays, the order of semesters and the start of the new school year, they all follow the same model. Some relatively short school breaks throughout the year followed by a prolonged vacation during summer that precedes the beginning of the following year. This common pattern was by no means an accident. Summer vacation was very much a consensus decision; it fulfilled its purpose of enabling more family mobility, only that this was at the expense of students who were not taken into account when these policies were instigated (Saskia and Sam, 2014).

1.3 Impact of Summer Vacation

Summer vacations impacts on pupils' achievements.

1.3.1 The Academic Toll

It was not long after the introduction of the 9-month school calendar in the US that scholars began noticing its negative impact on student's learning and their ability to retain previously acquired skills. The earliest records of research on the topic go as far back as 1906. Scholars observed a significant regress in math skills among second graders after summer vacation with one research drawing a correlation between the student's main summer activity and the level of academic regress they experienced. Students who spent most of the summer engaging in recreational activities tended to lose the most progress (National Center on Time & Learning, 2010). Dozens of newer and more sophisticated studies have been conducted since then, almost all of which came to the same conclusion. By the turn of the 21st century, many teachers had become painfully aware of the academic backslide their students suffered during summer and started incorporating elements of revision and recovery into their programs (Trevor and Brent, 1998).

Cooper et Al (1996) analyzed a set of 39 studies that examined the impact of summer vacation on children. Their meta-analysis revealed that children lost on average 1 month of instruction during the summer break and that their test scores were similarly 1 month lower. Their findings also showed that how much instruction students lost was affected by their family's economic status and varied noticeably between subjects. Summer loss was especially pronounced in math and spelling, where students lost an equal amount of instruction regardless of their economic background. This was attributed to the procedural, factual nature of these subjects, which in contrast to other skills require constant practice to be maintained. There was, however, a glaring disparity in reading skills between students that ranged from lower-income households who showed losses in reading achievement over summer and children from middle-income families who actually showed gains. They argued that underprivileged children in contrast to their middle- class counterparts lacked the materials to practice their reading at home. Sarah Pitcock (2018) explains:

> Researchers have observed that the difference in reading and math outcomes over the summer is likely related to the fact that reading is more naturally embedded in a child's life and that parents are natural reading teachers. On the other hand, math

> may not be a naturally occurring part of day-to-day life in many households, making math knowledge and skills more difficult to practice and quicker to decline" (Pitcock, 2018)

Socioeconomic status aside, gender and ethnic background did not seem to influence the impact summer vacation had on the students according to the meta-analysis (Geoffrey and Matthew, 2004).

A fairly recent number of studies into the summer slide echoed similar results. Children of lower-income families lost, on average, more reading achievement than their classmates from more advantaged households (Allington & McGill-Franzen, 2018; Benson & Borman, 2010; Entwisle, Alexander, & Olson, 2014). Some studies suggest that this holds for other countries as well, even those that host summer holidays that are significantly shorter than the US. Tiruchittampalam et al. (2018) observed the passage reading accuracy, word reading accuracy and reading comprehension of 126 first-year primary pupils from New Zealand. Their findings showed that while children from higher socioeconomic status gained nearly 3 months of passage reading accuracy and gained 2.87 score points on Schonell's Word Reading test, others from lower SES lost 1.57 months and 1.08 score points, creating a wide achievement gap between the two groups.

Furthermore, while both groups lost reading comprehension, and although the difference was negligible, the loss was still larger among lower SES students than it was in the higher SES group standing at 0.24 months and 0.05 months respectively. An earlier study by Vale et al. (2013), which monitored the reading development of 2500 Australian students throughout three years, also paralleled the findings of US scholars. Their research revealed that children's reading achievement growth was slower in terms 4 and 1, which were separated by Summer vacation, then it was in terms 2 and 3 (Tom and Shanthi, 2019).

This achievement gap does not suddenly disappear as students grow older, but often fully manifests as a massive burden on their learning path and future career. According to a longitudinal study by Karl et al. (1997,) at the end of primary school, low SES students are nearly three grades behind their more privileged peers. They pointed out that the great majority of reading achievement gaps among ninth-graders could be traced back to how they spent their summers in elementary school. This implied that summer learning loss was detrimental to the student's ability to earn a high school diploma and enroll in college (Ron, 2011).

Elementary pupils and young children have been the major focus of summer slide related studies because they are at a vital stage of their development and are prone to lose the most during summer. Doctor of Education and assistant professor of education at Harvard University James Kim states that:

> In general, kids learn a lot more in kindergarten, first grade, and second grade than kids in middle school or high school, because learning follows a curve where it's accelerated early in life and then plateaus. Things like decoding, letter knowledge, and word reading skills are very susceptible to decay without frequent practice, as are math facts like addition and subtraction (Ashley, 2019)

However, this does not imply that older students are immune to the issue. A study by Justin Comegys (2017) on the effects of summer vacation on high school students highlighted that adolescents also suffer from the negative side effects associated with prolonged absences from school (Justin, 2017).

1.3.2 The Faucet Theory

Doris R. Entwisle, Karl Alexander, and Linda Steffel Olson first coined the term "faucet theory" in their book: *Children, Schools, and Inequality* published in 1997 as a concept attempting to explain the achievement gap between lower- and middle-class children that arises during summer. At its core, the concept is very simple, public schools create a steady flow of resources that is available to all students, regardless of socioeconomic background, and as such, they all grow academically and are on an equal footing. Once summer break sets in, this flow of resources continues to flow for middle-class students whose families can afford to pay for, but dries up for their less fortunate peers who lack the funds to replace the services their school was providing; hence, the term faucet. This enables students from higher-income families to gain an edge over their less fortunate classmates and further widen the achievement gap between them as the years pass (Pitcock, 2018).

1.3.3 The Harm Beyond The Classroom

In addition to being a catalyst for academic regress, there is evidence that suggests that summer vacation can affect the overall health and wellbeing of low-SES students as well. A report by Paul et al. (2007) revealed that the BMI of school children grew at a faster, less consistent rate during the summer break than it did during the school year. Many underprivileged children face the risk of gaining weight and developing health issues during the summer months. To many students, a day without school is a day without a healthy meal, as food security is a real issue among low-SES children in the US (Ron, 2011).

The issue is further exacerbated by the fact that the great majority of young people who qualify for free and reduced-price meals do not access them. Reasons for this vary and can range from fears of stigma to being oblivious to the existence of such programs in the first place. While school nutrition and exercise programs commonly leave much to be desired, they are often a healthy and free alternative to whatever students have available or lack in their households, and many are highly dependent on them (Pitcock, 2018). Considering that the US is boasting the largest gross domestic product (GDP) in the world per the United Nations in 2017, one can assume that the issue is much more profound and widespread in countries that do not hold the title of the richest country on earth.

This regress in physical health is mirrored by an equally harmful setback in mental wellbeing. A survey conducted by Cardiff University, covering 10,396 children from Wales aged from 11 to 16 revealed that students from different economic backgrounds perceived summer differently. Children affected by socioeconomic inequality were more likely to experience loneliness, social isolation and hunger during the summer months and less likely to engage in physical activities with their friends. One in five underprivileged children reported feeling lonely regularly, twice as high as their more affluent peers, which took a toll on their mental health and overall wellbeing (the conversation, 2018).

Furthermore, teens are much more likely to experiment with, and subsequently develop an addiction to drugs during summer, than they are during the school year. Summer is a perfect breeding ground for drug dependence because it is a time of minimal adult supervision and excessive amounts of free time. Adolescence, on the other hand, is a period of overconfidence in one's discipline and lack of awareness surrounding the consequences of drug abuse. A 2012 study revealed that US teens were twice as likely to try drugs, such as alcohol and cigarettes,

during June and July than they were in other months. It is estimated that 85 percent of adolescents that bypass the initial discomfort of smoking go on to become chronic smokers. Additionally, premature exposure to alcohol, namely before the age of 15, has been linked to higher rates of dependency. Aside from being a health hazard, dependency is regarded as a catalyst for school failure, road accidents and even suicide (Sari, 2012).

1.4 Hurdles to Initiating Change

As early as the turn of the 21st century, the summer slide was believed to be a uniquely American issue, with very little research pointing at its existence outside the country. Back then, some scholars theorized that this was a byproduct of the distinctive nature of the American school calendar and a political sphere that was familiar with social inequality and made it easily observable. They stated that the US summer vacation was on average longer than in most other nations and that its impact was thus more profound than it was elsewhere. Secondly, educational inequality has historically been a major part of American political discourse. The very fabric of the American education system, which deploys various sums of resources into educating students from various economic and racial backgrounds, has traditionally provoked questions of racial discrimination, integration and social welfare.

These Questions have gathered the attention of researchers for decades. Lastly, they argued that the US was likely to be the first country where the impact of summer vacation would be discovered and thoroughly studied because it is home to the largest pool of Ph.D. researchers in any single nation worldwide. This in turn allows for any conspicuous aspect of the American educational system to be identified and studied and as such, the literature behind the summer slide is quite extensive (Alexander and David, 2004). In retrospect, the correct answer was arguably the most straightforward one. Summer learning was not a uniquely American issue, as much as it was a broadly ignored and unnoticed one outside the country. In recent years, the comfort of the traditional school calendar has increasingly been called into question within countries that make use of both shorter and longer summer school breaks than the US.

A large number of Spanish organizations recently voiced their concerns about the length of summer vacation which spans from June to September. They proposed to take the route of their European neighbors to the north and spread-out the holidays more evenly (Rob, 2015). Recent studies in both Australia and New Zealand have also suggested that the issue is present in countries where summer vacation is considerably shorter than the custom 12 weeks (Tom and Shanthi, 2019). The summer slide has already established itself as a well understood and acknowledged phenomenon inside America and has started attracting significant attention on the world stage to

boot. Which ultimately begs the question, why are long, unsupervised summers break still a commonplace if there is so much evidence to suggest that they should not be? The answer lies in an array of multidimensional barriers that make reform far from simple.

1.4.1 Absence of Funding

One of the largest obstacles to tackling the summer slide is that the necessary resources are often absent. The financial costs associated with adding any considerable number of instructional days to the current calendar are immense. Lengthening the school year of Boston, Massachusetts by six weeks, which is a single district of no more than 56,000 students, would require more than 155 million dollars (Ron, 2011). Furthermore, US school districts already struggling to fully fund their schools and many local and state legislators rely on the school-free summer months to balance their budgets (Geoffrey and Mathew, 2004). Even in cases where there is a budget surplus, the absence of dedicated federal funding means that schools are not obliged to spend it on summer learning programs. Additionally, many American schools still lack the basic infrastructure to initiate any such measures. A large portion of US schools operates without any form of air conditioning in place, rendering them unusable for summer learning. Many schools also regard summer as a prime opportunity to make renovations and improve facilities, which prevents summer learning from taking hold within them (Pitcock, 2018).

1.4.2 Summer Vacation and the Economy

The traditional school calendar has been present for such a long period that it has become a central piece in a fabric of interconnected economic interests. A variety of industries such as tourism, camping and sports rely on a prolonged summer vacation to expend their earnings. These businesses have traditionally not shied away from using their power and waving around their influence to ensure that summer holidays across America are left pristine. Tourism businesses are one of the greatest offenders, as they are at the frontlines in the struggle against calendar reform (Pitcock, 2018). The International Association of Amusement Parks and Attractions has in the past successfully lobbied against legislation that meant to change the school calendar in more than a dozen states.

The association also funds institutions that shape public opinion, especially among middle and upper-class families. Enforcing the perception that summer is exclusively a time of leisure and that the government is unrightfully trying to cut down on precious family time (Ron, 2011).

1.4.3 Social Backlash

While summer vacation is of great financial value for businesses and legislators, it also enjoys a cultural importance in the eyes of the common men. Popular media advertises summer as a hard- earned time of relaxation and enjoyment after a stressful school year. To the majority of Americans, the summer months are a period of rest and games, free from the day-to-day burdens of school, where kids can express themselves and spend more time with their families. Meanwhile, any call to refine the school calendar is met with intense backlash from parents, who have organized themselves into dedicated groups aimed at preserving summer vacation in its current form (Ron, 2011). Besides the children's parents, their teachers are another possible source of resistance against calendar reform. Trevor and Brent (1998) draw the case of a British MP who proposed changing the school calendar but was met with passionate opposition from teacher unions, who were quite defensive of their holidays and were not fond of what they perceived was working longer hours for less pay.

Conclusion:

The history behind summer vacation and how it came to be accepted as a norm worldwide is a lot more complex than people tend to perceive. The current school calendar was not implemented to benefit students but to increase social mobility, allowing families to quickly move between places in persuasion of an urban lifestyle and a new home without having to sacrifice their children's education.

Chapter two:
Data Collection and Processing

2.1 Introduction

This chapter will present the tools that were used to gather data for this research. It aims at either verify or falsify the hypotheses that were made in the beginning of the study. This chapter will also present the final results. Both qualitative and quantitative data gathering tool were employed in this study, making use of exams to measure students post and pre-summer skill level and how they compare to each other, and interviews with the teachers to document their perception of the issue and what measures they take to tackle it.

2.2 Measuring the Summer Slide

The use of student data is critical to successful problem solving and data based instructional decision making. Knowing how and when student's performance changes is essential to knowing the reason behind these changes. That is why quantitative research is a fairly popular tool that many scholars make use of when studying the summer slide and why it is not uncommon for these studies to span years and encompass thousands of students from various institutions in their corpus.

2.2.1 Measurement Tools

Evaluating student progress is curial to measuring summer learning loss. It is necessary that this evaluation takes place both in the spring and in the fall and is in line with what students have been taught and what they are expected to know. To accomplish this, scholars often make use of large- scale, standardized tests that are meant to provide an overview of the general skill level that is present among peers of the same grade. Tests such as the Comprehensive Test of Basic Skills (CTB) and the Stanford Achievement Test Series fulfill this purpose, but fall short of measuring summer learning loss on an individual scale, which is often the primary goal of studies monitoring student progress (Karen and Amy, 2013).

Many of the studies used by Cooper et al (1996) in their meta-analysis employed large scale standardized tests and district exams that varied significantly in terms of the time frame they were taken on. This implied that many of the differences in summer learning loss or gain that Cooper and his colleagues observed could be attributed to how much schooling the students had prior or after these exams occurred. They were ultimately able to account for these differences by designating this difference in chronology as an independent variable that's taken into account. (Jennifer et al, 2011).

Another tool for measuring academic progress is the CBM (curriculum-based measurement). Developed by Deno et al in the 1970s, it is a brief and direct assessment of curriculum that can be performed regularly, offers precise data on studies spanning extensive periods and which results are easy to present in the form of graphs, thus constituting a valuable alternative to standardized achievement tests (Karen and Amy, 2013). The major downside of the CBM however is that it is mostly aimed at children ages three to grade three and covers a narrow set of basic skills, primarily reading and mathematics (Scot, 2019).

2.3 Research Methodology

In order to answer the research questions presented in this study, the research employs both quantitative and qualitative data gathering tools, namely tests and interviews. The tests were used to measure and compare the academic level of the students monitored in this study, both before and after summer vacation. Two third year classes from the high school of Ben Aroum Hamou, Ben Abdel Malek Ramdan, one being of the scientific stream and numbering 31 students and the other of being of the language stream and numbering 13 students, were chosen as corpus for this study. After a week of their official enrollment into the new school year 2019/2020 they were given an English language exam that is nearly identical to the one had the year prior in May, marking their final exams and the end of the curriculum. The slight differences that were made to the original exam were mainly for the purpose of preventing a scenario where students answer the questions purely from memory, without drawing on their language skills. Their papers were corrected and their marks were compared to the ones they had received in their previous exam. Additionally, a separate interview was setup with their English teachers with the aim of uncovering a variety of questions concerning their student's performance after summer vacation and if they were surprised by the results of the two exams they had taken.

2.4 The Exams

2.4.1 Third Semester Exams

In the first phase of this study, the researcher has acquired last year's third semester exam sheets of both classes. The researcher corrected the papers again and assigned his own marks on them. This was done to form a pre-summer baseline by which the new year post-summer exams would be compared to. A re-correction was done to avoid any flawed or contradicting data that could arise if the teacher's code of examination is different from that of the researcher. After the correction, the exam marks were arranged in a table and to hide the identity of the students who participated in this study their names were replaced with the letter "L" and "S" referring to their class plus a number, which corresponds to their ranking on the alphabetically ordered student list. With "L" being the language class and "S" being the scientific class.

Third Semester Exam Re-correction Results

Students	Reading		Writing	Final mark
	Comprehension and interpretation	Text exploration		
L1	2	4.5	2	9.5
L2	6	6	3	15
L3	1	2	0	3
L4	3	3.25	2	08.25
L5	5.25	5	3.5	14.25
L6	1.5	1	1	3.5
L7	4.5	3	2	9.5
L8	4.25	2	2	8.25
L9	1.5	2.5	2	6
L10	4.25	3.75	2.5	9.5
L11	1	2	0.5	3.5
L12	5	3.5	2.5	11
L13	5.25	3.75	2.5	11.5
Average	3.4	3.6	2	9

Table 2.1: Pre-summer "L" Exam Re-correction Results.

Students	Reading		Writing	Final mark
	Comprehension and interpretation	Text exploration		
S1	3	3.5	2	8.5
S2	4.5	3.5	3	11
S3	2.75	2.25	1	6
S4	3	3.25	3	9.25
S5	0.75	1.25	1	3
S6	4	4	2.5	10.5
S7	1	1.75	0	2.75
S8	2	1.5	1.5	5
S9	3.75	1.25	2	9
S10	2.25	2.75	1	6
S11	3.5	4	3	9.5
S12	5	6.5	2.5	14
S13	2.25	1.75	0.5	4.5
S14	4.25	3.75	3.5	11.5
S15	4.5	3	2.5	10
S16	2.5	3	1.5	8
S17	2	2.75	1.5	5.25
S18	3	2	2	7
S19	2	2	2	6
S20	5	4.75	3	12.75
S21	3.75	2	2.5	8
S22	4	3	2	10
S23	4.25	3.75	1.5	9.5
S24	1.5	1.5	1	4
S25	4.5	5.5	3	13
S26	2	1	0	3
S27	4.5	3	3	10.5
S28	2	3	1	6
S29	5.75	6.25	4	16

S30	3.5	3.5	1.5	8.5
S31	4	6.5	2.5	13
Average	3.3	3.2	2	8.5

Table 2.2: Pre-summer "S" Exam Re-correction Results.

The initial results of the exam re-examination indicate that students from both classes were struggling with the English language as both marks for each class are a little below average, namely 9 for the Language class and 8.5 for the Scientific class. The results also reveal that nearly all students did better in reading relating tasks than they do in writing where the average number of points attained was 2 and where very few were able to acquire more than half the mark and secure more than 3 points.

2.4.2 Post-summer Exams

The students of both classes took the exams on September 19th, 2019, from 08am to 10am, and from 10am to 12am respectively, and were supervised by both their teacher and the researcher in addition of being seated alone in their designated tables to provide an authentic semester exam environment and to prevent them from cheating. The exams, as the ones corrected previously, follow the same, basic 20/20-point model that is common in Algerian curricular and consists of two segments. The reading segment, which is marked at 14 points and is itself divided into a comprehension and interpretation part and a text exploration part both marked at 7 points, and the written expression segment, which assesses the students' writing skills and is marked at 6 points. After the exam was over the exam sheets were collected by the researcher and were corrected on a later date.

Students	Reading		Writing	Final mark
	Comprehension and interpretation	Text exploration		
L1	2.75	4.75	1	8.5
L2	6	6.5	3	15.5
L3	1.25	1.75	0	03
L4	4	3	0.5	07.5
L5	5.25	4.75	3.5	13.5
L6	2.5	3	1	06.5
L7	4.25	3.75	1	09
L8	3.75	2.75	1.5	08
L9	1.5	3.5	1.5	06.5
L10	4.25	3.75	1.5	09.5
L11	1.5	2	0.5	04
L12	3.5	4.5	1.5	09.5
L13	3.5	4.5	1	09
average	3.7	3.4	1.4	8.5

Table 2.3: Post Summer "L" Exam Results.

Students	Reading		Writing	Final mark
	Comprehension and interpretation	Text exploration		
S1	2.5	3	1	06.5
S2	4	4	1.5	09.5
S3	2	2	0	04.5
S4	2	2.5	0.5	05
S5	0.5	1	0	01.5
S6	3.25	2.5	1	6.75
S7	0.5	0.5	0	01
S8	1.25	1	0.5	02.75
S9	3.5	1.5	0.5	05.5
S10	1.75	2	0	03.75
S11	2.75	3	1.5	07.25
S12	6	6.5	2.5	15
S13	2	1.5	0	3.5
S14	4.5	3.5	3	11
S15	3.5	3.5	1.5	8.5
S16	2.5	2.5	0.5	5.5
S17	3	1.5	1	5.5
S18	3	1.5	1.5	6
S19	2.5	2	1.5	6
S20	5.5	5	2.5	13
S21	3.5	2.5	2	08
S22	4	3	1.5	09.5
S23	3.5	2	0	05.5
S24	1.25	0.75	0	02
S25	5.5	5.5	3.5	14.5
S26	1	1	0	02
S27	4.5	3	2.5	10
S28	1	2.5	0.5	4

S29	6	6.5	4	16.5
S30	3	4	0.5	7.5
S31	5	6	3	14
Average	3	2.8	1.2	7

Table 2.4: Post-summer "S" Exam Results.

Data from the second test points to a significant drop in overall achievement among students from both classes. The average mark of both language and sciences classes fell by 0.5 and 1.5 respectively. Writing took the greatest hit, observing a decrease of 35% for both classes, followed by text exploration 9% and comprehension and interpretation which stood unchanged.

2.5 The Interview

After the data from the exam was collected, it was displayed in tables and graphs and presented to the teachers on September, 27th, 2019, in the teachers hall, where they were allowed to carefully examine the findings and ask questions of their own regarding the re-correction of last year's third semester exams and the researchers' perception of both classes and the post summer skill retention of their students. Afterwards, both teachers were asked to participate in a structured interview which lasted one full hour, starting at 11am and ending 12am, and contained six major questions. Both teachers were interviewed simultaneously and were allowed to influence each other and add on each other's answers. The interview was conducted with the aim of revealing the attitudes towards summer vacation and summer learning loss among Algerian English teachers. The questions were opened ended and the teachers were allowed to add any further input they believed was important as long as it was relevant to the topic and did not surpass the ten-minute time frame that was assigned for each question.

2.5.1 The Interview Analysis

Both the interview questions, and answers were in Arabic, with the first being conducted in formal Arabic and the latter in Colloquial Arabic as to make it easier for the teachers to answer the questions directly and without difficulty or confusion that could unnecessarily lengthen the interview. The full interview was then translated into English in a later date.

2.5.2 The Interview Questions and Answers

Q1: What were your expectations of the students' performance before examining the data?

The first question of this interview was asked to reveal how teachers reacted to their student's underperformance in the post-summer exams. If they answered with yes, it means they were aware of a summer slide phenomenon and had already expected their students to regress academically. If they answered with no, it implies that they had no prior observation of summer learning loss and were likely unaware of the negative impact summer vacation was casting on their students. Both teachers answered the question with yes and revealed that they were aware of a "summer slide" phenomenon, and that they had noticed similar post-summer academic regress throughout their careers. They stated that it was a rare occurrence for low-achieving students to re-enter school with the same skill level that they left with before summer vacation started. They were surprised, however, with the drop in performance that their average students experienced and stated that they believed the summer slide only affected their low-achieving students.

Q2: Do you incorporate elements of revision and recovery into the start of the new year?

After the teachers revealed that they were not surprised by their student's academic backslide and had already experienced similar patterns in the past, it was important to know how teachers acted to remedy to this regress and restore their student pre-summer skill level. Both teachers confirmed that they do in fact incorporate elements of revision and recovery into their curricular programs. The teachers stated that they were already accustomed to dedicate the first two to three weeks of September to recovery sessions where students recalled lessons from last year, and were given short exercises to refresh their memory and uncover what they forgot and what they were able to retain during the summer months. However, the teacher of the scientific class made it clear that this was extra work the teachers took upon themselves and was not obliged to do while the other objected to this commentary and explained that not aiding the students in their revision would be detrimental to their learning path, especially for low-achievers who are already struggling and need as much support as they can receive.

Q3: Who do you fault for this performance drop?

The purpose behind asking this question was finding out whether or not teachers feel like they are complicit in the student's academic regress and who they believe takes the responsibility. There was a disagreement in the answer of this question between the teachers. The language class teacher stated that the all parties involved in the educational setting, from high ranking legislators to the students, are equally responsible for this phenomenon and simply refuse to address it or even acknowledge it as a relevant issue. The science class teacher, on the other hand, held the students as solely responsible for their misconduct and believed that they wasted valuable free time that they could have invested in revising their lessons at home and enhancing their language skills. According to the ladder, teachers are not responsible for what happens to the students once they are outside the classroom and they are free to behave as they please.

Q4: Do you think summer learning loss affects all students equally?

The intent behind this question was to unveil what summer slide patterns the teachers have observed in their students, and if they have spotted an uneven level of retention and loss in their students. The answer this time was again the same. Both teachers believed that summer learning loss affects only their less-skillful students and that their more affluent peers are unharmed by it considering that they start the new academic year with nearly the same energy and confidence that they left off with.

Q5: Do you support lengthening the school year even if it was implemented with increasing teacher's pay?

Because lengthening the school year and shortening summer vacation is one of the first ideas that come to mind when school calendar reform is brought up, and are according to many scholars the most viable solution to combating summer learning loss, it was important to know what teachers thought of it and what reasons would push them to either welcome this change or oppose it. Both teachers answered with a clear objection to the idea. Both stated that they believed this would not benefit the students in any way and would only add more pressure on the already overworked teachers. Once asked whether they would accept this change if it meant a higher salary, they still objected and revealed that they had grown fond of the three-month long summer vacation and did not entertain the thought of seeing it bent or reduced.

Q6: What other solutions do you suggest for combating summer slide?

The last question on this interview focused on finding out what other solutions other than shortening summer vacations teachers find beneficial and what compromises teachers are willing to make for the benefit of their students. According to them, it is the government's responsibility to create a curriculum that is more effective and captures the interest of the students even beyond the classroom. They also blamed the parents for not dictating their children's summer activities, and for not encouraging them to read more and practice their English. Since both teachers had already objected to the idea lengthening the school year even if it meant a higher pay, it came as no surprise that their offered solutions were non-teacher centric and emphasize on the role the government has to play in order to combat the summer slide.

Conclusion

This chapter presented the methods that were used to collect data in this study. In addition, this chapter discussed why these methods were chosen for this study in particular. Second year high school students of Ben Aroum Hamou were already struggling with the English language, as only a fraction of them were able to attain to average or above average marks. Their performance dropped even further after the summer vacations and even less students acquired an above average mark. The comparison between pre- and post-summer exams showcases that students from both classes lost considerable ground during summer and that their average mark dropped by one point.

The interview was performed to address the issue from the teacher's perspective. It revealed that the teachers are aware of this academic regress and that they take the necessary steps to get their students back to their original skill level. Furthermore, it uncovered that teachers do not wish to see summer vacation changed in anyway and that the students are entirely to fault for their shortcomings.

Chapter three:

Research Implications and Possible Solutions

3.1 Introduction

The final chapter in this research paper is dedicated to discussing and analyzing the final results presented in the previous chapter and their implications for students, teachers and policy makers. The chapter also provides applicable solutions to the summer slide and how they can be implemented. Lastly this chapter discusses limitations of this study and how could influence the results obtained throughout this research.

3.2 Data Analysis

3.2.1 The Re-Correction of the Third Semester Exams

The third semester exams formed the basis by which the skill level of the participants was measured. Initial observation of the average mark in both classes after re-correction showcases that they struggled with the English language as only 4 out 13 students from the language class and 11 out 31 students from the science class were able to acquire an above average mark. The students had an especially hard time with the Writing part of the exam where the average mark was 2 in the language class, only a third of the maximum mark assigned to that segment and 1.4 in the science class, only a fourth of the attainable mark. The students fared better in the reading tasks where the average mark was 2 out of 6 points. This indicates that their English curriculum was already insufficient and failed to prepare them for an exam that requires adequate writing skills. This could be because students have little opportunity to practice their writing inside the classroom, and what little writing they do is rarely evaluated if it is not part of a test or an exam.

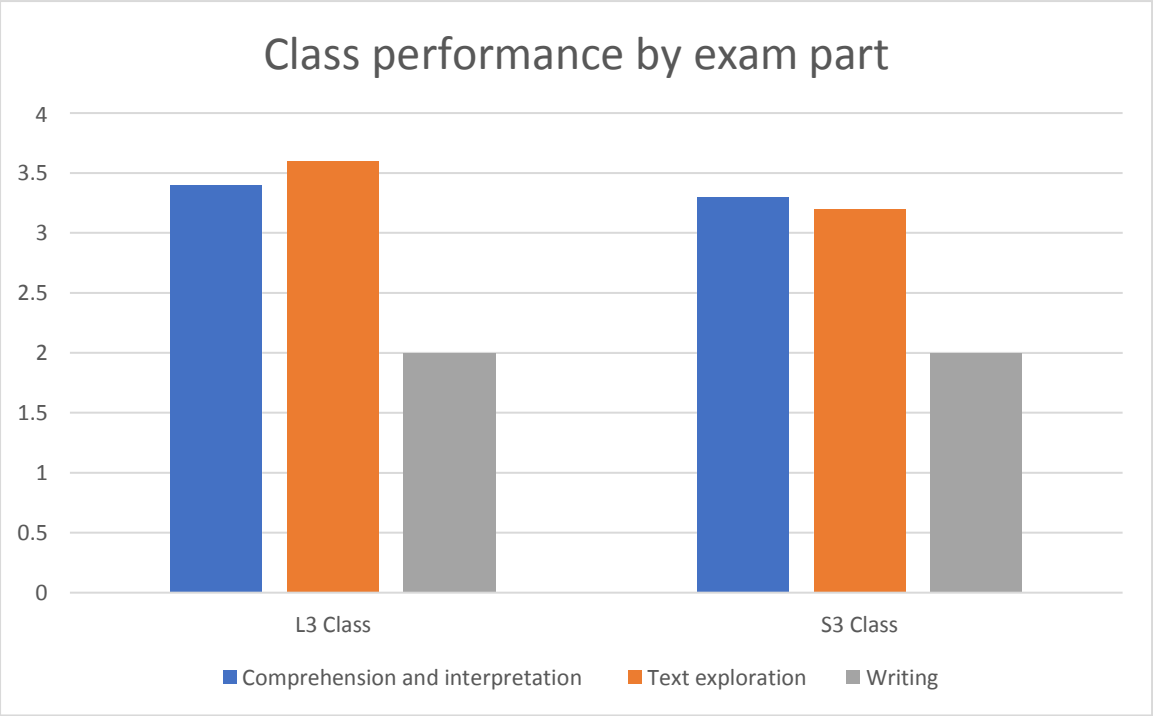

Figure 3.1: Class Performance by exam

3.2.2 Post-summer Exam Results

The data obtained through the post-summer exams reveals a clear drop in performance among students in both classes. The average total mark decreased by 18% for the scientific class whose points fell from 8.5 to 7, and by 6% for the language class whose points fell from 9 to 8.5. Interestingly the drop was sharper for the former class possibly a result of the module's lesser importance in the scientific stream which often leads the students to sacrifice their secondary subjects such as English and History in favor of the primary ones such as Math and Physics.

Figure 3.2: Class Performance

There also appears to be a correlation between the overall skill level of the students and how much academic progress they lost or gained during summer. While the average mark of the low-achieving students in both classes significantly decreased, the average mark of high-achieving students slightly increased widening the achievement gap that was already present among the students before the onset of the summer vacation. These findings are in line with the common observation that the more students struggle during the school the more likely they are to lose academic ground during summer.

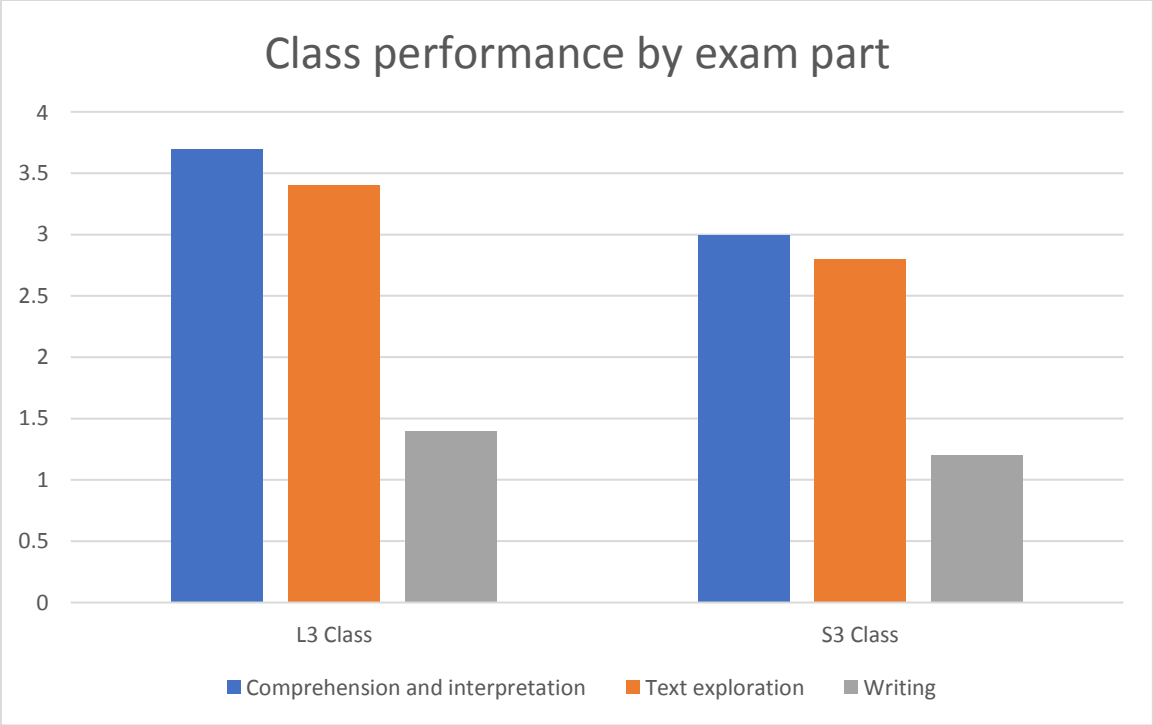

Figure 3.3: Class Performance by Exam

Analyzing the student's performance by segment shows that their writing skills took the greatest hit, dropping from 2 points for both classes to 1.4 for the language class and 1.2 in the science class, decreasing the mark of the latter by nearly half. In the text exploration tasks, we see a similar drop, falling by 0.2 points for the language class and by 0.4 points for the science class. The major exception here is the language classes' performance increase in comprehension and interpretation tasks which actually saw an increase by 0.3 points. This is possibly a result of the student's exposure to the English language during the summer through social media and entertainment which could provide enough opportunities for the students to stimulate and thus preserve their reading skills.

3.3 Interview Results Analysis

There were some important takeouts of the interview with the two English teachers of the classes monitored here. Firstly, Algerian teachers are aware of summer slide effect and have frequently observed that their students return from summer vacation with a skill level that is considerably lower than the one which they left with even if they may not know the concept of summer learning loss and student stimulus. Secondly, teachers believe that this academic backslide only affects students of lower achievement levels, still they dedicate the start of the new academic year to sessions of revision and recovery where all the class takes part. Furthermore, the teachers were not at ease with the idea of shortening summer vacation even if it came with the required compensation indicating that they are very attached to the traditional school calendar. While one of them put some of the responsibility on the teacher, the other one declared that the students were entirely at fault for their own demise. Finally, neither teacher gave a clear-cut explanation of the solution towards tackling the issue, nor what it should look like in detail or what it entitles.

3.4 Recommended Solutions

Scholars have been offering viable solutions and alternatives to the traditional school calendar for decades. Some of these solutions are very subtle and do not encroach on the summer months in any way. Other solutions are in support of more radical approaches that would see the entire school calendar revamped and reformed for a modern calendar that is in line with today's circumstances, and which puts the student's interest before anything else.

3.4.1 Year-Round School Calendar

Also named "the balanced calendar schedule"; it is an alternative to the traditional school that is characterized by a shorter summer break, usually in the range of one-month, various short vacations throughout the year and regular intercessions of extracurricular learning activities and revisions. It has been applauded for having an uplifting effect on both students and teachers, and described as an ideal solution to the summer slide. The strength of the year-round school calendar is that it accomplishes this without encroaching on the overall number of vocational days that

students receive. Instead, it spreads them apart more evenly (Denisa, 2020). A popular year-round school calendar is the 45/15 where students study for 9 weeks straight and receive 2 weeks of vacation after each one. Students repeat this interval a total of four times until they reach a summer month (usually August) where they receive 30 uninterrupted days of vacation. Year round-schooling has proven to be very efficient in combating summer learning loss. Winters (1995) examined the data from 19 different studies and concluded that there was no sign that year-round calendar had any negative effects and that it improved students' achievements in 36 out of 41 areas of performance (Trevor and Brent, 1998).

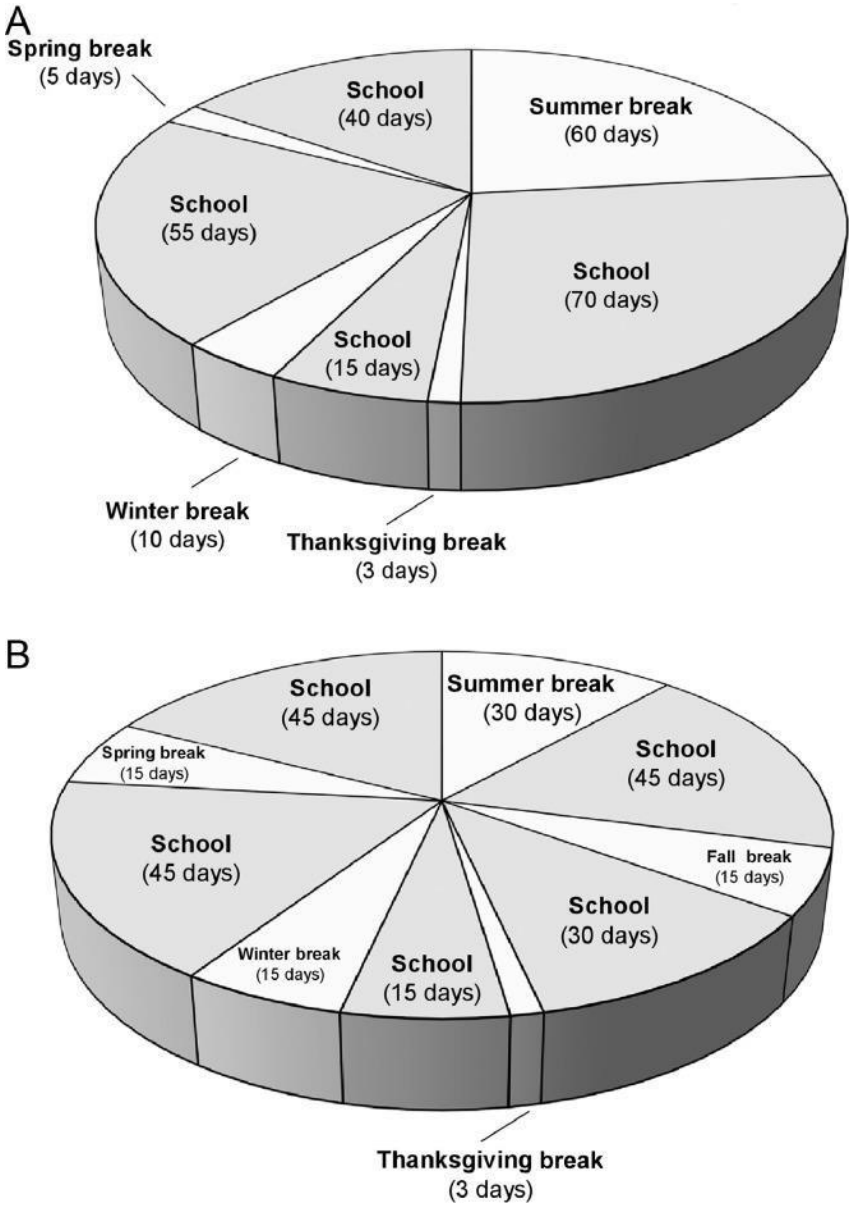

Figure 3.4: (A) Traditional school calendar; (B) Year-round school calendar

3.4.2 Summer School

Initially summer school was introduced to American school curriculums in order to keep children and adolescents preoccupied with learning rather than leaving them in the street where they are vulnerable to bad influences, and where they may develop negative habits. Families ranging from poorer households could not afford to hire tutors for their children or send them to attend costly education camps. It was not until the 1950's that legislators took notice of the many possibilities that free summer school programs offered. These programs were frequently portrayed as punitive and remedial in nature. While this gave the summer school a bad reputation as being exclusive for trouble makers and low-achievers, scholars have been praising the positive impact of summer school programs for decades. Harris et al, (2003) analysed a set of reports that were published from 1963 to 1995 and revealed that summer school programs greatly benefited students by enhancing their reading skills. Overall, students completing remedial summer programs were shown to have scored about one-fifth of a standard deviation higher than the control group on outcome.

3.4.3 Parents And Teachers as Part of The Solution

In the past century, scholars have devoted a great amount of their attention towards measuring the scope of the summer slide, how its impact varied between children of different socioeconomic backgrounds, and why it affected disadvantaged students the most. However, little research was dedicated to its causes, and only a handful of studies attempted to unravel how family attitudes, family composition, and teacher practices affected summer learning. Fortunately, several scholars have since attempted to examine the role these different variables played in motivating students from learning at home.

While most children do little studying at home during the summer months, even modest amounts of academic practice goes a long way in halting the summer slide and enhancing student's skills (Chin & Phillips, 2001). As such, parents play a pivotal role in maintaining their children's academic level and channeling their energy towards productive

activities during summer. Failing to fill the void their teachers leave behind often means that their skills will deteriorate, and that summer learning loss is almost inevitable. A study by Barbara Haynes attempted to highlight the link between family activity and summer loss by asking the parents of sixth-graders in Atlanta, GA, a number of questions regarding their summer activities. She concluded that children of parents who had a habit of reading to their offspring or who encouraged them to read and provided them with enough reading materials made greater advancements in their reading comprehension. These results were in line with the general consensus that the more time students spent on reading, the larger their vocabulary gains were over summer (Entwisle et al, 1997). One rather interesting revelation of her study was that similar vocabulary gains could also be observed in children who used libraries, owned bicycles and those who visited friends and family during holidays. The author theorized that parents who allowed their children to take initiative and have some degree of autonomy had a positive impact on their development. Additionally, children who only had one parent or who's primary caregiver worked fulltime and were under less supervision appeared to gain more math skills during summer than children who enjoyed the company of both parents. While this may seem contradictory, children who are more self-reliant and enjoy more autonomy may have more opportunities to enhance their problem-solving skills and thus indirectly improving their math skills along the way (Haynes, 1978). In contrast, children who enjoyed the company of both of their parents made less mathematic progress than their single parent peers but made larger vocabulary gains.

Another way in which parents may influence students is through projecting their insecurities and doubts in certain subjects towards their children, leading them to adapt these negative attitudes themselves. Students tend to perceive lessons the way their parents do, regardless of how their teachers deal with the subject. Parents who are eager to help their children with their math homework but are math-anxious themselves, have an overall negative effect on their children's learning and their end-of-year math achievement. However, this does not imply that parents should distance themselves from their children's learning experience entirely. Early parent involvement has shown to improve student learning outcome and cast a positive effect on their performance long after it has stopped (Parents are the secret weapon against Summer Learning Loss, n/d).

These conflicting findings portray a common theme in this field of study. While the majority of these variables can certainly be accounted for, not all of them can be addressed. As such, many of these complications don't offer any kind of quick makeshift fixes or straight forward solutions and require different approaches depending on the context in which they are present (Phillips and Chin, 2004).

The teacher's role in preventing the summer slide is no less important than that of parents. In fact, teachers' influence goes beyond instructing their students alone. They should assist their parents and prepare them to be efficient home teachers as well. Occasionally this assistance can be as simple as encouraging parents to text their children throughout the summer, something which has proven to be quite efficient in combating learning loss. Likewise, a study by science mag revealed that encouraging parents of first graders to read mathematical problems to their young children before going to bed was of great benefit to their children's mathematic achievement. The feedback was particularly positive among parents who exhibited mathematic anxiety. Moreover, teachers are also vital in providing parents with appropriate resources that are necessary to combat summer learning loss and turn summer into a fun yet fruitful time of the year (Parents are the secret weapon against Summer Learning Loss, n/d).

3.5 Study Limitations

Since this research was performed by a single person over a relatively short time frame and was not financially supported by a body of government or an independent organization, it falls short in some aspects and is unable to detect hidden variables that may have influenced the data. While the study has reached its aims, the topic is simply too vast and its nature is too complicated to be unravelled by this research alone.

It is common for research on the summer slide to cover entire districts and monitor thousands of students at once. This in turn not only provides accurate results, but also offers detailed academic

accounts of entire regions and states which in turn allows the scholars to make accurate assessment and yield statistically significant results. That is unfortunately not the case for this study. Because the number of participants is only 44 students and two teachers, the researcher is unable to draw premature conclusions and make overarching generalizations. Additionally, the smaller the sample, the more vulnerable the research is to Type II errors. Where the study proves the hypothesis it is built around, when in reality a different hypothesis is true. As explained by Chris Deziel:

> "In short, when researchers are constrained to a small sample size for economic or logistical reasons, they may have to settle for less conclusive results. Whether or not this is an important issue depends ultimately on the size of the effect they are studying. For example, a small sample size would give more meaningful results in a poll of people living near an airport who are affected negatively by air traffic than it would in a poll of their education levels". (Deziel, 2018)

Secondly, for lack of resources this study is unable to account for students' motivation, which may be an important variable in this research. Students may be less likely to fully engage with the exam when they know that it will not be important to their academic career. Students may also be less motivated to work hard on the exam because it is performed in September when it is very rare for Algerian teachers to conduct brief tests in the first two months of the new year, let alone an exam that is two hours long. Some scholars support this theory, as a study by Kuhfeld & Soland showcased that students were more likely to disengage from testing in the fall than they were in the spring (Megan, 2019).

Additionally, Summer learning loss studies are greatly influenced by the period in which they are conducted and this research is no exception. Since the data for the current study was collected three weeks after the start of the new year, the study actually measures the student's post-summer skill level after nearly a month of revision. The impact of this involuntary time-window should be minimal, but studies must always document when the data collection occurred so that the possible effect of an overlap can be considered.

Lastly, most summer slide related studies try to draw a correlation between the student's vulnerability to losing progress during summer and between their family's income level. Because income and socioeconomic status is often an important variable that is taken into account and is used to predict how students will fare, this data was nearly impossible to obtain without a government approval which the researcher was not able to acquire.

Conclusion

Algerian high school students of Ben Aroum Hamou are not immune to summer learning loss and experience a visible academic backslide slide during their three-month absence from school. This skill deterioration is very apparent for students who were already struggling before summer, and seems to be entirely absent on high-achieving students whose skills actually improve over summer.

General conclusion

The issue of summer slide and traditional school is completely under the radar. There is nothing natural nor inheritably good about the traditional school calendar, yet the 3-months summer vacation has been present for such a long period that it has been accepted as an unquestionable fact of our day-to-day life. The goal of this study was to shed the light on the impact summer vacation has on Algerian students' education and to start the discourse around a calendar reform.

This research was able to confirm the hypothesis presented at the beginning of the research and has revealed that the summer slide is present in Algerian secondary schools and that its effects can be measured. This also shows that summer vacation affects students differently, and that while student's performance overall decreases over summer, it actually increases for high achieving students giving them an extra edge over their less skillful peers. Additionally, the research also uncovered that teachers are aware of a summer slide phenomenon and spend valuable time during the start of the year in getting their students back on track and aiding into recovering what they may have lost. Furthermore, the study showed that there is a social pushback against reforming the 9-month school calendar, as neither of the teachers' in the interview that was done supported the idea.

Given the inadequate state of education in Algeria, it may seem that summer learning loss is a minor issue in comparison to other, presumably more pressing matters, but that is a very short- sighted assessment of the problem. Research has shown that the summer slide has an accumulating effect on students and builds up of itself on a yearly basis. By the time students reach their final years of secondary education they are at a massive disadvantage.

List of References

Educational Research Bulletin Volume 3 issue 14 1924 Edward R. Johnson -- A Suggestive Calendar for Continuous School Publicity

Journal of Educational Psychology Volume 27 issue 4 1936 Schrepel, M.; Laslett, H. R. -- On the loss of knowledge by junior high school pupils over the summer vacation.

Theory Into Practice Volume 1 issue 3 1962 Robert E. Glass -- The Year- Round School Calendar Possibilities for Year-Round Schools

The Phi Delta Kappan Volume 54 issue 10 1973 Woodrow Mousley -- Testing the 'Summer Learning Loss' Argument

Journal of Reading Volume 33 issue 7 1990 Larry J. Mikulecky -- Reading Instruction for At-Risk Students Stopping Summer Learning Loss Among At-Risk Youth

Support for Learning Volume 13 issue 3 1998 Trevor Kerry; Brent Davies -- Summer Learning Loss - The Evidence and a Possible Solution

Journal of Urban Economics Volume 59 issue 2 2006 William A. Fischel -- “Will I see you in September_” An economic explanation for the standard school calendar

Jeffrey D. Smink -- Summer learning programs and student success in the global

economy Ron Fairchild -- Why and how communities should focus on summer

learning

Australian Journal of Learning Difficulties Volume issue 2019, Tom; Tiru, Shanthi -- Preventing a summer slide in reading – the effects of a summer school

Education work, Denisa R. Superville -- Is It Time to Reconsider the Year-Round School Schedule?

Edsurge, Ariel Goldberg -- What Summer Slide Actually Means—and 5 Ways to Fight it

Brookings, David M. Quinn and Morgan Polikoff -- Summer learning loss: What is it, and what can we do about it?

The Philadelphia Inquirer, Sari Harrar -- The risks of summer for teens

The conversation, Kelly Morgan and Graham Moore -- Poorer children's summer holiday experiences linked with worse mental well-being

The olive press, Rob Horgan -- Spanish holidays are too long say experts

NCBI, Jackie Shinwell1, and Margaret Anne Defeyter -- Investigation of Summer Learning Loss in the UK—Implications for Holiday Club Provision

Scholastic, Ashley Austrew -- How to Prevent Your Kids from Losing What They Learned in School During Summer Vacation

3P learning -- Parents are the secret weapon against Summer Learning Loss

Phi delta Kappan, Megan Kuhfeld -- Rethinking summer slide: The more you gain, the more you lose