Student Achievement and Extended Teaching Hours

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Abstract

The Ministry of Education, Sports and Culture (MESC) mandated extended teaching hours for schools in Samoa which had started at 8.00am to 12.30pm for Infant classes, 8.00am to 1.00pm for Primary classes (Years 4-8) and Secondary Schools and Colleges (Years 9-13) from 8.00am to 2.30pm. This came about after a survey conducted by the Policy, Planning and Research Division (PPRD) soliciting principals, teachers and parents views on the issue. The survey and its recommendations resulted in extending teaching hours. While the change was implemented in 2012 this has been debatable with teachers and parents either for or against the change. Four years after its implementation MESC requested staff from the Faculty of Education (FOE) to conduct research to find out teachers views and perspectives on extended teaching hours. The survey also took into consideration whether extended teaching hours played an important role in student achievement.

Keywords: extended teaching hours, student achievement, teacher perception, cognitive competence

Introduction

Over the last few decades attention has focused on extended teaching time as a measure to improve academic achievement. In Samoa this has come about as the MESC perceived a dire need to support teachers' instructional time in schools. Those who agreed mentioned learning and nonacademic positive implications for extending teaching time. Others have countered that extended time does not ensure more effective instruction takes place while costs was perceived as an important aspect that needed to be factored in. Globalization has impacted the world with advancements in all human development areas (Roco & Bainbridge 2013) which has had major influences in education systems worldwide.

As such school systems have reacted with inputting more subjects into the curriculum, introducing a gamut of innovative teaching skills and promoting capacity building in the use of newly introduced technologies to enhance and advance student learning (Avidov-Ungar & Eshet-Alkakay 2011; Halverson & Smith 2009). Education systems the world over have taken the initiative to extend teaching hours such as England, Australia, Indonesia, Italy, Germany and the USA. Although many studies have been conducted on the phenomenon there continues to be divisions in teachers and the public's perceptions on extending teaching hours.

Literature Review

(Patall et al., 2010) conducted an extensive review of the literature and their findings revealed the following on extending hours that: it would benefit most at risk students; there was a need for more deliberation on the appropriate use of time and consideration for policy and practice. Hincapie (2016: 21) suggested that longer school days have an impact on academic achievement. The author propounded, "I find that there is a positive impact of having a full school day (approximately 2-3 additional hours) on school achievement". Frazier and Morrison (1998) conducted a research to explore the influence of extending teaching days on academic and psychosocial skills where an extended

program was compared to a traditional one. Children in the two kindergartens were evenly matched in terms of their background, attendance, mathematics, reading and general knowledge. Both performed evenly at certain points of the investigation but those in the extended year outperformed traditional children in mathematics, reading, and general knowledge including higher levels of cognitive competence. This attests to more instructional time as supporting children's competencies and a progressive reform.

Jensen (2013) studied classroom hours on student achievement in literacy and math. Findings indicated there was no significant effect on literacy but there was for math. One probable reason provided for the difference was in relation to literacy development as part of the home environment more so than math. However, other studies (Eide & Showalter 1998; Grogger 1996; Lee & Barro 2001) do not show a correlation between extending school years and student achievement. According to Gandara (2000) "the relationship between allotted time and learning outcomes is relatively weak, but the relationship between time on task or academic learning time and learning outcomes is almost certainly greater." While there are researchers advocating for increased learning time on student achievement, there are others who view the different dimensions of time as complex such as time needed for learning (Carroll 1963).

(Aronson et al.1999) discussed the relationship between time and learning and provided fundamental findings from studies. They pointed out that there is little or no relationship between allocated time and student achievement. However they indicated that the relationship is between engaged time and achievement. In other words engaged could be seen as active involvement and participation by students in their own learning. It indicated the need for teachers to focus on the time that matters. As Aronson et al espoused there is no consistent relationship between the amount of time allocated for instruction and the amount of time students spend engaged in learning activities. Furthermore, although time is of essence, however, the authors concluded that time have minimal impact on student achievement.

Parinduri (2014) found the students' were less likely to repeat a class and there was a higher probability of positive student achievement in a longer year. (Fitzpatrick et al. 2011) and Hansen (2008) supported extending school days in light of improved student performance. Additionally, Cuban (2008) believed students in the US are no match for the international arena because they do not have longer school hours than their European and Asian counterparts.

Moreover, organizations complain about the time students spend in school because less teaching time could be inadequate to become competent in knowledge and skills required by a competitive society.

Interventions that provided more instructional time for lower achievers (Battistin & Meroni 2016) demonstrated that more time at school assisted student performance in mathematics, English and science. It indicated at risk students showed positive results from taking extra hours. Likewise, (Huebener et al., 2017) on education reform found students taught new content in the additional time showed improved achievement. On the other hand the effects are minimal and differ across the student population. "While low-performing students do not benefit, high-performing students benefit the most" (Huebener et al.). This was in contrast to Meyer and Van Klaveren (2013) that found no significant difference on math and language achievement. Dyson and Kerr (2014) provided an overview of extended hours on services at risk students and adults as being beneficial. Furthermore, the authors

pointed to the need to communicate extended hours clearly. It should not be merely seen as a means to respond to a deficiency. Rivkin and Schiman (2013:2) were in favour of extending teaching hours as improving achievement but they also pointed out some problems with the evidence. In their view any "causal link between achievement and instruction time depends upon the quality of instruction, the classroom environment and the rate at which students translate classroom time into added knowledge". Results indicated that extending teaching hours highlighted differences in the quality of the classroom environments and for those in deprived classroom environments there was very little or no benefit at all. As such lengthening the time did not make up for the quality of the classroom. Alternatively, having strengthened policies, enriching classroom environments and extended instruction improvement would assist. Additionally, the studies showed a weak relationship between a longer time and the quality of instruction which would need further research.

An evaluation conducted by Bellei (2009) on increased teaching hours required large funding for improved school infrastructure and institutional changes. Lavy (2012) also reiterated that increase in instructional hours and allocated funding improved student performance. In other words, where extending school hours was seen as a way forward this has to be accompanied by funding and much needed resources. Fashola (1998) articulated extending teaching hours would provide for further use of time and resources which may not be quite as accessible during normal school hours such as face-to-face sessions, immediate access to computers and relevant teacher aid. Significantly, this would ensure parents, community support and various partners would be available after hours. Implementing and promoting after school activities may be time consuming and costly but this could be effective strategies to assist failing and at-risk students.

Notably some of the advantages of extended teaching hours would mean a reduction in long holidays and allowing teachers more time to plan, reduction in re-teaching after a long break and in some cases students suffer memory loss in learning after being away for a long time. Extending teaching hours could also be seen as support for student achievement (Parinduri 2014; Fitzpatrick et al. 2011; Huebener et al., 2017). However, there were also findings that showed no relationship or a significant one (Eide & Showalter 1998; Grogger 1996; Lee & Barro 2001).

Intervention time (Battistin & Meroni 2016) for disadvantaged children found no significant difference on math and language achievement (Meyer & Klaveren 2013). On the other hand, Huebener et al., (2017) reviewed policy on extending teaching hours Bellei (2009) and Lavy (2012) to prove that an increase teaching hours would require additional funding for improved student achievement. Rivkin and Schiman (2013) articulated that extending teaching hours need to with complemented by the quality of classroom environment.

Some studies have shown that longer instruction time can improve achievement, but results depended on things like classroom environment, quality of instruction, student prior knowledge and ability. This means that a longer day does not necessarily correlate with higher achievement. Without other factors in place, a longer school day is most likely not increasing student learning. In fact, countries such as Finland, Singapore and China that are regularly high achieving have not taken the longer day approach. Instead they maximize learning within the traditional schedule (Aronson et al 1999)

Research Design

A mixed-method using both qualitative and quantitative was utilised. Interviews of 15 teachers from primary and secondary schools were conducted and a survey questionnaire was distributed to 694 teachers of 76 primary and secondary schools. This approach was deemed to be relevant to the research to provide a "breadth and depth of understanding and corroboration" (Johnson et al. 2007: 123). Teachers in both urban and rural school of Upolu and Savaii were involved.

Teachers' opinion and perception on extending teaching hours in schools in Samoa were solicited. It also targeted students' achievement as reported by the teachers interviewed, teachers' views of students' performance due to the change and their perception of learning support in the classroom and other extracurricular activities. This was crucial as teachers' knowledge and philosophical underpinnings on extending teaching hours affected the application and implementation of efficacious practice.

Analysis of the quantitative data included descriptive analysis and charts utilised MS Excel functions and pivot tables. On the other hand information garnered from the teachers' interviews supplemented the survey. A mixed method approach addressed getting rich descriptions from interviews and the survey provided numerical data on the questionnaire. Both components played a complementary nature in elucidating the phenomenon. Integration of quantitative and qualitative was "needed to understand the case at hand" (Miles et al. 2014: 43).

Conducting this research was also an attempt to link extending school hours with student achievement. Merriam (1988: 19) suggested the "design is employed to gain in depth understanding of the situation and meaning for those involved." Teachers' practice, perspectives, experiences, values and beliefs in the school were critical. Their views consolidated understanding of how the phenomenon was perceived and its relationship to students' academic achievement.

Interviews and Talanoa Method

The main form of data collection in qualitative research is interviews although often supported by field notes and documentation for triangulation (Hancock & Algozzine 2011; Robson 2011). In the Pacific the *talanoa* method which is similar to interviewing (Otsuka 2005; Vaioleti 2006) is widely used as a valid way of information gathering. *Talanoa* is culturally appropriate and embodies the experiences, values, beliefs, knowledge, and cultural mores of participants (Farrelly & Nabobo-Baba 2014). The interviewer set the pace of the questions but the participants' articulation of their views provided the necessary data (Gall et al. 2007).

Talanoa method has limitations Otsuka (2005) especially when conducted in a way that significant dialogue was not forthcoming. Participants needed to be aware from the start of the purpose for the research. The socio-cultural situation can influence the interchange of information that transcend participants' level in the hierarchical structure of seniority and position. In this way they felt free to tell their stories and provide their reality with ideas and examples to validate their experiences.

Survey Questionnaire

Dissemination of survey to 694 teachers was delivered and collected by MESC. Ten (10) likert-scale questions with options scale from 1 (Strongly Disagree) to 5 (Strongly Agree), with supplementary questions to be answered based on participants' responses on the primary questions.

Data Collection and Data Analysis

The data collected responded to the research questions that the research investigated focusing on extending teaching hours in relation to students' academic achievement. Results from the SPELL/PILNA Report 2016 for the primary schools enabled the researchers to select schools that contributed in assessing the phenomenon.

Quantitative analysis used data gleaned from the survey questionnaire to subsequently translate into tables, graphs and figures to demonstrate the mixed methods multidimensional approach to inquiry.

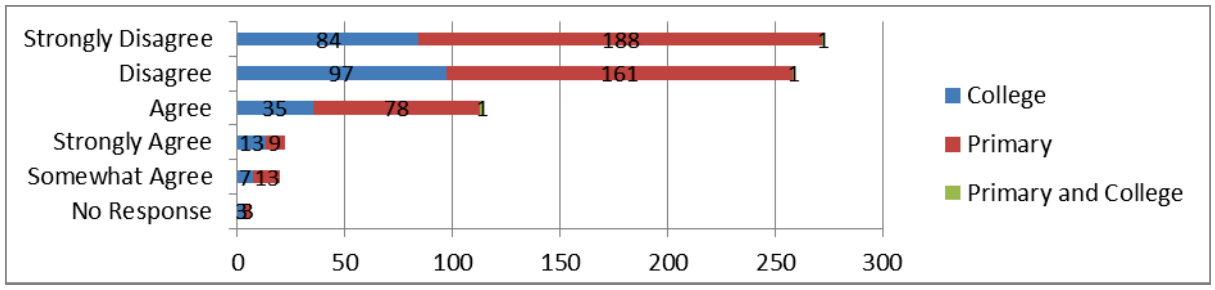
Qualitative data analysis gathered information from participants and categorized as emerging themes, concepts and patterns (Creswell 2007, 2013; Krueger & Casey 2009; Miles et al., 2014). Transcriptions of participants' experiences assisted in making connections. This step allowed code classification and categorizing of patterns and themes. Concepts from the transcribed interviews were categorized and subsequently subcategorized as themes. It sought meaningful patterns or themes that Corbin and Strauss (2015: 81) referred to as "integrating the concepts around a core category" to reveal the extent in which teachers perceived extending of teaching hours. Thus, making conjectures and connections from the data addressed the research questions. Raw data is simply raw data until the researcher synthesizes and integrates the themes into a holistic entity (Miles et al., 2014). (Moustakas 1994: 10) posited, "Reflective interpretation of the text is needed to achieve a fuller, more meaningful understanding." In this way qualitative analysis was used to complement quantitative data.

Findings and Analyses

These were examined under the Research Questions for ease of reference.

Question 1. What are Teachers' Perceptions and Understanding about Extended Teaching Hours?

Figure 1: Participants Level of Agreement with Perception on the Need to Extend Teaching Hours

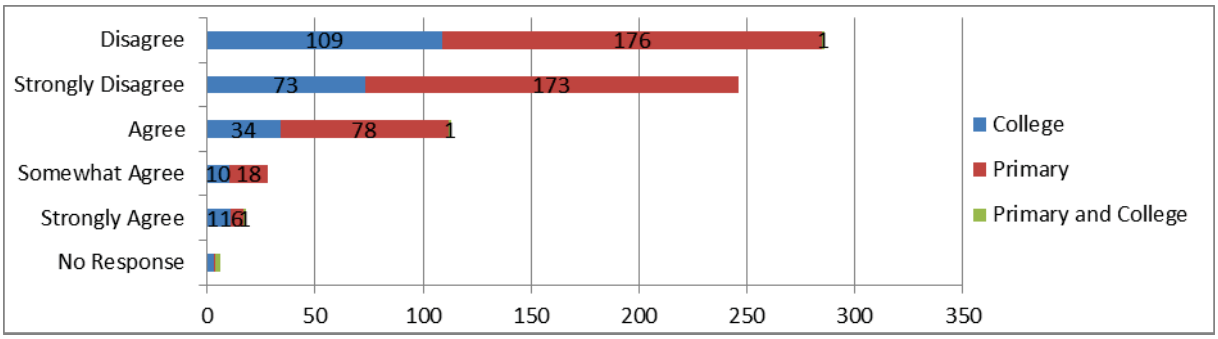


The results revealed that the majority of participants' *strongly disagree* (39.3%), followed by 37.3% of those that *disagree*.

In the interviews most teachers responded that extending teaching hours would not contribute to students' academic performance due to the following reasons tiredness, fatigue and lack of concentration during the last half of the day. A college teacher said *"I taught before the change and have been part of implementing the new school hours. However, students' academic performance has not undergone any major changes. Different strategies have not worked especially towards the end of the day as students lack concentration."* Another offered "*children are greatly affected after interval when they are tired, hot and not as receptive as in the morning."* One teacher who is also a parent pointed to the hardships that she also faced as a parent *"as a parent I do not support extending school hours. My kids have problems because in the afternoon they are lethargic, bored they cannot concentrate…there was enough time to teach in the past like the saying, short and sweet. I do not see any benefits in extending school hours as results continue to be the same."*

Question 2. What are Teachers Level of Perception on Extended Teaching Hours?

Figure 2: Participants Level of Perception on the Need to Extend Teaching Hours

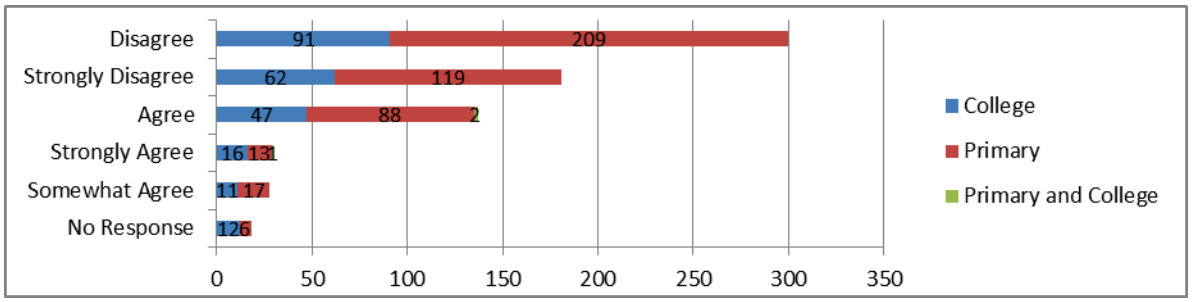


Findings indicated the majority of participants *disagree* (41.2%) followed by 35.5% of those that *strongly disagree*.

Teachers' classroom experiences with students were reflected in their perceptions and understanding of extending teaching hours. A small number highlighted the importance of extending teaching hours to improved learning especially in the area of literacy development. Nevertheless, the majority held the view that extended school hours seemed to provide more problems for teachers, students and parents as perceived in students' short concentration span, listlessness and general apathy in the afternoon. Teachers were also concerned about falling academic progress given the longer school hours. In the main, the teachers did not believe that extending teaching hours would improve student achievement.

Question 3. What are the Benefits for Students by Extending Teaching Hours?

Figure 3a: Participants Level of Perception on whether Extending Teaching Hours Benefitted Students Academically

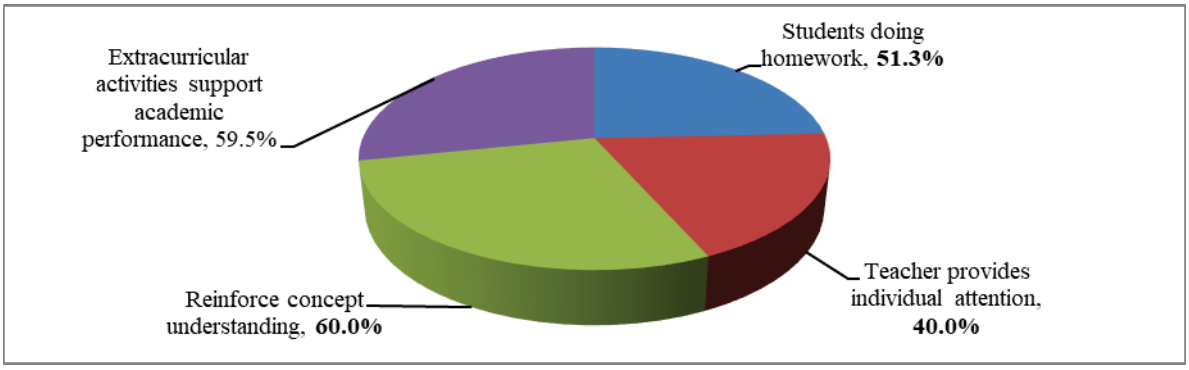


Participants indicated that extending teaching hours did not benefit students academically, while 26.1% strongly disagree. This means 69.3% of all participants expressed that extending teaching hours would not benefit students academically.

Teachers' expressed different views on the benefits of extending school hours. A few said there were minimal benefits or none. As one put it "*I don't think there are any major benefits. Exam results had not changed in the last 3 years."* Some responded positively that there were benefits and some improvement in student learning and teacher preparation as "*there is ample time to prepare work for the next day before going home.it provides more opportunity to scout around for resources and* materials to assist with Mathematics teaching."

Others pointed to the benefits of improving literacy skills as *"children now have time to read during the last hours of the day,"* and *"this change has assisted at risk students' improvement seen in reading, spelling and writing."* It was evident participants that agreed saw the benefits in teacher preparation such as resources and activities for class and at risk students were assisted with reading and writing skills.

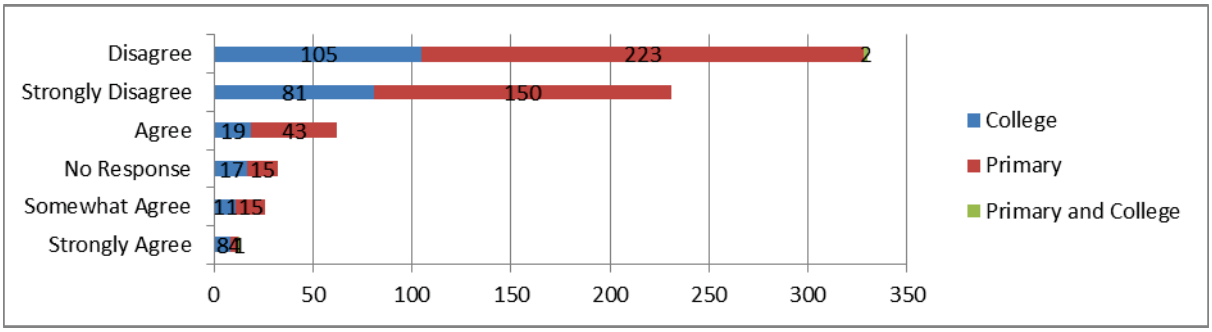
Figure 3b: Distribution of Responses from those that Agree Extending Teaching Hours have Benefitted Students Academically



This is follow-up from 3a of those that agreed (28%) at some level, indicating the distribution of responses with reinforcing concepts at 60% followed by 59.9% for extracurricular activities and individual attention at 40%.

Question 4. What are Participants perception on Parents' agreement and Students beliefs on Extending Teaching Hours?

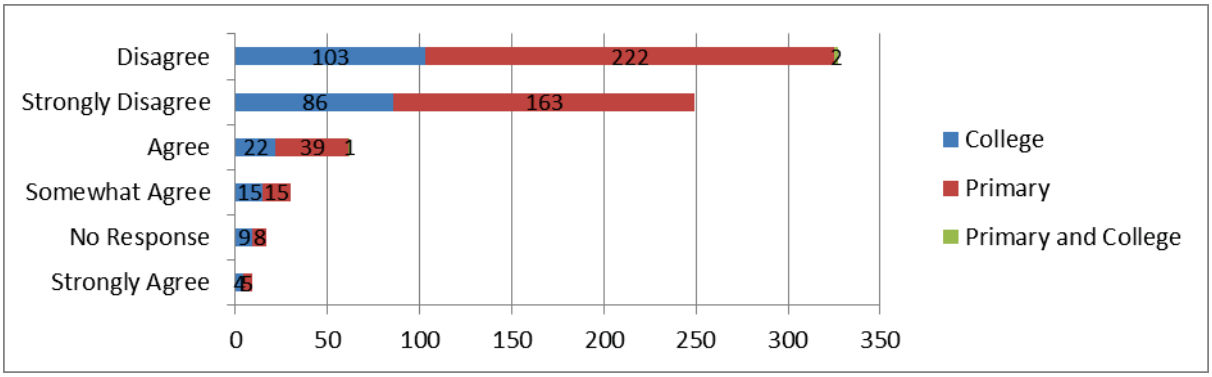
Figure 4a: Participants Perception on Parents Level of Agreement to Extending Teaching Hours



The results revealed that 80.9% of the participants indicated negative responses to parents' level of agreement towards extending teaching hours.

Teachers interviewed shared parental views on extending teaching hours. Teachers' perception of parents' complaints on extended school hours were based on fears for the children's safety especially girls, irregular transportation and getting home late. Moreover, some would face financial difficulties and incurring more expenses. Secondary teachers mentioned about 60% to 70% of parents do not support extending school hours.

Figure 4b: Participants Perception on Students beliefs in Extending Teaching Hours



The results showed almost 90% responded negatively.

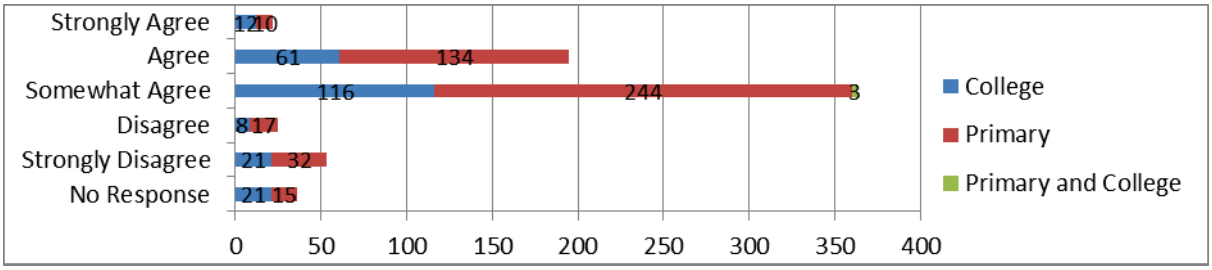
Student's responses according to teacher interviews also highlighted a high percentage of children that face learning difficulties during the extended school hours. Both primary schools and colleges felt this was a great concern. A college teacher expressed, *"During afternoon classes students are tired and not paying attention. Teaching can be tiring and frustrating when students are not interested and easily distracted while another added "the children find it hard to cope with the extended school hours. In the afternoon, the students do not show much enthusiasm or motivation at that time of the day as the heat is intolerable and humidity is high. Even teachers that teach at that time need to have a repertoire of teaching skills and activities to ensure students show some interest.*

For teachers at college level, this can be quite taxing and as one said *"I would prefer to do to teach students' that are alert and not dead beat."* Teachers' responses varied at primary school. Some mentioned the students responded well to the new change and for one "*students really make good use of these extended school hours assisted by the staff and principal. This is evident in reading and writing as there are students who really need this."* Another mentioned that this has provided opportunities for children interested in other areas, "*Visual art is another subject that interests children and the extended time allows for this. This is the case for P.E. as well and children can be involved in physical education or* artwork up to 4 pm."

In summation it would seem the majority of parents and students do not support extending school hours. Improvements in reading and writing as indicated by some teachers as a positive aspect of extended school hours, however, most students find these late hours demanding, exhausting draining and learning is not productive. As teachers reported temperatures in the rooms, overcrowding, not well-planned activities and programs can increase behavioral problems and affect efficacious learning.

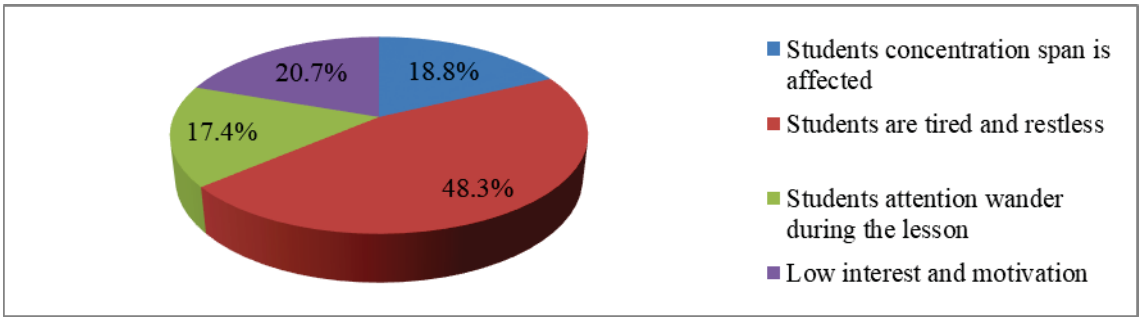
Question 5 What Problems have Teachers and Students face in Extending Teaching Hours?

Figure 5a: Distribution of Participants' Responses on whether there are Problems in Extending Teaching Hours



Teachers revealed (86%) there were problems at some stage in the implementation of the extended hours. These problems are further identified in Figure 5b.

Figure 5b: Participants' Responses on various Problems Facing Students in Extending School Hours



All participants agreed that at some level of the implementation there were problems in extending teaching hours. The distribution of responses indicated most are tired and listless (48.3%) followed by low interest and motivation (20.7%) and affected concentration span and wandering attention at a total of 36.2%. During the interviews participants pointed out that students and teachers face many problems with extending teaching hours. Participants mentioned "*children are tired and they are not responsive in*

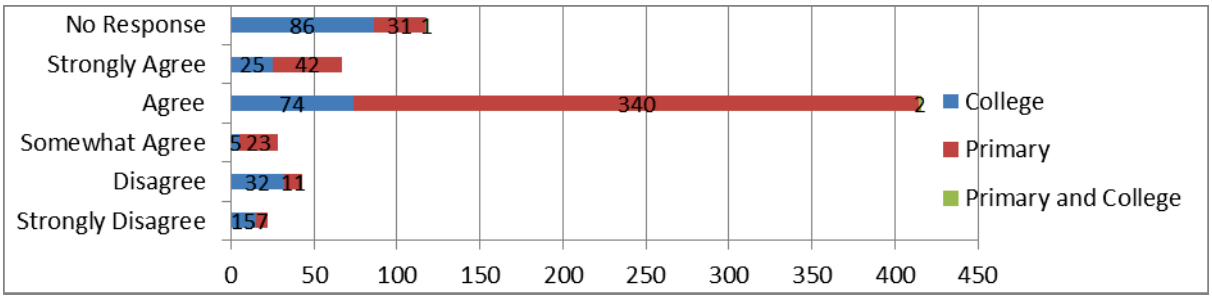
the afternoon"; some do not complete as once they home either they are too tired or they finish their usual home duties and go to sleep"; "it is hard to get students to focus when it is too hot in the classroom"; although we offer different activities to motivate students they still find it hard to listen and concentrate. Another said *"Class control is an issue especially when students are not interested. I find myself losing it* so I try to stay calm until I am composed then continue."

Some teachers had no problems as *"the school has a program in place and concerns are attended to"; "it was difficult to get adjusted to the change at the start but I soon got used to it; I used to take work and returned the next day without anything done, but now I can complete all preparations at school";* students use the extended time productively with staff assistance."

Generally, the problems teachers have encountered with extending teaching hours are to do with students' motivational levels, their ability to concentrate and be productive in the afternoon, lack of innovative programmes in place, increasing school violence, concerns about sustenance, transportation and girls getting home late. All have implications for the teachers planning which takes into account funding and resources to run programmes that are productive and support students' improved performance.

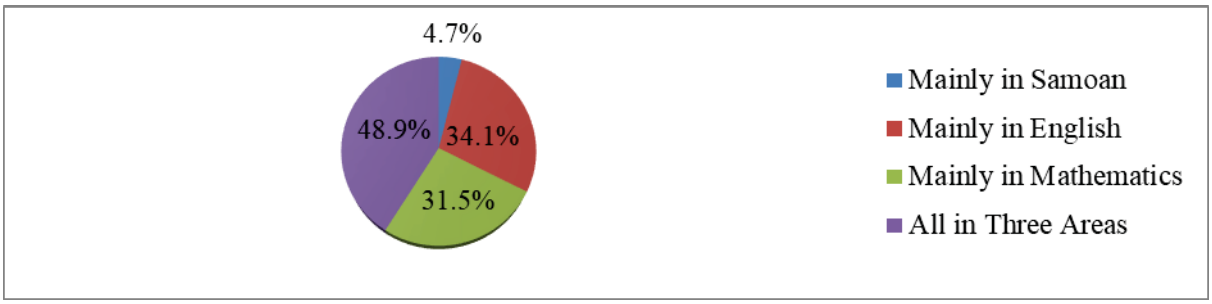
Question 6. Why are there concerns with the SPELL tests?

Figure 6a: Participants' Responses on At-risk Students in the SPELL Tests



Participants (73.6%) total of 511 stated that their schools have at risk students in the 2015 SPELL test. Of this number, 79.3% or 405 were primary school teachers; the higher percent at this level is valid as the SPELL test mainly targets primary schools.

Figure 6b: Distribution of Participants' Response on At-risk Students in English, Mathematics, and Samoan



As revealed from the results, the majority of participants agreed that there were high numbers of students who were at-risk in all three areas of English, Mathematics, and Samoan (48.9%), followed by English at 34.1%, Mathematics at 31.5%, and a very small number were at-risk in Samoan (5.7).

Most primary teachers acknowledged that the SPELL tests are *"very important in assessing children's academic levels results indicate Year 4 is doing well and Year 6 shows an increase in Mathematics and Samoan results."* For one respondent "*some positive change has occurred in the last 3 years and problems are being addressed."* Another teacher believed *"Results definitely need improvement"* while yet another felt *"the problem is with English essay writing there is an impetus to improve SPELL tests, however, there is very little support; "the attitude of the librarian"* in borrowing books and assisting is unacceptable. However, one added *"students read for half an hour in the morning as literacy is a* priority but there is almost no progress in students' literacy level even with the extended school hours."

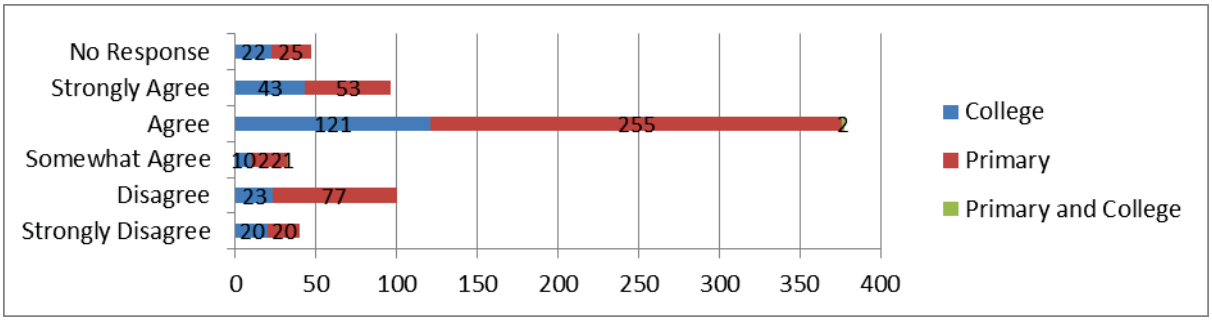
Secondary teachers were concerned with the *"lack of basic skills from those that enter college…there is reading in the morning …but some students in year 9 cannot read even in Samoan"; many students' have poor literacy skills…and special classes are held by experienced teachers. The extended hours has* enabled us to do something to assist students with reading and writing."

Primary teachers recognized the requisites for improved literacy and numeracy levels in the schools. However, despite attempts to support literacy levels very little improvement is evident. One pointed to having certified librarians to ensure the library is used to support student learning. Essay writing was considered another priority area and alignment of benchmarks and individual student profiles should guide teachers work towards increased student achievement.

Secondary teachers were concerned with primary students that needed essential skills in literacy and numeracy. Moreover, with an examination oriented system teachers were expected to cover the curriculum and so the problem continues.

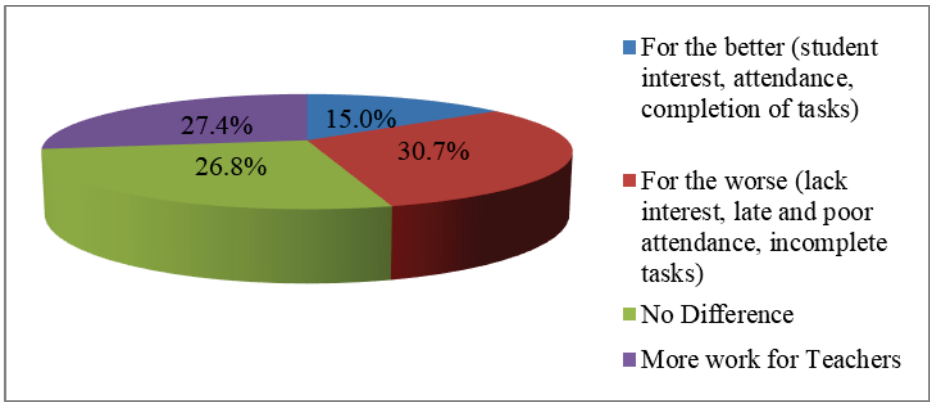
Question 7. How has the Change Affected the Classroom and School Programme?

Figure 7a: Participants' Perception on whether the Change has affected the Classroom and School Programme



From the results, 73.1% or 507 participants indicated that the change has very much affected the classroom and school programmes in a negative way. These negative impacts are listed and discussed 7b.

Figure 7b: Distribution of Participants' Opinion on the Impact of Extending Teaching Hours



Participants agreed at some level that extending school hours had affected classroom and school programmes in a negative way and for the worse 30.7% followed by 27.4% indicating more work for teachers, 26.8% no difference and for the better 15%.

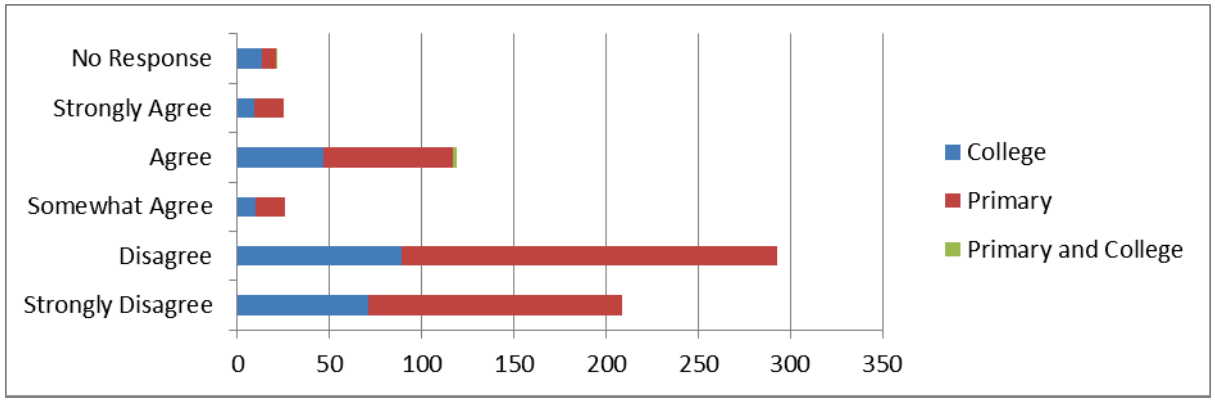
Responses from the primary participants varied. For one *"class and school program are not affected"* yet another said *"School-based program should be reflected in a change in classroom performance but this is not as evident."* One teacher shared *"the extra time is used to go over subject errors, revisions, reading and homework but most children are not interested. Teachers do the work but there is no real extension or in-depth teaching because students find it difficult to participate or listen."* Another said *"I prepared a lot even before the change and now I am used to that so I do not have problems with all the preparations for class, however there has been no major change in student achievement since the new change.* On the positive side one had this to offer *"The more hours at school means more preparations and activities for students. So I work hard to improve and be prepared. The extended school hours encourage me to find ways to teach, gather resources, and motivate students so that learning is not boring especially at these hours of the day. I have to work extra hard.* In addition one teacher said *"The extra programs we implement have been useful even though it requires extra hours of commitment and patience. I believe I have also benefited from extending school hours because I have* improved my skills."

Participants at secondary level also indicated contrasting views. One pointed to their school program as being *"relatively steady."* In other words, the change has not affected the classroom and school programmes. Another participant felt *"students seem keener to learn than three years ago. Their level of understanding has improved considerably."* Still one other said *"I do a lot of planning and preparing activities for class."* The majority was not positive *"I have had it at the end of the day no new programs for the extended hours; teachers do their own reading or homework with the students."* Another mentioned *"students are affected because the room is too crowded with so many students it is* impossible to attend to them individually."

Participants view changes differently in planning, motivating, supporting, and sustaining student interest critical elements in learning. Teacher commitment is crucial in the provision of learning activities and opportunities to enable students to aspire to do their very best. Moreover a holistic education would require financial support from the government, the community and parents.

Question 8 How has the Change Contributed to Perception of Students' Academic Performance?

Figure 8: Participants Perception on whether they believe the Change Support Student Achievement



The majority of respondents 72.3% or 502 disagreed or did not believe that the change supported student achievement. Only 24.4% or 170 of the respondents agreed or believed that the change supported student achievement.

The respondents' responses were indicative of diverse positions. Generally, the primary participants' referred to seeing "*some positive change from 3 years ago in children's reading, spelling and writing especially marking children's work."* Another pointed to a slight improvement *"in the academic performance of students"* at the school and one other mentioned *"in 2014 one student made it to Samoa College, also in drawing and writing competitions the children have shown they have the ability especially with incentives offered."* This is supported by another teacher *"I believe the extended school hours have given a slight boost in the academic performance of the students. In terms of reading and literacy the program has proved a lot of assistance to at-risk students."* However, on the downside, one claimed, *"There have been many changes but personally I see a drop in student performance compared to my earlier teaching experience."* For yet another, *"This has not translated into any great leaps from before."* Evidently, *"there is improvement for motivated and interested students but not so much for those who have problems and are usually absent."* In addition, *"There is very little change in students' academic performance. Students who use their time productively and are eager to learn receive* improved results."

Secondary participants also indicated varied responses on changes in students' academic performance. One respondent mentioned, *"Students' used to repeat the written question instead of answering it. Now they copy written notes well, talk and interact more."* Yet another offered, *"there is improvement at the year 13 level in the last 2 years."* One teacher mentioned *"There are no new programs like P.E. and Music, dancing and performing art during the extended hours…I do not see much improvement in the academic achievement of students."* This was reiterated by another *"the overall academic performance of students has not changed much as students are motivated to learn in the last two periods of the day."* Another added *"Since the change of school hours, little change in seen in students' academic performance…community and parental support could help to improve the academic achievement of students."* Overall participants held different views in terms of students' academic

achievement in the classroom. Primary teachers on the whole seemed to see some positive changes in the classroom but there were also those who felt that expectations from implementing the change had not been met. Secondary teachers also had similar views as the primary teachers.

Question 9. Which do you prefer: the change or before the change? Why?

Responses to whether teachers preferred the change to what it was before indicated the majority chose the previous teaching hours. Of the fifteen participants, five from the primary and five from the secondary favored the situation before the change. Four primary teachers and one secondary teacher showed preference for the change.

Obviously, most participants felt students' responsiveness and motivational levels were affected by the longer hours which may account for teachers' perception that even with the extended teaching hours students' academic performance did not show a marked improvement. Also teachers generally do not perceive their performance as being maximized and contributing to students overall learning in the afternoon due to planning and organizational problems, classroom management, student fatigue and teacher motivation.

Conclusion

The research was conducted to explore perceptions and opinions of school teachers on extending teaching hours in schools in Samoa at both primary and secondary levels. It was an attempt to find out whether there were positive and negative impacts and effects of extending school hours on both students and teachers academically and personally.

From the analysis the majority of teachers do not favour extending teaching hours. Interesting though the survey questionnaire had half the participants supporting changes in students' academic performance after extending teaching hours which differed from the interviews. This could be attributed to changes in one of the three subjects for the SPELL test in Samoan, English or Mathematics that primary students sit at Year 4 and Year 6.

Participants' responses in the survey and interviews to extending school hours on students' performance indicated that students face problems as a result of extending teaching hours such as tiredness, short concentration span, inattentiveness, apathy and fatigue. Likewise, teachers also face discipline and classroom management problems which usually accompany low students motivational levels especially in the hot and humid late afternoons. It has been suggested that student interest in extended hours could be supported through extracurricular activities that supplement academic work.

The implications for extending teaching hours were many and there were positives and negatives. Proponents for the longer hours indicated that students' needed individual attention from teachers which would include direct and ongoing assistance in problem areas, homework. Moreover the extended hours could support continuous reinforcement of earlier classroom work.

It would also provide teachers with ample time for marking, preparation and securing resources for the next day's teaching. In addition students would be exposed to extracurricular activities that supplemented classroom learning. However, on the other hand, those against longer hours pointed to

mental fatigue that could affect students and teachers and might be counterproductive with primary students' concentration span and inability to attend to longer hours of teaching. It has been suggested that longer hours and more teaching was not the answer, rather it was the quality of teaching and the programmes offered and not necessarily quantity. This was reflected in the 2015 SPELL test where extending school hours did not seem to match complement student achievement positively. Extending teaching hours should take into consideration programmes, teachers' capabilities, students' potentials, funding and resources.

The effective implementation of extending teaching hours would need to review its efficacy in light of these findings. It also challenges faculty members to ensure graduates from the program exit with an extensive repertoire of teaching skills and knowledge to support increased student achievement. Moreover, an after hour holistic education should include forging better links between academic performance, the arts and extracurricular activities (Hill 2008).

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