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The Role of School Principal in Improving Teaching -Learning Process in Mathematics in Junior Secondary Classrooms in Sri Lanka

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ශ්‍රී ලංකාවේ මධ්‍යම පළාතේ රජයේ පාසල් තුළ කතිෂ්ඨ ද්විතියික පන්ති කාමරවල ගණිතය විෂයෙහි ඉගැන්වීම් සහ ඉගෙනුම් ක්‍රියාවලිය වැඩිදියුණු කිරීම සඳහා විදුහල්පතිවරුන් උපදේශන නායකත්වය භාවිත කරන ආකාරය මෙම අධ්‍යයනයෙන් විමසා බැලී ය. මධ්‍යම පළාතේ රජයේ පාසල් පනහක් අධ්‍යයනයට බඳුන් විය. මෙම පාසල් තෝරාගනු ලැබුවේ අදියර දෙකක අහඹු නියැදි ක්‍රමයක් භාවිතා කරමිනි. මෙම අධ්‍යයනයේ සොයාගැනීම්වලින් පෙනී යන්නේ වඩාත් සාර්ථක පාසල්වල විදුහල්පතිවරුන් ශිෂ්‍ය ජයග්‍රහණ කෙරෙහි දැඩි අවධානයක් යොමු කරන බවයි. ඉලක්ක සැකසීමේ රැස්වීම්වල දී ඔවුන් ශිෂ්‍ය ඉලක්ක වර්ධනය කිරීම, ගණිත ගුරුවරුන්ට සහ සිසුන්ට පාසල් සංස්කෘතිය වැඩිදියුණු කිරීම සඳහා සහය ලබා දීම සහ ශිෂ්‍ය කාර්ය සාධනය අධීක්ෂණය කිරීම, උපදේශන කළමනාකරණ අරමුණු සාක්ෂාත් කර ගැනීම සඳහා නායකත්ව කණ්ඩායම් මත විශ්වාසය තැබීම ආදියෙහි

එකසේ නියැලී සිටිති. ගුරුවරුන් සහ දෙමාපියන් අතර සමීප සබඳතාවයක් ඇතිව ශිෂ්‍ය අධ්‍යයන ඉලක්ක සංවර්ධනය කිරීම සහ ක්‍රියාත්මක කිරීම, පාසල් සංස්කෘතිය වැඩිදියුණු කිරීම සහ උපදේශන වැඩසටහන අධීක්ෂණය කිරීම සඳහා උපදේශක නායකයින් ලෙස විදුහල්පතිවරුන් සම්බන්ධ වී ගණිත ගුරුවරුන් බලගන්වන බව සොයාගැනීම්වලින් අනාවරණය විය. කෙසේ වෙතත්, විදුහල්පතිවරුන්ගෙන් සැලකිය යුතු පිරිසක් එවැනි භාවිතයන් සහ ආකල්ප පිළිබඳ අවබෝධයක් නොමැතිකම පෙන්නුම් කළහ. සාම්ප්‍රදායික ඉගැන්වීම් ක්‍රම ප්‍රවර්ධනය කිරීම, විදුහල්පතිවරයාගේ කාර්යභාරය පිළිබඳ ව්‍යාකූලත්වය සහ ඉගැන්වීමේ ඉගෙනුම් ක්‍රියාවලිය කෙරෙහි අඩු හෝ අවධානයක් යොමු නොකිරීම සහ ගණිත විෂය මාලාව ක්‍රියාත්මක කිරීම එවැනි විදුහල්පතිවරුන් අතර දුර්වලතා ලෙස මතු විය. සිසුන්ගේ ගණිතය පිළිබඳ අධ්‍යයන කාර්ය සාධනය, පාසල් ක්‍රියාකාරකම් අධීක්ෂණය, ගණිත ගුරුවරුන් සහ සිසුන්ගේ පෙළඹවීම දෙමාපියන්ගේ සහාය ලබා ගැනීම සහ පාසලේ පුළුල් න්‍යායික රාමුව සෑදෙන ගණිතය, පාසල් සංස්කෘතිය සහ උපදේශන කළමනාකරණයට අදාළ විෂයමාලා ක්‍රියාකාරකම් ක්‍රියාත්මක කිරීම ආදිය ද අවධාරණය කෙරිණ.

මූලාසර්ග: අධීක්ෂණය, ප්‍රවර්ධනය, සංස්කෘතිය, කාර්යසාධනය, විෂයමාලා

Introduction

The role of the principal is shifting from merely managing schools to an increased responsibility for *supporting instructional reforms* in each content area (Fink & Resnick, 2001; Nelson & Sassi, 2000). Research indicates that principals play a crucial role in supporting teachers' development of high-quality instructional practices (Coburn, 2003; Elmore, 2000), and instructional leadership has been identified as a key strategy in successful district reform (Cobb & Jackson, 2011; Fink & Resnick, 2001; Robinson et al., 2008). Examining the instructional leadership role of school principals in improving the teaching -learning process obtaining outcomes of the students they serve has come to the forefront of the educational planning. While the literature supports the belief that principals' contribution has a measurable effect on school effectiveness and student achievement, and that they play a key role on the school, and limited research highlights the role of the principal in Sri Lankan contexts specially towards achieving 21st century education goals in mathematics education.

Meanwhile, Low achievement of students in Mathematics at the GCE (O/L) examination (Department of Examinations (DoE), 2017) and at the National Assessments of students' achievements at Grade 8 (National Education Research

and Evaluation Centre (NEREC, 2012; 2017) is a grave concern that needs to be addressed at different levels of education administration in Sri Lanka. Figure 1 sets out the frequency distribution of mathematics scores of students who sat for GCE (O/L) examination in 2016. According to the Figure 1, 53.7 % of students scored below 40 marks and 25.8% scored below 20 marks

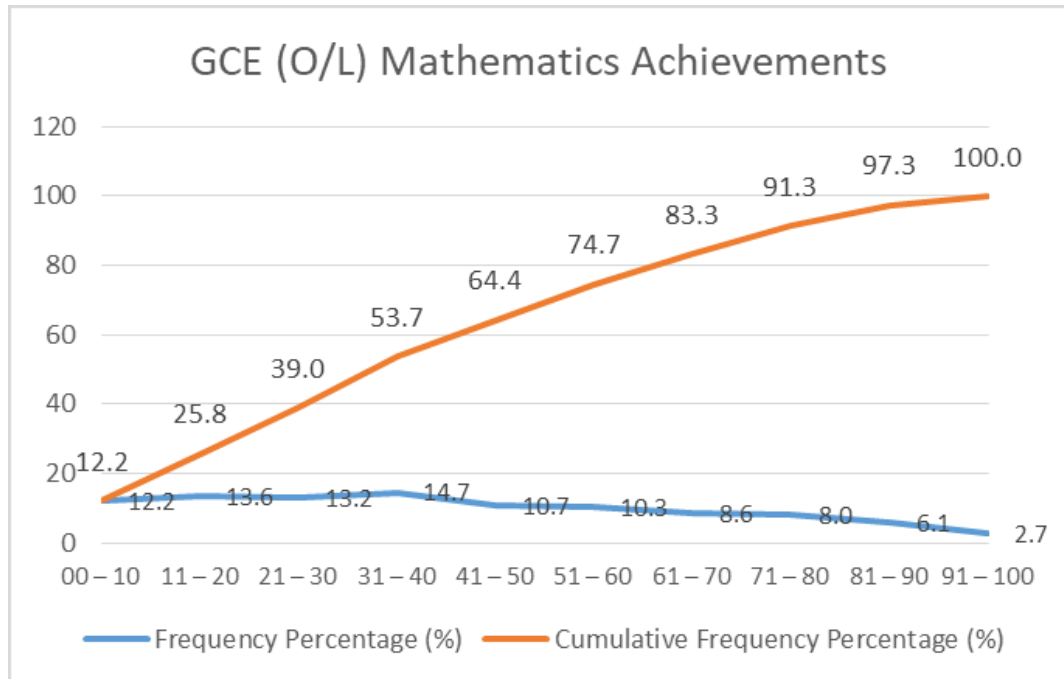


Figure 1: Frequency distribution of mathematics achievements at the GCE (O/L) examination in 2016

Figure 2 further illustrates the situation at the junior secondary level of education in relation to the NEREC administered test paper which was constructed by using Trends in International Mathematics and Science Study (TIMSS) items that are relevant to Grade 8 mathematics curriculum in Sri Lanka. (Please note that Sri Lanka is not a participant country in the TIMSS). Figure 2 indicates the performance of a national sample of 4000 students in the National Assessment of Achievements -TIMSS test administered for students completing Grade 8 in 2016.

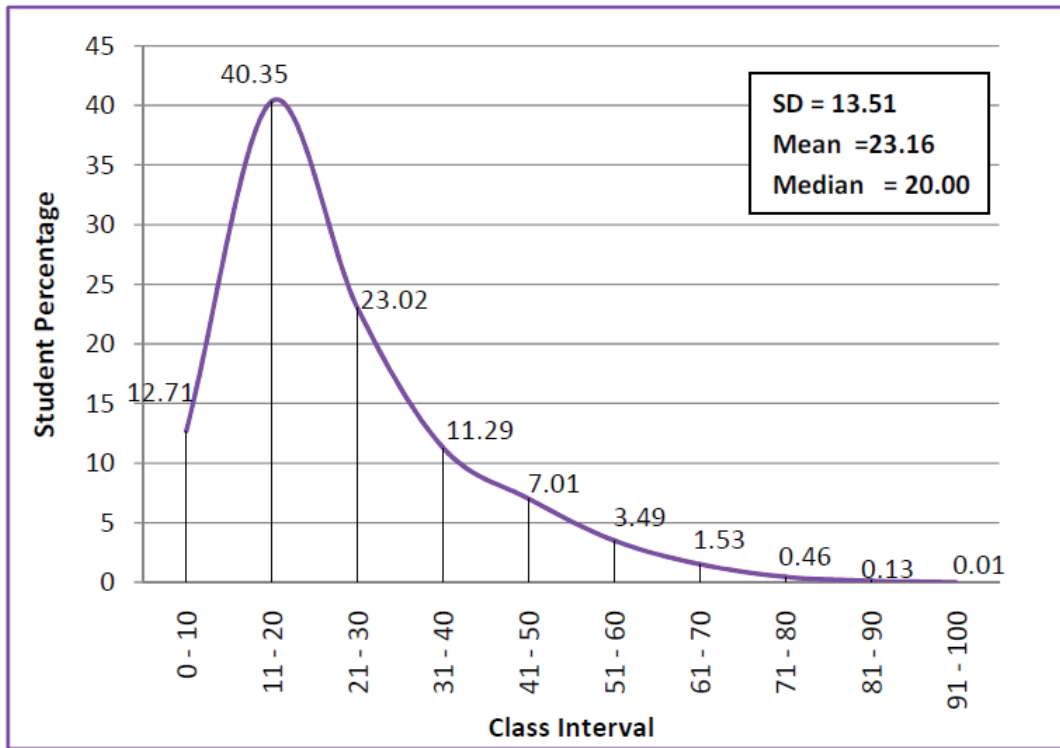


Figure 2: All island students’ performance in “TIMSS”-Students completing Grade 8 in 2016

Source: Ministry of Education and NEREC (2017: p.1) Retrieved from https://edu.cmb.ac.lk/nerec/wp-content/uploads/2017/11/3.-TIMSS-Report- Gr.8_2016.pdf

Students’ academic achievements depend on the complex interaction of many factors pertaining to the individual, society and environment. These factors embrace demographic characteristics, cognitive, affective and emotional characteristics and socio economic status (SES) of individual students, school, school principal, teacher, classroom and peer relations (Goddard, 2003; Crosnoe, Johnson & Elder, 2004; Shin et al, 2009; Farooq et al, 2011).

More than ever, school districts in Sri Lanka are under immense state and public pressure to improve student achievement and reform failing schools. Increasingly, school leaders are asked to support the improvement of instruction and student achievement (Grissom, Kalogrides, & Loeb, 2014). According to Murphy, (1988), and Sheppard, (1996) Principal instructional leadership may be conceptualized as

narrow and broad. The narrow definition focuses on instructional leadership as a separate entity from administration, and it only includes those actions that are directly related to teaching and learning. In contrast, the broad view of instructional leadership includes development and implementation of goals, school culture, and instructional management aimed at enhancing student learning outcomes.

In particular, the principal's role in adjusting the school's direction through vision, mission, goals, and school culture is highlighted as a primary avenue of influence (Bamburg & Andrews, 1991; Brewer, 1993; Cheng, 1994; Cruz, 1995; Hallinger, Bickman, & Davis, 1996; Hallinger & Murphy, 1986). Additionally, how principals and teachers organize and coordinate the work life of the school (e. g., its goals, curriculum, instructional techniques, and student grouping) shape the environment in which they work as well as the learning experiences and achievement levels

Of the students (Heck, Larsen, & Marcoulides, 1990; Heck & Marcoulides, 1996).

However, there is a lack of understanding of how a principal affects school and student outcomes in a subject like mathematics within certain contextual forces that influence school leadership such as student diversity and grade level (Hallinger & Heck, 1996; Hallinger & Heck, 1998; Murphy, 1988). Therefore, due to changing environments and increased student diversity, studies regarding principal instructional leadership should be pursued within the specific context of a school (Boyd, 1992; Hord, 1992). As Hallinger, Bickman, and Davis (1996) suggest, additional research on principal's instructional leadership needs to (1) use models that account for effects of the school context on a principal's leadership to gain a better understanding of the relationship between principal and school effectiveness, and (2) to examine the effects of principal leadership on student learning in terms of theoretically relevant intervening variables, such as socio-economic status, ethnic background, and school outcomes. Consequently, it is imperative to focus on the principal's instructional leadership role in schools experiencing an increase in student population diversity, particularly in schools like multi ethnics in the central province. This paper presents the results of a study conducted to identify the instructional leadership role of the principal in government schools in the central province in Sri Lanka. Presented here is a brief account of the theoretical background, the purpose of the study, the study procedures, findings, and conclusions. In this article, we investigate how principals

can be supported to develop the knowledge and skills necessary to support high-quality teaching and learning in mathematics in the junior secondary schools.

Theoretical Background

Defining instructional leadership is a difficult task, but researchers have attempted to outline behaviors and actions encompassed by the term. Jenkins (2009) identified instructional leadership as specific behaviors such as setting clear goals, allocating resources to instruction, managing the curriculum, monitoring lesson plans, and evaluating teachers. Flath (1989) defined instructional leadership as actions a principal takes to promote growth in student learning.

In 1985, Hallinger and Murphy developed *the Principal Instructional Management Rating Scale (PIMRS)* in an effort to measure dimensions of principal leadership. In 2008, Hallinger stated that over time, instructional leadership has become the preferred term over instructional management. Hallinger acknowledged, “This is due to the recognition that principals who operate as leaders rely more on expertise and influence than on formal authority and power to achieve a positive impact on staff motivation and student learning” (Hallinger, 2011). Several paths describe how principal leadership influences teaching–learning process in mathematics. However, there is a need to gain further understanding of principal instructional leadership, particularly in majority/minority school contexts (Hallinger & Heck, 1996, 1998; Hord, 1992). Some literature formed the theoretical background for this study. These included principal leadership and student achievement and principal leadership in school culture. This research suggests that the role of the principal is essential for the academic achievement and success of all the students and the school itself. Previous studies of the principal role exemplify certain behaviors and actions (fostering a positive learning climate, focussing on student progress, valuing gender equity and multicultural education, and promoting early identification of learning difficulties) that may influence student achievement (Bossert 1988; Hallinger & Murphy, 1987; Heck & Marcoulides, 1993; Ogawa & Hart, 1985).

Louis and Miles (1990) identified the common characteristics as the school engaged in the process of improvement, specifically with regard to student performance. This study found that principals who engaged in effective systematic planning for improvement were more successful. Furthermore, the principals’ and teachers’

combination in successful problem solving was a significant indicator of school improvement. The highest ranked principal behaviors to enhance student performance included: (1) improving the school's atmosphere or climate; (2) creating more structured educational environments; (3) improving discipline and safety; and (4) creating high expectations for student performance. A national study in USA (Ogden & Germinario, 1995) focussed on the leadership in "Blue Ribbon High Schools" and completed an analysis of "Best Schools." This study suggests that the principal is instrumental in the formulation and realization of student performance and school goals. The successful high schools have a clear sense of purpose, and develop a mission that serves as the focus for school practices and improvements. In addition, principals recognize their primary goal as creating and maintaining a student-centered school. Further, principals in "Best Schools" systematically involve teachers, students and parents in meaningful educational decisions related to the improvement of student performance.

Purpose of the Study

When considering the effectiveness of the teaching learning process of mathematics in junior secondary level, the role of the principal is vital (Hallinger, Bickman, & Davis, 1996).

Therefore, this study examined how principals utilize instructional leadership role, within the context of junior secondary schools to enhance the academic success of the central province. The following questions guided this study:

1. How do junior secondary school principals monitor school activities towards the improvement of mathematics education to enhance the academic success of the school?
2. How do junior secondary school principals help teachers to improve teaching-learning process of mathematics through instructional management to enhance the academic success of students?

Methodology

The researchers used a multiple case study, including a cross-site analysis (Patton, 1990) of 50 junior secondary schools in the Kandy district. Research using a

qualitative design provides a thorough understanding of the complexities underlying human behavior, such as values, actions, relationships, and other variables.

Procedures

Data were collected through extensive interviews with principals in each junior secondary school. An interview guide consisting of open-ended questions was used “to understand and capture points of view of other people without predetermining those points of view through prior selection of questionnaire categories” (Patton, 1990, p. 24). Interviews with principals were conducted at their respective schools.

Interviews were tape-recorded, and transcribed. Interview data were analyzed and synthesized under emerging categories representing the five areas of emphasis of the study.

Participants

Multi stage sampling methods were adopted to select participants for this study consisting of 50 schools from the central province in Sri Lanka. The principals were selected from each school for the interviews which were held at their respective schools. The following table (1.1) describes the total number of schools and school types in the three districts of the central province. The table 1.2 indicates the school type and ethnic type of the schools in the central province population. Table 1.3 shows the selected school sample

Table 1.1 Number of schools in each district according to the school type

DISTRICT	Type 1AB	Type 1C	Type 2	Total
Kandy	60	163	208	431
Mathale	20	64	100	184
Nuwaraeliya	34	92	146	272
Total	114	319	454	887

Table 1.2 Ethnicity and School type of the central province

	Sinhala	Tamil	Muslim	Total
Type 1AB	86	16	12	114
Type 1C	215	66	38	319
Type 2	288	130	36	454
	589	212	86	887

Table 1.3 Selected school sample

Type	Sinhala	Tamil	Muslim	Total number of schools
Type 1AB	4	1	1	06
Type 1C	12	4	2	18
Type 2	17	7	2	26
Total number of schools(principals)	33	12	05	50

Findings of the study

The following summary of findings is organized according to the four main areas of the study. These included principal instructional leadership for academic performance in mathematics, development and implementation of teaching- learning process, overcoming challenges in mathematics learning of students and monitoring curricular activities of mathematics subject of junior secondary students.

Principal Leadership role for Students' Academic Performance relating to mathematics

Data revealed that majority of the principals in 50 schools had a strong focus on student achievement. However, 26% of the principal sample didn't have clear idea about their less results. According to the responses made by the principals, two ways can be identified;

1. Positive factors on the academic performance
2. Negative factors on the academic performance

They used following positive activities to improve the performance of the mathematics.

Appraisal of teachers (AP). Data revealed that principals use appraisal of highly committed teaches at the staff meetings and quality circles to develop performance goals. To this end, principals allocated staff development days and met with teachers periodically.

Additional work/classes (ADW). It was revealed that 15% of the school principals guide and organize additional work or classes for students with the support of the teachers and parents.

Math Camps (MP). According to the responses made by the principals, they (17%) organize special residential and non-residential camps for students *specially planned for* weak students and implementing remedial teaching for them. This can be identified as strategy to influence the school culture.

Provide Counselling (PC). A very few school principals (10%) introduced student counselling for those who have problems in learning mathematics such as removing phobia of mathematics as difficult subject.

Strengthening the internal supervision system. (ISS) It was revealed that 34% of the principal sample trusted that internal supervision system of the school should be improved and they took actions to strengthen their system.

Positive Action taken to meet goals

They used the following positive activities to improve teaching–learning process. The following responses were identified through the interviews with principals.

. . . We form subcommittees to review the goals set up in the long-range plan and we revise them at this time. This is an all-day staff development opportunity for teachers.

. . . We take the time to develop the goals in the spring in order to be focussed and set the tone for the following school year. (18/06/2019)

. . . Within each department where we have developed specific goals that have helped to achieve recognized status, sometimes we discuss the overall district goals, sometimes they are a little vague. Specifically, we see our kids, we know our kids,

and we know what our kids need, and I think within the department you really see that. (23/06/2019)

We have a camps plan that we develop. It is developed in part by the teachers and some of it is developed by central office. The district sets certain goals for the performance of all students and then the camps have to align themselves with the district goals. The district has goals as to where they want to be by a certain time, and we get as close to that as possible. (23/06/2021)

Furthermore, other strategies that the principal in “High School A” used development of a master schedule, communication, and student performance data analysis; whereas the principal in “High School B” used central office support, interdisciplinary accountability, and the restructure of some academic departments. .(23/06/2021)

Research provides facilities for teachers (PFT) who gave a high contribution to enhance maths performance of the students. 60% of the principals said,

... ‘We provided quality input to assist their teaching learning processes and we direct them to seminars and, we provided most of the printed materials for exams.’

... ‘We supply mathematics instrument sets for them that they ask with the support of zonal and provincial education officers.’

... ‘We provided all the learning resources such as TIM (Teachers’ Instruction Manual) as needed to conduct the observation for teachers at all the time. On the other hand, School Based Professional Teacher Development programmes (SBPTD) are implemented every term’. (16/07/2019)

... ‘We arrange our classrooms convenient for teaching learning process, as an example we already provided new technological items for the maths teachers, such as smart classrooms, interactive boards, multimedia projectors, computes, relevant CSs, DVD players and so on.. ’

‘We are not backward to give quality inputs, to the teachers as they wish’ (16/07/2019).

As a school leader, the principal should take the decision at the correct time and on the purpose. In here, some principals do not take necessary action to improve their overall performance whereas some leaders take very difficult decisions to enhance their results. One of the principal said,

‘I don’t have any fear to allocate money from school development fund without getting the permission of annual budget because I have an accountability to take some decisions for child’s progress ’(14/07/2019).

As the instructional teacher, principals should try to change the mind of their staff officers for enriching expected goals. In their journey, they supply maximum facilities physically. Not only that, they think they have a duty to change the thinking pattern of both staff and students to remove their negative feelings and thoughts. Some principals allocated more money from their annual funds for this subject. They believe ‘If they provide much more resources, and facilities for the teachers, they can change the current situation.’ (14/07/2019)

Take community support [TCS]. It was revealed that 30% of the sample provided very poor support as the school community for developing school academic performance. They express more reasons for that as follows.

‘We have very less community support because our parents suffer from poverty. Both mother and father don’t have permanent jobs. They have an extended family background. Their income is not sufficient to fulfil student requirements. School authority sometimes provided relief pack for students. We give lunch for the students. We believe that the students are unable to learn properly in hunger.’ Therefore, first we give our priority, to give at least one meal for the day.(07/07/2019)

Development and implementation of teaching- learning process

According to the responses revealed by the principal, most of the teachers used traditional techniques for implementing teaching learning process relating to mathematics. As an example, ***Maths Quality Cycle [MCQ]*** was used by 55% of the sample. The principal said,

‘We expect the teachers to do some new concept, but they do common teaching methods to enhance student performance, such as giving assessments, making

teaching aids, and so on. Also, most of the teachers don't have more experience and relevant teaching practice. Some of them take excusive leave due to personal problems.'(14/07/2019)

According to the data, majority of the principals did not use new attractive teaching learning phenomenon to achieve their target, such as,

Concept Development [CD] ; 12%

Play Methods [PM]: 33%

Extra Papers [EP] : 18%

Activity Based Learning [ABL] : 12%

Grouping and Teaching [GAT] : 40%

Some of the principals used technology to improve performance such as computer base learning [CBL]. 33% of the sample used that, but principals blamed the education officers regarding this matter because they do not provide equal facilities for the students. Some principals try to implement new programmes to enhance students' performance such as Inter School Competitions [ISC]; 8% Students Maths Societies [SMS] 8% and Maths related Games [MRG], 8%. Principals said the following ideas regarding above matters,

'We always try to give some opportunities to our children by directing them for competitions like 'Olympiyad', the science-Maths inter school competitions'(12/07/2019)

'Our students do chess from the primary classes. Therefore, they have clear ideas about basic conceptual facts. And also, they are very forward compared to other students, who do not do games like chess. On the other hand, these students have an ability to take their decisions wisely. They show their talent in other subjects as well. Therefore, schools expect the 100% O/L results from these students.' (12/07/2019)

'Department of zonal education and provincial education conducts inter school maths competitions. Our students take part annually in these competitions. It

identifies our maths performance level among the others. We analyse our students' 'Silpaloka'(Special academic program) marks and arrange some remedial teaching programmes accordingly.' '(14/07/2019)

According to the data, 60% of the school leaders trust support seminars [SS], and resource persons [RS] to uplift their maths performance. Research revealed that when conducting support seminars, they take part in them. Anyhow, the school organized seminars specially for grade 5,10,11 students those who wish to sit for the national level examination with the contribution of in-service advisers and retired teachers.

Overcome Challengers in Mathematics learning of students

Research expresses so many facts affecting to enhance student performance. They all consider those factors as a huge challenge for them, to achieve their school overall targets. The main problem regarding this matter is lack of trained teachers. 8% of the sample have qualified teachers to teach mathematics. On the other hand, those who got the first appointments in the government sector, try to get the transfers because these teachers are so far away from their homes, but the school doesn't have proper facilities such as teacher quarters for them. And also, most of them are at their youth age. Then, they get married, and most of the female teachers take maternity leave. Therefore, principals said that the students don't have continuous teaching leaving processes. Anyhow, if there is any teacher for doing maths, unfortunately the school doesn't have sufficient facilities to teach or most of the students do not come to school continuously. 35% of the principals mention they don't have trained teachers [PTT] - provide trained teachers[35%] percentage is same for providing, Mathematics instruments [PMI] 12% of the sample have language problems [LP] and 18% of the sample revealed there is lack of basic knowledge [LBK].

Most of the principals said students are subject to the social problems [SP]. 18% of the school community make less relationships with school [LRWS] 40% mostly influence facts for the students maths performance. Other than the above problems, principals said they have some technical and procurement matters [TAPM] 10% as a barrier. Principal said following ideas regarding this,

'Parents ignore their children due to poverty and less education level. We have students from children's home also. Most of the parents are separated or divorced.

Parents don't have enough time to take care of the children because they do labour jobs. On the other hand, they are thoroughly addicted to liquor and drugs.. '

'No one gives alternative to do homework in their home. Children stay alone in the evening until the parents come. Therefore, they have much more freedom to engage in anti-social acts with unsuitable persons. So, they are addicted to drugs. On the other hand, some students do part time jobs in the evening to support family economy. Or some are caring for their young sisters or brothers until the parents come '

'The main problem we have is, most of the students are from mixed families and some mothers are abroad.'

'Social problems affect our student performance directly or indirectly. We have very young parents because they get married a little early. Therefore, they don't have or have less responsibility and accountability for parenthood. Most of these parents have family problems. Therefore no one guides the students at home to do extra work. Students also get unsuitable experience in their young age. As a result of these social problems, students leave the school very early.

Monitoring curricular activities of mathematics subject

Research revealed principals used different tactics to enhance performance by monitoring curricular activities according to the specific frame work depending on school culture. 33% of the principals said they have good performance level [GPL] by practicing and continuous monitoring the curriculum. They said they used different approaches to implement mathematics curriculum in a good way. Some of these approaches are as follows.

'We conducted night classes for the students especially in grade 11. Parents gave maximum support to that by providing meals, and snacks for their children. Children participated in this class enthusiastically because it's a new experience for them. Also, young teachers who joined the teaching newly did these classes, giving students some time for entertaining.'

8% of the sample did Night classes [NC] whereas 18% of the sample provided extra papers [EP] for the students to assess the curriculum. Some of the teachers visited homes when the students did not attend the school continuously. Home Visits [HV] were done by 10%. 30% of the principals said 'Internal supervision System [ISS] is a

very good tool to achieve our target specially monitoring curriculum in Mathematics. We conduct teacher evaluation 35% [TE] system, and student evaluation 14% [SE] programmes to support internal supervision. We already provide gifts for appreciation [PGA] 18% provide stage report [PSR] 10% after every assessment test. These tactics are appreciated by the Zonal Education Officers as well as the provincial educational officers. On the other hand, when implementing curriculum, both students and teachers and its influences positively involve to change the backward feeling regarding mathematics subject. Actually, it helps to get rid of ‘Maths Phobia’

Conclusion

This research has examined the instructional leadership role of school principals in improving the learning outcomes for the students they serve; however, limited information exists regarding the instructional leadership of high school principals in majority schools. Further, research suggests that school context, particularly high school settings, socioeconomic environment, and student ethnicity appear to influence the type of leadership that principals exercise to improve a school (Hallinger & Heck, 1996; Hallinger & Murphy, 1987; Murphy, 1988). This study examined how principals utilized instructional leadership within the context of central province schools to enhance the academic success of mathematics of students. It focussed on four dimensions of instructional leadership for academic performance in mathematics, development and implementation of teaching- learning process, overcoming challenges in mathematics learning of students, monitoring curricular activities of mathematics subject of junior secondary students.

The results of this study suggest that to develop and implement student academic performance in mathematics goals, the principals engage in formal goal-setting meetings with the entire staff. They analyze student performance data, develop master schedules, communicate clearly and consistently, benefit from Zonal department collaboration, create an interdisciplinary accountability system, and as needed restructure school departments. They also use a clear school organization structure, and value collaborative learning team. Finally, to manage the instructional program to enhance academic achievement in mathematics of students, principals monitor student performance, and rely on the leadership team.

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