

EXECUTIVE SUMMARY

This project focused on mathematics pass rate of students in Galagedara education division in Katugastota zone. The division has eighteen schools and ten schools out of them have secondary grades. The grade 11 students in these schools in each year sit G. C. E. O/L Examination. The mathematics pass rate at the examination was studied for four years and it was able to identify that there is a low pass rate in each year. The average pass rate was 60.26%. It was expected to find solutions to increase the pass rate through problem analysis in this project. Data collection, data analysis and several techniques were used in the methodology. It was identified that if the project is implemented, out of 400 students in average who sit the examination in a year, more than 260 students can pass mathematics at the examination. Everything in relation to the study was done with so many limitations as limited time, too much of work load to the author, and limited opportunities to the author to visit the schools.

The report described the organizational analysis and problem identification. Under this topic, the organizational profile of Galagedara education division which gives the leadership to 18 schools was described in detail. The organization was deeply analysed using SWOT tool and, the initial flavor of the project was presented with the conclusion to the SWOT. Then the key problem was described. With the use of qualitative and quantitative studies the main problem was identified as low pass rate in mathematics. Three associated problems for the main problem were identified as students' performance, teacher training, and monitoring pattern. The performance gaps of each problem were represented with numerical data and graphs. Then three components as teaching and learning process, professional development, and administrative system were introduced in relation to each associated problem. The key problem was analyzed using Ishikawa diagram and root causes were identified up to the fourth level. Then each category variable was described in detail up to the fourth level of the analysis.

Then the theoretical background for the main project mathematics pass rate, the three components teaching and learning process, professional development, and administrative system were discussed in detail with the literature available. The literature was found from different sources such as books, periodicals, theses, reports, websites, and secondary sources with critical choose of different areas of the main project and the three components. A mind map was created with different sub topics of the main project and the components before start

searching literature. The theoretical background was presented to propose solutions logically related and practical with the problems identified. Then the study framework with three components was presented and four different techniques as surveys, checklists, training need analysis, and training design which were suggested for the project were discussed in detail.

The report then broadly discussed the project with objectives and solutions. First, it explained the overall objective in which to increase O/L mathematics pass rate in 2023 from 60.26% to 70%. Then the sub objectives and techniques were presented for each project component. The solutions for each component were given with appendices. The project chart was illustrated by placing the project team in suitable positions and the resource allocation was given with project component, proposed solutions, resources used, and the roles and responsibilities. The cost estimation for each project component was given with the use of appendices. The benefit cost of the project was identified as intangible. Detailed appendices to be used in each solution were included and the outputs and outcomes were also indicated. It was identified that learning and teaching process, administrative system, and professional development can be increased through the project and ultimately the mathematics pass rate can be increased.

The findings with the theoretical background and the project components were discussed according to the suggested solutions. The recommendations to solve the identified problem, the low pass rate in mathematics with associated problems learning teaching process, professional development, and administrative system were presented as having a ‘mathematics project day’ once a month at the division, release the mathematics teachers from unnecessary workload, conduct training programmes during the vacations, and have a ‘parent-teacher-student day’ once a month in schools. The recommendations presented here were given to increase the pass rate in mathematics and they were given for one year time period. With the help of the project, the pass rate in mathematics will be increased and most of the students will get the chance to pass the examination and follow advanced level.