EXECUTIVE SUMMARY

In 2021 O/L science pass rate of Kurunegala education zones is 78.03%. 78% pass rate senses us that still 12% of students who sat the O/L examination failed science in the Kurunegala zone. It is observed that higher percentage of students in Type 2 schools has failed O/L science. Therefore Type 2 schools are selected for this project study. After the implementation of the project, the pass percentage of O/L science in Type 2 schools increases by 40% and it increases the zonal pass percentage of science by 3.3%. Necessary data for the project were collected through North Western Province data base, data available in the schools and informal interviews. Considering the data collection process, five Type 2 schools representing all three divisions are selected as the sample for this project. The main limitation of the study was lack of essential data and resistance of stakeholders to express their ideas.

Kurunegala Zonal education office consists of 125 schools and out of it 40 schools are Type 2 schools. Type 2 schools have grades from 1- 11. Strenghths, weaknesses, opportunities and threats of Type 2 schools have identified using a SWOT analysis. Using the available data, a main problem related to science is identified. It is the less pass percentage of science of Type 2 schools than the zone. The performance gap is 36.97%. The identified three problems related to the main problem are Reduction of percentage of students took more than 40 marks for term tests, No sufficient number of internal supervisions done and Number of practicals done was not to the required level. Fish Bone diagram was drawn related to the three associated problems. Root causes up to 4^{th} level were identified in the Fish Bone diagram. The identified three components using it are Management system, Teaching process and Training and development.

Literature about the outcome and the three components were revealed. The main outcome was the pass rate. Pass rate is the measurement of number of students who pass or do not pass the exam. A well-established management system ensures the better performance of students. Still management systems of school not much concern on teaching process of schools. Teaching process is the most critical part of learning science. For a better understanding of science hands-on experiences are more crucial. Hands-on learning experiences offer better life skills for learners. Training and development is the third identified component. To achieve the future goals of an

organization, the actual level of performances of employees should be uplifted to expected level through training and development programs. Management techniques which can be used to give the solutions for the identified problems were explained in this chapter.

The main objective of this project study is to increase the science pass percentage of Type 2 schools by 40%. The sub objectives related to each project component were identified. Techniques related to each project component also were tabulated and the current situation of the each project component also was described in details. For the identified problems of the current situation solutions also were proposed. For the implementation of solutions, resource team structure, roles and responsibilities of resource team were mentioned in the chapter. In the benefit-cost analysis cost estimates and the tangible and intangible benefits of the project were analyzed. Intangible benefits of the project were divided into direct benefits and indirect benefits. Finally outputs and outcomes were given in details.

The connection between the literature and the application of the project components are shown in this discussion part of this chapter. Pass rate of science of Type 2 schools shows the number of students pass O/L science. As most of the students of Type 2 schools have nominal or functional level of scientific literacy, it is very important to give them hands-on experiences for the better understanding of science. Establishment of quality management system which enhances the knowledge, skills and attitudes of students and offering training and development programs for development of competencies related to practicals in teachers are the most critical applications understood in relation to the literature. The recommendations given for implementation of solutions are providing activity based learning opportunities, establishment of strong monitoring process, remedial programs through mark analysis and ensuring better understanding and skills related to science practicals in teachers.