METHODS

Welfare of education in Kanyakumari district

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The intention of this paper is to provide a clear idea of the current education scenario practiced in Kanyakumari District, Tamil Nadu, India, its associated drawbacks, and to propose innovative teaching methods. For this purpose, various schools in the district were visited and surveyed to bring out the expectations and interests of students toward our education system. Based on the feedback given by the students and teachers, an analysis was performed and the shortcomings in the current education system were spotted. The suggestions and expectations of the existing education scheme are discussed in this paper.

Keywords: education, education system, learning

1. Introduction

The and development of a country in all sectors depend on the quality of education provided to its citizens. The primary purpose of education is to mold good individuals who are capable of serving society. The education also aims at yielding knowledge among students in all aspects, making them dream bigger and developing their personal skills. Whatever the objective of education may be, its scenario in our state is completely based on marks obtained in the examinations. The quality of education is measured in terms of grades, and the toppers are considered to be brilliant. This has poisoned the very roots of education and its intentions. The talents of the students are nipped in the bud and all of them are made to concentrate on scoring higher grades

and choosing professional courses for higher studies. This teaching methodology has been generating lakhs of engineers every year, yet not even one Rabindranath Tagore or a Ravi Varma or a Lincoln came out of it. Seeds of independent thinking lie within every individual, and it is the duty of parents and teachers to create an atmosphere for it to sprout. The real target of education can be achieved only if the individual's talents are brought out in addition to imparting knowledge to them.

2. Education background of Kanyakumari district

Education in the Kanyakumari district is significantly influenced by the Christian missionaries who were the

pioneers of English education in the erstwhile Travancore State and, more specifically, in the South Travancore, the territory that now constitutes the district of Kanyakumari. The Portuguese and Dutch, who arrived before the British in the ancient Travancore State, were Roman Catholics who paid little attention to the cause of education. However, English instruction was later introduced to the district by Protestant missionaries who arrived in this area. The founder of the English School in the previously Travancore State was Rev. William Tobias Ringle Taube, a native of Prussia who arrived in India in 1806. He laid the groundwork for popular education in the area over the course of 10 years, from 1806 to 1816.

Private teachers known as Asans used to conduct schools in villages and spread such teaching essential for the daily life of the average man before the Government of the erstwhile Travancore Native State took over the direction and management of the education system. The government at the time had no active involvement in education. The teachers were not paid their due salary, so the villagers voluntarily donated to the teachers' salaries.

The education department of the state was headed by the director of public instructions when Kanyakumari district was founded and joined the then Chennai (Madras) in 1956. The state was divided into two divisions, with a divisional inspector in charge of each division. When the Kanyakumari district was created, it was placed under the jurisdiction of the Madurai divisional inspector.

3. Methodology

To find out the teaching methods prevailing in our education system, to analyze their pros and cons, and to enhance the interests of high school students toward technology, visits were organized to the following schools and surveys were conducted:

3.1. Government Higher Secondary School, Koduppaikuzhi, on June 22, 2016

A technical session on "Basics of Electromagnetism" was conducted, and the ideas on power distribution and electric shock were disseminated to the students. The terms like electricity, magnetism, their types, and their practical applications, such as motors, generators, and transformers were also explained. A demonstration was given of the project developed using Arduino and an ultrasonic sensor to sense the distance of an object. This helped the students to become somewhat familiar with the recent technologies. Models of Distance Finder, 4 × 4 LED Matrix, and Electronic Snap Circuit were also presented to the students.

3.2. Government Higher Secondary School, Puthoor, on September 15, 2016

A technical session on "The Basics of Semiconductors" was conducted with the view of helping the students to get an idea about the basic concepts of semiconductor devices, such as diode, LED, MOSFET, solar panels, their operations, and applications.

3.3. Three teams, each with four members, disseminated their knowledge on the following topics to the students:

- Semiconductors and Applications
- Harnessing Solar/Wind Energy – Application and Principles
- Nanotechnology – Principle and Applications

The charts, models, and PowerPoint presentations were used to present these topics in detail. The students of the following schools were made familiar with those topics:

o Government Higher Secondary School, Thuckalay, on July 27, 2016
o Government Girls Higher Secondary School, Marthandam, on July 29, 2016
o SLB Girls Higher Secondary School, on August 1, 2016
o Kavimani Desigavinayagam Pillai Girls Higher Secondary School, on August 1, 2016

In addition to these, feedbacks were collected from the students and teachers regarding their views about the present education system.

4. Education in Kanyakumari – current scenario

Even though the district ranks first in the case of literacy rate in Tamil Nadu, the rate of unemployed people is considerably high. The major reason behind this situation is that most of the students lack basic knowledge and stick to the curriculum and exams. The current curriculum for school education is average but the reach to students is poor. This curriculum has many drawbacks, and it mainly focuses only on examinations and marks. Teachers in Kanyakumari's private schools outperform government schools in this area since they only earn credit if they produce growing merits for each succeeding year, whereas in government schools, their job security has nothing to do with the school's results. Every year, a considerable number of unemployed graduates are generated, and many of whom lack the basic communication and problem-solving abilities required for even the most basic occupations.

5. Teaching methodology

Teaching methodology plays a vital role in education. It is the most powerful tool in education. The teaching should create interest and fascination toward the subject. The teaching methodology in the existing system is result-oriented and not knowledge-based. The students are taught on the basis of examination, and eventually some of the topics are skipped by the teachers. In some schools, even the portions for IX and XI classes are skipped. During the IX and XI standards, the syllabus for X and XII standards are covered, respectively. After finishing the curriculum, the students are being pressurized in the name of cyclic tests and weekly exams. This method is followed to make the students memorize each line of textbook, so that they will be able to secure high marks and state-level ranks. As a result of this teaching methodology, the students are not clear with the concepts and subjects.

6. Effects

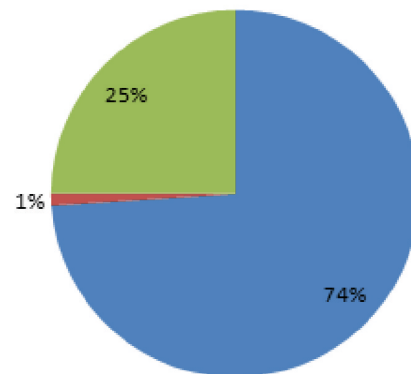The current education system in Kanyakumari has the following effects:

- The syllabus taught to students is exam-oriented.
- This existing system is based on competition, and here the competition arises from different schools for achieving greater results. Thus, every school management, especially the private institutions, pressurizes the students to score high marks. As a result, the suicide rate of students increases every year.
- Eventually, the students also get used to it, and they tend to study only for scoring well in the examinations.
- As they are taught on the basis of exams, the students lack interest in understanding the concepts, technical knowledge, and practical skills.
- Most government schools are lacking textbooks and have poor infrastructure.
- This system fails to spot and encourage the skills hidden within each student.
- Government's investment toward education is only 3% of its GDP, which is low compared to other sectors, and this makes private institutions increase the cost of education.
- Ethics are not taught in schools, which leads to a lack of ethical behavior among many educated people.
- There is no financial incentive for teachers to promote critical thinking in their students.
- Although teachers in government schools have various benefits compared to private institutions, they lack in clarity of explanation and proper guidance.
- Since the rate of pressure is higher for private teachers than for government teachers in cases of job security, they implement the pressure on students for

marks and grades by conducting regular examinations instead of teaching.

7. Result

STUDENTS APPROACH TO EXAMS

- Scoring marks - Skill developing - By compulsion

8. Observation and survey

To analyze the existing education system in Kanyakumari district, various schools of the district have been visited and individual feedback from each student and teacher was obtained. Their comments on the prevailing education system and their expectations of it were attained.

From the survey, it was noted that about 74% of the students in the district study just to score high marks and secure ranks. The students belonging to this category focus on achieving high scores, which paves the way for choosing higher studies that lead to better career paths.

It is observed that about 25% of students study for their parents' and management's sake. The students belonging to this category are pressurized and forced to study because of the school's management, especially private organizations whose objective is to produce greater results and parents who influence their expectations over their children.

It is observed that only around 1% of students study to score marks as well as to develop their skills. The students in this category can be expected to excel in both their academic and extracurricular activities. Apart from these, it has been found that the discovery-learning approaches are preferred by the students over the traditional "tell-and-practice" approaches (1). The traditional approach in lectures promotes passive learning (2), and it often creates a mismatch

between the teachers' way of teaching and the students' way of learning.

9. Students' expectations toward education system

- They expect the teachers to teach the subjects using PowerPoint presentations, charts, models, or audio and visual aids.
- About 90% of the students have complained that some of the topics coming under examination's point of view were not taught properly, but instead they were made to learn the content without making them understand the crux and necessity of the topic in a real-life scenario.
- They are interested in implementing the theoretical knowledge that they gain from the subjects into practical and real-life applications. But there is a lack of support from the teachers for these kinds of activities apart from the textbooks and curriculum.

10. Experience gained

The interaction with school students gave a different experience for our team. All our members felt completed after disseminating their knowledge to the students. Each and every student was made to understand even the minute concepts behind each technology by utilizing the aids (3) like models, charts, diagrams, PowerPoint presentations, videos, and real-life examples. The utilization of visual aids grabbed the attention of the students and created an interest within them to listen to the technical sessions. Their curiosity in knowing the recent technologies was revealed when they were encouraged to work with the models and projects. We succeeded in making the technology reach the children and in spotting the flaws in the current education system.

11. Discussion

It is necessary that the Indian government should invest at least 4% of GDP in the education sector. It should concentrate heavily on improving the infrastructure of the education sector, appointing teachers, and training them. Moreover, the entire attitude toward education has to be changed, and the method of teaching has to be revised. It should aim at making the students learn the subjects and concepts, and not making them study all those stuffs.

Teachers must disseminate and encourage logical thinking and creativity among students. The exam patterns have to be changed in such a way that it should test the knowledge of students on the subject and not their memory. To grasp the problem and apply their knowledge and problem-solving methods (4) to solve it, students should be made mainly self-reliant.

Students have to be exposed to economic and social problems around the world by conducting various awareness programs. They should be kept updated about the world news and general knowledge. Their personalities and unique skills should be found out and it needs to be developed.

Steps should be taken in order to introduce a technical mode of teaching in schools. Educational robots can be used for teaching purposes (5) and can replace teachers. It can help students in building their own depictions and notions of science and technology (6). To support the life-long and autonomous learning activities of students, remote laboratories (7) can be introduced.

As the school years are key times in the improvement of orientation toward careers (8), students should be given a clear vision of the opportunities available to them in this world. This can help them in choosing a career based on their interests and opportunities.

Another important factor is malnutrition among students that could affect their ability to learn. Thus, proper measures have to be taken to avoid this nutritional deficiency. In total, the education system is supposed to mold each student into a responsible citizen.

12. Conclusion

Education is one of the most efficient interventions for improving human living standards by means of improving the literacy rate in marginalized societies. It is the only way to eliminate poverty, improve people's health, and boost economic growth. We need an education system that can eliminate illiteracy and give basic education, as well as higher and technical education, to common man. The entire approach toward education must be altered. India can successfully employ its massive human resources if it has an effective learning system.

Acknowledgments

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