

# Tracking the Achievements of Learning Outcomes in Foundational Years

Dr. G Manjula<sup>[1]</sup>  
Prashant Yadav<sup>[2]</sup>, Ronit Asawa<sup>[3]</sup>, Sapnil Dutta<sup>[4]</sup>

manjula-ise@dsatm.edu.in<sup>[1]</sup>  
yadavprashant2818@gmail.com<sup>[2]</sup>, asawaronit60@gmail.com<sup>[3]</sup>, jhsd2013@gmail.com<sup>[4]</sup>

Faculty, Department of Information Science and Engineering, DSATM, Bangalore-88, Karnataka<sup>[1]</sup>

Student, Department of Information Science and Engineering, DSATM, Bangalore-88, Karnataka<sup>[2][3][4]</sup>

**Abstract** - This research paper focuses on the creation of a dashboard that enables the tracking of government funds allocated to schools for the establishment and operation of Atal Tinkering Labs. By monitoring and evaluating the use of funds for purchasing new equipment, conducting workshops and seminars, and other lab-related activities, the dashboard provides a platform to ensure transparency and accountability in the use of these funds. Through a review of existing systems and tools for tracking government funding in schools, the paper identifies shortcomings in current methods and proposes a more effective and efficient solution. The paper concludes by discussing the potential benefits of the dashboard for various stakeholders, including schools and government agencies, and outlining areas for future research. Overall, the school auditing dashboard is a valuable tool that promotes the effective functioning of Atal Tinkering Labs and the responsible use of government funds.

**Keywords:** Student dashboard, Atal Tinkering Lab, Audit, Funding

## I. INTRODUCTION

The Atal Tinkering Lab initiative is an ambitious project aimed at fostering a culture of innovation and entrepreneurship in schools across India. As part of this initiative, the government has allocated funds to schools for the establishment and operation of these labs. However, ensuring that these funds are being used effectively and efficiently to achieve the intended objectives of the initiative is a challenge. As auditors assigned to three schools, our task is to monitor and evaluate how these schools are using the funds provided to them for the Atal Tinkering Lab, and to identify areas for improvement.

In this research paper, we propose the creation of a school auditing dashboard that will allow us to track and monitor how these schools are using the funds allotted to them for the Atal Tinkering Lab. This dashboard will serve as a platform for ensuring transparency and accountability in the use of these funds, as well as identifying areas where schools can improve their use of the lab.

Our goal is to create a tool that will benefit not only these three schools but also other schools across the country that have been allocated funds for the Atal Tinkering Lab. By identifying best practices and areas for improvement, we hope to contribute to the success of the Atal Tinkering Lab initiative and ultimately promote a culture of innovation and entrepreneurship in schools across India.

In the following sections, we will review existing systems and tools for tracking government funding in schools and identify gaps in current methods. We will then describe the requirements for our proposed dashboard and discuss the potential benefits of its implementation. Finally, we will conclude by outlining areas for future research and development.

## II. PROBLEM STATEMENT

The allocation of government funds to schools for Atal Tinkering Labs is crucial to promote innovation and creativity among students. However, the current tracking and monitoring systems of these funds are inadequate, leading to a lack of transparency and accountability in their use. Therefore, there is a need to develop a more effective system to track and monitor the use of government funds in schools.

### III. LITERATURE SURVEY

#### A. Key Terminologies

1. **School auditing:** This refers to the process of evaluating the financial records and operations of a school to ensure compliance with financial regulations and best practices. In the context of the research paper, school auditing refers to the evaluation of how funds allocated for the Atal Tinkering Lab initiative are being used by schools.
2. **Atal Tinkering Lab:** This is an initiative launched by the Indian government to promote innovation and entrepreneurship in schools across the country. Under this initiative, schools are provided with funding to set up tinkering labs where students can learn and experiment with new technologies and tools.
3. **Government funding:** This refers to financial resources provided by the government to support various initiatives and programs. In the context of the research paper, government funding refers to the funds provided to schools for the establishment and operation of Atal Tinkering Labs.

School auditing, for example, entails thoroughly examining a school's financial records, policies, and procedures to ensure compliance with applicable regulations and best practices. An auditor would examine financial statements, budgets, and transaction records to determine whether the school's resources are being used effectively and efficiently.

The Atal Tinkering Lab initiative seeks to foster an environment of innovation and entrepreneurship in schools across India by providing students with access to cutting-edge tools and technologies. The labs provide students with hands-on learning opportunities to explore their creativity while also developing skills in science, technology, engineering, and mathematics (STEM).

The government funding for the Atal Tinkering Lab initiative is designed to cover the costs of establishing and running the labs. This includes purchases of equipment, lab maintenance, and instructor training. These subsidies are provided by the government as part of its endeavor to support educational programs and promote innovation and entrepreneurship in the country.

#### B. Existing Systems

The existing systems and tools used for tracking and monitoring government funding in schools in India include the following:

1. **Shaala Siddhi:** Shaala Siddhi is a comprehensive school evaluation framework developed by the National University of Educational Planning and Administration (NUEPA) to assess and improve the quality of education in schools. It includes a module for financial management that covers aspects such as budget preparation, utilization of funds, and accounting. However, it does not specifically focus on the Atal Tinkering Lab initiative, and may not provide detailed information on the usage of funds allocated for the labs [1].
2. **Public Financial Management System (PFMS):** PFMS is an online platform developed by the Ministry of Finance to monitor and track government funds disbursed to various entities, including schools. It provides real-time information on the status of funds and their utilization. However, it may not provide detailed information on the specific usage of funds allocated for the Atal Tinkering Lab initiative [2].
3. **Audit Reports:** Audit reports prepared by the Comptroller and Auditor General of India (CAG) provide information on the utilization of government funds by various entities, including schools. However, these reports may not be available in real-time, and may not provide detailed information on the usage of funds allocated for the Atal Tinkering Lab initiative [3].

The strengths of these existing systems and tools include their ability to provide information on the utilization of government funds in schools, including those allocated for the Atal Tinkering Lab initiative. They also provide a level of transparency and accountability in the use of government funds.

However, these systems also have limitations. They may not provide real-time information on the usage of funds, which can delay corrective actions for misutilization. They may also not provide detailed information on the specific usage of funds allocated for the Atal Tinkering Lab initiative, which can make it difficult to track and monitor the effectiveness of the initiative.

The gaps in the current systems include the need for a dedicated system that specifically tracks and monitors the usage of funds allocated for the Atal Tinkering Lab initiative in real time. Such a system would also need to provide detailed information on the specific usage of funds, and enable easy monitoring and evaluation of the effectiveness of the initiative. There is also a need to ensure that the

system is user-friendly and accessible to all stakeholders, including auditors, school administrators, and government officials.

### C. Requirements

1. Detailed usage information: The dashboard should provide detailed information on the specific usage of funds allocated for the Atal Tinkering Lab initiative, allowing auditors to easily track and monitor the effectiveness of the initiative.
2. User-friendly interface: The dashboard should be user-friendly and accessible to all stakeholders, including auditors, school administrators, and government officials.
3. Transparency and accountability: The dashboard should promote transparency and accountability in the use of government funds, making it easier to identify and address any issues or inefficiencies.
4. Customizable reporting: The dashboard should allow auditors to generate customizable reports that provide a detailed analysis of the usage of funds, highlighting any areas for improvement.
5. Scalability: The dashboard should be scalable and able to accommodate the needs of schools of different sizes and capacities.
6. Data security: The dashboard must prioritize data security to prevent unauthorized access breaches and ensure the protection of sensitive financial information.

## IV. PROPOSED METHOD

As the auditors assigned to monitor and evaluate the usage of funds allocated for the Atal Tinkering Lab initiative in three schools, we propose the development of a school auditing dashboard. The proposed method involves the following steps:

1. Identifying the key performance indicators (KPIs) for measuring the effectiveness and efficiency of the funds allocated for the Atal Tinkering Lab initiative in schools. These KPIs may include the number of students benefiting from the lab, the types of projects undertaken, the quality of projects, and the impact of the lab on students' innovation and entrepreneurial skills.
2. Collect data related to these KPIs from the three schools on a regular basis, either through manual data entry or through an automated system. The data may include financial information, project details, student feedback, and other relevant metrics.

3. Storing the collected data in a secure and centralized database, which can be accessed by the auditors and school administrators. The data should be organized in a structured and user-friendly manner for easy analysis and reporting.
4. Analyzing the collected data to identify trends and patterns, and to identify areas for improvement in the utilization of funds for the Atal Tinkering Lab initiative. This analysis may involve data visualization techniques and statistical methods.
5. Generating reports and dashboards that summarize the collected data and provide insights into the effectiveness and efficiency of the Atal Tinkering Lab initiative in the three schools. These reports should be presented in a clear and concise manner, using charts, graphs, and other visual aids to aid comprehension.
6. Using the insights gained from the analysis and reporting to make recommendations to the schools on how they can improve the utilization of funds for the Atal Tinkering Lab initiative. These recommendations may involve changes to project selection, resource allocation, or other aspects of the initiative.
7. Continuously monitoring and evaluating the usage of funds for the Atal Tinkering Lab initiative in the three schools, and making adjustments to the KPIs, data collection, analysis, and reporting as needed to ensure the ongoing effectiveness and efficiency of the initiative.

## V. CONCLUSION

In conclusion, the Atal Tinkering Lab initiative is a significant effort by the Indian government to foster innovation and entrepreneurship in schools across the country. The effective utilization of allocated funds is crucial for the success of this initiative. Current systems and tools for tracking and monitoring government funding in schools, such as Shaala Siddhi, PFMS, and audit reports, provide some level of transparency and accountability. However, they possess limitations, including a lack of real-time information and insufficient details on the specific usage of funds for the Atal Tinkering Lab initiative.

This research paper proposes the development of a dedicated school auditing dashboard that addresses the gaps in the existing systems. The proposed dashboard should provide real-time monitoring, detailed usage information, a user-friendly interface, and customizable reports. By collecting and analyzing data on budget preparation, fund utilization, project details, and

feedback and evaluation, the dashboard will enable auditors to ensure transparency, accountability, and effectiveness in the use of funds allocated for the Atal Tinkering Lab initiative.

The implementation of the proposed school auditing dashboard is expected to benefit schools and government agencies, as well as contribute to the overall success of the Atal Tinkering Lab initiative. By identifying best practices and areas for improvement, the dashboard will promote a culture of innovation and entrepreneurship in schools across India. Future research and development should focus on refining the dashboard's features, ensuring accessibility to all stakeholders, and exploring its potential for scalability to other government-funded initiatives.

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