

1. Introduction

The era of globalization has produced transformational innovations and has the potential to drive innovation, productivity, and digital transformation. Digital transformation is an important issue and is a habit that must be applied in all industrial sectors [1]. The implementation of digital transformation will provide competencies and skills that can adapt to various changes, especially those related to digital transformation. One sector that must immediately carry out digital transformation is the education sector [2]. The education sector has many business processes and many entities, so accurate, fast, and precise information is needed.

In addition to the application of digital transformation, building Human Resources (HR) in the education sector, especially in Elementary Schools (SD) is needed to support the character of quality human resources capable of competing in the era of globalization. For this reason, the education sector absolutely requires human resource development as a way to improve abilities and skills [3].

The advancement of digital transformation and quality human resources in the era of globalization will provide

rapid benefits in improving the quality of the education sector [4][5]. In addition to these two factors, another factor is the utilization of information technology media in the use of the internet is expected to be a solution to the problems that occur in the education sector, one of which is the Surabaya City Education Office.

The Surabaya City Education Office is an institution that is a supporting element of the Surabaya City Regional Government in the field of education. Digital transformation in the education sector is significant, with this transformation, information will be effective and efficient.

Every institution, such as elementary schools, needs a computerized system that is an accurate, efficient, and effective computerized system, such as implementing an attendance system in elementary schools [6] [7].

Attendance is a routine that is carried out to record whether or not someone is present at the institution [8]. The application of attendance system is very important to be applied to educational institutions such as elementary schools with the aim that teachers and parents can find out whether students are present or absent on that day.

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Various types of research related to the application of attendance systems such as the application of the rapid application development model in the teacher's web-based attendance system for students [9]. Other research is the attendance system and monitoring of student attendance using the location-based services method [10], and the attendance information system, assessment, and student class champion grade at elementary schools [11].

In addition, related research is the design of a web-based leave teacher absence information system in state basement schools [6] and the development of a web-based teacher and student attendance information system in state high schools [12].

Based on this background, the researcher proposes the design of an elementary school attendance system by applying the Laravel framework which is expected to be useful for teachers to be able to take attendance of their students online, can make a recap of attendance data automatically in PDF form, and students and parents can monitor attendance data managed by teachers.

2. Research Methods

A. Big question

Big Question dari *research* artikel ini adalah Efisiensi mengenai penerapan sistem absensi dan pemantauan pencatatan kehadiran siswa untuk memfasilitasi interaksi antara guru, siswa, dan orang tua dalam memantau kehadiran secara online

B. Specific Question

- Bagaimana keterlibatan pengguna memengaruhi sistem absensi berbasis web yang efektif dan efisien untuk sekolah dasar?
- Bagaimana cara mengintegrasikan pembuatan rekap data absensi secara otomatis dalam bentuk PDF ke dalam sistem ini?
- Bagaimana efektivitas sistem absensi berbasis web dalam meningkatkan transparansi dan akurasi pelaporan kehadiran siswa?

C. Tujuan Penelitian

- Memungkinkan siswa dan orang tua untuk memantau kehadiran secara real-time melalui sistem yang dikelola oleh guru.
- Membuat fitur rekap absensi otomatis dalam bentuk PDF untuk memudahkan pengelolaan data absensi.
- Meningkatkan efisiensi dan akurasi dalam proses pencatatan dan pemantauan kehadiran siswa di sekolah dasar.