



Design of SUTI (Student Projection) Application with PHP Program for Education Planning

Tia Ayu Ningrum¹(✉), Alim Arun Pamungkas², Hade Afriansyah¹, Anisah¹,
Nellitawati¹, Hadiyanto¹, and Rusdinal¹

¹ Department of Educational Administration, Universitas Negeri Padang, Padang, Indonesia
tiaayuningrum@fip.unp.ac.id

² Department of Non Formal Education, Universitas Negeri Padang, Padang, Indonesia

Abstract. This research is set against a background by an undirected projection process that requires developing an app that can make it easier and less difficult. It will need to be designed an application that makes it easier for students to project their projections. Therefore, the purpose of this article is to describe the design of the SUTI (Student Projection) application with the PHP program for Educational Planning. The methodology in this research is development using a qualitative approach with a 4D model (Design, Design, Develop and dissemination). The results of the research resulted in a product in the form of a student projection application named SUTI. This application was created using the PHP program. This application is intended to facilitate the projection of students in educational planning. Then this SUTI application will also minimize errors and provide efficiency in the calculation of student projections.

Keywords: Student Projection · PHP Program · Educational Planning

1 Introduction

However, there are many problems and challenges that must be resolved and resolved with the education planning. The problems that must be solved related to education are education that is not evenly distributed, facilities and infrastructure are not evenly distributed [5–11]. For this reason, it is necessary to carry out a planning process in order to produce an effective plan to be able to solve these problems.

The planning process does not only require data about the current state but also data about the past and the future [4, 12, 13] However, the current condition of the projection calculation process is still using the conventional method by calculating it manually. manually.

The solution offered is that projection activities should be integrated with technology. This is so that projection calculations can be carried out effectively and efficiently. The form of technology integration for projection calculations is the development of digital applications. With this application, it will produce more accurate calculations and reduce human errors.

Accurate data will be the basis for planning the needs of teachers, rooms, principals, and schools in the future. So that educational equity problems such as the distribution of classrooms, teachers and schools can be overcome with the plans that will be made. For that projection activities need to be integrated with technology. This is because nowadays technology plays an important role, integrating technology in planning can facilitate planning activities [14]. So that it can overcome human slowness in processing information [15]. The development of technology and information will have an impact on the search for digital-based information sources which are very useful in planning [16].

The statement above states that it is important to develop digital applications for student projection in educational planning, so the research will use the Hypertext Preprocessing programming language for the development of these applications. This student projection application for educational planning and development has just been developed in this study. With this application, it will provide convenience in student projections for planning and development. Therefore, this research will produce applications for student projections that will help the planning and development process of education. For this reason, the purpose of this study is to design student projection applications using the Hypertext Preprocessing programming language for educational planning and development.

2 Method

This study uses a development research methodology with a qualitative approach. In the first stage, define is done, namely analyzing by conducting a literature review to analyze the most effective model for student projections. The most effective model selection is done by comparing the existing models. Next, develop the algorithm used by using the model.

Then do the application design using the PHP program. The first step is to design the application layout. The layout design is carried out according to what is needed to create a projection application. After the layout design is complete, the next step is to design the application program using the PHP (Hypertext Preprocessing) application.

3 Results and Discussion

Penelitian ini untuk mendesain aplikasi proyeksi students who are useful in educational planning, especially for future student planning. This application is designed using the PHP (Hypertext Preprocessing) application program.

Usually, the projection process is carried out using a formula so that it takes quite a long time. With this application, it can provide efficiency and minimize errors in the student projection process [14]. Comparison between manual calculations and the program, the difference in the results is less than 1%, meaning that this PHP program is feasible to use [17]. Based on this, it can be interpreted that using this designed application will provide convenience and greatly assist educational planners in projecting students for the future.

The application that was designed was called the SUTI application by the researchers. This is because SUTI stands for (Student Projection). Which is the purpose or function of this application.

The following is the design process for this application:

A. *Define*

At this stage, the theories, models and formulas for student projections are defined. There are 3 types of models for projecting, namely projection models based on student growth at one level of education, projection models based on school-age population growth and projections based on student flow models.

Based on the analysis of the literature study, it is known that the most effective model in student projection is a projection model based on the student flow model (Anisah, 2011). Therefore, in designing this digital-based projection application, the researcher uses the student flow model. And in designing the application, of course, using the student flow model projection algorithm.

B. *Design*

Pada tahap ini dilakukan perancangan aplikasi student projection using PHP. The stages in the application design process are:

1) *Create An Email Account*

The first step in this process is to create a special Gmail account called adios which is useful in future processes that require a Gmail account in the process.

2) *Designing The Application Layout*

The next stage is to create and design a wallpaper display to be used as an application identity later, making a display wallpaper design using the help of applications or Adobe Creative tools. At this stage the components of the year table, the student population, the percentage of new students, the projected number of students from the beginning to the end and the student output in year x are made.

3) *Create Forms for Adding and Editing Data*

The stage of making a form to add data and edit data by creating a component button insert data, delete and edit data.

4) *Design a table to display the inputted data*

The stage of making the table component to display the inputted data will include the creation of a Year Indication table, Population table, new student table, student table entering at level one to the final level.

5) *Table design for data output display*

The stage of making table components for displaying data output includes Year Indication Tables, Population Tables, New Student Tables, New Student Percentage Tables, Tables of students entering, repeating and leaving at level one to the final level. Table of the total number of students entering, repeating and leaving at level one to the final level, and buttons for editing and deleting data.

4 Conclusion

This student projection application is designed for educational planning, especially student planning for the future. This application design uses a PHP (Hypertext Preprocessing) application program. And after the design process was carried out, the researcher named this projection application the SUTI (Student Projection) application. With this application, it can provide efficiency and minimize errors in the student projection process. When compared with the manual method, of course this will be very helpful and easier for educational planners for the future.

The first stage in this design is to define, namely defining theories, and selecting the most effective student projection model and compiling an algorithm using that model. Next, design the application layout and design the application using a PHP application.

References

1. Bukhari, D. M. (n.d.). *Azas–Azas Manajemen*. Aditya Media.
2. Muhammad, S. (2017). Urgensi Perencanaan Pendidikan di Sekolah Dasar. *Jurnal PPKN Huk.*, 12.
3. Terry, G. R. (2005). *Principles of management*. Alexander Hamilton.
4. Matin. (2013). *Dasar-Dasar Perencanaan Pendidikan*. Rajawali Perss.
5. Zubaidah, N. (2020). Akses Pendidikan Belum Merata di Kawasan 3 T. <https://edukasi.sindonews.com/read/230374/212/akses-pendidikan-belum-merata-di-kawasan-3-t-1605222680?showpage=all>
6. Pratama, Y. (2019). Pendidikan di Indonesia Yang Kurang Merata Khususnya Daerah Yang Jauh Dari Kota. <http://koranbogor.com/bogor-now/pendidikan-di-indonesia-yang-kurang-merata-khususnya-daerah-yang-jauh-dari-kota/>
7. Djundjunan, P. U. (2019). Pendidikan Indonesia Belum Merata. [dpr.go.id. https://www.dpr.go.id/berita/detail/id/24264/t/Pendidikan+Indonesia+Belum+Merata](https://www.dpr.go.id/berita/detail/id/24264/t/Pendidikan+Indonesia+Belum+Merata)
8. Dinilhaq, A. (2021). Kualitas Pendidikan Belum Merata, Mayoritas Penduduk Indonesia Hanya Lulusan SMP. [wartaekonomi. https://www.wartaekonomi.co.id/read326255/kualitas-pendidikan-belum-merata-mayoritas-penduduk-indonesia-hanya-lulusan-smp](https://www.wartaekonomi.co.id/read326255/kualitas-pendidikan-belum-merata-mayoritas-penduduk-indonesia-hanya-lulusan-smp)
9. Adit, A. (2020). Seperti Ini Upaya Kemendikbud dalam Pemerataan Pendidikan. [Kompas.com. https://edukasi.kompas.com/read/2020/08/05/115926871/seperti-ini-upaya-kemendikbud-dalam-pemerataan-pendidikan?page=all](https://edukasi.kompas.com/read/2020/08/05/115926871/seperti-ini-upaya-kemendikbud-dalam-pemerataan-pendidikan?page=all)
10. Cahyadi, I. R. (2020). Pendidikan Berkualitas dan Merata Jadi Tantangan Pembangunan Berkelanjutan. [beritasatu.com. https://www.beritasatu.com/nasional/703129/pendidikan-berkualitas-dan-merata-jadi-tantangan-pembangunan-berkelanjutan](https://www.beritasatu.com/nasional/703129/pendidikan-berkualitas-dan-merata-jadi-tantangan-pembangunan-berkelanjutan)
11. Bakri. (2018). Pendidikan belum Merata. [tribunnews.com. https://aceh.tribunnews.com/2018/04/02/pendidikan-belum-merata](https://aceh.tribunnews.com/2018/04/02/pendidikan-belum-merata)
12. Anisah. (2011). *Perencanaan Pendidikan*. UNP Press.
13. Afiffuddin. (2011). *Perencanaan Pendidikan*. Pustaka Setia.
14. Wardiana, W. (2002). Perkembangan teknologi informasi di Indonesia.
15. Triyono, T., & Febriani, R. D. (2018). Pentingnya Pemanfaatan Teknologi Informasi Oleh Guru Bimbingan dan Konseling. *Jurnal Wahana Konseling*, 1(2).
16. Sitti Husaebah, P. (2014). Literasi Informasi: Peningkatan Kompetensi Informasi dalam Proses Pembelajaran. *Al-Hikmah: Jurnal Ilmu Perpustakaan, Informasi, Dan Kearsipan*, 2(2).
17. Panjaitan, A., Sompie, O. B., & Mandagi, A. T. (2020). Analisis Perhitungan Stabilitas Lereng Metode Fellenius Menggunakan Program PHP. *JURNAL SIPIL STATIK*, 8(3).

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

