

## The Effect of Heyzine Flipbook Project-Based Learning on Students' Academic Independence

Firdiawan Ekaputra

Universitas Jambi, Indonesia

---

### Article Info

#### Article history:

Accepted: 28 Juni 2025

Publish: 30 Juni 2026

---

#### Keywords:

Project-Based Learning;  
Heyzine Flipbook;  
independent learning.

---

### Abstract

*This study aims to determine the effect of Heyzine Flipbook Project-Based Learning on students' learning autonomy in the Educational Multimedia Design course in the Chemistry Education Program at the Universitas Jambi. This study employs a quantitative approach using a pre-experimental method with a One-Group Pretest-Posttest Design. The research subjects are students enrolled in the Educational Multimedia Design course. Data collection was conducted using a learning independence questionnaire administered before and after the intervention. Data were analyzed using descriptive statistics, the Shapiro-Wilk normality test, and a paired-sample t-test. The results of the study show that students' average level of independent learning increased from 72.14 to 85.50. The paired-sample t-test yielded a p-value of 0.000, indicating that the implementation of Project-Based Learning using the Heyzine Flipbook had a significant effect on students' independent learning.*

---

*This is an open access article under the [Lisensi Creative Commons Atribusi-BerbagiSerupa 4.0 Internasional](#)*



---

### Corresponding Author:

Firdiawan Ekaputra

Universitas Jambi, Indonesia

Email Coresspondent: [firdiawan.ekaputra@unja.ac.id](mailto:firdiawan.ekaputra@unja.ac.id)

---

## 1. INTRODUCTION

Advances in digital technology have brought about significant changes in the world of education, including in the learning process at the university level. Learning is no longer solely lecturer-centered but requires students to be active, creative, independent, and capable of utilizing technology to acquire and develop knowledge (Sanjaya et al., 2022; Solehuddin et al., 2026). Therefore, an innovative learning model is needed that can enhance student engagement while fostering the development of learning autonomy.

Learning autonomy is one of the essential skills that students must possess (Sarjana et al., 2022). Students with high levels of learning autonomy tend to be able to manage their study time, actively seek learning resources, possess high motivation, and demonstrate strong responsibility (Farisi et al., 2025; Mahulae & Prayuda, 2025; Sakinah et al., 2026). However, in reality, many students still rely on lecturers' explanations, are less active in exploring course materials, and have low learning motivation. These conditions result in a less-than-optimal learning process and impact students' ability to develop competencies independently (Hamid et al., 2025; Harefa & Harefa, 2025; Hermuttaqien et al., 2023).

One approach that can be taken to enhance students' independent learning is through the implementation of the Project-Based Learning model, which encourages students to actively seek information, collaborate, think critically, solve problems, and produce a tangible product (Lubis et al., 2026; Nababan et al., 2023). Students are given the opportunity to plan, implement, and evaluate projects independently, thereby fostering a sense of responsibility and self-directed learning (Nurhamidah & Nurachadijat, 2023). The Project-Based Learning model creates a more meaningful learning experience because students are directly involved in the learning process (Pritandhari & Sandi, 2025).

In this study, students were assigned a project to develop Heyzine Flipbook, a digital platform that enables the presentation of learning materials in the form of e-books. Heyzine Flipbook can transform educational books into interactive resources with an engaging interface, capable of incorporating images, videos, audio, and links to support the learning process. Therefore, this study was conducted to determine the extent to which the implementation of Project-Based Learning using Heyzine Flipbook can enhance students' independent learning.

## 2. METHOD

This study employed a quantitative approach using a pre-experimental method with a one-group pretest-posttest design. The study aimed to determine the effect of implementing Heyzine Flipbook Project-Based Learning on students' learning autonomy. The study was conducted among students enrolled in the Educational Multimedia Design course in the Chemistry Education Program at the Universitas Jambi. The research instrument used was a student learning independence questionnaire administered before and after the implementation of Heyzine Flipbook-based project-based learning. The study began with a pretest to determine the students' initial level of learning independence. Subsequently, students participated in learning using the Project-Based Learning model. During class activities, students were assigned projects to design digital learning media using Heyzine Flipbook, either independently or in groups. After the course activities, students completed a posttest questionnaire to determine changes in their level of learning autonomy. The collected learning autonomy data underwent a normality test using the Shapiro-Wilk test and a hypothesis test using a paired-sample t-test to determine whether there was a significant effect of the implementation of Heyzine Flipbook Project-Based Learning on students' learning autonomy.

## 3. RESULTS AND DISCUSSION

This study aims to determine the effect of Heyzine Flipbook Project-Based Learning on students' learning independence in the Educational Multimedia Design course. Data on learning independence were collected through pre- and post-intervention learning independence questionnaires. Based on the results of the learning independence questionnaires, the average learning independence scores of students increased both before and after the intervention. The pretest average score was 72.17, while the posttest average increased to 85.50. This increase indicates that the implementation of the Heyzine Flipbook Project-Based Learning approach has a positive impact on students' learning autonomy.

The learning autonomy data were then subjected to a normality test using the Shapiro-Wilk test. The normality test was conducted on the pretest, posttest, and the difference between posttest and pretest data. The normality test results are presented in Table 1.

| Table 1. Normality Test |              |
|-------------------------|--------------|
| Data                    | Significance |
| Pretest                 | 0.530        |
| Posttest                | 0.804        |
| Gain Score              | 0.389        |

The results of the normality test showed a significance value greater than 0.05, indicating that the data are normally distributed. Therefore, the data on learning autonomy in this study can be analyzed using a paired-sample t-test. Based on the results of the paired-sample t-test, a significance value of 0.000 was obtained. This indicates that there is a significant effect of the implementation of the Heyzine Flipbook Project-Based Learning on students' learning autonomy in the Educational Multimedia Design course.

The increase in students' learning autonomy stems from the fact that the Project-Based Learning model provides students with the opportunity to actively engage in the learning process by independently completing projects (Putri et al., 2025). Students are required to plan projects, search for references, and complete the creation of digital learning media using Heyzine Flipbook. These activities indirectly foster students' sense of responsibility and their ability to learn independently (Ariyanto et al., 2022).

The Heyzine Flipbook development project conducted in this study provides a more engaging and interactive learning experience. Students can exercise their creativity in organizing content, adding images, videos, and attractive designs to the digital flipbook. Interactive media motivates students to learn and explore materials independently. Additionally, flexible digital access allows students to learn anytime and anywhere according to their needs. Therefore, the implementation of Project-Based Learning using Heyzine Flipbook can serve as an effective innovative learning alternative to enhance students' learning independence.

#### 4. CONCLUSION

Based on the research findings, it can be concluded that the implementation of Project-Based Learning using Heyzine Flipbook has a significant effect on students' learning autonomy in the Educational Multimedia Design course. This is demonstrated by the results of the paired-sample t-test, which yielded a p-value of 0.000. Through project-based learning, students become more active, responsible, and capable of managing their own learning process.

#### 5. BIBLIOGRAPHY

- Ariyanto, A., Utama, & Markhamah. (2022). Pembelajaran Projectbased Learning (PjBL) Untuk Penguatan Karakter Kemandirian. *Jurnal Ilmiah Mitra Swara Ganesha*, 9(2), 101–116.
- Farisi, S. Al, Laili, I., Damayanti, A. M., & Febriyanti, D. (2025). Implementasi Pembelajaran Blended Learning Terhadap Kemandirian Belajar Mahasiswa di Lingkungan Universitas PGRI

- Wiranegara. *Jurnal Kepemimpinan & Pengurusan Sekolah*, 10(4), 2836–2842. <https://doi.org/10.34125/jkps.v10i4.1543>
- Hamid, F., Puspitaningsari, M., & Maulana, I. (2025). PENDAMPINGAN MAHASISWA DALAM MENINGKATKAN KEMAMPUAN MERANCANG PEMBELAJARAN YANG EFEKTIF DAN MENYENANGKAN. *PELAPIS: Jurnal Pengabdian Masyarakat*, 1(2), 20–25. <https://doi.org/10.03625/db38tf86>
- Harefa, R. A., & Harefa, T. C. S. (2025). Hubungan Antara Metode Pengajaran Dosen dan Perkembangan Kompetensi Mahasiswa. *IDENTIK: Jurnal Ilmu Ekonomi, Pendidikan Dan Teknik*, 02(01), 45–50.
- Hermuttaqien, B. P. F., Aras, L., & Lestari, S. I. (2023). Penerapan Model Pembelajaran Problem Based Learning Untuk Meningkatkan Hasil Belajar Siswa. *Kognisi : Jurnal Penelitian Pendidikan Sekolah Dasar*, 3(1), 16–22. <https://doi.org/10.56393/kognisi.v2i4.1354>
- Lubis, S. A., Wiyarno, Y., Rukhmana, T., Arifin, C. D. R., Friani, D. A., & Gilaa, T. (2026). Pengaruh Project Based Learning Terhadap Keterampilan Abad 21 Mahasiswa. *Jurnal Edu Research*, 6(4), 3188–3196.
- Mahulae, E., & Prayuda, M. S. (2025). Analisis Motivasi Belajar dan Kemandirian Belajar dengan Mahasiswa/Mahasiswi PGSD Kelas 1 STAMBUK 2023. *Jurnal Pendidikan - Media, Strategi, Dan Metode*, 02(01).
- Nababan, D., Marpaung, A. K., & Koresy, A. (2023). STRATEGI PEMBELAJARAN PROJECT BASED LEARNING (PJBL). *Pediaqu: Jurnal Pendidikan Sosial Dan Humaniora*, 2(2), 706–719.
- Nurhamidah, S., & Nurachadijat, K. (2023). Project Based Learning dalam Meningkatkan Kemandirian Belajar Siswa. *Jurnal Inovasi, Evaluasi, Dan Pengembangan Pembelajaran (JIEPP)*, 3(2), 42–50. <http://journal.ainarapress.org/index.php/jiepp>
- Pritandhari, M., & Sandi, G. (2025). Strategi Pembelajaran Pendidikan Ekonomi dan Kewirausahaan Berbasis Project-Based Learning dalam Meningkatkan Minat Berwirausaha. *Edu Society: Jurnal Pendidikan, Ilmu Sosial, Dan Pengabdian Kepada Masyarakat*, 5(1), 968–974.
- Putri, M. R., Rienovita, E., & Hidayani, R. (2025). Peningkatan Keterampilan Berpikir Kritis dan Kemandirian Belajar dengan Menggunakan Model Project Based Learning. *Edutainment : Jurnal Ilmu Pendidikan Dan Kependidikan*, 13(2), 9–21.
- Sakinah, T. A., Mardatilah, W. Z., & Gusmaneli. (2026). Strategi Pembelajaran Aktif sebagai Upaya Meningkatkan Kemandirian Belajar Siswa. *Maximal Journal: Jurnal Ilmiah Bidang Sosial*, 3(4), 3031–0946. <https://malaqbipublisher.com/index.php/MAKSI>
- Sanjaya, A., Tefbana, A., & Nainggolan, D. M. (2022). Implementasi Model Pembelajaran Berbasis Digital dalam Mengembangkan Kreativitas Mahasiswa. *JURNAL LUXNOS*, 8(2), 268–278.
- Sarjana, K., Turmuzi, M., Tyaningsih, R. Y., Lu'luilmaknun, U., & Kurniawan, E. (2022). Faktor-Faktor Penentu Keberhasilan Belajar Mahasiswa Pendidikan Matematika di Era New Normal. *Jurnal Ilmiah Profesi Pendidikan*, 7(2), 309–316. <https://doi.org/10.29303/jipp.v7i2.303>
- Solehuddin, Moh., Ansori, Rukiyanto, B. A., Ali Impron, & Rofiq, M. H. (2026). Pemberdayaan Mahasiswa Melalui Kegiatan Literasi Digital Bersama Dosen: Meningkatkan Kompetensi Digital Sivitas Akademika. *Jurnal Pengabdian Masyarakat Dan Riset Pendidikan*, 4(3), 21251–21262. <https://doi.org/10.31004/jerkin.v4i3.5520>