

The Effect of Implementing the Make a Match Model on Improving Students' Understanding of Sundanese Script in Elementary School

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Abstract

This research investigates how applying the "Make a Match" strategy influences the enhancement of elementary students' comprehension of Sundanese script. Adopting a quantitative framework, the work utilizes a quasi-experimental design featuring a Nonequivalent Control Group arrangement. The participants were split into an experimental cohort utilizing the "Make a Match" approach and a control cohort receiving traditional teaching methods. Information was gathered through preliminary and final evaluations, then evaluated using baseline equivalence, normality, Mann-Whitney, Wilcoxon, and N-Gain analyses. The findings reveal a progression in learner proficiency across both divisions, supported by Wilcoxon testing figures of 0.000, which fall under the 0.05 limit. Nevertheless, the final Mann-Whitney assessment produced an output of 0.057, exceeding the 0.05 threshold and signaling a lack of substantial variance between the two sets of participants. Consequently, while utilizing the "Make a Match" framework successfully boosts student mastery, this advancement fails to display a statistically significant edge over conventional instruction.

Keywords: *Make a Match, Student Understanding, Sundanese Script, Elementary School.*

A. INTRODUCTION

Indonesia is a country characterized by a diversity of regional languages. Data indicates the existence of approximately 718 regional languages spread across various regions of the country. This diversity constitutes a form of national cultural wealth that must be safeguarded and preserved. One such regional language is Sundanese, spoken by communities in West Java. Sundanese serves not only as a medium of daily communication but also as an integral part of the Sundanese people's cultural identity, embodying historical, cultural, and local wisdom values. Consequently, the Sundanese language must be preserved to ensure it does not undergo erosion or lose its function amidst the changing times.

Efforts to preserve regional languages can be implemented through school-based education. Article 1, Paragraph 1 of the Republic of Indonesia Law Number 20 of 2003 concerning the National Education System defines education as a conscious and planned effort to create a learning atmosphere and process that enables students to actively develop their potential (Habe & Ahiruddin, 2017). This underscores that the learning process focuses not merely on the delivery of subject matter but also on fostering students' understanding of the material, thereby enabling them to develop the critical thinking skills, personality traits, and practical abilities necessary for life.

The preservation of regional languages is also supported by West Java Provincial Regulation Number 5 of 2003 concerning the Maintenance of Regional

Languages, Literature, and Scripts. This regulation affirms that regional languages, literature, and scripts in West Java must be preserved, fostered, and developed as part of the region's cultural wealth. Under this regulation, the local government bears the responsibility of preserving the Sundanese language and script through various measures, including their inclusion in school curricula. This policy aims to ensure that the teaching of the Sundanese language and script serves as a means to maintain the continuity and preservation of regional culture amidst the changing times (West Java, 2014).

Learning is a vital undertaking aimed at maximizing the inherent potential of students. This principle corresponds with Article 3 of Republic of Indonesia Law Number 20 of 2003 on the National Education System, which establishes that the national education framework serves to foster competencies, mold character, and cultivate a distinguished national civilization with the ultimate objective of intellectually advancing the nation. Through the educational process, learners are expected to develop their potential, thereby acquiring the knowledge, skills, and positive attitudes necessary for life in society. Consequently, the learning process in schools must effectively assist students in comprehending subject matter, thereby facilitating optimal learning outcomes (Indonesia, 2003).

In the learning process, a student's understanding of the material is a crucial aspect that requires attention. Instruction should not focus solely on the teacher delivering content but also on the students' ability to comprehend the material being studied. A solid understanding enables students to master knowledge and apply it effectively during the learning process. Therefore, student comprehension must serve as a primary focus during classroom instruction, encompassing the teaching of the Sundanese language and script.

Comprehension is a vital component of the learning process that influences student learning outcomes. According to Jean Piaget, learning occurs when students actively construct knowledge through interactions with their environment (Siregar, 2025). Knowledge is acquired not merely through rote memorization but through cognitive processes involving concept formation and an understanding of the material. Furthermore, Benjamin Bloom posits that learning outcomes represent behavioral changes—encompassing cognitive, affective, and psychomotor domains—achieved by students following the instructional process. Positive learning outcomes are attainable when students possess a strong understanding of the subject matter.

The "Make a Match" model is a suitable instructional approach for teaching Sundanese script, as it actively engages students through activities involving the search for and matching of card pairs. Such activities make learning more engaging and assist students in recognizing and comprehending the forms and meanings of Sundanese script more easily. Therefore, implementing the "Make a Match" model serves as a viable instructional alternative to help enhance student understanding when learning Sundanese script.

From a theoretical perspective, implementing the "Make a Match" method within this research draws its foundation from constructivist learning principles,

originating from the frameworks formulated by Jean Piaget and Lev Vygotsky. This paradigm maintains that learners actively build their own understanding via direct instructional experiences and interpersonal engagement. This perspective aligns with the "Make a Match" model, which engages learners in activities involving searching for and matching cards while interacting with peers. Through these activities, learners gain direct learning experiences that facilitate the active, independent, and meaningful development of their understanding of Sundanese script.

Numerous prior investigations demonstrate that the implementation of interactive instructional strategies can boost student involvement during educational activities. Among these approaches is the "Make a Match" technique, originally introduced by Lorna Curran (1994) (as referenced in Mira Anggela, 2025). This framework operates as a collaborative learning design centered around pairing inquiry cards with corresponding response cards. Research by Putri and Lena (2023) also states that implementing the Make a Match model can improve student engagement and learning outcomes—particularly in thematic learning that integrates multiple subjects—because students are directly involved in a learning process that is both enjoyable and meaningful (Irwan & Kamarudin, 2021).

B. METHOD

This research applies a quantitative framework rooted in a quasi-experimental design, structured to evaluate the impact of a particular intervention on designated variables through empirical and quantifiable means. Specifically, a non-equivalent control group design is adopted, dividing participants into an experimental cohort and a control cohort. The total research population consists of 293 students, serving as the baseline aggregation prior to sample selection for both groups via targeted sampling procedures. To establish an appropriate sample size that accurately reflects the broader population, Slovin's formula was implemented. This computation incorporated a predetermined precision threshold, specifically establishing the margin of error at 10%.

Based on this mathematical application utilizing a 10% error margin, a total of 75 students were derived as the final sample from the aggregate population of 293 individuals. This subset is deemed adequately representative of the overall demographic, confirming its validity for the investigation. Furthermore, data gathering procedures utilized in this work involve observation, interviews, evaluation tests, and document reviews. Observation sheets and test sheets were used for data collection; observation sheets tracked activities associated with the "Make a Match" learning model, while test sheets measured the extent of students' understanding of Sundanese script following the implementation of the model. Research instruments were developed based on established indicators and subsequently tested for validity and reliability to ensure their suitability as data collection tools. Subsequently, the gathered data underwent systematic evaluation to derive the findings of the study. This analytical process was carried out to measure

the enhancement in learners' comprehension and to discern variations in academic achievement between the experimental and control cohorts.

C. RESULTS AND DISCUSSION

Based on observation sheet data, the "Make a Match" model was implemented in the experimental group through stages involving card matching, presentations, and summarizing the lesson. During the card-matching activity, students sought matching card pairs based on the information they had gathered. Subsequently, students presented their matched cards to the class and, together with the teacher, summarized the material they had learned. Through these exercises, pupils were granted the chance to take an active role in mastering the Sundanese script. The application of the "Make a Match" strategy was evaluated further by tracking shifts in learner comprehension derived from pre-test and post-test data. A baseline equivalence examination was performed to measure the starting competency of members in both the experimental and control divisions prior to applying the treatment. This evaluation applied the Mann-Whitney U Test to the initial score records. The findings produced an Asymp. Sig. (2-tailed) figure of under 0.001. Because this figure rests below the 0.05 alpha level, it proves a substantial variance between the prior scores of the experimental and control divisions. Looking at the Mean Rank, the experimental division reached 48.90, whereas the control division attained 24.12. This demonstrates that, overall, the preliminary outcomes of the experimental cohort surpassed those of the control cohort. As a consequence, both divisions lacked comparable initial proficiency levels before the treatment began.

Based on these initial equivalence test results, it was not yet possible to determine whether there was an improvement in student understanding, as the data analyzed consisted solely of pretest scores. Pretest data merely reflect the students' level of understanding prior to instruction; improvements in understanding can only be identified by comparing pretest and posttest scores. Following this step, a normality assessment was carried out to establish the data distribution profile prior to choosing the proper statistical testing method. The Shapiro-Wilk procedure was utilized for this objective. Outcomes demonstrated that the initial metrics for the experimental division generated a significance metric of 0.063 (exceeding the 0.05 threshold), thus validating a normal distribution. In contrast, the subsequent post-test measurements for this same group produced a significance figure of 0.020 (less than 0.05), pointing to a non-normal pattern. As for the control division, baseline figures registered a significance level of 0.013 (under 0.05), signaling non-normality, while the final evaluation records yielded a significance score of 0.054 (above 0.05), indicating a normal distribution.

These findings demonstrate that not all research data followed a normal distribution pattern. Consequently, subsequent analytical procedures utilized non-parametric statistical methods. The Wilcoxon Signed-Rank Test was applied to evaluate shifts in student comprehension scores between the pre-instruction and post-instruction phases within each respective cohort.

Based on the Wilcoxon Signed-Ranks Test outcomes, within the experimental cohort, 2 students recorded a score decline, 40 students registered a score increase, and no participants held identical pre-test and post-test scores. The resulting Asymp. Sig. (2-tailed) figure stood at 0.000 (falling below 0.05), which signifies a substantial variance between the initial and final scores for the experimental group. Meanwhile, in the control cohort, 2 students experienced a score reduction, 31 students showed score growth, and zero students maintained identical scores. The Asymp. Sig. (2-tailed) metric for this cohort also registered at 0.000 (under 0.05), indicating a meaningful difference between pre-test and post-test records for the control group.

These results confirm an enhancement in learner comprehension following instruction across both cohorts. This is reflected by the majority of students exhibiting score jumps from the preliminary test to the final evaluation—specifically 40 individuals in the experimental group and 31 individuals in the control group. Thus, the educational intervention administered to each group was accompanied by an elevation in student understanding. Nevertheless, the Wilcoxon procedure solely illustrates internal shifts within each isolated group and fails to reveal which division achieved a statistically superior advancement. Therefore, a Mann-Whitney U test was performed to comparatively analyze the post-test metrics between the experimental and control cohorts.

Referring to the output of the Mann-Whitney U test for the post-test scores, the resulting Asymp. Sig. (2-tailed) value reached 0.057. This figure exceeds the 0.05 significance threshold, indicating the absence of a significant disparity between the final outcomes of the experimental and control groups. Regarding the Mean Rank distribution, the experimental cohort achieved a score of 42.23, whereas the control cohort recorded a score of 32.62. Although the average ranking of the experimental group surpassed that of the control group, this margin lacked statistical significance. In other words, the research outcomes indicate that student comprehension advanced following instruction in both study segments. However, based on the Mann-Whitney test evaluation of final scores, this progression did not display a marked difference between the two. Consequently, these findings cannot serve as a valid foundation to claim that the improvement in understanding within the experimental division was significantly greater than that of the control division.

D. CONCLUSION

Evaluation of the study data demonstrated a baseline imbalance between the experimental and control cohorts, substantiated by a Mann-Whitney significance metric of under 0.001 (falling below the 0.05 threshold). Specifically, the experimental division logged a Mean Rank of 48.90, contrasting with the control division's 24.12. Subsequent Wilcoxon analyses yielded significance figures of 0.000 for each group, pointing to substantial comprehension gains from baseline to final testing across both sets of participants evidenced by 40 students improving in the experimental arm versus 31 in the control arm. Conversely, the post-intervention Mann-Whitney evaluation of final outcomes generated a significance value of 0.057, exceeding the

standard 0.05 limit. This implies an absence of a statistically meaningful gap in final understanding between the two segments, despite the experimental cohort holding a higher Mean Rank (42.23 compared to 32.62). Ultimately, although instructional progress transpired universally, post-test scores failed to display a statistically significant divergence. Therefore, conducting an N-Gain computation becomes essential to accurately measure the true scale of enhancement while controlling for preexisting competence gaps..

REFERENCES

1. Abraham, I., & Supriyati, Y. (2022). Desain kuasi eksperimen dalam pendidikan: Literatur. *Jurnal Ilmiah Mandala Education*, 8(3).
2. Aeni, I. N., & Ropiah, O. (2026). Pengaruh Model Pembelajaran Index Card Match (ICM) pada Kemampuan Menulis Aksara Sunda di SMA Negeri 1 Garawangi KELAS X. *JURNAL MADINASIKA: Manajemen Pendidikan dan Keguruan*, 7(2), 321-327.
3. Anggela, M. (2025). Pengembangan Video Pembelajaran Interaktif Dengan Tipe Make A Match. *At-Tarbiyah: Jurnal Penelitian dan Pendidikan Agama Islam*, 2(2), 106-118.
4. Arlinda, A. (2017). Penerapan Model Pembelajaran Kooperatif Tipe Two Stay Two Stray (TSTS) Untuk Meningkatkan Hasil Belajar IPS Siswa Kelas IV B SDN 21 Sitorajo Kecamatan Kuantan Tengah. *Primary*, 6(2), 555-562.
5. Anjani. (2020). Indikator Minat baca Pada Siswa. *Jurnal Pendidikan*, 4(1), 1–23.
6. Datu, A. R., Tumurang, H. J., & Sumilat, J. M. (2022). Pengaruh motivasi belajar terhadap hasil belajar siswa di tengah pandemi covid-19. *Jurnal Basicedu*, 6(2), 1959-1965.
7. Fatah, H. (2020). Analisis Pengaruh Aplikasi Pembelajaran Aksara Sunda Terhadap Pemahaman Siswa Dengan Metode Tam. *Sistemasi*, 9(1), 82. <https://doi.org/10.32520/stmsi.v9i1.590>
8. Fauhah, H., & Rosy, B. (2020). Analisis Model Pembelajaran Make A Match Terhadap Hasil Belajar Siswa. *Jurnal Pendidikan Administrasi Perkantoran (JPAP)*, 9(2), 321–334.
9. Gayatri, A. N., Saputra, H. J., & Untari, M. F. A. (2018). Keefektifan Model Make A Match Berbantu Media Kartakalung Terhadap Hasil Belajar Matematika Siswa. *Jurnal Ilmiah Sekolah Dasar*, 2(4), 474–481. <https://doi.org/10.23887/jisd.v2i4.16198>
10. Habe, H., & Ahiruddin, A. (2017). Sistem Pendidikan Nasional. *Ekombis Sains: Jurnal Ekonomi, Keuangan dan Bisnis*, 2(1), 39–45. <https://doi.org/10.24967/ekombis.v2i1.48>
11. Husen, A. (2023). Strategi Pemasaran Melalui Digital Marketing Pada Toyota Nasmoco Bantul. *Bussiness Law Binus*, 7(2), 33–48.
12. Kamarudin, K., Irwan, I., & Daud, F. (2021). Penerapan Model Pembelajaran Talking Stick Untuk Meningkatkan Motivasi Belajar Siswa Pada Pelajaran Pkn. *Jurnal Basicedu*, 5(4), 1847-1854.
13. Junaedi, J., & Wahab, A. (2023). Hipotesis penelitian dalam kesehatan. *Jurnal*

- Pendidikan dan Teknologi Kesehatan*, 6(2), 142-146.
14. Mafrudah, A., & Sa'diyah, H. (2021). A Sistem Informasi Akuntansi Atas Pengendalian Persediaan Pada Rejeki 2 Swalayan Di Omben Sampang. *Jurnal Ilmiah Mahasiswa Manajemen, Bisnis Dan Akuntansi (Jimmba)*, 3(3), 510-520.
 15. Ma'rifat, R. A., & Suraharta, I. M. (2024). IJ (2024). Analisis Penentuan Armada Dan Rute Dalam Pengiriman Barang Pt Semen Gresik Indonesia. *Scientifica: Jurnal Ilmiah Sains dan Teknologi*, 2, 306-312.
 16. Milda, A., Hasmunir, H., & Purnomowati, D. R. (2017). *Penerapan model pembelajaran circuit learning berbantu media gambar dalam meningkatkan hasil belajar geografi pada siswa kelas X SMA Negeri 12 Banda Aceh* (Doctoral dissertation, Syiah Kuala University).
 17. Nurohma, S., Karyadi, B., & Irawati, S. (2018). Penerapan Model Kooperatif Tipe Make a Match Dengan Media Kartu Qa Untuk Meningkatkan Hasil Belajar Ipa Siswa Smp. *Diklabio: Jurnal Pendidikan Dan Pembelajaran Biologi*, 2(1), 1-4. <https://doi.org/10.33369/diklabio.2.1.1-4>
 18. Peraturan Daerah Provinsi Jawa Barat Nomor 14 Tahun 2014 tentang Perubahan Atas Peraturan Daerah Provinsi Jawa Barat Nomor 5 Tahun 2003 tentang Pemeliharaan Bahasa, Sastra, dan Aksara Daerah.
 19. Rosita, I., & Leonard, L. (2017). Meningkatkan Kerja Sama Siswa Melalui Pembelajaran Kooperatif Tipe Think Pair Share. *Formatif: Jurnal Ilmiah Pendidikan MIPA*, 3(1), 1-10. <https://doi.org/10.30998/formatif.v3i1.108>
 20. Samosir, O. M. R., Mansurdin, M., Erita, Y., & Arwin, A. (2026). Peningkatan Hasil Belajar Peserta Didik pada Mata Pelajaran IPAS Menggunakan Model Pembelajaran Kooperatif Tipe Make A Match di Kelas V SD Negeri 11 Pauh Kota Padang. *Pendas: Jurnal Ilmiah Pendidikan Dasar*, 11(2), 1-11.
 21. Saputra, H. (2022). Kemampuan Pemahaman Matematis Siswa. *Journal of the American Chemical Society*, 123(10), 2176-2181.
 22. Saputri, W. S., Dhenabayu, R., & Febrinita, F. (2018). Application of String Matching Using Boyer Moore Algorithm in the Application of Dictionary Livestock Terms. *JOSAR (Journal of Students Academic Research)*, 3(1), 11-21.
 23. Sari, M. A. (2023). Penerapan Model Pembelajaran Make a match Untuk Meningkatkan Hasil Belajar Siswa Pada Muatan Pelajaran PPKn Tema 4 Kewajiban Dan Hakku Subtema 1 Kewajiban dan Hakku di Rumah di SD 1 Klumpit Kabupaten Kudus. *PESHUM: Jurnal Pendidikan, Sosial dan Humaniora*, 2(3), 361-366. <https://doi.org/10.56799/peshum.v2i3.1497>
 24. Sari, R. D. K., & Arifin, M. B. U. B. (2022). Penerapan Model Pembelajaran Make a Match untuk Meningkatkan Motivasi Belajar Siswa Kelas IV MI Miftahul Ulum Kraton pada Tema 6. *MODELING: Jurnal Program Studi PGMI*, 9(1), 208-220.
 25. Sintia, I., Pasarella, M. D., & Nohe, D. A. (2022, May). Perbandingan Tingkat konsistensi uji distribusi normalitas pada kasus tingkat pengangguran di Jawa. In *Prosiding Seminar Nasional Matematika, Statistika, dan Aplikasinya* (Vol. 2, No. 2, pp. 322-333).
 26. Siregar, T. (2025). Analisis Teori Perkembangan Kognitif Jean Piaget dalam

- Bimbingan Belajar Anak Usia Dini. *Jurnal Ilmiah Al-Muttaqin*, 10(2), 95-105.
27. Sudana, I. P. A., & Wesnawa, I. G. A. (2017). Penerapan Model Pembelajaran Tipe STAD Untuk Meningkatkan Hasil Belajar IPA. *Primary: Jurnal Pendidikan Guru Sekolah Dasar*, 1(1), 1–8.
28. Sudjana, N. (2017). *Penilaian Hasil Proses Belajar Mengajar*. Bandung: Remaja Rosdakarya.
29. Suprianto, S. (2024). Meningkatkan Hasil Belajar Siswa Dengan Menggunakan Model Pembelajaran Make A Match. *Jurnal Ilmu Tarbiyah dan Keguruan (JITK)*, 2(2), 209-214.
30. Tampubolon, M. (2023). *Metode Penelitian Metode Penelitian*. Padang: Global Eksekutif Teknologi.
31. Undang-Undang Republik Indonesia Nomor 20 Tahun 2003 Tentang Sistem Pendidikan Nasional.
32. Zula, Y. F., Zulfa, N. A., Bhuana, A. M. T., Nadiyah, H., & Fakhriyah, F. (2025). Efektivitas Model Problem Based Learning dalam Penguatan Pemahaman Konsep IPAS Siswa Kelas 5 SDN 1 Mlati. *Jurnal Jendela Pendidikan*, 5(03), 545-552.