

REFERENCES

- Ackermans, K., Bakker, M., van Loon, A.-M., Kral, M., & Camp, G. (2025). Young learners' motivation, self-regulation and performance in personalized learning. *Computers & Education*, 226, 105208. <https://doi.org/10.1016/j.compedu.2024.105208>
- Akintayo, T. A., Paul, C., Queenet, M. C., Nnadietwe, O. A., Victoria, S. S., David, F. B., Joel, O. O., Agada, O. I., Ngozi, E. R., Arinze, U. U., Ojemerenvhie, G. A., Oluwadamilola, A. A., Nnamani, C. C., & Olayinka, U. W. (2024). Transforming Data Analytics with AI for Informed Decision-Making. *International Journal of Education, Management, and Technology*, 2(3), 196–215. <https://doi.org/10.58578/ijemt.v2i3.3812>
- Ali, J. K. M., Shamsan, M. A. A., Hezam, T. A., & Mohammed, A. A. Q. (2023). Impact of ChatGPT on Learning Motivation: *Journal of English Studies in Arabia Felix*, 2(1), 41–49. <https://doi.org/10.56540/jesaf.v2i1.51>
- Anggriani, N. M. G., Artini, L. P., & Marsakawati, N. P. E. (2022). Teachers' roles in technology-supported English language learning. *Jurnal Pendidikan Bahasa Inggris Indonesia*, 10(2).
- Anupama, K. (2018). Hypothesis Types and Research. *International Journal of Nursing Science Practice and Research*, 4(2), 78–80. <https://doi.org/10.37628/jinspr.v4i2.812>
- Bandhu, D., Mohan, M. M., Anurag, N., Nittala, P., Jadhav, P., Bhadauria, A., & Saxena, K. K. (2024). Acta Psychologica Theories of motivation: A comprehensive analysis of human behavior drivers. *Acta Psychologica*, 244(February), 104177. <https://doi.org/10.1016/j.actpsy.2024.104177>
- Berg, V. D. G., & Plessis, D. E. (2023). ChatGPT and Generative AI: Possibilities for Its Contribution to Lesson Planning, Critical Thinking and Openness in Teacher Education. *Education Sciences*, 13(10). <https://doi.org/10.3390/educsci13100998>
- Bin-Hady, W. R. A., Al-Kadi, A., Hazaea, A., & Ali, J. K. M. (2023). Exploring the dimensions of ChatGPT in English language learning: a global perspective. *Library Hi Tech*. <https://doi.org/10.1108/LHT-05-2023-0200>
- Bland, M. (2025). Mean and Standard Deviation. *SPSS Basics*, 57–68. <https://doi.org/10.4324/9781003377009-8>
- Budiarta, L. G. R., & Kusuma, I. P. I. (2024). Does ChatGPT Have a Significant Effect to Improve EFL Preservice Teachers' Teaching Plans? A Mixed-Method Study. *Jurnal Pendidikan Bahasa Inggris Undiksha*, 12(3), 283–291. <https://doi.org/10.23887/jpbi.v12i3.85769>
- Chan, W., Oh, J., & Luo, P. (2020). *The Implications of Population Changes on Generalization and Study Design*.
- Chan, Y. L., & Norlizah, C. H. (2018). Students' Motivation towards Science

- Learning and Studentsâ€™ Science Achievement. *International Journal of Academic Research in Progressive Education and Development*, 6(4), 160–173. <https://doi.org/10.6007/ijarped/v6-i4/3716>
- Chen, L., Chen, P., & Lin, Z. (2020). Artificial Intelligence in Education: A Review. *IEEE Access*, 8, 75264–75278. <https://doi.org/10.1109/ACCESS.2020.2988510>
- Dewi, N. K. P. N., Dewi, N. L. P. E. S., & Suprianti, G. A. P. (2021). *Students' perceptions of English teachers' teaching styles and their impact on learning motivation. Jurnal Ilmiah Pendidikan dan Pembelajaran*, 5(1).
- Dewi, P. A. K., Ratminingsih, N. M., & Santosa, M. H. (2020). *Mobile-assisted task-based language learning, writing competency, and motivation. Jurnal Pendidikan Indonesia*, 9(1). <https://doi.org/10.23887/jpi-undiksha.v9i1.23164>
- Diantari, L. P. E., Damayanthi, L. P. E., Sugihartini, N. S., & Wirawan, I. M. A. (2018). Pengembangan E-Modul Berbasis Mastery Learning Untuk Mata Pelajaran KKPI Kelas XI. *Jurnal Nasional Pendidikan Teknik Informatika (JANAPATI)*, 7(1), 33. <https://doi.org/10.23887/janapati.v7i1.12166>
- Digiaco, A., Orsini, A., Cicchetti, R., Spadano, L., De Santis, S., Di Sessa, L., Vitale, M., Di Nicola, M., Tamborino, F., Basconi, M., De Archangelis, R., Salzano, G., Dello Stritto, G., Lannutti, P., Schips, L., & Marchioni, M. (2025). Chatgpt vs traditional pedagogy: a comparative study in urological learning. *World Journal of Urology*, 43(1). <https://doi.org/10.1007/s00345-025-05654-w>
- Fan, Y., Tang, L., Le, H., Shen, K., Tan, S., Zhao, Y., Shen, Y., Li, X., & Gašević, D. (2025). Beware of metacognitive laziness: Effects of generative artificial intelligence on learning motivation, processes, and performance. *British Journal of Educational Technology*, 56(2), 489–530. <https://doi.org/https://doi.org/10.1111/bjet.13544>
- Farman, I. (2023). Analisis Penggunaan Chatgpt Sebagai Asisten Virtual Untuk Meningkatkan Motivasi Belajar Mahasiswa Pendidikan Teknologi Informasi. *Jurnal Pendidikan, Bahasa Dan Budaya*, 2(4), 119–132.
- Fuchs, K. (2021). *Exploring the opportunities and challenges of NLP models in higher education : is Chat GPT a blessing or a curse ?*
- Gahramanli, N. (n.d.). *THE+RELATIONSHIP+BETWEEN.pdf*.
- Gay, L. R., Mills, G. E., & Airasian, P. (2009). *Educational Research: Competencies for Analysis and Applications*.
- Ge, J., & Lai, J. C. (2023). Artificial intelligence-based text generators in hepatology: ChatGPT is just the beginning. *Hepatology Communications*, 7(4), 1–11. <https://doi.org/10.1097/HC9.000000000000097>
- Grant, A. M., & Shandell, M. S. (2022). *Social Motivation at Work: The Organizational Psychology of Effort for , Against , and with Others*. 301–326.
- Gregory, R. J. (2013). Psychological testing. In *The Encyclopedia of Parenting*

Theory and Research. https://doi.org/10.5005/jp/books/11437_16

- Hariri, W. (2025). *Unlocking the Potential of ChatGPT: A Comprehensive Exploration of its Applications, Advantages, Limitations, and Future Directions in Natural Language Processing.* <http://arxiv.org/abs/2304.02017>
- Haratua, C. S., Aziz, A., Prawira, R., Tabriji, J., Ambarwati, H., & Nurhadi, A. (2024). The Impact Of Online Game Addiction On Elementary School Students' Learning Motivation: A Qualitative Study Of Grade 5 Students At SDN Karangmakmur III. *Bhinneka: Jurnal Bintang Pendidikan Dan Bahasa*, 2(3), 98–106. <https://doi.org/10.59024/bhinneka.v2i3.841>
- Hong, W. C. H. (2023). The impact of ChatGPT on foreign language teaching and learning: opportunities in education and research. *Journal of Educational Technology and Innovation*, 5(1), 37–45. <https://doi.org/10.61414/jeti.v5i1.103>
- Isnawan, M. G. (2017). Quasi-Experimental Design. In *The SAGE Encyclopedia of Communication Research Methods*. <https://doi.org/10.4135/9781483381411.n478>
- Iswari, M. N. P., Santosa, M. H., & Indrayani, L. (2024). *Transforming EFL instruction: A systematic review of chatbot integration in English language learning.* *Jurnal Pendidikan Bahasa Inggris Undiksha*, 12(3), 302–309. <https://doi.org/10.23887/jpbi.v12i3.92081>
- Junejo, S. A., Jiskani, A. A., & Lashari, S. A. (2025). *The Effect of Career Development , Work Motivation , and Job Satisfaction on Employee Performance Journal of Social & Organizational Matters.* 4(2), 229–239.
- Keller, J. (2010). Motivational Design for Learning and Performance: The ARCS Model Approach. In *Motivational Design for Learning and Performance: The ARCS Model Approach.* <https://doi.org/10.1007/978-1-4419-1250-3>
- Keller, J., & Burkman, E. (1993). Motivation principles. *Instructional Message Design: Principles from the Behavioral and Cognitive Sciences*, 2, 3–49.
- Keller, J. M. (1987). Development and use of the ARCS model of instructional design. *Journal of Instructional Development*, 10(3), 2–10. <https://doi.org/10.1007/BF02905780>
- Keller, J. M. (2010). *The Instructional Materials Motivation Survey.* 1–3.
- Kim, H. Y., & Kim, Y. H. (2024). *Exploring educational support strategies using conversational AI: Focusing on play interventions by early childhood teachers.* *Korean Journal of Early Childhood Education*, 44(6), 235–259. <https://doi.org/10.18023/kjece.2024.44.6.010>
- Kumar, D., Jaipurkar, R., Shekhar, A., Sikri, G., & Srinivas, V. (2021). Item analysis of multiple choice questions: A quality assurance test for an assessment tool. *Medical Journal Armed Forces India*, 77, S85–S89. <https://doi.org/10.1016/j.mjafi.2020.11.007>
- Kusuma, I. P. I. (2023). The role of gender in student teachers' technology

- integration in teaching English speaking skills during the Covid-19 pandemic. *Knowledge Management and E-Learning*, 15(3), 487–505. <https://doi.org/10.34105/j.kmel.2023.15.028>
- Kusuma, I. P. I., Roni, M., Dewi, K. S., & Mahendrayana, G. (2024). Revealing the Potential of ChatGPT for English Language Teaching: EFL Preservice Teachers' Teaching Practicum Experience. *Studies in English Language and Education*, 11(2), 650–670. <https://doi.org/10.24815/siele.v11i2.34748>
- Lamb, M. (2017). *The Motivational Dimension of Language Teaching*.
- Limniou, M., Schermbrucker, I., & Lyons, M. (2018). Traditional and flipped classroom approaches delivered by two different teachers: the student perspective. *Education and Information Technologies*, 23(2), 797–817. <https://doi.org/10.1007/s10639-017-9636-8>
- Mahadi, T. S. T., & Jafari, S. M. (2012). Motivation, Its Types, and Its Impacts in Language Learning. *International Journal of Business and Social Science*, 3(24), 230–235. http://ijbssnet.com/journals/Vol_3_No_24_Special_Issue_December_2012/24.pdf
- Meiriza, M. S., Siboro, H., Sianturi, T. G., & Pasaribu, N. (2025). Pengaruh Penggunaan Chatgpt Terhadap Motivasi Belajar Mahasiswa Fakultas Ekonomi Universitas Negeri Medan. *Journal of Law, Education and Business*, 3(1), 490–499.
- Mohajan, H. K. (2020). Quantitative Research: A Successful Investigation in Natural and Social Sciences. In *Journal of Economic Development, Environment and People* (Vol. 9, Issue 4). <https://doi.org/10.26458/jedep.v9i4.679>
- Mohamed, N. (2025). Cutting-edge advances in AI and ML for cybersecurity: a comprehensive review of emerging trends and future directions. *Cogent Business and Management*, 12(1). <https://doi.org/10.1080/23311975.2025.2518496>
- Monalisa, A., Sri Kuning, D., & Sartipa, D. (2024). The Factors Affecting Students' Low Learning Motivation in English Subject of The Eighth Grade at SMP Negeri 12 Kotabumi Academic Year 2023/2024. *Griya Cendikia*, 9(2), 568–574. <https://doi.org/10.47637/griyacendikia.v9i2.1109>
- Morgan, C. (1993). Attitude change and foreign language culture learning. *Language Teaching*, 26(2), 63–75. <https://doi.org/DOI:10.1017/S0261444800007138>
- Ormrod, J. E. (2012). *Human learning 6th edition*. Pearson Education, Inc.
- Ormrod, J. E., Anderman, E. M., & Anderman, L. H. (2020). *Educational psychology: Developing learners* (10th ed.). Pearson.
- Pratama, P. Y. S., Utami, I. G. A. L. P., & Adnyani, L. D. S. (2023). Students' motivation in learning English through digital learning media. *Journal of*

Education Technology, 7(2).

- Priya, K., James, S. K., Babu, A. A., S., A., S.Sharanyaa, & Prasad, S. (2024). Artificial Intelligence and Machine Learning: Revolutionizing Data-Driven Decisions. *2024 5th IEEE Global Conference for Advancement in Technology (GCAT)*, 1–6. <https://doi.org/10.1109/GCAT62922.2024.10924120>
- Rahmat, A., & Sabariah, H. (2024). Faktor-faktor Penyebab Kurangnya Motivasi Belajar pada Mata Pelajaran Fiqih di Era Revolusi Industri 4.0 pada Siswa Kelas VIII MTs Yaspen Muslim Pematang Tengah. *IHSANIKA : Jurnal Pendidikan Agama Islam*, 2(3), 09–16. <https://doi.org/10.59841/ihsanika.v2i3.1339>
- Rehman, N., & Kang, M. A. (2025). Exploring the impact of ChatGPT on Wikipedia engagement. *Collective Intelligence*, 4(3), 22–32. <https://doi.org/10.1177/26339137251372599>
- Riendrasiwi, N. (2025). *Engagement with English Educational Materials in Physiotherapy Students : A Motivation-Based Approach*. September.
- Riyanti, D. (2019). The Role of Motivation in Learning English as A Foreign Language. *JELTIM (Journal of English Language Teaching Innovations and Materials)*, 1(2), 29. <https://doi.org/10.26418/jeltim.v1i1.27788>
- Ryan, R. M., & Deci, E. L. (2000). Intrinsic and Extrinsic Motivations: Classic Definitions and New Directions. *Contemporary Educational Psychology*, 25(1), 54–67. <https://doi.org/10.1006/ceps.1999.1020>
- Sawangwan, S. (2024). ChatGPT vs Teacher Roles in Developing EFL Writing. *International Journal of Computer-Assisted Language Learning and Teaching*, 14(1), 0–20. <https://doi.org/10.4018/IJCALLT.361235>
- Schunk, D. H., Pintrich, P. R., & Meece, J. L. (2014). Motivation in education: Theory, research, and applications. (No Title).
- Sutama, I. M., Yasa, I. N., Dewantara, I. P. M., & Saddhono, K. (2022). ICT Utilization in Indonesian Language Learning at the Junior High School Level in Buleleng Regency, Bali, Indonesia. *International Journal of Information and Education Technology*, 12(9), 947–955. <https://doi.org/10.18178/ijiet.2022.12.9.1705>
- Taşkın, B., Çömlekçi, M. F., & Şen, A. (2025). Insights on AI-Driven Anxiety and Career Awareness in Translator Education: A Case Study. *Dünya Dilleri, Edebiyatları ve Çeviri Çalışmaları Dergisi*, 6(1), 14–35. <https://doi.org/10.58306/wollt.1632174>
- Ulfa, S. W., Siregar, R. A., Azzura, F., & Nst, F. R. A. (2024). Analisis Rendahnya Tingkat Motivasi Belajar IPS pada Siswa Kelas 7 MTs Darul Ulum Budi Agung. *Indo-MathEdu Intellectuals Journal*, 5(6), 8082–8089. <https://doi.org/10.54373/imeij.v5i6.2369>
- Unggasari, N. W., Rapi, N. K., & Rachmawati, D. O. (2018). *Meningkatkan Motivasi Belajar dan Prestasi Belajar Fisika Siswa Kelas XI MIA 2 SMA*

Negri. 8(2), 65–76.

- Wang, X. (2024). An Investigation into How Learning Motivation Affects College Students' Major Choices and Academic Performance in China. *Journal of Education, Humanities and Social Sciences*, 29, 214–222. <https://doi.org/10.54097/91kf9485>
- Wentzel, K. R. (1998). Social Relationships and Motivation in Middle School. *Journal of Educational Psychology*, 90(2), 202–209.
- Wu, T., He, S., Liu, J., Sun, S., Liu, K., Han, Q. L., & Tang, Y. (2023). A Brief Overview of ChatGPT: The History, Status Quo and Potential Future Development. *IEEE/CAA Journal of Automatica Sinica*, 10(5), 1122–1136. <https://doi.org/10.1109/JAS.2023.123618>
- Yildiz, A. T. (2023). The Impact of ChatGPT on Language Learners' Motivation. *Journal of Teacher Education and Lifelong Learning*, 5(2), 582–597. <https://doi.org/10.51535/tell.1314355>
- Yim, M., & Su, Y. (2025). *Artificial intelligence (AI) learning tools in K–12 education: A scoping review*. *Smart Learning Environments*. <https://doi.org/10.1186/s40561-024-00304-9>
- Yunarzat, E., & Sida, S. C. (2024). Pengaruh Penggunaan ChatGPT terhadap Motivasi Belajar Siswa di Sekolah Menengah Kejuruan. *Jurnal Ilmu Pendidikan*, 6(2), 1607–1626.
- Zhou, L., & Li, J. (2023). The Impact of ChatGPT on Learning Motivation: A Study Based on Self-Determination Theory. *Education Science and Management*, 1(1), 19–29. <https://doi.org/10.56578/esm010103>
- Zhou, W. (2024). The Impact of ChatGPT on Undergraduate Student's English Learning Motivation. *Journal of Education, Humanities and Social Sciences*, 30, 33–39. <https://doi.org/10.54097/9hyk2039>
- Zimmerman, B. J. (2002). *Zimmerman - 2002 - Becoming a Self-Regulated Learner An Overview*. 41(2), 64–70.