ESL TEACHERS' BELIEF SYSTEM AND ITS IMPACT ON TECHNOLOGY-BASED ENGLISH LANGUAGE TEACHING IN PAKISTAN

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DOCTOR OF PHILOSOPHY

UNIVERSITI MALAYSIA PAHANG AL-SULTAN ABDULLAH



SUPERVISOR'S DECLARATION

I hereby declare that I have checked this thesis and in my opinion, this thesis is adequate in terms of scope and quality for the award of the degree of Doctor of Philosophy.

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STUDENT'S DECLARATION

I hereby declare that the work in this thesis is based on my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at Universiti Malaysia Pahang Al-Sultan Abdullah or any other institutions.

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ABSTRAK

Sistem Kepercayaan Guru [Teachers' Belief System (TBS)] dan impaknya terhadap pengajaran bahasa Inggeris berasaskan teknologi adalah sangat penting untuk pengajaran bahasa kedua di Pakistan. Pada dasarnya, pengajaran berasaskan teknologi memainkan peranan yang penting dalam perkembangan bahasa Inggeris sebagai koridor ekonomi dan pendidikan untuk kemajuan negara. Penggunaan teknologi yang terhad dalam pengajaran bahasa Inggeris adalah membimbangkan dan perlu diberi perhatian dan dikendalikan sewajarnya. Kajian ini menunjukkan kepercayaan yang berbeza tentang isu ini sebagai pemboleh ubah bersandar dan pemboleh ubah tak bersandar di bawah sistem kepercayaan yang memberi kesan kepada pengajaran bahasa Inggeris berasaskan teknologi di Pakistan. Tesis ini juga menggambarkan hubungan antara Sistem Kepercayaan Guru dan faktor lain yang berkaitan (Konstruk Bersandar) dalam penggunaaan aplikasi teknologi untuk Pengajaran Bahasa Inggeris sebagai Bahasa Kedua di Pakistan. Selain itu, kajian ini membincangkan kesan silang budaya berhubung Sistem Kepercayaan Guru terhadap penggunaan teknologi oleh guru Bahasa Inggeris sebagai Bahasa Kedua dalam amalan pengajaran mereka. Kajian ini penting kerana hanya sebilangan kecil kajian mengenai topik ini telah didapati dari seluruh negara. Topik kajian juga memberi tumpuan kepada penggunaan teknologi pendidikan di kawasan yang sangat terpencil. Pengetahuan tentang silang budaya berhubung kepercayaan guru memberi penambahan kepada kajian yang sedia ada. Kajian ini menggunakan Teori Tingkah Laku Terancang Terurai [Decomposed Theory of Planned Behaviour (DTPB)] iaitu gabungan antara dua teori: Teori Model Penerimaan [Theory of Acceptance Model (TAM)] dan Teori Tingkah Laku Terancang [Theory of Planned Behaviour (TPB)]. Data kajian telah dikumpul menggunakan reka bentuk kajian kaedah campuran berdasarkan soal selidik, temu bual separa berstruktur, bentuk kajian kaedan campuran berdasarkan soal selidik, temu bual separa berstruktur, dan pemerhatian bilik darjah oleh pensyarah dan profesor yang mengajar di Universiti Hazara dan Universiti Teknologi Abbottabad, Khyber Pukhtunkhwa, Pakistan. Data kuantitatif kajian telah dikumpul daripada 152 responden manakala 12 peserta telah mengambil bahagian dalam temu bual separa berstruktur. Selain itu, pemerhatian terhadap dua kelas Sarjana Muda Sains dalam Bahasa Inggeris telah dibuat sebagai sebahagian daripada pengumpulan data kualitatif. Data kuantitatif dan kualitatif kajian telah dianalisis melalui perisian SPSS-22 dan N-Vivo. Kecukupan sampel data kuantitatif telah dipastikan melalui ujian Kaiser-Meyer-Olkin dan Bartlett. Ujian Pro-max dengan Normalisasi Kaiser dan Ujian Analisis Regresi juga telah digunakan dalam kajian untuk Normalisasi Kaiser dan Ujian Analisis Regresi juga telah digunakan dalam kajian untuk mengenalpasti hubungan antara kepercayaan guru dan faktor yang berkaitan. Kepercayaan guru dan faktor-faktor yang relevan seperti sumber yang terhad, pengetahuan dan kemahiran teknologi yang sedikit, tekanan sosial dan kekurangan budaya didapati saling berkait dalam mempengaruhi penggunaan teknologi untuk pengajaran bahasa Inggeris. Persamaan dan perbezaan antara keputusan data kuantitatif dan kualitatif turut dihuraikan dalam dapatan kajian. Di samping itu, dapatan kajian menekankan bahawa pengetahuan teknologi guru bahasa Inggeris yang terhad telah menjadi penghalang penggabungan teknologi dalam pengajaran. Selain itu, kepercayaan dan sikap guru bahasa Inggeris juga mempengaruhi penggunaan teknologi sama ada secara positif atau negatif. Tambahan pula, penggunaan silang budaya juga membantu guru bahasa Inggeris untuk meningkatkan penggabungan teknologi mereka dalam amalan pengajaran mereka berdasarkan dapatan kuantitatif dan kualitatif kajian. Norma subjektif sebagai penghalang kepada penggunaan teknologi turut diketengahkan oleh guru ahasa Inggeris. Walaubagaimanapun, dapatan kajian ini menyokong penubuhan kursus dan sesi yang berbeza untuk membantu guru bahasa Inggeris dalam penggabungan teknologi dalam Pengajaran Bahasa Inggeris sebagai Bahasa kedua di Pakistan. Keduadua keputusan kualitatif dan kuantitatif kajian juga menyarankan penyediaan alat teknologi dan kakitangan teknikal oleh pihak berkepentingan untuk memastikan penyepaduan teknologi yang efektif dalam pengajaran dan pembelajaran dapat dilaksanakan oleh guru Bahasa Inggeris sebagai Bahasa Kedua. Kajian mencadangkan kemasukan budaya yang berbeza dalam buku teks untuk Pengajaran Bahasa Inggeris sebagai Bahasa Kedua secara kolaboratif dan berasaskan tugas dalam konteks pengajaran semasa yang boleh membawa kepada persekitaran pembelajaran yang bebas. Kajian juga menyarankan kepada pihak berkuasa institusi supaya teknologi yang sedia ada digunakan secara fleksibel dalam Pengajaran bahasa Inggeris sebagai Bahasa Kedua di Pakistan.

ABSTRACT

Teachers' Belief System (TBS) and its impact on technology-based teaching of English is of great significance for Second Language Teaching in Pakistan. Technology-based teaching basically plays an important role in the development of English as economic and educational corridors for the progress of the country. Limited utilization of technology for English language teaching is an alarming situation which needs to be pointed out and handled properly. The research brings forth different beliefs concerning the issue as dependent and independent variables under belief system which impact technology-based English language teaching in the country. The thesis also reflects on the relationship between Teachers' Belief System and its other relevant factors (Dependent Constructs) in using technological applications for teaching of English as Second Language in Pakistan. Moreover, the present research discusses the effects of cross-culturalism in relation to Teachers' Belief System on the use of technology by English as Second Language teachers in their teaching practices. The study is also very important as there is little research to be found on the topic across the country. The topic also focusses on an area which is highly remote in the utilization of educational technology. Knowledge about cross-culturalism in relation to teachers' beliefs is an addition to the existing research. Nevertheless, the study uses Decomposed Theory of Planned Behaviour (DTPB) which is a combination of other two theories: Theory of Acceptance Model (TAM) and Theory of Planned Behaviour (TPB). A mixed method research design based on survey questionnaire, semi-structured interviews together with classrooms' observations was used to collect data of the study from lecturers and professors teaching in Hazara University (HU) and Abbottabad University of Technology (AUST), Khyber Pukhtunkhwa (KPK), Pakistan. Quantitative data was collected from one hundred and fifty two (152) respondents whereas twelve (12) participants took part in semi structured interviews. Moreover, observations of two classes of Bachelor of Science (BS) in English were made as a part of qualitative data collection. Quantitative and Qualitative data were analyzed through SPSS-22 and N-Vivo software. Sampling adequacy for quantitative tool is ensured through Kaiser- Meyer-Olkin and Bartlett tests. Pro-max with Kaiser Normalization and Regression Analysis tests are also used in the study to find out the relationship between teachers' belief and its relevant factors. Results of the present study point out limited use of technology in English language teaching despite the efforts made by the government of Pakistan. Teachers' belief and its relevant factors such as limited resources, lack of professional development, subjective norms and limited utilization of cross-culturalism in language teaching are found out to be mutually related in influencing the incorporation of technology in English language teaching in Pakistan. Similarities and differences between the results of the quantitative and qualitative data are also revealed as per the findings of the study. The results of the research highlight limited technological knowledge of English as Second Language teachers to be an obstruction in the successful utilization of technology in their teaching. Moreover, beliefs and attitudes of English as Second Language teachers also affect their use of technology as per the findings of the study. In addition, the use of cross-culturalism also helps English as Second Language teachers to enhance their incorporation of technology in their teaching practices according to the quantitative and qualitative results of the study. Subjective norm acts as a barrier to the utilization of technology on the part of language teachers according to the findings of the research. Nevertheless, the results of the research favor the establishment of different courses and sessions in relation to the teachers' professional development for the utilization of technology in English as Second Language teaching in Pakistan. Both the qualitative and the quantitative results of the research also emphasize the provision of technological tools and technical staff by stake holders for its successful integration by English as Second Language teachers concerning technological resources. Furthermore, the research suggests inclusion of different cultures in textbooks for collaborative and task-based acquisition of English as Second Language in the present teaching contexts which may also lead to independent learning environments. Flexible treatments by institutional authorities for the utilization of available technology on the part of the English as Second Language teachers in teaching English in Pakistan are also recommended by the present study.

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REFERENCES

- Abdu, A. K. (2018). A review of technology integration in ELT: From CALL to MALL. Language Teaching and Educational Research, 1(1), 1-12.
- Abdullah, M. (2014). Problem Of Culture: ELT In A Pakistani Context. European Scientific Journal, ESJ, 10(10).
- Adnan, M., Yousaf, Z. & Gilani, A. H. (2019). E-Learning with Digital Media and Human Development: The Way Forward for Pakistan. *Journal of Educational Research*, (1027-9776), 22(2).
- Aelterman, N., Vansteenkiste, M., Van Keer, H., & Haerens, L. (2016). Changing teachers' beliefs about autonomy support and structure: The role of experienced psychological need satisfaction in teacher training. *Psychology of Sport and Exercise*, 23, 64–72.
- Afridi, T. & Chaudhry, A. H. (2019). Technology Adoption and Integration in Teaching and Learning at Public and Private Universities in Punjab. *Bulletin of Education and Research*, 41(2), 121-143.
- Agbo, I. (2015). Factors influencing the use of information and communication technology (ICT) in teaching and learning computer studies in Ohaukwu local government area of Ebonyi state-Nigeria. *Journal of Education and Practice*, 6(7), 71–86.
- Ahmad, M. (2020). Challenges and Issues of ICTS in Learning in Pakistan: A Descriptive Study at Secondary School Level in Punjab Pakistan. *International Journal of Computer Science and Technology*, 4(4), 9-19.
- Ahmad, H. N., Islam, M., & Hassan Naqvi, S. A. (2021). The Effectiveness of Technology-Mediated Task-Based Language Teaching in Teaching English Writing Skills to the Students of Higher Secondary Level. Ilkogretim Online, 20(2), 1119–1127. <u>https://doi.org/10.17051/ilkonline.2021.02.127</u>
- Ahmed, M., & Rafiq, S. (2016). Accessibility and usability of internet among university students in Khyber Pakhtunkhwa, Pakistan. *Pakistan Journal of Information Management & Libraries (PJIM&L), 18*(1), 37-51.
- Ajideh, P., & Panahi, M. (2016). An analysis of culture-related content in English textbooks for Iranian students entitled 'prospect' and 'vision' series. *International Journal of Language and Linguistics*, 3(6), 87-93.
- Ajzen, I. (1988). Attitudes, Personality, and Behaviour. Dorsey Press.
- Ajzen, I. (1991). The Theory of Planned Behaviour. Organizational Behavior and Human Decision Processes, 50 (2)179-211.
- Ajzen, I. (2020). The theory of planned behavior: Frequently asked questions. *Human Behavior and Emerging Technologies*, 2(4), 314–324.

- Akbar, R. A. (2016). Attitudes and practices of secondary school students about information communication technology: A comparison by gender, locale and subjects of study. *Journal of Educational Research*, 19(1), 24.
- Akram, A., Nazir, M., Batool, T., Zulfiqar, M. I., Nazir, M., Azhar, H., & Murawwat, S. (2021). Comparative review on information and communication technology issues in education sector of developed and developing countries: a case study about Pakistan. *Bulletin of Electrical Engineering and Informatics*, 10(6), 3489-3500.
- Alam, S.S., & Sayuti, N.M. (2011). Applying the theory of planned behavior (TPB) in halal food purchasing. *International Journal of Commerce and Management*, 21(1): 8-20
- Alenezi, A. (2015). Influences of the mandated presence of ICT in Saudi Arabia secondary schools. *International Journal of Information and Education Technology*, 5(8), 638-644. <u>https://doi.org/10.7763/IJIET.2015.V5.583</u>.
- Alghamdi, A., & Prestridge, S. (2015). Alignment between principal and teacher beliefs about technology use. *Australian Educational Computing*, 30(1). <u>http://journal.acce.edu.au/index.php/AEC/article/view/52</u>
- Alhamami, M. (2018). Beliefs about and intention to learn a foreign language in face-toface and online settings. *Computer Assisted Language Learning*, *31*(1–2), 90–113. <u>https://doi.org/10.1080/09588221.2017.1387154</u>.
- Ali, S. (2018). Cross Cultural Representation in Pakistani's EFL Textbooks. *Kashmir Journal of Language Research*, 21(1), 1-9.
- Alonazi, S. M. (2017). The Role of Teachers in Promoting Learner Autonomy in Secondary Schools in Saudi Arabia. *English Language Teaching*, 10(7), 183-202.
- Alrabai, F. (2016). Factors underlying low achievement of Saudi EFL learners. *International Journal of English Linguistics*, 6(3), 21-37. <u>https://doi.org/10.5539/ijel.v6n3p21</u>
- Alresheed, S. & Leask, M. (2015). Factors affecting computer-assisted language learning in Saudi Arabia classrooms. Paper presented at *the 9th International Technology*, *Education and Development (INTED) 2015 Conference*, pp. 1-10. Retrieved from <u>https://www.researchgate.net/publication/273445264</u>
- Alresheed, S., Raiker, A., & Carmichael, P. (2017). Integrating computer-assisted language in Saudi schools: A change model. *Turkish Online Journal of Educational Technology*, 369-380. <u>https://doi.org/10.1007/978-3-319-33808-8_22</u>
- Al-Ruz, J. A., & Khasawneh, S. (2011). Jordanian pre-service teachers' and technology integration: A human resource development approach. *Journal of Educational Technology & Society*, 14(4), 77-87

- Al-Seghayer, K. (2017). The central characteristics of successful ESL / EFL teachers. Journal of Language Teaching and Research, 8(5), 881–890. https://doi.org/10.17507/jltr.0805.06
- Altıok, S., Yükseltürk, E., & Üçgül, M. (2017). Web 2.0 eğitimine yönelik gerçekleştirilen bilimsel bir etkinliğin değerlendirilmesi: Katılımcı görüşleri. *Journal of Instructional Technologies & Teacher Education*, 6(1), 1-8.
- Amin, M. (2019). The role of educational technology in the ESL classroom. Global Journal of Archaeology & Anthropology 11(1), 1–11. https://doi.org/10.19080/GJAA.2019.11.555801.
- Amiryousefi, M. (2015) Iranian EFL teachers' and learners' beliefs about vocabulary learning and teaching. *International Journal of Research Studies in Language Learning* 4.4: 29–40. <u>https://doi.org/10.5861/ijrsll.2015.1016</u>
- An, Y. J., & Reigeluth, C. (2011). Creating technology-enhanced, learner-centered classrooms: K–12 teachers' beliefs, perceptions, barriers, and support needs. *Journal of Digital Learning in Teacher Education*, 28, 54-62. <u>https://doi.org/10.1080/21532974.2011.10784681</u>
- Andarab, M.S. (2019). The content analysis of the English as an international languagetargeted coursebooks: English literature or literature in English? *Cypriot Journal* of Educational Sciences, 14(1), 69-79. <u>https://doi.org/10.18844/cjes.v14i1.3930</u>
- Angelova, M., & Zhao, Y. (2016). Using an online collaborative project between American and Chinese students to develop ESL teaching skills, cross-cultural awareness and language skills. *Computer Assisted Language Learning*, 29(1), 167–185. <u>https://doi.org/10.1080/09588221.2014.907320</u>
- Anwar, M. B. (2016). Evaluation of the English for specific purposes (ESP) programme in Engineering Universities in Punjab, Pakistan, Unpublished Doctoral Dissertation, University of Bedfordshire, UK
- Arbab, I. A. E. (2020). Effect of Using Audio-Visual Materials on Students' Language Achievements (A Case Study of Secondary Schools Students at Eastern Gazeera) (Doctoral dissertation, Sudan University of Science & Technology).
- Ardriani, N. N. D. (2014). Teachers' Beliefs about Strategies in Teaching Reading and Their Classroom Practices. Unpublished Thesis, State University of Malang, Malang.
- Arsal, Z. (2014). Microteaching and pre-service teachers' sense of self-efficacy in teaching. European Journal of Teacher Education, 37(4), 453-464. <u>https://doi.org/10.1080/02619768.2014.912627</u>
- Asad, M. M., Hussain, N., Wadho, M., Khand, Z. H., & Churi, P. P. (2020). Integration of e-learning technologies for interactive teaching and learning process: An empirical study on higher education institutes of Pakistan. *Journal of Applied Research in Higher Education*. 13(3), 649-663. Retrieved from https://doi.org/10.1108/JARHE-04-2020-0103

- Ashton, P. T. (2014). Historical overview and theoretical perspectives of research on teachers' beliefs. In H. Fives & M. G. Gill (Eds.), *International Handbook of Research on Teachers' Beliefs* (pp. 31–47). https://doi.org/10.4324/9780203108437.ch3
- Asim, H. M., Vaz, A., Ahmed, A., & Sadiq, S. (2021). A Review on Outcome Based Education and Factors That Impact Student Learning Outcomes in Tertiary Education System. *International Education Studies*, 14(2), 1-11.
- Atmojo, A. E. P. (2021). EFL teachers' online teacher professional development experiences amidst the COVID-19 pandemic: Practices and perceptions. Englisia: *Journal of Language, Education, and Humanities, 9*(1), 1-18. <u>https://doi.org/10.22373/ej.v9i1.9127</u>
- Attuquayefio, S. N., & Addo, H. (2014). Using the UTAUT model to analyze students' ICT adoption. *International Journal of Education and Development using Information and Communication Technology*, 10(3), 75-86.
- Aziz, N. A. (2017). Taking concerns into account: Understanding the technology adoption process from the ESL teachers' point of view. *The English Teacher*, 14, 76-89.
- Aziz, A. A., & Hamzah, M. H. (2020). Investigating the use of computer-assisted language instruction: The case of Pakistani EFL educators. *Hamdard Islamicus*, 43(1&2), 195-215.
- Aziz, A. A., Pervaiz, M., & Hassan, M. U. (2022). Investigating the Use of Computer for Language Teaching among Pakistani EFL Teachers. *Pakistan Languages and Humanities Review*, 6(4), 194-205.
- Aziz, F., & Quraishi, U. (2018). Use of ICT in teaching, professional training, management, and personal use: Teachers' perspective. *Journal of Arts and Social Sciences*, 5(1), 115-124.
- Aziz, F., Saleem, T., Saleem, A., & Batool, R. (2020). From pragmatic competence to inter cultural competence: Pakistani ESL teachers' perspectives of teaching inter culturality in ESL classroom. *Amazonia Investiga*, 9(33), 37-45. https://doi.org/10.34069/AI/2020.33.09.4
- Bahcivan, E., & Cobern, W. W. (2016). Investigating coherence among Turkish elementary science teachers' teaching belief systems, pedagogical content knowledge and practice. *Australian Journal of Teacher Education*, 41(10), 62– 86.
- Bacus, R. (2021). Teachers' beliefs, praxes, and post-method pedagogy in English language teaching, *International Journal of Learning, Teaching, and Educational Research*, 20(1), 86-102. <u>https://doi.org/10.26803/ijlter.20.1.5</u>
- Bajpai, R. C., & Bajpai, S. (2014). Goodness of Measurement: Reliability and Validity. International Journal of Medical Science and Public Health, 3(2), 112-115. https://doi.org/10.5455/ijmsph.2013.191120133

- Baker, W. (2017). English as a lingua franca and intercultural communication. In J. Jenkins, W. Baker, & M. Dewey (Eds.), *The Routledge handbook of English as a lingua franca* (pp. 25-36). Routledge
- Ball, A. F. (2012). To know is not enough: Knowledge, power, and the zone of generativity. *Educational Researcher*, 41(8), 283–293. https://doi.org/10.3102/0013189X12465334
- Bamigboye, O., Bankole, O., Ajiboye, B., & George, A. (2013). Teachers' attitude and competence towards the use of ICT resources: A case study of University of Agriculture lecturers, Abeokuta Ogun state, Nigeria. *The Information Manager*, 13(2), 10–15. <u>https://www.ajol.info/index.php/tim/article/view/106875</u>
- Bandara, Y. M., Nguyen, H. O., & Chen, S. L. (2016). Influential factors in the design of port infrastructure tariffs. *Maritime Policy & Management*, 43(7), 830-842.
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist* , *37*, 122-147
- Bandura, A. (1986). The explanatory and predictive scope of self-efficacy theory. *Journal* of Social and Clinical Psychology, 4(3), 359-373.
- Bansal, S., Garg, N., & Singh, J. (2023). Exploring the psychometric properties of the Cybebullying Attitude Scale (CBAS) and its relation with teasing and gratitude in Indian collegiates. *International journal of educational management*, 37(1), 225-239.
- Baş, G., Kubiatko, M., & Sünbül, A. M. (2016). Teachers' perceptions towards ICTs in university teaching-learning process: Scale validity and reliability study. *Computers in human behaviour*, 61(1), 176–185.
- Bashir, A. & Anjum, A.I. (2019). Impact of using indigenous Computer Assisted Language Learning materials on English language teaching in Pakistan. *Journal* of Research and Reflections in Education. 13(2). 218-230. https://www.ue.edu.pk/beta/jrre/articles/Article%206.pdf
- Batane, T., & Ngwako, A. (2017). Technology use by pre-service teachers during teaching practice: Are new teachers embracing technology right away in their first teaching experience? *Australasian Journal of Educational Technology*, 33(1), 48-61. <u>https://doi.org/10.14742/ajet.2299</u>
- Baydas, O., & Goktas, Y. (2017). A model for preservice teachers' intentions to use ICT in future lessons. *Interactive Learning Environments*, 25(7), 930-945. <u>https://doi.org/10.1080/10494820.2016.1232277</u>
- Bayaga, A., Bosse, M. J., Sevier, J., Fountain, C., Williams, D., Bosire, S., & Blignaut, S. (2021). University faculty opinions of preservice teachers' technological readiness. *Canadian Journal of Science, Mathematics and Technology Education*, 21(1), 44–64. <u>https://doi.org/10.1007/s42330-021-00138-6</u>

- Beri, N., & Sharma, L. (2019). Teachers' attitude towards integrating ICT in teacher education. International Journal of Innovative Technology and Exploring Engineering, 8(8), 285-295.
- Bilbatua, L., & Herrero de Haro, A. (2014). Teachers' attitudes towards computer assisted language learning in Australia and Spain. *Círculo De Lingüística Aplicada a La Comunicación*, 57, 3-44.
- Blackwell, C. K., Lauricella, A. R., & Wartella, E. (2014). Factors infuencing digital technology use in early childhood education. *Computers & Education*, 77, 82–90. https://doi.org/10.1016/j.compedu.2014.04.013
- Borg, M. (2001). Key concepts in ELT. Teachers' beliefs. *ELT Journal*, 55(2), 186–188. https://doi.org/10.1093/elt/55.2.186
- Borg, S. (2015). Teacher cognition and language education: Research and practice. Bloomsbury
- Boudjadar, T. (2015). ICT in the writing classroom: The pros and the cons. *International Journal of Applied Linguistics and English Literature*, 4(1), 8–13. https://doi.org/10.7575/aiac.ijalel.v.4n.1p.8
- Bozdağ Bucak, Ç. (2018). Intercultural learning in schools through telecollaboration? A critical case study of eTwinning between Turkey and Germany. *International Communication Gazette*, 80(7), 677-694. https://doi.org/10.1177/1748048518802221
- Brdarić, H. (2016). The importance of teaching culture in the foreign language classroom. (Master's Thesis). University of Osijek. Dabar: Digital Academic Archives and Repositories. Retrieved from <u>https://urn.nsk.hr/urn:nbn:hr:142:727491</u>.
- Brown, H. D. (2014). Principles of language learning and teaching: a course in second language acquisition (6th ed.). Pearson Education.
- Buabeng-Andoh, C. (2012). Factors influencing teachers' adoption and integration of information and communication technology into teaching: A review of the literature. *International Journal of Education & Development Using Information* & Communication Technology (IJEDICT) 8(1), 136–155.
- Buehl, M.M., & Beck, J.S. (2014). The Relationship Between Teachers' Belief and Teacher Practices. In: Fives, H. and Gill, M. G. (ed.) *International Handbook of Research on Teachers' Beliefs*. Routledge. 66 – 84.
- Bui, T. N. L. (2019). Perceptions of Vietnamese teachers towards incorporating dialectical thinking: A transformational model of curriculum and pedagogy. (Doctoral dissertation, Doctoral thesis at University of Newcastle, NSW, Australia).

- Burden, K., & Hopkins, P. (2016). Barriers and Challenges Facing Pre-Service Teachers use of Mobile Technologies for Teaching and Learning. *International Journal of Mobile* and Blended Learning, 8(2), 1–20. <u>https://doi.org/10.4018/ijmbl.2016040101</u>
- Çakici, D. (2016). The use of ICT in teaching English as a foreign language. *Participatory Educational Research (PER), 4,* 73–77.
- Catana, S. E. (2014). Teaching cross-cultural communication issues–a way of successfully integrating into the multicultural knowledge society. *Procedia Social and Behavioral Sciences, 128, 343-348.* <u>https://doi.org/10.1016/j.sbspro.2014.03.168</u>
- Cementina, S. (2019). Language teachers' digital mindsets: Links between everyday use and professional use of technology. *TESL Canada Journal*, *36*(3), 31–54. <u>https://doi.org/10.18806/tesl.v36i3.1320</u>
- Chaaban, Y., & Ellili-Cherif, M. (2017). Technology integration in EFL classrooms: A study of Qatari independent schools. *Education and Information Technologies*, 22(5), 2433-2454. <u>https://doi.org/10.1007/s10639-016-9552-3</u>
- Chandio, S., Seman, M. S. A., Samsuri, S., Kanwal, A., & Shah, A. (2018). Assessing ICT Implementation and Acceptance at Public Sector Universities in Pakistan, University of Sindh. *Journal of Information and Communication Technology*, 2(1), 52-56.
- Chawinga, W. D., & Zinn, S. (2016). Use of Web 2.0 by students in the Faculty of Information Science and Communications at Mzuzu University, Malawi. *South African Journal of Information Management*, 18(1), 1–15.
- Chen, D., & Yang, X. (2016). Culture as the core: Challenges and possible solutions in integrating culture into foreign language teaching. *Journal of Language Teaching* and Research, 7(1), 168-177. <u>https://doi.org/10.17507/jltr.0701.19</u>
- Cheung, A. (2023). Language teaching during a pandemic: A case study of Zoom use by a secondary ESL teacher in Hong Kong. *RELC Journal, January*, 1–16. <u>https://doi.org/10.1177/0033688220981784</u>
- Chien, S. P., Wu, H.K., & Hsu, Y. S. (2014). An investigation of teachers' beliefs and their use of technology-based assessments. *Computers in Human Behavior*, 31, 198–210. <u>https://doi.org/10.1016/j.chb.2013.10.037</u>
- Chien, S. P., Wu, H. K., & Wu, P. H. (2018). Teachers' beliefs about, attitudes toward, and intention to use technology-based assessments: A structural equation modelling approach. *EURASIA Journal of Mathematics, Science and Technology Education, 14* (10): 85-94. <u>https://doi.org/10.29333/ejmste/93379</u>
- Chiu, T. K. F., & Churchill, D. (2016). Adoption of mobile devices in teaching: changes in teacher beliefs, attitudes and anxiety, *Interactive Learning Environments*, 24(2), 317-327. <u>https://doi.org/10.1080/10494820.2015.1113709</u>

- Cho, H. (2018). Navigating social justice literacies: The dynamics of teacher beliefs in teaching for social justice. *Asia Pacific Education Review*, 19(4), 479–491. https://doi.org/10.1007/s12564-018-9551-8
- Chohan, M. N., Abbas, F., & Saleem, M. (2018). CALL as a tool in teaching EFL in Pakistani religious institutes (Madaris): A survey of issues and challenges. *Al Qalam*, 31-44.
- Choi, S. J., Jeong, J. C., & Kim, S. N. (2019). Impact of vocational education and training on adult skills and employment: An applied multilevel analysis. *International Journal of Educational Development*, 66, 129–138.
- Çoklar, A. N., & Yurdakul, I. K. (2017). Technology integration experiences of teachers. Discourse and Communication for Sustainable Education, 8(1), 19–31. https://doi.org/10.1515/dcse-2017-0002
- Connors, M. H., & Halligan, P. W. (2015). A cognitive account of belief: A tentative road map. *Frontiers in Psychology*, **5**, 1588. https://doi.org/10.3389/fpsyg.2014.01588
- Cook, V. (2016). *Second language learning and language teaching* (5th ed.) Routledge. <u>https://doi.org/10.4324/9781315883113</u>
- Cooksey, R. W., & Cooksey, R. W. (2020). Descriptive statistics for summarising data. In *Illustrating statistical procedures: Finding meaning in quantitative data* (pp. 61–139). Springer.
- Cooper, H., & Hedges, L. V. (1994). The handbook of research synthesis Russell Sage Foundation. *New York*.
- Corder, D., Roskvist, A., Harvey, S., & Stacey, K. (2018). Language teachers on study abroad programmes: The characteristics and strategies of those most likely to increase their intercultural communicative competence. In K. Misfeldt (Ed.), Second language study abroad programming, pedagogy, and participant engagement (pp. 257–297). Palgrave Macmillan.
- Cosgrove, J., Moran, E., Feerick, E., & Duggan, A. (2019). Digital Learning Framework (DLF) national evaluation - starting off: Baseline report. *Educational Research Centre*. <u>https://www.erc.ie/wp-content/uploads/2020/01/DLF-national-</u> <u>evaluationbaseline-report.pdf</u>
- Creswell, J. W. (2021). A concise introduction to mixed methods research (2nd ed.). SAGE Publications
- Creswell, J.W. (2014). Research design: Qualitative, quantitative, and mixed methods approaches (4th ed.). Sage.
- Creswell, J.W. (2012). Educational research: planning, conducting and evaluating quantitative and qualitative research (4th ed.). Pearson.
- Creswell, J. W., & Báez, J. C. (2020). *30 essential skills for the qualitative researcher*. Sage Publications.

- Creswell, J.W., & Hirose, M. (2019). Mixed methods and survey research in family medicine and community health. *Family Medicine and Community Health*, 7(2), 1–6. <u>https://doi.org/10.1136/fmch-2018-000086</u>
- Creswell, J. W., & Clark, V. L. P. (2017). *Designing and conducting mixed methods research*. Sage publications.
- Creswell, J.W., & Poth, C.N. (2016). Qualitative inquiry and research design: Choosing among five approaches (4th ed.). Sage publications.
- Cuban, L. (1986). Teachers and machines: The classroom use of technology since 1920: Teacher College Press.
- Darling-Hammond, L., Zielezinski, M. B., & Goldman, S. (2014). Using technology to support at-risk students' learning. Alliance for Excellent Education and Standford Center for Opportunity Policy in Education. <u>https://edpolicy.stanford.edu/sites/default/files/scope-pub-usingtechnologyreport.pdf</u>
- Davis, F. D. (1985). A technology acceptance model for empirically testing new end-user information systems: Theory and results. Ph.D. thesis Massachusetts Institute of Technology.
- Davitishvili, N. (2017). Cross-cultural awareness and teaching English as a second language in the context of globalization. *Sino-US English Teaching 14*(9), 549-558.
- Dayan, U., Khan, M. I., & Ahmad, S. (2022). Transformation of Prospective Teachers' Pedagogical Beliefs during a Pre-Service B. Ed. Programme in Pakistan. *International Journal of Education and Practice*, 10(2), 150-159.
- DeCoito, I., & Richardson, T. (2018). Teachers and technology: Present practice and future directions. *Contemporary Issues in Technology and Teacher Education*, 18(2), 362–378.
- Deng, F., Chai, C. S., Tsai, C.-C., & Lee, M.-H. (2014). The relationships among Chinese practicing teachers' epistemic beliefs, pedagogical beliefs and their beliefs about the use of ICT. *Journal of Educational Technology & Society*, 17 (2), 245–256.
- DeVellis, R. F. (2017). Construct validity. *Scale Development: Theory and Applications* (4th ed.). SAGE Publications, Inc, 95-7.
- DeWitt, D., & Chan, S. (2019). Developing intercultural communicative competence: Formative assessment tools for Mandarin as a foreign language. *Malaysian Journal of Learning and Instruction*, 16(2), 97-123. <u>https://doi.org/10.32890/mjli2019.16.2.4</u>
- De Wit, H., Hunter, F. & Coelen, R. (2015). Internationalisation of higher education in Europe: Future directions. In De Wit, H., Hunter F., Howard L., Egron-Polak E. (Eds.), *Internationalisation of higher education*. Policy Department B: Structural and Cohesion Policies, pp. 273-287.

- Dinc, E. (2017, October 18-20). Differentiated learning environment A classroom for quadratic equation, function, and graphs [Paper Presentation]. In D. G. Sampson, J. M. Spector, D. Ifenthaler, & P. Isaias (Eds.), CELDA 2017 Cognition and exploratory learning in digital age (pp. 237-240). *International Association for Development of the Information Society*. Retrieved on 20 May 2019 from https://files.eric.ed.gov/fulltext/ED579395.pdf
- Dinc, E. (2019). Prospective teachers' perceptions of barriers to technology integration in education. *Contemporary Educational Technology*, 10(4), 381–398. <u>https://doi.org/10.30935/cet.634187</u>
- Ding, A. C. E., Ottenbreit-Leftwich, A., Lu, Y. H., & Glazewski, K. (2019). EFL teachers' pedagogical beliefs and practices with regard to using technology. *Journal of Digital Learning in Teacher Education*, 35(1), 20-39. <u>https://doi.org/10.1080/21532974.2018.1537816</u>
- Dix, B. P. (2022). I wonder how I can do something like this with my students: Teachers' perceptions on the intercultural turn in English language teaching. *Journal of Language and Culture*, 41(1), 147-178.
- Domingo, M. G., & Gargante, A. B. (2016). Exploring the use of educational technology in primary education: Teachers' perception of mobile technology learning impacts and applications' use in the classroom. *Computers in Human Behavior*, 56, 21–28. <u>https://doi.org/10.1016/j.chb.2015.11.023.</u>
- Dos Santos, L. M. (2019b). Recruitment and retention of international school teachers in remote archipelagic countries: The Fiji experience. *Education Sciences*, 9(2), 132. <u>https://doi.org/10.3390/educsci9020132</u>.
- Dunn, T., Baguley, T., & Brunsden, V. (2014). From alpha to omega: A practical solution to the pervasive problem of internal consistency estimation. *British Journal of Psychology* (London, England: 1953), 105(3), 399–412. <u>https://doi.org/10.1111/bjop.12046</u>
- Du Plessis, E. (EC). (2020). Student teachers' perceptions, experiences, and challenges regarding learner-centered teaching. South African Journal of Education, 40(1), 1-10. <u>https://doi.org/10.15700/saje.v40n1a1631</u>
- Eldridge, S. M., Lancaster, G. A., Campbell, M. J., Thabane, L., Hopewell, S., Coleman, C. L., & Bond, C. M. (2016). Defining feasibility and pilot studies in preparation for randomised controlled trials: Development of a conceptual framework. *PLOS ONE*, 11(3), Article e0150205. <u>https://doi.org/10.1371/journal.pone.0150205</u>.
- Elo, S., Kääriäinen, M., Kanste, O., Pölkki, T., Utriainen, K., & Kyngäs, H. (2014). Qualitative content analysis: a focus on trustworthiness. *SAGE Open*, 4(1), 1–10. <u>https://doi.org/10.1177/2158244014522633.</u>
- Erens, R., & Eichler, A. (2019). Belief changes in the transition from university studies to school practice. In M. S. Hannula, G. C. Leder, F. Morselli, M. Vollstedt & Q. Zhang (Eds.), *Affect and mathematics education* (pp. 345–373). Springer. https://doi.org/10.1007/978-3-030-13761-8_16.

- Ertmer, P. A. (2015). Technology integration. In J. M. Spector (Ed.), *The SAGE* encyclopedia of educational technology (pp. 748-751). Sage publications.
- Ertmer, P. A., Ottenbreit-Leftwich, A., & Tondeur, J. (2014). Teacher beliefs and uses of technology to support 21st century teaching and learning. In H. R. Fives, & M. Gill (Eds.), *International Handbook of Research on Teacher Beliefs* (pp. 403-418). Routledge.
- Ertmer, P. A., Ottenbreit-Leftwich, A. T., Sadik, O., Sendurur, E., & Sendurur, P. (2012).
 Teacher beliefs and technology integration practices: A critical relationship. *Computers* & *Education*,59(2), 423–435. <u>https://doi.org/10.1016/j.compedu.2012.02.001</u>.
- Essel, H. B., Awuni, T., & Mohammed, S. (2020). Digital technologies in nursing and midwifery education in Ghana: Educators perspective, practice and barriers. *Library Philosophy and Practice*, 1-16.
- Fakhruddin, Z., Amzah, A., & Nurchalis, N. F. (2019). Technology-Based Teaching Material Development Training for Pre-Service Teachers to Improve Students' Learning Outcomes. NOBEL: Journal of Literature and Language Teaching, 10(1), 87–102. <u>https://doi.org/10.15642/nobel.2019.10.1.87-102</u>.
- Fareed, M., Jawed, S., & Awan, S. (2018). Teaching English language at SSC level in private non-elite schools in Pakistan: Practices and problems. *Journal of Education and Educational Development*, 5(1), 80-95.
- Farhat, P. A., & Dzakiria, H. (2017). Pronunciation Barriers and Computer Assisted Language Learning (CALL): Coping the Demands of 21 st Century in Second Language Learning Classroom in Pakistan. *International Journal of Research in English Education*, 2(2), 53–62. <u>https://doi.org/10.18869/acadpub.ijree.2.2.53</u>
- Farooq, M. U., Al Asmari, A., & Javid, C. Z. (2012). A Study of Online English Language Teacher Education Programmes in Distance Education Context in Pakistan. *English Language Teaching*, 5(11): 91-103. <u>https://doi.org/10.5539/elt.v5n11p91</u>
- Farooq, M. U., & Soomro, A. F. (2018). Teachers and Technology : Trends in English Language Teaching in Saudi Arabia. *International Journal of English Linguistics*, 8(5), 10–19. <u>https://doi.org/10.5539/ijel.v8n5p10</u>
- Farooq, M. U., Soomro, A. F., & Umer, M. (2018). English Language Teaching and Cultural Implications in Saudi Arabia. *International Journal of English Linguistics*, 8(3), 177-185.
- Fithriani, R., Dewi, U., Daulay, S. H., Salmiah, M., & Fransiska, W. (2019). Using Facebook in EFL writing class: Its effectiveness from students' perspective. *KnE Social Sciences*, 3(19), 634-645. <u>https://doi.org/10.18502/kss.v3i19.4892</u>
- Fives, H., & Buehl, M. M. (2012). Spring cleaning for the "messy" construct of teachers' beliefs: What are they? which have been examined? What can they tell us ? In K. R. Harris, S. Graham, & T. Urdan (Eds.), *APA educational psychology handbook*, Vol 2: *Individual differences and cultural and contextual factors* (pp.471-499): American Psychological Association. <u>http://dx.doi.org/10.1037/13274-000</u>.

- Fry, M. (2012). An ethnography: Understanding emergency nursing practice belief systems. *International Emergency Nursing*, 20(3), 120-125.
- Fu, J. S. (2013). A Critical Literature Review and Its Implications. International Journal of Education and Development using Information and Communication Technology (IJEDICT), 9(1), 112-125. <u>http://ijedict.dec.uwi.edu/include/getdoc.php?id=5402&article=1541&mode=pd</u> f
- Galiakberova, A. R. (2022). Interactive approaches in teaching a foreign language. *Oriental renaissance: Innovative, educational, natural and social sciences,* 2(Special Issue 20), 199-203.
- Gao, Y., & Bintz, W. P. (2019). An exploratory study on Chinese EFL teachers' beliefs about reading and teaching reading. *Journal of Asia TEFL*, *16*(2), 576-590.
- Ghavifekr, S., & Rosdy, W. A. W. (2015). Teaching and Learning with Technology: Effectiveness of ICT Integration in Schools. *International Journal of Research in Education and Science*, 1(2), 175-191. <u>https://doi.org/10.21890/ijres.23596</u>
- Gilakjani, A. P (2017). A review of the literature on the integration of technology into the learning and teaching of English language skills. *International Journal of English Linguistics*, 7(5), 95-106. doi: <u>https://doi.org/10.5539/ijel.v7n5p95</u>
- Gilakjani, A. P. (2013). Factors contributing to teachers' use of computer technology in the classroom. *Universal Journal of Educational Research*, 1(3), 262–267.
- Gilakjani, A. P., & Sabouri, N. B. (2017). A detailed analysis over Iranian EFL teachers' beliefs towards using pronunciation software in teaching English pronunciation. *International Journal of Applied Linguistics and English Literature*, 6 (7), 227-235.
- Gilakjani, A. P., Sabouri, N. B., & Zabihniaemran, A. (2015). What are the barriers in the use of computer technology in EFL instruction?. *Review of European Studies*, 7(11), 213-221. <u>https://doi.org/10.5539/res.v7n11p213</u>
- Gilakjani, A. P., Sheikhy, R., Montashery, I., & Alizadeh, M. (2019). A mixed-method study of teachers' attitudes towards computer pronunciation software in teaching English pronunciation. *International Journal of Instruction*. <u>https://doi.org/10.29333/iji.2019.12153</u>
- Godwin-Jones, R. (2015). The evolving roles of language teachers: Trained coders, local researchers, global citizens. *Language Learning & Technology*, 19(1), 10-22.
- Gómez-Ramirez, I., Valencia-Arias, A., & Duque, L. (2019). Approach to M-learning acceptance among university students: An integrated model of TPB and TAM. *International Review of Research in Open and Distributed Learning*, 20(3), 141– 164. <u>https://doi.org/10.19173/irrodl.v20i4.4061</u>
- Government of Khyber PakhtunKhwa. (2015). White paper 2015-2016- KP Assembly: http://www.pakp.gov.pk/2013/wp-content/uploads/White-Paper-2015-161.pdf

- Grobler, L. (2017). Parent and caregiver experiences of a higher education rural school partnership providing educational psychology services (Doctoral dissertation, University of Pretoria)
- Gul, R., Tahir, T., & Ishfaq, U. (2023). Perspectives of the Teachers on Challenges and Possibilities to Online System of Education amid COVID-19 Outbreak in Balochistan, Pakistan. SAGE Open, 13(1), 215824402311550. <u>https://doi.org/10.1177/21582440231155063</u>
- Güneş, E., & Bahçivan, E. (2016). A multiple case study of preservice science teachers' TPACK: Embedded in a comprehensive belief system. *International Journal of Environmental and Science Education*, 11(15), 8040–8054.
- Guo, Z., & Xu, L. (2016). Study on the integration mode of computer network technology and college English curriculum. *International Journal of Emerging Technologies in Learning*, 11(8). <u>https://doi.org/10.3991/ijet.v11i08.6046</u>
- Guzmán, V., & Larrain, A. (2021). The transformation of pedagogical practices into dialogic teaching: Towards a dialogic notion of teacher learning. *Professional Development* in *Education*, 1–14. <u>https://doi.org/10.1080/19415257.2021.1902837</u>
- Hadijah, S., & Shalawati, S. (2017). Investigating teachers' barriers to ICT (information communication technology) integration in teaching English at senior high schools in Pekanbaru. In Proceedings of the fifth International Seminar on English Language and Teaching (ISELT-5), May 9-10, Vol. 5, pp. 302–310, Universitas Negeri Padang
- Haider, A. (2016, June 21). Students agitate delay in distribution of laptops under PMLS. The Daily Times, Pakistan. <u>https://dailytimes.com.pk/74581/students-agitate-delay-in-distribution-of-laptops-under-pmls/</u>
- Haider, G. (2013). Perceptions of ESL Teachers towards CALL: Implications for ELT (English Language Teaching) at the Intermediate Level- A Case Study from Pakistan. *Language in India*, *13*:8, 204-238.
- Halim, M., & Hashim, H. (2019). Integrating web 2.0 technology in ESL classroom: A review on the benefits and barriers. *Journal of Counseling and Educational Technology*, 2(1), 19-26. <u>https://doi.org/10.32698/0381.</u>
- Hallisey, E. J. (2017). *High School Classroom Use of Digital Tools: A Case Study Approach* (Doctoral dissertation, Teachers College, Columbia University).
- Hani, N. A. B. (2014). Benefits and barriers of computer assisted language learning and teaching in the Arab world: Jordan as a model. *Theory and Practice in Language Studies*, 4(8), 1609-1615. <u>https://doi.org/10.4304/tpls.4.8.1609-1615</u>
- Hartman, R. J., Townsend, M. B., & Jackson, M. (2019). Educators' perceptions of technology integration into the classroom: a descriptive case study. *Journal of Research in Innovative Teaching & Learning*, 12(3), 236–249. <u>https://doi.org/10.1108/jrit-03-2019-0044</u>.

- Harvey, O. J. (1986). Belief systems and attitudes toward the death penalty and other punishments . *Journal of Personality*, 54 (4), 659 675.
- Hashemi, A., & Kew, S. N. (2021). The barriers to the use of ICT in English Language Learning: A Systematic Literature Review. *Journal of Information and Communication Technologies*, 3(1).
- Hassan, M.U., & Aziz, A.A. (2019). Investigating the use of Computer Technology for e-learning in Pakistani Maddaris: Case of Religious Teachers. *International Journal of Distance Education and E-Learning*, 5 (1), 44-56.
- Hayes, E., & Ohrnberger, M. (2013). The gamer generation teaches school: The gaming practices and attitudes towards technology of pre-service teachers. *Journal of Technology and Teacher Education*, 21(2), 154–177.
- Haycock, L. (2017). Ways in which middle leaders support teachers in integrating digital technology (Master's thesis).
- Hechter, R. R., & Vermette, L. L. (2013). Technology integration in K-12 science classrooms: An analysis of barriers and implications. *Themes in Science & Technology Education*, 6(2), 73-90.
- Heo, M., Kim, N., & Faith, M. S. (2015). Statistical power as a function of Cronbach alpha of instrument questionnaire items. *BMC Medical Research Methodology*, 15, 86. <u>https://doi.org/10.1186/s12874-015-0070-6</u>
- Heredia-Arboleda, E. E., Torres-Cajas, M. J., Oviedo, D. R. Y., & Lara-Velarde, A. C. (2021). Qualities of Effective EFL Teachers in the 21st Century: A Reflection From Ecuador. *Theory and Practice in Language Studies*, 11(12), 1526-1533.
- Herrera Mosquera, L. (2017). L'impact de la mise en place d'un environnement d'apprentissage virtuel dans la classe d'anglais langue étrangère. *Íkala, Revista de Lenguaje y Cultura, 22*(3), 479-498.
- Hernandez, B., Montaner, T., Javier Sese, F., Urquizu, P. (2011). The role of social motivations in e-learning: How do they affect usage and success of ICT interactive tools? *Computers in Human Behaviour*, 27(6), 2224–2232 . <u>https://doi.org/10.1016/j.chb.2011.07.001</u>
- Hjalmarsson, H. (2015). The effects of ICT on affective factors and teaching practices in the EFL and ESL classroom, 1-23. Retrieved July 20, 2019 from https://gupea.ub.gu.se/bitstream/2077/38731/1/gupea_2077_38731_1.pdf
- Hodgson, V., & Shah, U. (2016). A phenomenographic study of lecturers' conceptions of using learning technology in a Pakistani context. Learning, *Media and Technology*, 42(2) 198-213.
- Hos, R., & Kekec, M. (2014). The mismatch between non-native English as a foreign language (EFL) teachers' grammar beliefs and classroom practices. *Journal of Language Teaching and Research*, 5(1), 80–87. <u>https://doi:10.4304/jltr.5.1.80-87</u>

- Howard, S. K., & Mozejko, A. (2015). Teachers: technology, change and resistance. In M. J. Henderson & G. Romeo (Eds.), *Teaching and digital technologies: Big Issues and critical questions*, 5(2), 307-317. https://doi.org/10.1017/CBO9781316091968.030
- Hsu, P. (2016). Examining current beliefs, practices and barriers about technology integration: A case study. *TechTrends*, 60(1), 30-40. <u>https://doi.org/10.1007/s11528-015-0014-3</u>
- Hua, Z. & Kramsch, C. (2016). Symbolic power and conversational inequality in intercultural communication: An introduction. *Applied Linguistics Review*, 7(4), 375–383. <u>https://doi.org/10.1515/applirev-2016-0016</u>
- Huang, F., Teo, T., & Zhou, M. (2019). Factors affecting Chinese English as a foreign language teachers' technology acceptance: A qualitative study. *Journal of Educational Computing Research*, 57(1), 83–105. <u>https://doi.org/10.1177/0735633117746168</u>
- Huang, F., Teo, T., & He, J. (2019a). Digital nativity among university teachers in China: Factor structure and measurement invariance from exploratory structural equation modeling analyses of the Digital Native Assessment Scale (DNAS). *Interactive Learning Environments*. <u>https://doi.org/10.1080/10494 820.2019.1570278</u>.
- Hubbard, P. (2018). Technology and professional development. *The TESOL* encyclopedia of English language teaching, 1–6. <u>https://doi.org/10.1002/9781118784235.eelt0426</u>
- Hur, J. W., Shannon, D., & Wolf, S. (2016). An investigation of relationships between internal and external factors affecting technology integration in classrooms. *Journal of Digital Learning in Teacher Education*, 32(3), 105-114. https://doi.org/10.1080/21532974.2016.1169959
- Hussain, S., Shaheen, N., Ahmad, N., & Islam, S. U. (2019). Teachers' Classroom Assessment Practices: Challenges and Opportunities to Classroom Teachers in Pakistan. *Dialogue*. 14(1), 88.
- Shah, F.H. (2015). An investigation into Lecturers' Beliefs and Implementation of the English Language Curriculum Change at Higher Education Level in Pakistan. University of Exeter, Education and lifelong learning, Exeter.
- Ibrahim, K. H. S. (2022). A methodological approach to analyzing digital game-based FL use and learning: The diamond reconstruction model. In *Research Anthology* on Developments in Gamification and Game-Based Learning (pp. 192-213). IGI Global.
- Idris, O. A. S. (2016). Investigating Instructors' Perspectives towards StudentCentered Learning in Teaching English Language. *American Journal of Educational Research*, 4(20), 1317-1322.
- Iftakhar, S. (2016). Google Classroom: What Works and How? *Journal of Education and Social Sciences, Vol. 3*, 12-18.

- Imran, M., & Ain, Q. (2019). Effects of non-native instructors' L1, beliefs and priorities on pronunciation pedagogy at secondary level in district Rajanpur, Pakistan. *Journal of Language and Cultural Education*, 7(2), 108–121. <u>https://doi.org/10.2478/jolace2019-0015</u>
- Indrianto, A. T. L., Oktavio, A., & Nugroho, A. (2022). Pilgrimage tourism events in Indonesia: Examining the relationship of behavioral belief, motivation to comply, attitudes, subjective norms, and intention to partake. *Jurnal Aplikasi Manajemen*, 20(1), 54–65. <u>https://doi.org/10.21776/ub.jam.2022.020.01.06</u>
- Irshad, S., & Ghani, M. (2015). Benefits of CALL in ESL Pedagogy in Pakistan: A Case Study. *ELF Annual Research Journal.* 17, 1-22.
- Ishaq, K., Azan, N., Zin, M., Rosdi, F., Abid, A., & Ijaz, M. (2020). The Impact of ICT on Students' Academic Performance in Public Private Sector Universities of Pakistan. *International Journal of Innovative Technology and Exploring Engineering*, 9(3), 1117–1121. <u>https://doi.org/10.35940/ijitee.c8093.019320</u>
- Islam, M. (2018). The symbolic capital and expanding roles of English: A study of L2 attitudes in a Pakistani EFL context. *Bulletin of Education & Research, 40*(1), 39–56. <u>http://search.proquest.com/docview/205964512</u>
- Jackson, D., McDonald, G., Luck, L., Waine, M., & Wilkes, L. (2016). Some strategies to address the challenges of collecting observational data in a busy clinical environment. *Collegian*, 23(1), 47-52.
- Jakonen, T., Dooly, M., & Balaman, U. (2022). Interactional practices in technology-rich L2 environments in and beyond the physical borders of the classroom. *Classroom Discourse*, *13*(2), 111-118.
- Jadoon, A. U. R., Chishti, M. I., Afzaal, M., & Afzal, T. (2020). Challenges Faced by Newly Inducted Teachers Implementing Revised English Curriculum in Pakistan. *English Language Teaching*; Vol. 13, No. 7; Canadian Center of Science and Education. <u>https://doi.org/10.5539/elt.v13n7p52</u>
- Jamil, M., Jamil, S., & Bano, S. (2016). Extrinsic and Intrinsic Barriers of Integrating ICTs Tools in Teaching at Undergraduate and Elementary Level: A Comparative Study. *Pakistan Journal of Social Sciences (PJSS)*, 36(2).
- Jamil, M. & Shah, J. H. (2014). Perception of undergraduates about computer and Internet ethics in Pakistan, *Nigerian Journal of Technology (NIJOTECH), 33*(4), 512-522.
- Jamil, M., Jamil, S., Urooj, A. H., & Elahi, F. (2021). ICT Based Research Activities: Ethical Awareness & Applications by the Contemporary Researchers. *Review of Applied Management and Social Sciences*, 4(1), 223-235.
- Januarty, R., & Nima, H. N. A. (2018). Energizing Students' Reading Comprehension through Multimodal Texts. *International Journal of Language Education*, 2(2), 14–22. <u>https://doi.org/10.26858/ijole.v2i2.4347</u>

- Jarvis, H., & Achilleos, M. (2013). From computer assisted language learning (CALL) to mobile assisted language use. *TESL-EJ* 16(4). http://teslej.org/wordpress/issues/volume16/ej64/ej64a2/.
- Jiang, S., Wang, H., & Tschudi, S. (2014). Intercultural learning on the web: Reflections on practice. In D. M. Chun (Ed.), *Cultura-inspired intercultural exchanges: Focus on Asian and Pacific languages* (pp. 121-137). University of Hawai'i, National Foreign Language Resource Center.
- Johnson, A. M., Jacovina, M. E., Russell, D. G., & Soto, C. M. (2016). Challenges and solutions when using technologies in the classroom. In S. A. Crossley & D. S. McNamara (Eds.), *Adaptive Educational Technologies for Literacy Instruction* (pp. 13-29). Taylor & Francis. <u>https://doi.org/10.4324/9781315647500</u>
- Johnson, J. L., Adkins, D., & Chauvin, S. (2020). A review of the quality indicators of rigor in qualitative research. *American Journal of Pharmaceutical Education*, 84(1), 138-146. <u>https://doi.org/10.5688/ajpe7120</u>
- Jowett, A. (2015). A case for using online discussion forums in critical psychological research. *Qualitative Research in Psychology*, 12(3), 287–297. https://doi.org/10.1080/14780887.2015.1008906
- Junqueira, K. & Matoti, S. (2013). A comparative study of pre-service teachers' teaching efficacy beliefs before and after work integrated learning: Part two. *Africa Education Review 10*(1): 28–46.
- Kaimara, P., Fokides, E., Oikonomou, A., & Deliyannis, I. (2021). Potential barriers to the implementation of digital game-based learning in the classroom: Pre-service teachers' views. *Technology, Knowledge and Learning, 26*(4), 825–844. <u>https://doi.org/10.1007/s10758-021-09512-7</u>
- Kaiser, H. F. (1974). An index of factorial simplicity. *Psychometrika*, 39(1), 31–36. https://doi.org/10.1007/BF02291575
- Kalasi, R. (2014). The impact of social networking on new age Teaching and learning: an overview. *Journal of education & social policy*, 1(1), 23-28. <u>http://jespnet.com/journals/Vol 1_No_1_June_2014/5.pdf</u>.
- Karacan, C. G. (2019). Exploring factors that predict pre-service English teachers' intentions to use augmented reality using decomposed theory of planned behavior. Unpublished master's thesis, Bahçeşehir University]. The Council of Higher Education Database.
- Katushemererwe, F., & Nerbonne, J. (2015). Computer-assisted language learning (CALL) in support of (re)-learning native languages: the case of Runyakitara. *Computer Assisted Language Learning*, 28(2), 112-129.
- Kauppinen, M., Kiili, C., & Coiro, J. (2018). Experiences in digital video composition as sources of self-efficacy toward technology use. *International Journal of Smart Education and Urban Society*, 9(1), 1-12.

- Kavanoz, S., Yüksel, H. G., & Varol, B. (2017). Evolvement of pre-service language teachers' beliefs through teacher education. *International Journal of Progressive Education*, 13(1), 119-135.
- Kennedy, C., & Kennedy, J. (1996). Teacher attitudes and change implementation. *System*, 24 (3), 351–360. <u>https://doi.org/10.1016/0346-251X(96)00027-9</u>
- Keengwe, J. (2015). Promoting Active Learning through the Integration of Mobile and Ubiquitous Technologies (Vol. 6). IGI Global
- Kern, R. (2015). *Language, literacy, and technology*. Cambridge University Press. https://doi.org/10.1017/cbo9781139567701
- Khader, F. R. (2012). Teachers' pedagogical beliefs and actual classroom practices in social studies instruction. *American International Journal of Contemporary Research*, 2(1), 73-92. <u>http://www.aijcrnet.com/journal/index/87</u>
- Khadim, M., Qureshi, N., & Khan, A. M. (2021). Content Analysis of National Education Policy 2017: Educational Exertions towards Education for Sustainable Development in Pakistan. *Journal of Educational Research* (1027-9776), 24(1).
- Khan, H. K. & Butt, M. N. (2018). Knowledge-based language teaching and its implications on teacher education: Perceptions of teacher educators in Pakistan. *Journal of Humanities & Social Sciences, XXVI*(1), 45–62.
- Khan, A., Nazneen, M., Ahmad, S. S., & Khalid, A. (2016). A Comparative Analysis of Effectiveness of Learner-centered Approach and Teacher-centered Approach in Writing Skills of Undergraduate Students. *Linguistics and Literature Review* 2(2). 73-91.
- Khan, K (2013, Novemeber 13). Pressing restart: Powering off Naway Sahar laptop scheme, plugging in scholastic endowements. The Express Tribune, Khyber PukhtunKhwa: https://tribune.com.pk/story/631183/pressing-in scholastistic-endowements/.
- Khan, A. H., Ejaz, N., Matthews, S., Snow, S., & Matthews, B. (2021). Speculative design for education: Using participatory methods to map design challenges and opportunities in Pakistan. *In Designing Interactive Systems Conference* 2021 (DIS '21) (pp. 1748–1764). ACM. <u>https://doi.org/10.1145/3461778.3462117</u>
- Khatoon, S., Abidin, M. J. Z., Mirza, Q., & Hussain, A. (2020). Blogging in ESL Class-Gender-Based Attitude of the Engineering Students. *International Journal of Evaluation and Research in Education*, 9(4), 1128-1137.
- Khodabandelou, R., That, J. E. M., Selvaraju, M. A., Ken, T. Y., Kewen, Z., Yan, Z., & Ning, T. Y. (2016). Exploring the main barriers of technology integration in the English language teaching classroom: A qualitative study. *International Journal of Education and Literacy Studies*, 4(1), 53–58. https://doi.org/10.7575/aiac.ijels.v.4n.1p.53

- Khokhar, A. J., & Javaid, S. (2016, April 28 -1). Students and teachers perceptions of ICT use in classroom: Pakistani classrooms [Paper presentation]. The Asian Conference on Technology in the Classroom, Tokyo.Retrieved from https://pdfs.semanticscholar.org/eda1/ b20c2e8f8ce0a0349c88467d3444f3d9d81c.pdf
- Kim, S.H. (2014). Developing autonomous learning for oral proficiency using digital storytelling. Language Learning & Technology, 18(2), 20–35. http://llt.msu.edu/issues/june2014/action1.pdf
- Kington, A., Sammons, P., Brown, E., Regan, E., Ko, J., & Buckler, S. (2014). *EBOOK: Effective Classroom Practice*. McGraw-Hill Education (UK).
- Kivunja, C., & Kuyini, A. B. (2017). Understanding and applying research paradigms in educational contexts. *International Journal of Higher Education*, 6(5), 26–41. https://doi.org/10.5430/ijhe.v6n5p26
- Kock, N. (2015). One-tailed or two-tailed P values in PLS-SEM? *International Journal* of eCollaboration, 11(2), 1-7.
- Korstjens, I., & Moser, A. (2018). Series: practical guidance to qualitative research. Part 4: trustworthiness and publishing. *European Journal of General Practice*, 24(1), 120-124.
- Kramsch, C. (2013). Culture in foreign language teaching. *Iranian Journal of Language Teaching Research*, 1(1), 57-78.
- Krause, J. M., O'Neil, K., & Jones, E. (2020). Technology in physical education teacher education: A call to action. *Quest*, 72(3), 241–259. https://doi.org/10.1080/00336297.2019.1685553
- Krejcie, R. V, & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(3), 607–610.
- Kriek, J., & Stols, G. (2010). Teachers' beliefs and their intention to use interactive simulations in their classrooms. *South African Journal of Education*. https://doi.org/10.15700/saje.v30n3a284
- Kişlal, İ. (2019). An overview of content based instruction with young learners through student self-reported literacy achievement, teacher interview and classroom observation (Master's thesis, Eğitim Bilimleri Enstitüsü).
- Kumar, N., & Gupta, U. (2017). Factors Influencing Online Purchase Behaviour of Customers in Tier III Cities of India-A Factor Analysis Approach. *International Journal of Marketing & Business Communication*, 6(1).
- Kumi-Yeboah, A. (2018). Designing Cross-Cultural Collaborative Online Learning Framework for Online Instructors. *Online Learning*, 22(4), 181–201. https://doi.org/10.24059/olj.v22i4.1520

- Laabidi, Y., & Laabidi, H. (2016). Barriers Affecting Successful Integration of ICT in Moroccan Universities. *Journal of English Language Teaching and Linguistics*, 1(3). <u>https://doi.org/10.21462/jeltl.v1i3.29</u>
- Lai, P. C. (2017). The Literature Review of Technology Adoption Models and Theories for the Novelty Technology. *Journal of Information Systems and Technology Management*, 14(1), 21–38. <u>https://doi.org/10.4301/s1807-17752017000100002</u>
- Lawrence, G. (2014). The role of teachers and their beliefs in implementing technologymediated language learning: Implications for teacher development and research. *International Journal of Computer-Assisted Language Learning and Teaching*, 4(4), 59-75. <u>https://doi.org/10.4018/ijcallt.2014100105</u>
- Leng, A. P.W., Hui-Shen, C. L., Dhamotharan, M., & Che Mustafa, M. (2021). Preschool teachers' beliefs and classroom practices of child-centred learning at private preschools in central region, Malaysia. *Southeast Asia Early Childhood Journal*, 10(2), 69-83. <u>https://doi.org/10.37134/saecj.vol10.2.5.2021</u>
- Leslie, M., Paradis, E., Gropper, M. A., Reeves, S., & Kitto, S. (2014). Applying ethnography to the study of context in healthcare quality and safety. *BMJ Quality & Safety*, 23 (2), 99-105.
- Liang W. (2021). University teachers' technology integration in teaching English as a foreign language: evidence from a case study in mainland China. *SN Social Sciences*, *1*(8), 219. <u>https://doi.org/10.1007/s43545-021-00223-5</u>
- Li, Z., & Li, L. (2019). An examination of kindergarten teachers' beliefs about creative pedagogy and their perceived implementation in teaching practices. *Thinking Skills and Creativity*, *32*, 17–29. <u>https://doi.org/10.1016/j.tsc.2019.03.001</u>
- Li, L., Liu, Y., Wang, J., Deng, W., & Oh, H. (2016). Human dynamics based driver model for autonomous car. *IET Intelligent Transport Systems*, 10(8), 545-554.
- Li, B., Xu, Z., Hong, N., & Hussain, A. (2022). A bibliometric study and science mapping research of intelligent decision. *Cognitive Computation*, 14(3), 989-1008.
- Lim, C. P., Zhao, Y., Tondeur, J., Chai, C. S., & Tsai, C. C. (2013). Bridging the gap: Technology trends and use of technology in schools. *Educational Technology and Society*, 16(2), 59–68.
- Liton, H. A. (2021). Social media tools accentuating self-directed personal learning trajectories: Underpinning autonomous learning hub. *Advance*, 1-19.
- Liu, S. H. (2013). Exploring the instructional strategies of elementary school teachers when developing technological, pedagogical, and content knowledge via a collaborative professional development program. *International Education Studies*, 6(11), 58–68. <u>https://doi.org/10.5539/ies.v6n11p58</u>
- Liu, S., & Laohawiriyanon, C. (2013). Students' attitudes towards cultural learning in the English classroom: A case study of nonEnglish major students in a Chinese university. *International Journal of English Language Education*, 3(1), 28-42.

- Liu, H., Lin, C. H., & Zhang, D. (2017). Pedagogical beliefs and attitudes toward information and communication technology: a survey of teachers of English as a foreign language in China. *Computer Assisted Language Learning*, 30(8),745-765. <u>https://doi.org/10.1080/09588221.2017.1347572</u>
- Lozano, A. A., & Izquierdo, J. (2019). Technology in second language education: Overcoming the digital divide. *Emerging Trends in Education*, 2(3). <u>https://doi.org/10.19136/etie.a2n3.3250</u>
- Lukaš, M. (2014). Supporting friendly atmosphere in a classroom by technology implementation. In E. Berbić Kolar, B. Bognar, M. Sablić, & B. Sedlić (Eds.), *Challenges in building child friendly communities: Proceedings of the International Conference* (pp. 1–16). Europe House SlavonskiBrod
- Ly, P., Bani, M. D., Bria, E., & Lobo, L. (2022). Manners Learning Through Hengad'do (Nose Kissing) And Waje Ngara (Cherished Name) Unique Tradition Of Sabunese In Sabu-Raijua Regency. *Journal of Positive School Psychology*, 552-564.
- Mahmood, S. (2021). Instructional strategies for online teaching in COVID-19 pandemic. *Human Behaviour and Emerging Technologies*, 3, 199-203. <u>https://doi.org/10.1002/hbe2.218</u>
- Mai, A. K., & Ljung, J. (2022). Teachers' Beliefs in promoting Gender Awareness using Fiction.
- Mansoor, A., Samad, A., & Iqbal, M. (2021). Re-Fueling L2 learners' Motivation: Exploring ESL Undergraduate Learners' Perceptions about the Re-Motivating Factors of a Public Sector University in Pakistan. The Qualitative Appro. *Journal* of the Research Society of Pakistan, 58(1), 180.
- Marlina R (2017) The prospect of teaching English as an international language in a Chinese context: Student-teachers' reactions. In: Xu Z, He D, Deterding D (eds) *Researching Chinese English: The State of the Art.* Springer, pp.173–188.
- Marshall, C., & Rossman, G. B. (2014). *Designing qualitative research*. Sage publications.
- McInroy, L.B., 2016. Pitfalls, potentials, and ethics of online survey research: LGBTQ and other marginalized and hard-to-Access youths. *Soc. Work Res.* 40 (2), 83–94. https://doi.org/10.1093/swr/svw005
- Merriam, S. & Tisdell, E. (2015). Qualitative research: a guide to design and implementation. Jossey-Bass.
- Meschoulam, M., de Benito, C., Blumenkron, C., Muhech, A., Naanous, T., Ramírez, A., & Quintanilla, S. (2017). Mass Media, Violence, and Peace building: A Qualitative Study in Mexico. *International Journal of Peace Studies*, 22(1), 1-20. <u>https://www.gmu.edu/programs/icar/ijps/vol22_1/MeschoulamFINAL.pdf</u>

- Mihaela, V., & Alina-Oana, B. (2015). (When) Teachers' Pedagogical Beliefs are Changing? Procedia - Social and Behavioral Sciences, 180, 1001–1006. <u>https://doi.org/10.1016/j.sbspro.2015.02.191</u>
- Mohaar, K. A. (2018, July 31). Post election Pakistan. The Nation, Pakistan. https://nation.com.pk/31-Jul-2018/608837
- Mohajan, H. K. (2017). Two Criteria for Good Measurements in Research: Validity and Reliability. Annals of Spiru Haret University. Economic Series, 17(4), 59-82. <u>https://doi.org/10.26458/1746</u>
- Moore, C. G., Carter, R. E., Nietert, P. J., & Stewart, P. W. (2011). Recommendations for planning pilot studies in clinical and translational research. *Clinical and Translational Science*, 4, 332–337. <u>https://doi.org/10.1111/j.1752-8062.2011.00347.x</u>.
- Mourlam, D. (2014). Social media and education: Perceptions and need for support. Journal on School Educational Technology, 9(3), 23-28. https://doi.org/10.26634/jsch.9.3.2617
- Mudassar. (2015, April 23). The progress of PTI in KPK. <u>https://kpkprogress.wordpress.com/</u>
- Mumu, E.L. (2017). An exploration of teachers' beliefs on the Integration of culture in teaching English as a foreign language in junior high schools in Minahasa Indonesia [Unpublished Ph.D. dissertation]. Murdoch University.
- Munir, S. S. & Khan, A. P. D. I. (2015). Practices and integration of ICT at private higher secondary level in Pakistan. *International Journal on New Trends in Education* & their Implications (IJONTE), 6(2).
- Naz, M., Hani, U., & Muhammad, Y. (2020). Self-efficacy beliefs of pre-service teachers regarding online teaching. *International Journal of Distance Education and E-Learning*, 6(1), 47-65
- Nazir, M. A., & Khan, M. R. (2021). Exploring the Barriers to online Learning During the COVID-19 Pandemic. A case of Pakistani Students from HEIs [Higher Education Institutions]. GIST – Education and Learning Research Journal. <u>https://doi.org/10.26817/16925777.1195</u>
- Ncube, R. (2022). Life Sciences Teachers' pedagogical beliefs and their influence on Information Communication and Technology Integration. University of Johannesburg (South Africa).
- Negueruela-Azarola, E. (2011). Beliefs as conceptualizing activity: A dialectical approach for the second language classroom. *System*, *39*(3), 359-369. <u>https://doi.org/10.1016/j.system.2011.07.008</u>.
- Nespor, J. (1987). The role of beliefs in the practice of teaching. *Journal of curriculum studies*, *19*(4), 317-328. <u>https://doi.org/10.1080/0022027870190403</u>

- Nikolopoulou, K., & Gialamas, V. (2016). Barriers to ICT use in high schools: Greek teachers' perceptions. *Journal of Computers in Education*, *3*(1), 59–75. https://doi.org/10.1007/s40692-015-0052.
- Oda, K. (2011). Post-secondary foreign language teachers' belief systems about language teaching/learning and technology/teaching with technology. Doctoral dissertation. University of Minnesota, Minnesota, USA. ProQuest. (898980751). http://search/proquest/com/docview/898980751?accountid=14663
- O'Rourke, N., Psych, R., & Hatcher, L. (2013). A step-by-step approach to using SAS for factor analysis and structural equation modelling. SAS Institute.
- Orlando, J. (2014). Teachers' changing practices with information and communication technologies: An up-close, longitudinal analysis. *Research in Learning Technology*, 22(1), 21354. <u>https://doi.org/10.3402/rlt.v22.21354</u>
- Pajares, M. F. (1992). Teachers' Beliefs and Educational Research: Cleaning up a Messy Construct. *Review of Educational Research*, 62(3), 307-332. <u>https://doi.org/10.3102/00346543062003307</u>
- Papadakis, S., Kalogiannakis M., & Zaranis, N. (2018). Educational apps from the Android Google Play for Greek preschoolers: A systematic review. Computers & Education, 116, 139-160, <u>https://doi.org/10.1016/j.compedu.2017.09.007</u>
- Pellas, N., Dengel, A., & Christopoulos, A. (2020). A Scoping Review of Immersive Virtual Reality in STEM Education. *IEEE Transactions on Learning Technologies*, 13(4), 748-761. <u>https://doi.org/10.1109/TLT.2020.3019405</u>
- Perveen, A. (2016). Synchronous and Asynchronous E-Language Learning: A Case Study of Virtual University of Pakistan. Open Praxis, 8(1): 21-39. <u>https://files.eric.ed.gov/fulltext/EJ1093436.pdf</u>
- Pink, S. and J. Morgan (2013). Short-term ethnography: intense routes to knowing. Symbolic Interaction, 36(3), 351–361. <u>http://doi.org/10.1002/symb.66</u>
- Pirzada, G. (2022). Art & Design students' perspectives on work-integrated learning and challenges: a case study of STEP Institute of Art, Design & Management, Pakistan. *TVET*@ *Asia*, (18), 1-15.
- Plana, M. G. C., Escofet, M. I. G., Figueras, I. T., Gimeno, A., Appel, C., & Hopkins, J. (2013). Improving learners' reading skills through instant short messages: A sample study using WhatsApp. 4th World-CALL Conference, Glasgow, 10-13 July 2013
- Plana, M., Gibert, M., Triana, I., Gimeno, A., Appel, C., & Hopkins, J. (2013). Improving learners' reading skills through instant short messages: a sample study using WhatsApp. Paper presented at World-CALL 2013- CALL: Sustainability and Computer-Assisted Language Learning, 80–84.
- Prestridge, S. (2012). The beliefs behind the teacher that influences their ICT practices. *Computers* & *Education*, 58(1), 449 - 458. <u>https://doi.org/10.1016/j.compedu.2011.08.028</u>

Rabbidge, M. (2019). Translanguaging in EFL contexts: A call for change. Routledge.

- Rachmawati, U. (2016). Computer assisted language learning (call) as EFL teaching and learning media in Indonesia: opportunity and challenges. *Edulingua-Jurnal Linguistik Terapan dan Pendidikan Bahasa Inggris. (3)*2. https://doi.org/10.34001/edulingua.v3i2.508.
- Rajani, C. H., & Solanki, A. (2016), Motivations for using Social Media: An Exploratory Study, *International Journal of Management* (IJM), Vol. 7(4), 123–129.
- Rahimi, M., Gholizadeh, G. R., & Shahryari, A. (2019). Iranian EFL Learners' Perceptions about Automatic Spelling Correction Software Use for Learning English Spellings: A Study with Focus on Gender. *International Journal of English Language & Translation Studies*, 7(1), 68–75. http://www.eltsjournal.org/archive/value7%20issue1/8-7-1-19.pdf
- Ramorola, M. Z. (2013). Challenge of effective technology integration into teaching and learning. *Africa Education Review*, 10(4), 654-670. https://doi.org/10.1080/18146627.2013.853559
- Rana, S. (2017, August 25). 6th census findings: 207 million and counting. The Express Tribune, Pakistan. <u>https://tribune.com.pk/story/1490674/57-increase-pakistans-population-19-years-shows-new-census/</u>
- Rana, N.P., Dwivedi, Y.K., & Lal, B. (2015). Factors Influencing Citizen's Adoption of an E-Government System: Validation of the Decomposed Theory of Planned Behavior. UK Academy for Information Systems Conference Proceedings 2015, 14
- Rana, K., Greenwood, J., & Henderson, R. (2021). Teachers' experiences of ICT training in Nepal: how teachers in rural primary schools learn and make progress in their ability to use ICT in classrooms. *Technology, Pedagogy and Education, 31*(3), 275-291. <u>https://doi.org/10.1080/1475939X. 2021.2014947</u>
- Rao, P. S. (2019). The role of English as a global language. *Research Journal of English*, 4(1), 65-79.
- Rashid, S. (2017). Computer Assisted Language Learning in Pakistan: Teachers' Perspectives. *Journal of Asia TEFL*, 14(4), 802-808.
- Rashid, S., Cunningham, U., Watson, K., & Howard, J. (2018). Revisiting the digital divide (s): Technology-enhanced English language practices at a university in Pakistan. Australian Journal of Applied Linguistics, 1(2), 64–87. <u>https://doi.org/10.29140/ajal.v1n2.7</u>
- Rauniar, R., Rawski, G., Yang, J., & Johnson, B. (2014). Technology acceptance model (TAM) and social media usage: An empirical study on Facebook. *Journal of Enterprise Information Management*, 27(1), pp. 6–30.
- Renandya, W. A., Minh, N. T. T., & Jacobs, G. M. (2023). Learning to unlearn faulty beliefs and practices in English language teaching. *Studies in English Language Education*, 10(1), 1-15. <u>https://doi.org/10.24815/siele.v10i1.26009</u>.

- Riaz, H., Jabeen, N., Salman, Y., Ansari, N., &Moazzam, A. (2017). A study of higher education reforms in Pakistan: Key reforms and drivers. *Journal of the Research Society* of *Pakistan*, 54(2):79-94. https://www.researchgate.net/institution/University_of_the_Punjab
- Richards, J. C. & Rodgers, T. S. (2014). *Approaches and methods in language teaching*. Cambridge University Press.
- Rissanen, I., Kuusisto, E., Hanhimäki, E., & Tirri, K. (2018b). The implications of teachers' implicit theories for moral education: A case study from Finland. *Journal of Moral Education*, 47, 63–77. <u>https://doi.org/10.1080/030572</u> 40.2017.1374244
- Roach, P. (2009). *English Phonetics and Phonology: A Practical Course* (4th Ed.). Cambridge University Press.
- Rokeach, M. (1968). A theory of organization and change within value-attitude systems. *Journal of Social Issues, Vol. 24 No. 1, pp.* 13–33.
- Romero, R., Plaza, I. R., & Orfali, C. H. (2019). Barriers in teacher perception about the use of technology for evaluation in Higher Education. *Digital Education Review*, (35), 170-185.
- Roncancio Merchan, L. L. (2017). The influence of multimodal literacies in contrasting tasks to enhance students' cross-cultural awareness (Doctoral dissertation, Universidad de La Sabana).
- Rosak-Szyrocka, J., Apostu, S.A., Turi, J.A., & Tanveer, A.(2022). University 4.0 Sustainable Development in the Way of Society 5.0. *Sustainability* 14 (23), 16043
- Rowley, J. (2014). Designing and using research questionnaires. *Management Research Review*, *37*(3), 308–330. <u>https://doi.org/10.1108/MRR-02-2013-0027</u>
- Ruggiero, D., & Mong, C. J. (2015). The teacher technology integration experience: Practice and reflection in the classroom. *Journal of Information Technology Education*, 14, 161–178. <u>https://doi.org/10.28945/2227</u>
- Ruto, Z. J., & Ndaloh, A. M. (2013). Overcoming the challenges of using instructional methods and materials encountered by teachers of history and government in Wareng district, Kenya. *Journal of Emerging Trends in Educational Research* and Policy Studies, 4(2), 265-273.
- Sabzian, F., & Gilakjani, A. P. (2013). Teachers' attitudes about computer technology training, professional development, integration, experience, anxiety, and literacy in English language teaching and learning. *International Journal of Applied Science and Technology*, 3(1), 67-75.
- Sabzian, F., & Gilakjani, A. P. (2013). Teachers' attitudes about computer technology training, professional development, integration, experience, anxiety, and literacy in English language teaching and learning. *International Journal of Applied Science and Technology*, 3(1),67-75

- Sadaf, A., & Gezer, T. (2020). Exploring factors that influence teachers' intentions to integrate digital literacy using the decomposed theory of planned behavior. *Journal of Digital Learning in Teacher Education*. <u>https://doi.org/10.1080/21532974.2020.1719244</u>.
- Sadaf, A., & Johnson, B. L. (2017). Teachers' beliefs about integrating digital literacy into classroom practice: An investigation based on the theory of planned behavior. *Journal of Digital Learning in Teacher Education*, 33(4), 129–137. https://doi.org/10.1080/21532974.2017.1347534
- Sadaf, A., Newby, T. J., & Ertmer, P. A. (2016). An investigation of the factors that influence preservice teachers' intentions and integration of Web 2.0 tools. *Educational Technology Research and Development*,64(1), 37–64. <u>https://doi.org/10.1016/j.sbspro.2015.04.905.</u>
- Sadaf, A., Newby, T. J., & Ertmer, P. A. (2012). Exploring pre-service teachers' beliefs about using Web 2.0 technologies in K-12 classroom. *Computers & Education*, 59(3), 937–945. <u>https://doi.org/10.1016/j.compedu.2012.04.001</u>.
- Saeed, Y. B. M. (2015). The effect of using computer technology on english language teachers ' performance. *SUST Journal of Humanities*, *16*(1), 64-79.
- Sağlam, G., A., L. (2018). Can exams change how and what learners teach? Investigating the washback effect of a university English language proficiency test in the Turkish context. *Eurasian Journal of Applied Linguistics*, 4(2), 155-176.
- Sahin, A., Top, N., & Delen, E. (2016). Teachers' first-year experience with chromebook laptops and their attitudes towards technology integration. *Technology*, *Knowledge and Learning*, 21 (3), 361-378.
- Saiful, J. A. (2020). Mobile Teacher Professional Development (MTPD): Delving into English Teachers' Beliefs in Indonesia. *The International Review of Research in Open and Distributed Learning*, 21(4), 143-160
- Sajid, M. & Siddiqui, J. A. (2015). Lack of academic writing skills in English language at higher education level in Pakistan: causes, effects and remedies. *International Journal of Language and Linguistics*, 2(4), 174-186.
- Salajan, F. D., Welch, A. G., Ray, C. M., & Peterson, C. M. (2015). The role of peer influence and perceived quality of teaching in faculty acceptance of web-based learning management systems. *International Journal on E-Learning*, 14(4), 487-524. <u>https://www.learntechlib.org/primary/p/48018/</u>
- Saleem, M., & Zahra, M. (2017). Effects of ICT on Student's Learning at Secondary Level in Private Schools of the Punjab. *International Journal of Distance Education and E-Learning*, 3(1).
- Salleh, S. (2016). Examining the influence of teachers' beliefs towards technology integration in classroom. *International Journal of Information and Learning Technology*, 33(1), 17–35. <u>https://doi.org/10.1108/IJILT-10-2015-0032</u>

- Saricoban, A. (2013). Pre-service elt teachers' attitudes towards computer use: A turkish survey. *Eurasian Journal of Educational Research*, *53*, 59-78.
- Sarker, M. R., Galdos, M. V., Challinor, A. J., & Hossain, A. (2021). A farming system typology for the adoption of new technology in Bangladesh. *Food and Energy Security*, 10(3), e287. <u>https://doi.org/10.1002/fes3.287</u>
- Saxena, A. (2017). Issues and impediments faced by Canadian teachers while integrating ICT in pedagogical practice. *Turkish Online Journal of Educational Technology*, *16*(2), 58–70. <u>http://files.eric.ed.gov/fulltext/EJ1137791.pdf</u>
- Schaefer, E.S., & Edgerton, M.D. (1985). Parent and child correlates of parental modernity. In I.E., Sigel (Ed.), Parental belief systems: The psychological consequences for children (pp. 287–318). Erlbaum
- Scheyerl, M. (2018). An Ethnographic study on Beleifs and Attitudes of some Brazilian teachers of English. https://www.journalagent.com/alrj/pdfs/ALRJ_3_5_49_62.pdf
- Seliger, H. W., Shohamy, E. G., & Shohamy, E. (1989). Second language research *methods*. Oxford University Press..
- Shaban, A. E., & Egbert, J. (2018). Diffusing education technology: A model for language teacher professional development in CALL. System, 78, 234-244. <u>https://doi.org/10.1016/j.system.2018.09.002</u>
- Shaheen, F., Kashif, F. M., Daud, H., & Tariq, M. (2017). Exploring the attitude of prospective teachers towards teaching profession. *The Sindh University Journal* of Education, 45(2), 29-43.
- Shahzad, A., Hassan, R., Aremu, A.Y., Hussain, A., & Lodhi, R. N. (2020). Effects of COVID-19 in E-learning on higher education institution students: The group comparison between male and female. *Quality & Quantity*, 55, 805-826. <u>https://doi.org/10.1007/s11135-020-01028-z</u>
- Shaukat, S., & Chowdhury, R. (2020). Teacher educators' perceptions of professional standards: Implementation challenges in Pakistan. *Issues in Educational Research*, 30(3), 1084-1104.
- Shen, H., Yuan, Y., & Ewing, R. (2015). English learning websites and digital resources from the perspective of Chinese university EFL practitioners. *ReCALL*, 27(2), 156-176. <u>https://doi.org/10.1017/s0958344014000263</u>
- Shifflet, R., & Weilbacher, G. (2015). Teacher beliefs and their influence on technology use: A case study. *Contemporary Issues in Technology and Teacher Education*, 15(3), 368-394. <u>https://citejournal.org/volume-15/issue-3-15/social-studies/teacherbeliefs-and-their-influence-on-technology-use-a-case-study/</u>
- Siddique, M., & Singh, M. K. S. (2017). Role of Cooperative Learning in Enhancing Students' Writing Skills in Pakistani Colleges: A Review of Literature. *Proceedings of The ICECRS*, 1, 985-990. <u>https://doi.org/10.21070/picecrs.v1i1.641</u>

- Silin,Y., & Kwok, D. (2017). A study of students' attitudes towards using ICT in a social constructivist environment. Australasian Journal of Educational Technology, 33(5), 50-62.
- Singh, R. (2018). Exploring the utilization of technology in teaching English: Practices and impediments. *Journal of NELTA*, 23(1-2), 153.
- Smith, P. S., Smith, A. A., & Banilower, E. R. (2014). Situating beliefs in the theory of planned behavior. In R. Evans, J. Luft, C. Czerniak, & C. Pea (Eds.), *The Role of Science Teachers' Beliefs in International Classrooms* (pp. 81–102). Sense Publishers. <u>http://link.springer.com.argo.library.okstate.edu/chapter/10.1007/978-94-6209-557-1_6</u>
- Soomro, S. A., Kazemian, B., & Mahar, I. H. (2015). The importance of culture in second and foreign language learning. *SSRN Electronic Journal*, *15*(1), 1-10. <u>https://doi.org/https://doi.org/10.2139/ssrn.2656713</u>
- Soomro, M.A., Memon, N., Memon, S.A. (2016).Concept of Best Practices in English Language Teaching to Pakistani ELT Fraternity. *Advances in Language and Literary Studies, Vol.7*(4), 1. <u>http://dx.doi.org/10.7575/aiac.alls.v.7n.4p.119</u>
- Spada, N., & Fröhlich, M. (1995). COLT Communicative Orientation of Language Teaching Observation Scheme: Coding Conventions and Applications. Sydney: National Centre for English Language Teaching and Research, Macquarie University.
- Štemberger, T., Konrad, S. (2021) Attitudes Towards using Digital Technologies in Education as an Important Factor in Developing Digital Competence: The Case of Slovenian Student Teachers. *International Journal of Emerging Technologies in Learning (iJET)*. Vol 16, No 14 págs. 83-98. <u>https://doi.org/10.3991/ijet.v16i14.22649</u>
- Subaih, R. H. A., Sabbah, S. S., & Al-Duais, R. N. E. (2021). Obstacles Facing Teachers in Palestine While Implementing E-learning During the COVID-19 Pandemic. *Asian Social Science*, 17(4), 44. <u>https://doi.org/10.5539/ass.v17n4p44.</u>
- Sugiyono. (2018). Metode Penelitian Kuantitatif. Alfabeta.
- Suryani, A., Soedarso, S., Diani, K. T., & Rosmawati, R. (2020). English teaching in social and cultural contexts: Language teachers as cultural managers. LLT Journal: A Journal on Language and Language Teaching, 23(2), 273-292. https://doi.org/10.24071/llt.v23i2.2470
- Tarihoran, N. (2020). Using Facebook Group as a Blended Learning Medium in Teaching Cross-Cultural Understanding in Islamic Higher Education. *International Journal* on Research in STEM Education, 2(1). <u>https://doi.org/10.31098/ijrse.v2i1.187</u>
- Tashakkori, A., & Teddlie, C. (2021). Sage handbook of mixed methods in social & behavioral research. SAGE publications.

- Tasnim, S. (2021). If we can not do classes, we will face great loss : The experience of univer- sity students from remote areas of Bangladesh during COVID-19 (Doctoral dissertation) Brac University.
- Taylor, S., & Todd, P.A. (1995). Decomposition of cross effects in the theory of planned behavior: A study of consumer adoption intentions. *International Journal of Research in Marketing*, 12(2), 137-155.
- Teng, Y. (2017). EFL teachers' knowledge of technology in China: Issues and challenges. In C.H., Lin, D. Zhang, & B. Zheng (Eds.), *Preparing Foreign Language Teachers for Next Generation Education* (pp. 23–37).
- Teo, T. (2019). Students and teachers' intention to use technology: Assessing their measurement equivalence and structural invariance. *Journal of Educational Computing Research*, 57(1), 1–25.
- Teo, T., & Huang, F. (2019). Investigating the influence of individually espoused cultural values on teachers' intentions to use educational technologies in Chinese universities. *Interactive Learning Environments*, 27(5-6), 813–829. <u>https://doi.org/10.1080/10494820.2018.1489856</u>
- Teo, T., Huang, F., & Hoi, C. K. W. (2018). Explicating the influences that explain intention to use technology among English teachers in China. *Interactive Learning Environments*, 26, 460–475. <u>https://doi.org/10.1080/10494820.2017.1341940</u>
- Teo, T., Lee, C. B., & Chai, C. S. (2008). Understanding pre-service teachers' computer attitudes: Applying and extending the technology acceptance model. *Journal of Computer Assisted Learning*, 24(2), 128–143
- Teo, T., & Milutinovic, V. (2015). Modelling the intention to use technology for teaching mathematics among pre-service teachers in Serbia. *Australasian Journal of Educational Technology*, 31(4), 363–380.
- Tom, M. (2015). Five Cs Framework: A student-centered approach for teaching programming courses to students with diverse disciplinary background. *Journal* of Learning Design, 8(1), 21-37. <u>https://doi.org/10.5204/jld.v8i1.193</u>
- Tondeur, J., Forkosh-Baruch, A., Prestridge, S., Albion, P., & Edirisinghe, S. (2016). Responding to challenges in teacher professional development for ICT integration in education. *Educational Technology & Society*, 19(3), 110–120.
- Tondeur, J., Van Braak, J., Ertmer, P. A., & Ottenbreit-Leftwich, A. (2017). Understanding the relationship between teachers' pedagogical beliefs and technology use in education: A systematic review of qualitative evidence. *Educational Technology Research and Development*, 65(3), 555–575. <u>https://doi.org/10.1007/s11423-016-9481-2</u>
- Toven-Lindsey, B., Rhoads, R., & Lozano, J. (2015). Virtually unlimited classrooms: Pedagogical practices in massive open online courses. *The Internet and Higher Education*, 24, 1–12. <u>https://doi.org/10.1016/j.iheduc.2014.07.001</u>.

- Trauth-Nare, A. (2015). Influence of an intensive, field-based life science course on preservice teachers' self-efficacy for environmental science teaching. *Journal of Science Teacher Education*, 26(5), 497–519. <u>https://doi.org/10.1007/s10972-015-9434-3</u>
- Tsai, H.C. (2015). A senior teacher's implementation of technology integration. *International Education Studies*, 8, 151–161. <u>https://doi.org/10.5539/ies.v8n6p151</u>
- Utami, D. N. (2016). The EFL teachers' beliefs and their teaching practices. OKARA: Jurnal Bahasa dan Sastra, 10(2), 135–144. https://doi.org/10.19105/ojbs.v10i2.974
- Van Griethuijsen, R. A., van Eijck, M. W., Haste, H., den Brok, P. J., Skinner, N. C., Mansour, N., . . . BouJaoude, S. (2015). Global patterns in students' views of science and interest in science. *Research in science education*, 45(4), 581-603.
- van Twillert, A., Kreijns, K., Vermeulen, M., & Evers, A. (2020). Teachers' beliefs to integrate Web 2.0 technology in their pedagogy and their influence on attitude, perceived norms, and perceived behavior control. *International Journal of Educational Research Open*, *1(September)*, 100014. https://doi.org/10.1016/j.ijedro.2020.100014
- Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management Science*, 46(2), 186–204. <u>https://doi.org/10.1287/mnsc.46.2.186.11926</u>
- Wang, S.K., Hsu, H.Y., Reeves, T. C., & Coster, D. C. (2014). Professional development to enhance teachers' practices in using information and communication technologies (ICTs) as cognitive tools: Lessons learned from a design-based research study. *Computers & Education*, 79, 101-115. <u>https://doi.org/10.1016/j.compedu.2014.07.006</u>
- Wang, X., & Dostál, J. (2017). An analysis of the integration of ICT in education from the perspective of teachers' attitudes. *EDULEARN17 Proceedings*, 1(July), 8156– 8162. <u>https://doi.org/10.21125/edulearn.2017.0507</u>
- Waqar, Y., & Bokhari, T. B. (2017). Technology Enters the Classroom: An Evaluation of Educational Technology Initiatives in Punjab. *Pakistan Journal of History and Culture*, 38(1).
- Warschauer, M., Lin, C. H., & Blake, R. (2016). Language Learning through Social Networks: Perceptions and Reality. *Language Learning & Technology*, 20(1), 124-147.
- Warschauer, M., Zheng, B., Niiya, M., Cotten, S., & Farkas, G. (2014). Balancing the one-to-one equation: Equity and access in three laptop programs. *Equity and Excellence in Education*, 47(1), 46–62. <u>https://doi.org/10.1080/10665684.2014.866871</u>

- Waseem, K., Kazmi, H. A., & Qureshi, O. H. (2017). Innovation in education Inclusion of 3D printing technology in modern education system of Pakistan: Case from Pakistani educational institutes. *Journal of Education and Practice*, 8(1), 22-28.
- Waweru, F. (2016). Sociocultural factors that influence pre-service teachers' intentions to adopt computer-based instructional technology in Kenya (Doctoral dissertation, Oklahoma State University). www.worldbank.org/en/country/malawi/overview
- Werang, B. R., & Leba, S. M. R. (2022). Factors affecting student engagement in online teaching and learning: A qualitative case study. *The Qualitative Report*, 27(2), 555-577. <u>https://doi.org/10.46743/2160-3715/2022.5165</u>
- Widdowson, H. G. (2013). ELF and EFL: What's the difference? Comments on Michael Swan. *Journal of English as a Lingua Franca*, 2(1), 187-193. <u>https://doi-org.ezproxy.jyu.fi/10.1515/jelf-2013-0009</u>
- Wilkinson, M. (2016). Language learning with ICT. In W. A. Renandya & H. P. Widodo (Eds.), *English language teaching today: Linking theory and practice* (pp. 257-276). https://doi.org/10.1007/978-3-319-38834-2_18
- Wolcott, H. F. (2008). Ethnography: A way of seeing [chapter 2]. Sage.
- Wu, K. (2021). Professional Development and Change in Teachers' Beliefs and Practice for Teaching English Language Learners (Doctoral dissertation, Brigham Young University).
- Wu, B., & Chen, X. (2017). Continuance intention to use MOOCs: Integrating the technology acceptance model (TAM) and task technology fit (TTF) model. *Computers in Human Behavior*, 67, 221–232.
- Xu, Z., & Shi, Y. (2018). Application of constructivist theory in flipped classroom: Take college English teaching as a case study. *Theory and Practice in Language Studies*, 8(7), 880–887.
- Xueping, L. (2014). Facilitating reading comprehension with online dictionaries . *International Journal of Languages and Literatures* 2, no. 2: 297–306.
- Yadav, R., & Pathak, G. S. (2017). Determinants of consumers' green purchase behavior in a developing nation: Applying and extending the theory of planned behavior. *Ecological Economics*, 134, 114–122.
- Yang, H. (2018). Efficiency of Online Grammar Checker in English Writing Performance and Students' Perceptions. *Korean Journal of English language and Linguistics*, 18, 328-348.
- Yang, P. (2018). Developing TESOL teacher intercultural identity: An interculturalcommunication competence approach. *TESOL Journal*, 9(3), 525–541.

- Yasin, M., Mehmood, S., Fareed, G., & Hassan, M. U. (2014). Perceptions of the teachers and the students toward using multimedia as an effective tool for teaching and learning English in Pakistan. *Bulletin of Business and Economics (BBE)*, 3(4), 176-181.
- Yeganeh, M. T., & Raessi, H. (2015). Developing cultural awareness in EFL classrooms at secondary school level in an Iranian educational context. *Procedia - Social and Behavioral Science*, 192, pp. 534-542.
- Yehya, F. Y., Barbar, A., & Abou Rjeily, S. (2018). Diagnosing the barriers for integrating Educational Technology in Physics courses in Lebanese secondary schools. *Research in Social Sciences and Technology*, 3(2), 14–39. https://doi.org/10.46303/ressat.03.02.2
- Yildiz Durak, H. (2019). Examining the acceptance and use of online social networks by preservice teachers within the context of unified theory of acceptance and use of technology model. *Journal of Computing in Higher Education, 31* (1), 1–37. https://doi.org/10.1007/s12528-018-9200-6
- Yildiz, Y. (2021). Teaching English as a foreign language to 4th grade students by using technology. *Canadian Journal of Language and Literature Studies*, 1(2), 38-54
- Youssef, A. M. S. (2012). Role of motivation and attitude in introduction and learning of English as a foreign language in Libyan high schools. *International Journal of Linguistics*, 4(2), 366-375.
- Yuan, R. & Lee, I. (2014). Pre-service teachers' changing beliefs in the teaching practicum: Three cases in an EFL context. *System*, 44, 1-12.
- Yuen, K. F., & Thai, V. (2017). Barriers to supply chain integration in the maritime logistics industry. *Maritime Economics & Logistics*, 19(3), 551-572.
- Yunus, M. M., Salehi, H., & John, S. A. (2013). Using visual aids as a motivational tool in enhancing students' interest in reading literary text. Recent Advances in Educational Technologies, 114-17.
- YurtsevenAvci, Z., O'Dwyer, L. M., & Lawson, J. (2020). Designing effective professional development for technology integration in schools. *Journal of Computer Assisted Learning*, 36(2), 160–177. <u>https://doi.org/10.1111/jcal.1239</u>
- Zaheer, S., Malik, N. J., & Munir, N. (2021). The use of information communication technology in the classroom: Opportunities and challenges for university teachers. *Bulletin of Business and Economics (BBE)*, 10(4), 139-150.
- Zamani, E., Ghasempour, A., Homaei, R., & Mousavi, S. (2016). Investigating the opportunities and threats, strengths and weaknesses of using smart innovations (case study: Isfahan high school teachers). *Research in Curriculum Planning*, 13(49), 84–98. <u>http://jsr-e.khuisf.ac.ir/article_534435.html</u>.

- Zamir, S. & Thomas, M. (2019). Effect of university teachers' perceptions, attitude and motivation on their readiness for the integration of ICT in classroom teaching. *Journal of Education and Educational Development*, 6(2), 308-326. <u>http://journals.iobmresearch.com/index.php/JEED/index</u>
- Zheng, X., & Gao, Y. H. (2019). Promoting Intercultural Competence in English Language Teaching: A Productive Bilingualism Perspective. In X. Gao (Ed.), Second Handbook of English Language Teaching (pp. 200-219). Springer
- Zheng, H. (2015) *Teacher beliefs as a complex system: English language teachers in China*. Springer. <u>https://doi.org/10.1007/978-3-319-23009-2</u>
- Zhu, H., Kramsch, C., Gramling, W. D., House, J., Johnson, J., Li, W., & Park, J. (2020) Translating culture in global times: Dialogues. *Applied Linguistics*, 41(1), 148-160. <u>https://doi.org/10.1093/applin/amz021</u>
- Zia, A. (2015, December 30). Government Performance in 2015: Change appears at halfway mark. The Express Tribune. <u>https://tribune.com.pk/story/1019217/performance-review-change-appears-</u><u>uneven-at-halfway-mark</u>
- Zohrabi, M. (2013). Mixed Method Research: Instruments, Validity, Reliability and Reporting Findings. *Theory and Practice in Language Studies*, *3*, 254-262. <u>https://doi.org/10.4304/tpls.3.2.254-262</u>
- Zubkovic, B. R., Pahljina-Reinić, R., & Kolić-Vehovec, S. (2017). Predictors of ICT use in teaching in different educational domains. *European Journal of Social Sciences Education and Research*, 11, 145-154.