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RESEARCH

Interests Socio-cultural issues in Mathematics teaching and learning · Mathematics teacher education
Areas Education · Statistics and Probability · Applied Mathematics · Developmental and Educational Psychology · Information Systems · Sociology and Political Science

RESEARCH SUMMARY

72	415	10	11	2.04	30%
Publications	Citations	h-index	i10-index	Field-weighted impact	World top 10%

Counted from the 72 publications listed below, 1955–2026. Field-weighted impact is the mean over the 30 works scored for it; 1.00 is the world average for works of the same field, type and year. 9 of the 30 papers scored for it are among the world's most cited tenth for their field, type and year.

PUBLICATIONS

Journal articles 64

1. Japhet Kwasi Osiakwan, Forster D. Ntow, Ernest Kofi Davis (2026). Influence of preservice teacher education on mathematics teaching efficiency of beginning teachers. *Teaching and Teacher Education*. <https://doi.org/10.1016/j.tate.2026.105644>
2. Atar Alphaa Mohammed, Ernest Kofi Davis, Christopher Yarkwah (2026). Preservice Early-Grade Teachers' Perception of Play-Based Learning in Mathematics Education. *Brock Education Journal*. <https://doi.org/10.26522/brocked.v35i1.1234>
3. Ebo Amuah, Kwame Akyeampong, Ernest Kofi Davis, Christopher Yaw Kwaah (2026). Students' perceptions of their mathematics classroom learning environment and its associations with problem-solving efficacy, problem-solving skills and mathematics achievement: a ghana case study. *Learning Environments Research*. <https://doi.org/10.1007/s10984-026-09568-1>
4. Emmanuel Adobah, Ernest Kofi Davis, Theophilus Aquinas Ossei-Antoh (2026). Teachers' Understanding and Application of Cultural Context Integration in Teaching Geometry: A Ghanaian Case Study. *East African Journal of Education Studies*. <https://doi.org/10.37284/eajes.9.1.4621>
5. ERNEST KOFI DAVIS (2025). MAKING THE TEACHING OF MATHEMATICS TRANSFORMATIVE THROUGH THE USE OF A THREE-TIER MODEL ERNEST KOFI DAVIS & DANIEL GBORMITTAH. *The Role of Transformative Education for Sustainable Social and Economic Development of Africa*. https://books.google.com/books?hl=en&lr=&id=_z93EQAAQBAJ&oi=fnd&pg=PA84&dq=info:10A6AxErpnIJ:scholar.google.com&ots=oSGJh99sa2&sig=y0y1DWbanDFIGI3sEu5oKZ0LCxY
6. Daniel Gbormittah, Ernest Kofi Davis, Damian Mereku (2025). Primary 1 Pupils' Performance in Identification of Half and Non-Half Fractions: How Does It Look Like Across Demographic Factors? *African Journal of Educational Studies in Mathematics and Sciences*. <https://doi.org/10.4314/ajesms.v20i2.6>
7. Ernest Kofi Davis (2024). Comparative Study of Primary School. *Values and Valuing in Mathematics Education: Moving Forward into Practice*. https://books.google.com/books?hl=en&lr=&id=UWH8EAAAQBAJ&oi=fnd&pg=PA169&dq=info:yZLR501CySwJ:scholar.google.com&ots=5bcZRL4FrI&sig=URkN-EJ7YmZQnKR_hb_Vg84MBjl
8. Nicholas Essien, Ernest Kofi Davis (2024). Exploring values implicit in Ghanaian Senior High School

mathematics textbooks. *Asian Journal for Mathematics Education*. <https://doi.org/10.1177/27527263241232712>

9. Monica E. Carr, Ernest Kofi Davis, Wee Tiong Seah (2023). An exploration of Ghanaian students' valuing in mathematics: How does it evolve across school levels? *Eurasia Journal of Mathematics Science and Technology Education*. <https://doi.org/10.29333/ejmste/13542>
10. Isaac Benning, Ernest Kofi Davis (2023). Graduate students' experiences and evaluation of online instruction. *Social Sciences & Humanities Open*. <https://doi.org/10.1016/j.ssaho.2023.100597>
11. CA Ali, Ernest Kofi Davis (2023). PUPILS'RECOGNITION OF GEOMETRIC TESSELLATIONS AS PATTERNS OF TRADITIONAL CULTURE. *Symmetry: Culture & Science*. https://www.researchgate.net/profile/Clement-Ali-3/publication/374836816_Pupils'_recognition_of_geometric_tessellations_as_patterns_of_traditional_culture/links/65df6e2ee7670d36abe5a105/Pupils-recognition-of-geometric-tessellations-as-patterns-of-traditional-culture.pdf
12. Ernest Kofi Davis, Daniel Gbormittah (2023). Senior High School Mathematics Teachers' Perceptions and Use of Continuous Assessment. *SAGE Open*. <https://doi.org/10.1177/21582440231188920>
13. Ebo Amuah, Ernest Kofi Davis (2023). Strategies and Procedural and Conceptual Knowledge of Addition of Unlike Denominator Fractions: The Case of Grade 8 Children in Two Districts of the Central Region of Ghana. *African Journal of Research in Mathematics Science and Technology Education*. <https://doi.org/10.1080/18117295.2023.2226546>
14. Ernest Kofi Davis, Amidu Tikiwi Abass (2023). The attributes senior high school mathematics teachers and their students value in mathematics learning. *Asian Journal for Mathematics Education*. <https://doi.org/10.1177/27527263231179745>
15. DAVIS ERNEST KOFI (2022). Applications of Basketry to Geometric Tessellations. *Building on the Past to Prepare for the Future: Proceedings of the 16th International Conference*. King's College, August 8–13, 2022. https://books.google.com/books?hl=en&lr=&id=loGIEAAAQBAJ&oi=fnd&pg=PA18&dq=info:-TvUWFHncyQJ:scholar.google.com&ots=dVpb5WaEB_&sig=39Mzb4gymzZgQ053xnPEqOq59VE
16. Vincent Mensah Minadzi, Ernest Kofi Davis, Bethel Tawiah Ababio (2022). Exploring Headteachers, Teachers and Learners' Perceptions of Instructional Effectiveness of Distance Trained Teachers. *International Journal of Learning Teaching and Educational Research*. <https://doi.org/10.26803/ijlter.21.8.4>
17. Ernest Kofi Davis, Forster D. Ntow, Christopher Beccles (2022). Factors Influencing Ghanaian Public Junior High School Students' Performance in English Language, Mathematics and Science and its Implications on the National Policy on Progression. *SAGE Open*. <https://doi.org/10.1177/21582440221123912>
18. Ernest Kofi Davis, Clement Ayarebilla Ali, Douglas Darko Agyei (2021). Effectiveness of Semiosis for Solving the Quadratic Equation. *European Journal of Mathematics and Science Education*. <https://doi.org/10.12973/ejmse.2.1.13>
19. Ernest Kofi Davis, Wee Tiong Seah, Nathaniel Howard, Eric Magnus Wilmot (2020). The attributes of mathematics learning which Ghanaian senior high school students value. *Journal of Global Education and Research*. <https://doi.org/10.5038/2577-509x.5.1.1096>
20. Ernest Kofi Davis, Mark Owusu Amponsah, Christopher Yaw Kwaah, Christopher Beccles (2019). Alignment of the planned and implemented curricula in Junior High School English Language, Mathematics and Science in three Districts in Ghana. *The Oguua Educator*. <https://doi.org/10.47963/toe.v13i.294>
21. Ernest Kofi Davis (2019). Linguistic Influences on Junior High School Students' Mathematics Word Problem Solving. *Ghana Journal of Education Issues and Practice (GJE)*. <https://doi.org/10.47963/gje.v5i.464>
22. EK Davis, CY Kwaah, C Beccles, Kofi Ayebi-Arthur (2019). Motivation to become a teacher among preservice teachers in colleges of education in Ghana. *Bangladesh Education Journal*. https://www.researchgate.net/profile/Ernest-Davis/publication/344035050_Motivation_to_Become_a_Teacher_among_Preservice_Teachers_in_Colleges_of_Education_in_Ghana/links/5f4e8341a6fdcc9879c0045f/Motivation-to-Become-a-Teacher-among-Preservice-Teachers-in-Colleges-of-Education-in-Ghana.pdf

23. Ernest Kofi Davis, Christopher Beccles, Etheldreda Intsiful (2019). Primary and junior high school mathematics and science teachers' views on teaching in the Cape Coast Metropolis of Ghana. *African Journal of Educational Studies in Mathematics and Sciences*. <https://doi.org/10.4314/ajesms.v15i2.2>
24. Clement Ayarebilla Ali, Ernest Kofi Davis (2018). Harnessing Indigenous Basketry Resources for Prenumber and Early Number Work. *Journal of Education and Learning*. <https://doi.org/10.5539/jel.v7n2p210>
25. Ernest Kofi Davis (2018). Mathematics classroom discourse in typical Ghanaian public school: how does it look like? Mathematics classroom discourse in typical Ghanaian public school: how does it look like? *The Oguaa Educator*. <https://journal.ucc.edu.gh/index.php/oguaaeducator/article/download/501/310>
26. ERNEST KOFI DAVIS (2017). A three-tier teaching model for teaching mathematics in context. *For the Learning of Mathematics*. <http://flm-journal.org/Articles/4574072F4318D3351495F8F94E785.pdf>
27. Ebo Amuah, Ernest Kofi Davis (2017). An Investigation of Junior High School students' ideology of fraction in the Cape Coast Metropolis of Ghana. *Journal of Science and Mathematics Education*. https://www.researchgate.net/profile/Ebo-Amuah/publication/337110733_An_Investigation_of_Junior_High_School_students'_ideology_of_fraction_in_the_Cape_Coast_Metropolis_of_Ghana/links/5dc56e6692851c8180391b33/An-Investigation-of-Junior-High-School-students-ideology-of-fraction-in-the-Cape-Coast-Metropolis-of-Ghana.pdf
28. ERNEST KOFI DAVIS (2017). for the learning of mathematics. *For the Learning of Mathematics*. https://www.researchgate.net/profile/Linda-Ahl/publication/318900129_THE_VOICE_OF_CURRICULUM_DEVELOPERS_IN_TEACHER_GUIDES/links/59840b7e458515b420ce821d/THE-VOICE-OF-CURRICULUM-DEVELOPERS-IN-TEACHER-GUIDES.pdf
29. Ernest Kofi Davis (2016). Cultural influences on Ghanaian primary school pupils conceptions in measurement and division of fractions. *African Journal of Educational Studies in Mathematics and Sciences*.
30. EK Davis (2016). Cultural influences on Ghanaian primary school students' conceptions in measurement and division of mixed fractions. *Afr J Educ Stud Math Sci*. <https://scholar.google.com/scholar?cluster=11125531161368982095&hl=en&oi=scholar>
31. Ernest Kofi Davis, Wee Tiong Seah (2016). Socio-cultural factors: a missing variable in mathematics pedagogy in Ghana. *Ghana Journal of Education Issues and Practice (GJE)*. <https://doi.org/10.47963/gje.v2i.473>
32. Ernest Kofi Davis, Seth Chaiklin (2015). A radical-local approach to bringing cultural practices into mathematics teaching in Ghanaian primary schools, exemplified in the case of measurement. *African Journal of Educational Studies in Mathematics and Sciences*.
33. EK Davis (2015). Exploring the intersection of English as an instructional language and inclusive pedagogy in primary mathematics classroom in Ghana. *International Journal of Whole Schooling*. <https://scholar.google.com/scholar?cluster=293942161887692415&hl=en&oi=scholar>
34. Ernest Davis (2015). Exploring the intersection of the English language as the medium of instruction and inclusive pedagogy in primary mathematics classrooms in Ghana. *International Journal of Whole Schooling*. https://www.academia.edu/download/89910539/11-2_20Abenyega_20Davis.pdf
35. Eric Magnus Wilmot, Ernest Kofi Davis, Charles Bediako Ampofo (2015). Why are non-routine mathematics word problems difficult?: Lessons from preservice basic school teachers in Ghana. *Ghana Journal of Education Issues and Practice (GJE)*. <https://doi.org/10.47963/gje.v1i.472>
36. EK Davis (2015). "WE DON'T UNDERSTAND ENGLISH THAT IS WHY WE PREFER ENGLISH": PRIMARY SCHOOL STUDENTS' PREFERENCE FOR THE LANGUAGE OF INSTRUCTION IN MATHEMATICS. *International journal of science and mathematics education*.
37. Ernest Kofi Davis (2014). Primary school pupils' conceptions of fractions. *Journal of Science and Mathematics Education*.
38. Joseph Ghartey Ampiah, EK Davis, MK Abreh (2013). Enhancing access to education for out-of-school children in hard to reach communities in Ghana: The ACE experience. *Ghana Journal of Education: Issues and Practices*. <https://www.researchgate.net/profile/Joseph-Ampiah/publication/>

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39. Ernest Kofi Davis (2013). Exploring mentees' expectations and experiences of mentorship: The case of Colleges of Education in Ghana. *Ghana Journal of Education: Issues and Practice*. <https://scholar.google.com/scholar?cluster=2790962713388522116&hl=en&oi=scholar>
40. Ernest Kofi Davis (2013). Socio-cultural issues in mathematics pedagogy: A missing variable in Ghanaian basic school mathematics teacher preparation. *Journal of Educational Development and Practices*. <https://journal.ucc.edu.gh/index.php/jed-p/article/download/956/507>
41. Ernest Kofi Davis (2013). Socio-cultural issues in mathematics: A missing variable in Ghanaian basic school mathematics teacher preparation. *Journal of Educational Development and Practice*. <https://doi.org/10.47963/jedp.v4i.956>
42. Ernest Kofi Davis, Alan J. Bishop, Wee Tiong Seah (2013). "WE DON'T UNDERSTAND ENGLISH THAT IS WHY WE PREFER ENGLISH": PRIMARY SCHOOL STUDENTS' PREFERENCE FOR THE LANGUAGE OF INSTRUCTION IN MATHEMATICS. *International Journal of Science and Mathematics Education*. <https://doi.org/10.1007/s10763-013-9490-0>
43. Ernest Kofi Davis (2012). Building on students' experience: An investigation connecting money recognition and number fluency in the Cape Coast metropolis of Ghana. *University of Cape Coast. Institute of Education. Journal*. <https://research.monash.edu/en/publications/building-on-students-experience-an-investigation-connecting-money/>
44. Ernest Davis, Joseph S. Agbenyega (2012). Language policy and instructional practice dichotomy: The case of primary schools in Ghana. *International Journal of Educational Research*. <https://doi.org/10.1016/j.ijer.2012.04.007>
45. Ernest Kofi Davis (2012). The use of finger counting in Ghanaian primary mathematics classroom. *Journal of Science and Mathematics Education*.
46. Ernest Kofi Davis (2011). Attitudes of primary and JHS teachers towards the teaching of mathematics. *Ghana Journal of Education and Teaching (GHAJET)*.
47. Ernest Davis (2011). Cultural influences on students' conception of fractions. *International Journal of Mathematics Science and Computing Education*. <https://research.monash.edu/en/publications/cultural-influences-on-students-conception-of-fractions/>
48. Ernest Kofi Davis (2011). Ghanaian primary school teachers and headteachers' perceptions of Mathematics. *Journal of Science and Mathematics Education*.
49. Ernest Kofi Davis (2011). The complexity of building on students' experience: An investigation connecting money recognition and number fluency in Ghana. *University of Cape Coast. Institute of Education. Journal*. <https://research.monash.edu/en/publications/the-complexity-of-building-on-students-experience-an-investigatio/>
50. EK Davis, EM Wilmot (2010). An investigation of primary and JHS teachers' attitudes toward mathematics in some selected schools in the Central Region of Ghana. *Mathematics Connection*. <https://ir.ucc.edu.gh/server/api/core/bitstreams/db68ccfa-d729-45b4-a631-5080bd15a060/content#page=5>
51. EK Davis (2010). Cultural Influences on primary school pupils' mathematical conceptions in Ghana. *Unpublished PhD, Monash University*. <https://scholar.google.com/scholar?cluster=1894736609606367652&hl=en&oi=scholar>
52. Ernest Kofi Davis (2010). Linguistic influences on children's mathematical word problem solving strategies: Case study of two average schools in Cape Coast Municipality. *Journal of Counseling, Education and Psychology*.
53. EK Davis (2009). Gaps between inside school and out-of-school mathematics in Ghana. *Mathematics Connection*. https://www.researchgate.net/profile/Damian-Mereku/publication/272548926_Comparative_analysis_of_performance_of_eighth_graders_from_six_African_countries/links/56b474cb08ae5deb26598d46/Comparative-analysis-of-performance-of-eighth-graders-from-six-

54. Ernest Kofi Davis (2009). Ghanaian primary school teacher trainees' conceptions of addition of two unlike fractions. *Journal of Science and Mathematics Education*.
55. Ernest Kofi Davis (2009). Students' transition between contexts of mathematical practices in Ghana. *Proceedings of 2009 Mathematical Association of Victoria Conference*. https://www.researchgate.net/profile/Ernest-Davis/publication/333324242_STUDENTS'_TRANSITION_BETWEEN_CONTEXTS_OF_MATHEMATICAL_PRACTICES_IN_GHANA/links/5ce6fb9092851c4eabba1b57/STUDENTS-TRANSITION-BETWEEN-CONTEXTS-OF-MATHEMATICAL-PRACTICES-IN-GHANA.pdf
56. Joseph Ghartey Ampiah, Ernest Kofi Davis (2008). An investigation of provision of quality basic education in Ghana: A case study of selected schools in the Central Region. *Journal of International Cooperation*, 11 (3) 19. <https://hiroshima.repo.nii.ac.jp/records/2021455>
57. Ernest Kofi Davis (2008). Relationship between Attitude of Teachers to Mathematics and Teaching of Mathematics in Cape Coast Municipality. *Journal of Educational Development and Practice*. <https://doi.org/10.47963/jedp.v2i.938>
58. Ernest Kofi Davis (2008). Relationship between attitudes of basic school teachers toward mathematics and its teaching in Cape Coast Municipality of Ghana. *Journal of Educational Development and Practice*.
59. Ernest Kofi Davis (2008). The impact of in-service teacher training through Outreach Programme on pedagogical skills and attitudes of basic school mathematics teachers in the Central Region of Ghana. *Ghana Journal of Education and Teaching*. <https://scholar.google.com/scholar?cluster=700879649511362036&hl=en&oi=scholar>
60. EK Davis (2005). Baseline study of catholic relief services assisted primary schools in the three northern regions of Ghana. *Cape Coast, Ghana: University of Cape Coast*. <https://scholar.google.com/scholar?cluster=7887812131135721376&hl=en&oi=scholar>
61. EK Davis (2005). The history of mathematics education in Ghana. *Empirical study on the evaluation method for international cooperation in mathematics education in developing countries focusing on pupils' achievement*. <https://scholar.google.com/scholar?cluster=4716246384047622921&hl=en&oi=scholar>
62. Ernest Kofi Davis (2005). The impact of in-service teacher training through an Outreach Program on the content knowledge of basic school mathematics teachers in Ghana. *Journal of Research in Mathematics Education*. https://www.jstage.jst.go.jp/article/jasme/11/0/11_KJ00008199441/_article/-char/ja/
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64. DAVIS ERNEST KOFI (1955). Department of Mathematics & Statistics. *University of Otago, and St Hilda's College, Dunedin*. <https://bradthiessen.com/html5/docs/2016pr.pdf>

Book chapters 4

1. Ernest Kofi Davis, Penelope Kalogeropoulos, James Anthony Russo (2024). Comparative Study of Primary School Students' Values in Mathematics Learning in Ghana and Australia. *Values and Valuing in Mathematics Education*. https://doi.org/10.1007/978-981-99-9454-0_9
2. Ernest Kofi Davis, Monica E. Carr, Ernest Ampadu (2019). Valuing in Mathematics Learning Amongst Ghanaian Students: What Does It Look Like Across Grade Levels? *ICME-13 monographs*. https://doi.org/10.1007/978-3-030-16892-6_6
3. Ernest Kofi Davis (2011). Education reform and quality improvement effectiveness of capitation grant in Ghana. *Study on international cooperation in educational policy reforms that translate into qualitative improvement*.
4. Ernest Davis (1987). Envisioning as problem solving: an application of prompt. *IBM Research Report*. <https://scholar.google.com/scholar?cluster=61841811673567589&hl=en&oi=scholar>

Conference papers 1

1. Seah, Wee, Tiong, Davis, Ernest, Kofi, Carr, Monica, E (2017). School mathematics education through the eyes of students in Ghana: Extrinsic and intrinsic valuing. *Minerva Access (University of Melbourne)*.

Reports 1

1. Ernest Kofi Davis (2009). Institutional gaps in mathematics education research procedures between a developed and developing country. *Crossing divides (Proceedings of the 32nd annual conference of the Mathematics Education Research Group of Australasia)*. https://www.researchgate.net/profile/Ernest-Davis/publication/266502077_Institutional_Gaps_in_Mathematics_Education_Research_Procedures_Between_a_Developed_and_Developing_Country/links/56ead77b08ae9dcdd82a4a28/Institutional-Gaps-in-Mathematics-Education-Research-Procedures-Between-a-Developed-and-Developing-Country.pdf

Theses 2

1. Ernest Kofi Davis (2010). Cultural Influences on Primary School Students' Mathematical Conceptions in Ghana. *Monash University*. https://scholar.archive.org/work/ryredb63qjg5rnbw3jv4rnq5he/access/wayback/https://au-east.erc.monash.edu.au/fpfiles/16464830/5044423_monash_63262.pdf
2. Ernest Davis (1981). How has the public school teacher job security been affected by present Illinois Court decisions concerning teacher dismissals. *Chicago State University*. <https://scholar.google.com/scholar?cluster=14375850288981063938&hl=en&oi=scholar>