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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

73	416	10	11	2.04	30%
Publications	Citations	h-index	i10-index	Field-weighted impact	World top 10%

Counted from the 73 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 65

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** (2026). Using the Justifying, Essaying, Declaring, and Identifying (JEDI) Approach to Develop Students' Values in Mathematics Education. *Sage Open*. https://doi.org/10.1177/21582440261494647
6. **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=y0y1DWbanDFlGI3sEu5oKZ0LCxY
7. 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
8. **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=UWH8EAAAQB

AJ&oi=fnd&pg=PA169&dq=info:yZLR501CySwJ:scholar.google.com&ots=5bcZRL4Frl&sig=URkN-EJ7YmZQnKR_hb_Vg84MBjI

9. 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

10. 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

11. 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

12. 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

13. **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

14. 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

15. **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

16. **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=IoGIEAAAQBAJ&oi=fnd&pg=PA18&dq=info:-TvUWFHncyQJ:scholar.google.com&ots=dVpb5WaEB_&sig=39Mzb4gymzZgQ053xnPEqOq59VE

17. 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

18. **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

19. **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

20. **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

21. **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 Oguaa Educator*. https://doi.org/10.47963/toe.v13i.294

22. **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

23. **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

24. **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
25. 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
26. **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
27. **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
28. 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
29. **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
30. **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*.
31. **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=scholarr
32. **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
33. **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*.
34. **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=2939421618876924 15&hl=en&oi=scholarr
35. **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
36. 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
37. **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*.
38. **Ernest Kofi Davis** (2014). Primary school pupils' conceptions of fractions. *Journal of Science and Mathematics Education*.

39. 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 Educaation: Issues and Practices*. https://www.researchgate.net/profile/Joseph-Ampiah/publication/291075114_Enhancing_Access_to_Education_for_out-of-school_Children_in_Hard_to_Reach_Communities_in_Ghana_The_ACE_experience/links/569de39708ae16fdf079b70c/Enhancing-Access-to-Education-for-out-of-school-Children-in-Hard-to-Reach-Communities-in-Ghana-The-ACE-experience.pdf

40. **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=scholarr

41. **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

42. **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

43. **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

44. **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/

45. **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

46. **Ernest Kofi Davis** (2012). The use of finger counting in Ghanaian primary mathematics classroom. *Journal of Science and Mathematics Education*.

47. **Ernest Kofi Davis** (2011). Attitudes of primary and JHS teachers towards the teaching of mathematics. *Ghana Journal of Education and Teaching (GHAJET)*.

48. **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/

49. **Ernest Kofi Davis** (2011). Ghanaian primary school teachers and headteachers' perceptions of Mathematics. *Journal of Science and Mathematics Education*.

50. **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/

51. **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

52. **EK Davis** (2010). Cultural Influences on primary school pupils' mathematical conceptions in Ghana. *Unpublished PhD, Monash University*. https://scholar.google.com/scholar?cluster=18947366096063676 52&hl=en&oi=scholarr

53. **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*.

54. **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-African-countries.pdf#page=7

55. **Ernest Kofi Davis** (2009). Ghanaian primary school teacher trainees' conceptions of addition of two unlike fractions. *Journal of Science and Mathematics Education*.

56. **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

57. 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

58. **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

59. **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*.

60. **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=7008796495113620 36&hl=en&oi=scholarr

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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*.

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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=scholarr