A Complete Bibliography of Publications in
International Journal of Science and
Mathematics Education

Nelson H. F. Beebe
University of Utah
Department of Mathematics, 110 LCB
155 S 1400 E RM 233
Salt Lake City, UT 84112-0090
USA
Tel: +1 801 581 5254
FAX: +1 801 581 4148
E-mail: beebe@math.utah.edu, beebe@acm.org,
beebe@computer.org (Internet)
WWW URL: http://www.math.utah.edu/~beebe/

22 January 2018
Version 1.05

Title word cross-reference

3 [SLW10].

-D [SLW10].

1 [SYOL07]. 11th [ES09, FT05]. 11th-graders [ES09]. 12
[MHIS09, OBH17]. 15-year-old [MR14].

2008 [DRT+12]. 280 [VT07a].

3-Year [HNMG16, BW10].
Abacus [RXLC16]. Abilities
[BB17, DJB15, Gür09, NPP16, WWTC10, Yükl14]. Ability
[CCW16, FCS15, FT05, FTWC18, IA08, KH15, KFM+17, Len06, Lin17, Ng10, RV17, Sch14, SK17, SP05, WT18, YnLL08, YCH04, Arc12, AK13, AT15, BHMO14, CK14, Cle14, Cro09, Ebr12, FH13, GCS10, GN08, HCC15, HK11, HNB11, Ing14, LHL+09, MP10, PV14, Pet13, RR16, RR11, RR09, Ru11, SWA+12, Tig14, VR12, WOB12, WT15, ZC15, ZL11, ZL12]. Achievements [PSO17]. Achiever [CHC16]. achievers [HCC15]. achieving [ARZRV16, Als12, BMN16, EK09]. acid [KYA13a, ODC09, RCT+11]. acid-base [ODC09]. Acids
[FT05, ODTS07, JLC12]. Acknowledgements [YPT07a]. acquisition [BVDV13, Kös13]. Across
[SGHM15, SGHM16, Ch12a, MAL+11, SB09, ZB13]. act [CDT+11]. Action
[AK17b, FD12, Hå12, MNE12]. Actions [SMZ06, CDT+11]. Active
[NHLS10]. Activities [GCI18, LE06, AAY15, DS15, EDMA15, MMZ09]. Activity
[PPB18, AE15, AE16, ČAC09, CB+12, EE11, Fer14, HL13, WLSL14, Yükl14]. activity-based [Yükl14]. actor [RVG15]. actor-oriented [RVG15]. adapted
[CCW15]. Adapting [CB+12]. Adaptive [Own06, Own10]. Addition
[GS16]. adolescent [Arc12, LY10]. adolescents [Hå10, MTD13, WLSL14]. Adoption [WHH08]. Adult [DJE17]. Advance [CCCN17, GN08]. Advanced
[Ped15]. Advancing [Eng17]. Advertising [BE16]. Advocators
[KKE+17]. Affect [MBZH+05, TLHV16a, TLHV16b, MMN11]. Affecting
[WHH08]. affective [Las13, THV+15]. affects [HCC15]. affiliations
[KB16b]. affine [DV15]. afford [EFL+13]. affordsances [CP12]. Africa
[Kaz14]. African [Dud17, RR16]. After
[BBT17, HC16a, Gok15, SYOL05, SYOL07, VT07a, VT07b]. Again [Mer07]. against [Tsa06]. Age [KH15, YYC04, ÇTC14]. Aged [FMOMG16]. Agenda


C [MJMR11]. cadaver [MIJJ15]. CAI [Ran06]. calculations [DDG+12].
Classification [FMOMG16, YYC04]. Classroom
[And03, BE16, Bla04, DS18, DKL16, EH18, Leu05, MHIS09, MBBR08, MF05, 
NHLS08, OS10, PP15, Sch14, Shi18, SF05, SGHM15, SGHM16, TM17, TA15, 
VJ06, WQNC17, AV06, Ale14, CK14, CL10, CYK+16, Fos15, GLY09, HL13, 
KTBG15, Lee11, Oh11, PDG15, Pap10, Pet13, QM14, RB13, SIS+11].
Classrooms [HNMG16, HNAA16, KFM+17, LFF03, MDT13, NPT17, 
OS05, Sea16, SGHM15, SMZ06, WHH08, AAF12, AH11, CC05, CK14, CL10, 
CYK+16, Fos15, GLY09, HL13, KTBG15, Lee11, Oh11, PDG15, Pap10, Pet13, QM14, 
RB13, SIS+11].
Climate [HFVH17, BEF15, CK14, Pet13].
Clinical [WMS13].
Clock [BVDV13].
Clock-reading [BVDV13].
Cluster [NLW16].
Co [TWC+16, HBTP13, MMZ09]. Co-authored [HBTP13].
Co-citation [TWC+16]. Co-taught [MMZ09].
Coeducational [SCJ16].
Cognition [CC05, LCA16].
Cognitive [FTWC18, LL14, Miy08, NHLS08, RXLC16, RV17, ST05, Bab10, BHMO14, 
CA14, CCWL15, Las13, LY13, SP15, TSP12]. Coherence [SV08, CL10].
Coherent [WD12]. Collaboration [CC16, EG17]. Collaborations [TSC17, Kot10].
Collective [CBT+12]. College [BMD+17, CS16, CPMSW11, GS16, LL06, 
McG03, Sch14, Gok12, Lee16a, Lin09, PSC+13].
Colombian [AV06, MJMOR11]. Colour [MVC17b]. Combinatorial [TC09]. Combining 
[LKC+15, Shi18, Cro09]. comes [Könn13]. coming [Mor09a, Mor09b].
Committed [KKH17]. Commonality [TVC03]. communicate [EDS10].
Communication [DFR06, Kül18, Su08, CCG+11, CYK+16, HpCH+16, OO12, SLES09].
Community [TSC17]. Conference [TSC17].
Comparative [TLHY16a, TLHY16b, WT18, ZBL+16, FD12, HY05, JC10, 
JSP15, MMV16, ÓDC09, TOV12, ZS11]. Comparing [Ded15, MOI07, LS14].
Comparison [MH17, PMSK+12, SBN16, WBB17, YJY08, ZF06, AAMU+14, 
Bab10, Lin14a, Maj14, MLK+15, SBN14]. comparisons [THV+15].
Competence [DJE17, KBH+15, NPT17, RH15, CCG+11, NFB+15, OdC15, Ped15].
Competences [KLH15]. Competencies [BSA+14, HWW13, NFB+15].
Competent [WHA14]. Competitions [HB17, KK16]. Complete [MM11].
Completed [HC16a]. Complex [RB09, WS16, JLC+13, MMM11].
Complexities [KBH+15, VTCV14]. Complexity [NPT17]. Component 
[YPT07b]. Components [RH15]. composition [MP10]. Comprehension 
[CP17, HY07, LY07, LLC+15, LL17, WC16, YL18, ZZ16, AM14a, LL14, 
VR12, Voy11, WCT+12]. compulsory [MR14]. Computation 
[Erd17a, Erd17b]. Computational [LF17]. Computer 
[DP07, LLC+15, LL14]. Computer-Based [LLC+15].
Computer-supported [LL14]. Computerized [KD09]. Concept 
[Bar17, BCC06, CW06, Dah17, HA07, HE17, HILAT16, KWO07, PMCG+17, 
PPB18, SV08, SCJ16, SVDK09, YT07, DDG+12, EGP+09, Fu15, LL09, 
NSV13, Nyi15, ÓDC09, SMFL15, SG15]. conception [PMLC15].

Rut11, SOTF13, SYOL05, SYOL07, SWA+12, WHA14, ZB13, vA06, Yeo17b].

Diagnosing [CSM12]. Diagnostic [Lin04, LL17].


Dierences [HC16b, WwLD+15, YCH04, BRMNH15, CK14, Ing14, LY10, LM12, NSV13, FC13, VAF12, Yan14]. Different [AM04, BLE09, CP17, DNV17, EPEG07, HBP17, MNE12, RB09, AE15, BL09, CCN+12, DPK08, EE11, KST09, LLWS13, PMLC15, SBR14, WWT10, YUK14]. Differential [Chi12a, BSD13, DPK08]. Dierentials [IA08]. differentiated [TT14].

Dierent [AM04, BLE09, CP17, DNV17, EPEG07, HBP17, MNE12, RB09, AE15, BL09, CCN+12, DPK08, EE11, KST09, LLWS13, PMLC15, SBR14, WWT10, YUK14].

Dierential [Chi12a, BSD13, DPK08]. Dierentials [IA08]. differentiated [TT14].


dogma [DCFC16]. Doing [TLK17]. don't [DBS15]. double [LLWS13].

double-choice [LLWS13]. Drawing [TRF05]. Dual [KG15]. Durability [HA07]. During [BHD+15, EN08, YKU17, YY13, EGJ09, GN08, KLJ+13, KOn13, Kot10, OS10]. Dutch [VTC16].

Dynamic [LCA16, WC16, YKU17, CDH16, HP11].

Economically [HILAT16].

Editorial [Ano03a, Ler04, Lin05a, Lin12, Lin05c, Syl03, Tre04]. Education [ALT+07, AM04, Ano12a, Ano12b, ABH17, BC05, Chi04, DWM16, Eng17, GC18, Gil04, GSJ+17, HC16a, Kau07, KYA13b, KBK15, JR+06, LF17, Ler07, LTCCY07, PZA16, PH18, QVST17, RAL+07, SC03, SBS+07, SBN16, TWC+16, TYW+17, TM17, Tsa06, VRFC+08, VTV16, ZP06].

E-learning [SLW10].

Early [KBK15, TM17, WwLD+15, Ing14, Lecl16a, TOV12]. Earth [Lin05, DC16].

East [ZL11]. Eastern [BSD13]. eocultural [Owe14]. Ecological [RB09].

Economically [HILAT16].

Editorial [Ano03a, Ler04, Lin05a, Lin12, Lin05c, Syl03, Tre04]. Education [ALT+07, AM04, Ano12a, Ano12b, ABH17, BC05, Chi04, DWM16, Eng17, GC18, Gil04, GSJ+17, HC16a, Kau07, KYA13b, KBK15, JR+06, LF17, Ler07, LTCCY07, PZA16, PH18, QVST17, RAL+07, SC03, SBS+07, SBN16, TWC+16, TYW+17, TM17, Tsa06, VRFC+08, VTV16, ZP06].

E-learning [SLW10]. Early [KBK15, TM17, WwLD+15, Ing14, Lecl16a, TOV12]. Earth [Lin05, DC16].

East [ZL11]. Eastern [BSD13]. eocultural [Owe14]. Ecological [RB09].

Economically [HILAT16].

Editorial [Ano03a, Ler04, Lin05a, Lin12, Lin05c, Syl03, Tre04]. Education [ALT+07, AM04, Ano12a, Ano12b, ABH17, BC05, Chi04, DWM16, Eng17, GC18, Gil04, GSJ+17, HC16a, Kau07, KYA13b, KBK15, JR+06, LF17, Ler07, LTCCY07, PZA16, PH18, QVST17, RAL+07, SC03, SBS+07, SBN16, TWC+16, TYW+17, TM17, Tsa06, VRFC+08, VTV16, ZP06].

E-learning [SLW10]. Early [KBK15, TM17, WwLD+15, Ing14, Lecl16a, TOV12]. Earth [Lin05, DC16].

East [ZL11]. Eastern [BSD13]. eocultural [Owe14]. Ecological [RB09].

Economically [HILAT16].

Editorial [Ano03a, Ler04, Lin05a, Lin12, Lin05c, Syl03, Tre04]. Education [ALT+07, AM04, Ano12a, Ano12b, ABH17, BC05, Chi04, DWM16, Eng17, GC18, Gil04, GSJ+17, HC16a, Kau07, KYA13b, KBK15, JR+06, LF17, Ler07, LTCCY07, PZA16, PH18, QVST17, RAL+07, SC03, SBS+07, SBN16, TWC+16, TYW+17, TM17, Tsa06, VRFC+08, VTV16, ZP06].

E-learning [SLW10].
Las13, Lee16a, LHL+12, LH15, LC14a, LC14b, Lui13, MR14, NFK10, NFB+15, NDD14, OEMZ12, RR11, RR09, Sch15, SBN14, TOV12, TDBLY16, Tip10, YL08, ZKS+05, HL07, SYOL07, VT07a. Educational [LF17, Law05, Ko10, LLI15, MP10, NFK10, NFB+15, NDD14, OEMZ12, RR11, RR09, Sch15, SBN14, TOV12, TDBLY16, Tip10, YL08, ZKS+05, HL07, SYOL07, VT07a]. Educators [LF17, Law05, Ko10, LLI15, MP10, NFK10, SBR14]. Educator [WHC17, AE10].

Educators [Ama16, ZKS+05]. Effective [AT07, AOZ09, CHC16, CT04, DMNH11, GG09, HMS16, LLWS13, Sch14, AT15, BZST10, Ebr12, LM10, Oh11, PDG15, SWA+12, WLSN14]. Effective [KFM+17, RAL+07, TLK17, CB09, OO12]. Effectiveness [AAF12, WT18, WSA07, Bra12, ÇAC09, CS15, KYA13a, MP10, PZLR16, WWTC10]. Effects [BB17, DJB15, FTWC18, GN08, KWO07, KEET17, Las13, Len06, Ng10, PL15, RV17, Su08, ZY15, YT07, BJ10, BHMO14, CA14, CTGS15, CCWL15, MMV16, ÖDC09, YHT16, BK13a]. Efficacy [AK16, DC06, JL08, LLI15, MP10, NFK10, YL08, ZKS+05, HL07, SYOL07, VT07a].

Eighth [CCN+12, IA08, AR10, JLC+13, Lee11, Mor14]. Eighth Grade [IA08].

Eighth Graders [SP05]. Eighth Grade [IA08].

Eighteenth [Pap10]. Eighth [CCN+12, IA08, AR10, JLC+13, Lee11, Mor14]. Eighth Grade [IA08].

Electricity [AOZ09, ABG06, KTBG15, SY14]. Electromagnetism [Lep12]. Elementary [APR+17, AM04, ABG06, Bilo09, CJ17, ÇAC07, DC16, DNV17, Eng17, ELO08, HNMG16, Jacl2, KL18, Leu05, Li11, Lin14a, Lin16a, LL+16, LL17, LJC08, MDF08, MVC17a, MOI07, NPP16, Oro16, Sea16, UF17, VTV16, WJ07, AAS13, Bay13, BL09, Bur10, ÇTC14, Cha10, CKH15, Ebr12, FG14, JLC08, KB17, Lee16a, Oli10, RB13, SLW10, TT14, WCT+12, WT15]. Elements [FMOMG16]. Eleventh [SP05, vV16]. Eleventh Grade [vV16].


Engagement [IAS17, WFPC04, DS15, OBE12, RR11, RR09]. Engaging [DC16, Hill18, HS14, LCA16, NN11, WSW+08, CJC11]. Engineering [CCC17, DC16, GS16, HPP09, IAS17, LW16, PPP18, AC15, HCC15].

Engineers [vdWBD17]. England [SBN14, SBN16, WBB17]. English [Ale14, DBS15, DKL16, HILAT16, MR14, Sch14].

Enhance [Hua17, PP08, Cro09]. Enhanced [ALT14, OH11, ODC09]. enhancement [Ch12a].

Enhancing [AW12, AO16, BC05, ÇAC07, CC16, CYK+16, EG17, LL17, RR11, YFL15, RR09]. Enquiry [PD17]. Enrichment [Len06, Ng10]. Enrollment [BG17]. Enterprise [Das05]. entities [AB11]. Entry
Entry-Level [LHC17]. **Environment** [CP17, CT04, Dhi08, Hew04, KD09, MDF08, MF05, Own06, Own10, PSO17, SF05, WCG09, BK13a, ETG16, GCK15, KB14, TDBLY16, Zei10, Zei15].

**Environmental** [CP17, CT04, Dhi08, Hew04, KD09, MDF08, MF05, Own06, Own10, PSO17, SF05, WCG09, BK13a, ETG16, GCK15, KB14, TDBLY16, Zei10, Zei15].

**Environments** [ALT14, Cro09, GGSP10, HIS16, +, KAC15].

**Epilogue** [HIS16, LGS17a].

**Epistemological** [Cor17, Mor09a, Mor09b, PSO17, RJHB12, Liu09, Top13].

**Epistemologies** [AYLW16, RJHB12].

**Equation** [JLC+13, SBK+14, VAF12].

**Equilibrium** [Bil06, CdHD16].

**Equipment** [MSH10].

**Equity** [GCS10, MP10].

**Era** [RCG+11, +11].

**Erratum** [Bes11a, BL09, Erd17a, HL07, KYA13b, sL14, Lin16b, LC14a, SYOL07, SBN16, SGHM16, Tsa13, TCTC07, TLHV16b, VT07a, Yeo17b].

**Errors** [MRDCC17, SA16, TSP12].

**Espoused** [Sap13].

**Essential** [vdWBD17].

**Establishing** [BG17, SBM12].

**Establishment** [Miy08].

**Establishment/Measurement** [Miy08].

**Evaluating** [BAV+11, TCC+10, WSA07, GACZ09, LLL15, RCT+11].

**Evaluation** [Gub16, Lor05, MF05, YT07, AB11, BEF15, BK13b, LLL15, SBR14].

**Evaporation** [WT18, HS14].

**Event** [Hob13].

**Events** [YKUIB17].

**Everyday** [GS12, KYJS12].

**Evidence** [Erd17a, Erd17b, GS01, KL18, RH15, Bes11a, Bes11b, CTT+11, HTWT14, LHL+12, ZL12, CBDV10, Ped15].

**Evidence-based** [CTT+11].

**Evolution** [GGD15b, YY13].

**Evolutionary** [LF17].

**Examination** [LCA16, MG03, OBE12, TCH+17, BSA+14, Bes11a, Bes11b, KLJ+13, KKVdW15, NFB+15, ZC15].

**Examinations** [PB09].

**Examine** [GPCB15, Wan04].

**Examine** [GPCB15, Wan04].

**Examining** [AH11, AR10, DC16, HNMGAI6, MIJJ15, Pet13, QM14, WL08].

**Example** [SD16, SLC17].

**Excelling** [WSLS14].

**Exercises** [TSMW16].

**Expectation** [Dog12].

**Experiences** [Ch04, KB15, So03, YY13, BHS15, MIJJ15, ÖD09].

**Experienced** [ERC03,Als12].

**Experiences** [AAAF17, Ddu17, GCI18, KAYA13b, CKH15, KYA13c, OS10, RRW11, SC11, ZB13].

**Experiencing** [SYOL05, SYOL07].

**Experiment** [LF17, Aky16].

**Experimental** [GCI18, ZGZM17].

**Experimentation** [Miy08, TLK17, ES16].

**Experimentation/Measurement** [Miy08].

**Experimento** [Dud17].

**Expert** [TA15, CMME15, KK16, SB09].

**Expertise** [BKC15, GPCB15].

**Experts** [DW15].

**Explaining** [CCW16, Uit14].

**Explanation** [JHWW16].

**Explanations** [DK18, GSO+17, PTW05, TT07, DE15, LTT06].

**Explicit** [EVV11, FB06, MMR15].

**Explicitness** [vV16].

**Exploiting** [Fos15, TVC03].

**Exploration** [Bla04, Hin14].

**explorative** [vA06].

**Exploratory** [BBT17, CT04, GG09, PZA16, DR+12, JW15, LTT09, RJHB12, Yan14].

**explore** [EFL+13, MJMOR11].

**Exploring** [ARZRV16, APR+17, AYLW16, DC06, DPK08, DK18, LHC17, LS14, OZD10, PPB18, TT07, WQNC17, WS16, ZB13, WLSC09].

**Expressed** [CT17].


Geometry [EH18, KH06, AT15, BZST10, CEB12, KRT11, KAC15, LL14, Owe14, Wel15]. German [BE16, DKL16, Liu05]. Germany [AAMU14, BK13b, Ded15, HEB11, Las13, MNE12, NFK10, SBR14].


Grade [IA08, ODTS07, Shi18, SA16, WT18, Yan03, ZGZM17, vV16, AR10, Als12, CRR09, CCN+12, CCWL15, DC08, DE15, GGSP10, HY05, JLCT12, JW15, JLU+10, Kau11, LM15, Lee11, Mor14, NCH11, PYR+12, SY14, Tig14, Zel10].

Grader [BBT17, CC05, ES04, FT05]. Graders [Erd17a, Erd17b, SP05, YuLL08, Che14, ES09, HS14, JLC+13]. Grades [AAAB16, AWL16, RV17, BW10, KKvdW15, VR12]. graph [PMSK+12].


Heavens [Liu05]. heavier [PMLC15]. Hegelylacan [BC06]. held [CLY10]. Help [Lin05b, Sum16a]. Heterogeneous [SMZ06]. Heuristic [Lor05, NCH11, Oh11]. Hidden [KYA13b, KYA13c]. Hierarchical [NPP16]. hierarchy [LLL15]. High [AYLW16, Ari18, Bal18, DAO+11, LE06, Law05, LFF03, LZZ+18, Lin04, MH17, MsdSGG17, NHLS08, hCN18, QVST17, Sha06, STC12, TYC17, WS16, YCL04, vV16, ARZRV16, Als12, BSA+14, CTGS15, CK14, CMME15, DMNH11, FH13, GCS10, HBTP13, HCC15, Kuw13, LLT09, MS14, MJJ15, MMZ09, NY11, ODC09, RCT+11, RRW11, RVG15, SWA+12, Wai14, Wel15, ZKS+05]. high-achieving [ARZRV16, Als12]. High-Context [QVST17]. High-School [NHLS08, DMNH11]. Higher [BG17, DWM16]. hinders [BES12]. HistCite [TYW+17]. Historical [MNBZH+05]. History [Das05, JMS16, Liu09, MVC17a, MVC17b, VRFC17, dFAN13]. Hold
holism [Lui13]. Homework [ZL12, AW12, Kaul11, KSE16, TSO16].
Hong [Che14, Ho10, KFM+17, LM15, So03, YCH04, YT07, ZBL+16, ZL12].
Hope [Sum16a]. horizontal [Kid11]. Huang. [HL07]. Human
[Wan04, And14]. Hybrid [WS16]. Hybrids [NK04]. Hypothesis [LOJ08],
ICT [DFR06, DFR06, KV10, MH17, TC07]. ICT-Rich [MH17]. Idea
[FMOMG16]. Ideas [CCCN17, NK04, YJY08, BS15, Lsl14, MG15a].
Identification [Chi12b]. Identify [LL06]. Identifying [LLT09, WwLD+15].
identities [TC09]. Identity
[WFPC04, FD12, Hob13, KHL12, MBF13, MDT13]. III [WQNC17]. ijsme
Image [Dah17, HY07, CTT+11, RT10]. images
[ARZR16, AB13, MJMOR11]. immersion [AY15]. immigrant
[Are12, AK13]. Impact
[AVT16, HL04, Ku18, LHC17, Lin17, Li18, MMR15, OL14, SW14, Yü14,
EGP+09, Gök12, HCC15, Mor14, NFK10, OB15, Ska11, SG15, ZC15].
Impacts [AK17b, Kuw13, MlJ15]. impairment [IK14]. Impartialists
[KKE+17]. impetus [CA14]. Implement [Che08, AH11]. Implementation
[Dud17, Lo05, MAA05, NCH11, OS05, CTGS15, HWY14, MAL+11,
Mor14, OS10, RCG+11]. Implementing
[CCCN17, KFM+17, LB08, Lee16a, SIS+11]. implicated [FH13].
Implication [JMS16]. Implications
[BdSSC16, GSO+17, RV17, Sha06, WFPC04, FG14, Ko10, KB14, RB13].
implicit [EVV11]. Importance [KL18, BNH+15, HEB11]. Imposers
[KKE+17]. Improve [DWM16, HnYB07, BS15, TC09]. Improved [TSC17].
Improvement [OO12]. Improving [BK13b, HP11, MSA17, ÇAC09, Rut11].
in-depth [VR12]. in-service [KLJ+13]. including [HBTP13, PC13].
Inclusion [BC06, dFAN13]. inclusive [CTT+11, MMZ09]. Incoherence
[MI08]. Incommensurability [Kaw07]. Inconsistencies [ZGZM17].
increasing [NWD11]. Indian [CDT+11, NRKR13]. indicators
[BSLM16, PSC+13]. indigene [LY10]. Indigenous
[KYA13b, KYA13c, ATG13, GS13, MDT13, Web13]. Individual
[TLHV16a, TLHV16b, LTT06, LS14]. Indonesia
[BSA+14, ModBB12, RCT+11]. Indonesian [ELY15, RK10]. Induction
[BHD+15, AC15, PPS12]. inductive [NEAC10]. Industry [BC05].
inequality [Kni10]. inference [CMME15]. Infinite [Bar17]. Infinitesimal
[Par07]. Influence
[CCW16, CYT16, Das05, DJE17, Mea07, PD17, RH17, TYC17, HGK11, Ing14].
Influences [CK14, KH06, Ho10]. influencing [GGD15b]. Informal
[DBJ15]. Information [DFR06, LCA16, LF17, Su08]. Informed [MVC17a, MVC17b].
Informing [DCFC16]. informs [Ols07]. infused [HIS+16, HISH16].
inheritance [DCFC16]. inhibitory [BES12]. initial [KGA+11, Kôn13].
Initiative [HL04]. Innovative [MDF08, SF05, BK13b, Hal12]. Inquiry
[AOZ09, AMG16, Che08, Dud17, IAS17, KD09, KH08, LLC+16, Li18],
Island [BSA^14, TVC03, SC03]. isolated [BSA^14]. Israel [HCBZ03, HEB11, MNE12]. Israeli [BRMNH15, DE15]. Issue [Ano12d, Ano13, BK15, Cor17, LGS17b, SBS^+07, BHS13, HIS^+16, HISH16, RR09]. Issues [JHWW16, LB08, Sea16, TSC17, YZK15, YJY08, CTC14, CYK^+16, CJO11, HEB11, LM10]. Item [YCH04, BHSC10, BSD13]. Items [KL15, DL12].


Kenya [Bag11, GN08, KWO07, KB16a]. key [Che12]. kindergarten [HFWY14, TM17]. kinetic [TCC^+10]. know [AB14]. Knowing [AVM16, RB13]. Knowledge [APR^+17, BHD^+15, CCW16, CEB12, DJB15, EVV11, ES04, FL06, Gub16, HNAA16, HE17, HFVH17, Hua06, KB16a, KL15, KBK15, Kul18, LL06, LTCCY07, LY07, MQ07, SB09, TBP17, TCH^+17, YAC10, v16, AW12, BSD13, CJO11, DFR06, DW15, ELY15, Em09, HTWT14, Hs13, HY05, HL07, JLCT12, Kid11, KRT11, Kön13, KV10, Las13, LH14, LCC^+09, Lin14a, Lui13, Maj14, Niy15, OBE12, WLS14, Wai14, WWTC10, Web13, Yik14, ZB13]. Kong [Che14, Ho10, KFM^+17, LM15, So03, YCH04, YT07, ZBL^+16, ZL12]. Korea [KYJS12, SBN14, SBN16]. Korean [HK10, JMS16, KB17, LFF03, Lee11, MLK^+15, OS05]. Kosovar [ETG16]. Kuwait [Ebr12]. Kuwaiti [AR10, Ala16, AMG16].

Lab [TSMW16]. laboratories [BJ10]. Laboratory [CT17, CHC16, Che08, KD09, KH08, TYW^+17, BRMNH15, DMNH11, KIR12, Mas15, MIJJ15, ÖDC09]. laboratory-based [KIR12]. Lakatosian [Oh11]. Language [CGR17, HNMG16, Hua06, HILAT16, Kaw07, PB09, Sea16, WS16, Ale14, DBS15, GGS10, HL07, IK14, O015]. languages [LP11]. Lankan [CEB12]. Large [ALT^+07, Lin17, Che12, KY11, NFK10]. Large-scale [ALT^+07, KBY11]. Latvian [Šap13]. law [TC09, Maj14]. Laws [McC03, NY11]. Leadership [HCBZ03, BK13a]. Learn [And03, HmYB07, hCN18, HS14, WT13]. learned [Ho10]. Learner [Em09, OÇ08, SP05, TT07, AB13, FL11]. Learners [Ble09, HILAT16, HLS08, PB09, Ala14, BL09, WD12]. Learning [AT07, AYLW16, ALT14, AM04, AK17b, ABG06, BMN16, CTC16, CB16, ÇP17, CCE17, CHC16, CCWL15, CABR06, CT04, Dhi08, DL12, DJB15, EN08, EG17, FCS15, FT05, FB06, GGD15a, GSO^+17, GHP07, HA07, HNMG16, HE17, Hew04, HMS16, IAS17, KL18, KEET17, LE06, LL06, LB08, LKC^+15, LZL^+18, LM10, MNBZH^+05, MSA17, MDF08, MVC17b, MBBR08, NLW16,
Own06, Own10, PSO17, PP08, PH18, RGC08, SBM12, Shi18, So03, SGHM15, SGHM16, Su08, SMZ06, TDBLY16, TS04, UFW17, WD12, WSA07, WCG09, YZK15, Yan03, YTL07, ZBL+16, ATG13, AAMU+14, And14, AE10, BSA+14, Bra12, BNI+15, CCG+11, CWW11, CRR09, CY14, Chi12b, CJOC11, Cro09, DCF16, ET16, Ehr12, Ful15, GGSP10, GDSD10, HCC15, Ho10, HYC+16, HIS+16, HISH16, JLC+13, KYJS12, Lin06, LHL+09, LT11, ME13]. learning [MDT13, NPR12, NSV13, OdC15, OL14, Ozd10, PZLR16, PYR+12, RCG+11, Sap13, SB09, SCS+12, SLW10, SW14, TSA12, Tig14, TT14, TC09, TRF05, VAF12, VTCvS14, YFL15, Zei10, Zei15, ZB13]. Lebanese [KB16b, OBH17, RJHB12, SB17]. led [BB09]. left [GLY09]. left-behind [GLY09]. legitimate [dFAN13]. Length [SA16, TSA12]. lens [EFL+13, HYC+16, TDBLY16]. Lesotho [Mor09a, Mor09b, QM14]. Lesson [APR+17, Tay18, FL11, GDS10, KB17, Li11, RL12, VTCvS14]. Lessons [RA17, CL10, NN11, PDG15, RL12, WLSN14]. Level [BG17, HSMO06, KB16a, LHC17, AAF12, AOÇ10, Bab10, LM10, ME13, Mor09a, Mor09b, Pet13, TT07]. Levels [NPP16, TLHV16a, TLHV16b, FG14, LIWS13, PMLC15, RK10, STC12, WLSN14]. Life [BDSSC16, Gov17]. limit [EGP+09, Kid11, Mor09a, Mor09b]. limited [IK14]. Limits [Bar17, Par07]. line [PMSK+12, Zio08]. Linear [WBB17, AGB14]. Linguistic [WJ07]. Linguistics [HY07]. Listening [Hua06, HL07, LLC+15, LL17]. Literacies [CYT16, vdWBD17]. Literacy [BE16, BMD+17, CC05, CC16, Let07, Mea07, OBH17, RV17, VTV16, WK08, WFK+16, YCH04, YPT07b, CP12, LS14, MLK+15, SC14]. Literature [MF05]. live [Din14]. load [LL14]. local [Wel15]. locating [HT13]. Long [CTC16, Din14, TOV12]. Long-Term [CTC16, TOV12]. Longitudinal [HC16a, KH06, BC11, BK13b]. Look [Lee16b, CK14]. looking [Hun14]. Low [CHC16, CMME15, DAO+11, GCS10, HCC15]. Lower [TCH+17, EK09]. lower-achieving [EK09].

20

[Chi09, Dah17, JSS17, MNBZH+05, AK13, Lin14a, Lin14b, Lin16b].
Non-Creative [Chi09]. non-immigrant [AK13]. Non-routine [JSS17].
on-science [Lin14a, Lin14b, Lin16b]. Nonlinear [LCA16, ST05, FH12].
Norms [LTT06, PK15]. Norwegian [Ped15]. NOS [AB14, HC16a]. NOSE
Das05. Notebook [HILT16]. Noticing [Kil18, Ama16, SMFL15]. Notion
[Par07, Kid11]. notions [NN11]. novice [Ama16, AB14, CMME15]. NSW
[VC17].

Number
[ABPD16, Als12, DGEP16, LYC04, MOI07, Yan03, YNLL08, YRR09, HNB11].
numbers [Che12]. Numeracies [ZZ09]. Numeracy [GGD15a, DL12].

objects [PMLC15]. Observational [PL15]. observe [KYA13a]. Obstacle
[SVDK09]. Obstacles [Nis17, Mor09a, Mor09b]. Occur [LH08]. OECD
YCH04. of-the-art [HEB11]. Offered [Sty08]. Officers [SC03]. official
[AV06]. Old [NK04, MR14]. olds [BFE15, EVV11]. Omani [AAD17]. One
[AVM16, Dua17, RL12]. Online [TSMW16, WC16, HTWT14]. Open [Zio08].
Openness [Yeo17a, Yeo17b], operation [LS15]. Operational
[AK17a, SG15]. operationalising [RHM+11]. Operationalizing [FD12].
Opportunities [And03, EH18, SMZ06, ZKS+05, AE15, AE16, WT13].
opportunity [MRA10, ZC15]. Optics [MVC17a]. optimal [Cro09]. Order
[KN13]. organization [CTGS15, Maj14]. orientation
[LHL+09, Ozz10, RR16, Uit14]. Orientational [RH15]. Orientations
[MAL+11, ZP06, RCG+11]. Oriented
[LLC+16, MNBZH+05, DMNH11, RVG15]. origami [AT15]. origami-based
[AT15]. Origin [BBT17, Gov17]. Origins [BdSSC16]. Our [BC06, Owe14].
out-of-field [Hob13]. out-of-school [MMK11]. Outcome [LJC08, JLC08].
Outcomes [HE17, IAS17, TSC17, WK09, AM14b, GCS10, HP11, JLC+13,
MAL+11, OB15, TOV12]. outline [RR09]. outperform [ZS11].
Overcoming [KBH+15]. overt [AM14b]. Overview [Ran06]. Ownership
[EN08, EGJ09]. Oxidation [Own06, Own10]. Oxidation-reduction
[Own10].

Pacific [CABR06, TVC03]. Pakistan [Hal12]. Palestinian [Zei10, Zel15].
paper [KAC15, RR09]. paper-and-pencil [KAC15]. Papers
[Ano13, Ano12c, sL13, Tsa13]. Papua [PTW05]. paradox [DAO+11].
Parental [SK17, Ing14]. part [AH11]. Participants [HBP17]. Participate
[HCH16]. participating [DRT+12]. participation
[Mor14, NWD11, RR11, RH+11, RR09]. particle [BPG11, TCC+10].
Particular [KH06]. particulate [AOC10]. partitioning [BFE15, LS15].
pbl [HCC15]. PD [MAL+11]. Pedagogical
[APR+17, CCW16, GCI18, KBK15, Leu05, LTCCY07, SBN16, Bra12, HEB11,
Hsi13, Kön13, OL14, Rut11, SBN14]. pedagogies [NWD11]. Pedagogy
GPCB15, IAS17, Kil18, LL05, MSA17, PP08, SBN16, Aky16, Ama16, Bag11, CCN+12, NRKR13, QM14, RB13, Sap13, SC14, SBN14, So16, TRF05.

Practitioners [ERC03]. Pre
[Ala16, ABPD16, AO16, BSLM16, Bay09, Bil06, Bla04, CAC07, CT04, DS15, DB17, DJB15, ELO08, Gub16, HM09, Jao17, Kil18, KN13, LL06, LHC17, Lin05b, Tay18, TM17, WSW+08, YZK15, YRR09, CA14, DK15, GGD15b, KIR12, KB17, MPB10, NN11, Oh14, SMFL15, TRF05]. pre-entry [MPB10].

Pre-kindergarten [TM17]. Pre-school [DB17, TRF05]. Pre-schooler [BSLM16]. Pre-Service [Bay09, CT04, ELO08, Gub16, HM09, Kil18, KN13, LL06, LHC17, Lin05b, Tay18, CA14, DK15, GGD15b, KIR12, KB17, NN11, Oh14, SMFL15]. Pre-Test [LL06]. Preactivation [BES12].


Preschool [Guv09]. presence [LLWS13, MRA10]. presentation [MIR15]. Presentations [Ran06]. Preservice [APR+17, Ari18, BW10, CP17, Cor17, DKL16, Gov17, KL18, KKE+17, LCC+09, LIW16, MAA05, Os17, Top13, WHA14, WSA07, BUR10, DFR07, Ded11, HT13, KHL12, WMS13]. Press [Sun16a]. Primary

AVT16, AD16, BHD+15, CT04, GCI18, Hil18, KL15, KFM+17, LHC17, Lin05b, MG15a, SC03, SP17, So03, TVC03, TC07, VJ06, ZBL+16, CGR13, DB15, Ded15, ELY15, LP11, MG15b, NN11, Sah10, mS13, So16. Primarie

[GC18, HTWT14, LL06, HGK11, WWTC10, YÜK14]. Probabilistic
[BBST06, FD12, TSP12]. Probing [CY14, LE06, KYA13a]. Problem
[AD16, CJ17, DGE16, EPEG07, FL06, HCH16, JC17, LB08, Lil07, LR05, PMCG+17, SY14, ST05, ZF06, AM14a, Can14, CVCV11, Gok15, JSP15, KK16, KAC15, LL14, PDG15, SOT13, Voi11, YFL15]. Problem-based

[LB08]. Problem-Posing [CJ17]. Problem-Solving
[DGE16, HCH16, Lil07, Gok15, KAC15, YFL15]. Problems
[Ari18, Chi09, ES09, EGJ09, HC16b, KL18, LR08, Nis17, OC08, Vid15, AC15, BZST10, BFE15, CY14, Din14, JC10, LLWS13, RGV15]. procedurally
[AG14B, AM14b, Chi12a, DS15, ES16, Eme09, Lin14a]. Processing
[Ama16, AM04, ERC03, KBY11, Lin17, Ll18, RAL+07, RH15, SGHM15, SGHM16, TYC17, DW15, LG13, LYP14, MNE12, MAL+11, Mor14, PZLR16, QM14, SYOL05, SYOL07, SWA+12, ZB13, SGHM16]. Professor [WFC04].

Proficiency [KB16a, IK14, STC12]. profile [MMV16]. Profiles [WT13]. Program
[FTWC18, HC16a, McG03, MWM05, MF05, SF05, BW10,
role-playing [BEF15]. Roles [IAS17, KKE+17]. ROM [LCC11b].


Rural [AM04, PP08, TC07, BSA+14].

S [SYOL07]. Safety [ZGZM17]. same [EE11]. Sample [SP05, WK08]. sampling [JLC+13]. Satisfaction [AM04]. Saudi [AAS13, Tig14]. Savart [Maj14]. Scaffolding [Kil18, MBF13, TWC+16, LHL+12]. Scaffolds [CHC16, DK18]. Scale [BMD+17, Dud17, Lin17, TLK17, ALT+07, CCG+11, KBY11, NFK10, TSO16]. schema [GLSM11]. schemes [BC11]. School [AVT16, AYLW16, AM04, Ari18, AK17b, ABG06, Bal18, DC16, DB17, Dog16, Eng17, Hil18, HBP17, JMS16, KWO07, KB16a, KFM+17, LE06, LFF03, Len06, LZZ+18, Lin04, LLC+16, LR08, MH17, MSdSGG17, MRDCC17, MOI07, NHLS08, Ng10, hCN18, NPP16, PL15, PTW05, RH17, RGC08, SP17, Sha06, So03, Sum16a, Sum16b, TC07, TSP16, TYC17, TSC17, UFW17, VT07b, WS16, WHH08, YKUIB17, YCL04, vV16, AAS13, Bag11, BK13a, BS15, CWW11, CTGS15, CK14, DBS15, DMNH11, DJB15, EGN11, GN08, HBT13, HK10, Jac12, Kuv13, LS14, Lin14a, LCC11b, MS14, MMK11, MIJJ15, MP10, MMZ09, MG15a, MLK+15, NY11, NN11, dFAN13, OdC15, OD09, PPS12, PV14, Ped15, QM14, RCT+11, RB13, RRW11, RVG15, Rut11, STC12, TBT+10, TSO16, TRF05, Uit14, VT07a]. School-Related [RH17, LS14].

Schooler [BSLM16]. Schooling [WM17, MRA10]. Schools [PP08, BSA+14, CBDV10, ETV16, Full15, LP11, MR14, PZL16, SLW10, ZKS+05]. Science [APR+17, AAA16, AMG16, AD16, AAF17, ALT+07, ALT14, AM04, Ano12a, Ano12b, ABH17, AO16, BdSSC16, BE16, BB09, Bla04, Ble09, CCCCC17, Choi04, CYT16, CCR17, CT04, DS18, DC06, Das05, EDMA15, GS16, GCI18, Gil07, GPCB15, GSO+17, GHP07, HSM06, HnYB07, HNMG16, HC16a, HFB17, Hen04, HBP17, HY07, Hua06, HC16b, HCH16, HILAT16, HL04, IAS17, JLU+10, KAYA13b, KKE+17, KSE16, KUL18, Jr06, LCA16, LF17, LOJ08, LFF03, LL05, Ler07, LZL+18, Lin14b, LLC+15, LLC+16, LW16, LL17, LJC08, MNBZ1+05, MIHS09, MSA17, MDF08, MVC17a, MVC17b, MC03, MP10, MC03, MWM05, MB08, MKS16, MC04, MMA05, NWW16, OL08, OS05, PSL07, PP08, PZ16, PB09, Ran06, RGC08, RAL+07, RV17, RH15, SBS+07, Sch14, SG09, Se16, SC16, So03, SGHM15].

Science [SGHM16, TWC+16, TCV03, TC07, TYW+17, Tsa06, TYC17, TA15, TSC17, VJ06, Vi15, VTV16, VTO7b, WC16, WT18, Wat17, WS16, WSA07, WFK+16, WCG09, YCH04, YTO7, ZP06, ATG13, Ai14, AAS13, AMBLL16, Arc12, AK13, AM14b, AY15, AB14, BTY11, BW10, BL09, BMN16, BAV+11, BNH+15, BMHO14, Bur10, CA14, CCG+11, CY14, Che11, CCW15, Chi12a, CYK+16, CBO09, CJOC11, DFR06, DAO+11, DRT+12, DK10, Ebr12, Eme09, FG14, FD12, GCS10, GGD15b, Hal12, HCC15, HT13, Ho10, HTWT14, HEB11, HK10, HNB11, HPC+16, HYC+16, HIS+16,
HISH16, HL07, Hun14, IK14, Ing14, JLC08, JLC+13, KGA+11, KB16b, KYA13c, KYJS12, KBY11, Kn10, KV10, Kuw13, KB14, LAVM12, LCC11a, LHL+12, Lin14a, Lin16b, LH15, LC14a, LC14b, LS14, LM12, LLL15, MMK11, Me10, MDT13, MMZ09, MG15a. science [MG15b, Mor14, MPB10, NCH11, NRKR13, NEAC10, NF1K10, NN11, Oh14, Oli10, OEMZ12, PZLR16, PC13, RB13, RR11, RJHB12, RSPK14, RR09, Rut11, SC14, Sch15, SOTF13, SYOL05, SYOL07, SIS+11, SWA+12, SC11, m13, So16, SLES09, TOV12, TS016, Tig14, Tip10, TT14, TRF05, UKM11, VAF12, VR05, VR12, VT07a, Wai14, WCT+12, WT15, WLJ14, YHT16, YL08, Ze15, ZKS+05, ZC15, ZB13, LAMV12, Lin16b]. science-based [FG14]. Science-Methods [Ble09, BL09]. Science-Oriented [MNBZH05]. science-related [LS14]. science-text [YHT16]. Sciences [Gov17, SLC17]. Scientific [AD16, BE16, BMD+17, CS16, CC05, Das05, DWM16, Gov17, LOJ08, Lin16a, MSA17, VTV16, WSA07, WSW+08, YPT07b, AB11, AB13, AMBLL16, BSLM16, ÇTC14, CS15, HS14, LCC+09, MLK+15, NSV13, OBE12, SC14, SLES09, YZK15]. Scientist [Mor14, AB14, DW15]. Scientists [CC14, AB14, CTT+11, MJMOR11]. scope [Rut11]. Scores [HILAT16, LM12]. Scripts [CC16]. sculpture [Nar15]. Second [PB09, Are12, Lin12]. Secondary [ABPD16, BG17, CCR17, EPEG07, GH07, HFVH17, HMS16, KWO07, KB16a, Kot16, K16l18, Len06, LR08, MBBR08, MRDCC17, Ng10, OS05, PPS12, PP08, PTW05, PH18, PB09, SB17, Sum16a, Sum16b, TCH+17, VT07b, Y07, AOC10, Bag11, BS15, CW011, CDT+11, DEd15, ETG16, EGN11, F11l15, GN08, G050+17, HK10, KKvdW15, KV10, M0dBB12, MG15a, NFB+15, Oh14, OdC15, Ped15, QM14, RT10, SIS+11, Uit14, VT07a, WP12, WT13, WD12, TBT+10]. sectors [BRMNH15]. see [DL12]. seen [GLY09]. seismic [MMV16]. Selected [ES04, ES09, WBB17, ZF06, BAV+11]. selection [BHSC10]. Self [AYLW16, AO16, CC16, CT04, DC06, FCS15, HBP17, LZZ+18, LC08, NLLS08, PS017, SC16, YT07, Are12, Bag11, Bur10, CK14, Chi12a, HYC+16, JLC08, LM12, Pet13, Tig14, Uit14, VAF12]. Self-Concept [SC16, Y07]. Self-concepts [HBP17, Are12]. Self-Efficacy [AO16, DC06, LC08, Bag11, Bur10, CK14, JLC08, LM12, Pet13, Uit14]. self-enhancement [Chi12a]. self-perception [Tig14]. Self-Regulated [CT04, FCS15, NLLS08, AY1W16, HYC+16]. Self-Regulation [LZZ+18, PS017, CC16, VAF12]. Semantic [W07]. Semiotic [Shi18, Mas15, MPA14]. Senior [VC17, BSA+14, LT09, RCT+11]. Sense [ABPD16, SP17, YYK15, Yan03, YnLL08, YRR09, Als12]. sense-based [As12]. Sequence [MVC17a, MVC17b]. Sequences [Bar17, GACZ09, NEAC10, WD12]. sequencing [BVDV13]. series [Rut11]. Service [Bay09, CT04, ELO08, Gub16, Jao17, WSW+08, YZK15, YRR09, Ala16, ABPD16, AO16, Bil06, Bla04, ÇAC07, CA14, DS15, DK15, DB17, GGD15b, HM09, KIR12, K1118, KLJ+13, KB17, KN13, LHC17, Lin05b, NN11, Oh14, SFL15, Tay18]. SES [CCN+12]. SES-different [CCN+12]. setting [Aky16, VRW05, ZB13]. Settings [LLC+16]. Sex [HNA16, SC16].
stepwise [Gok15]. **Stickers** [KKE+17]. still [RT10]. **Stoichiometry** [HmYB07, DC08]. **stone** [Nar15]. **story** [AM14a, HPP09]. **Strategic** [SCS+12, WHC17]. **Strategies** [AT07, AOZ09, Ala16, ABPD16, Ari18, FCS15, HmYB07, JC10, Lee16b, LZX+18, TVC03, WSA07, YR09, YR09, Als12, BC11, Ebr12, Gok15, Hal12, KAC15, LT11, Oh11, SBK+14]. **Strategy** [LB08, CKH15, GN08]. **strength** [KYA13a]. **Strengthening** [Hsi13]. **strengths** [BSD13]. **Stress** [HSMO06]. **Stressful** [HSMO06]. **Striving** [Lil07]. **Structural** [DGEP16, FCS15, PMCG+17, JLC+13, PPS12, VAF12]. **Structure** [CGR13, MSdSGG17, TWC+16, TYW+17, AM14b, Che11, KN13, NFB+15, Oli10, TSP12, WLSN14]. **Structured** [LB08, Can14]. **structures** [GLSM11, THV+15]. **Student-Centered** [MH17]. **Student-led** [BB09]. **Student-teacher** [BB09]. **Student-with-GeoGebra** [JC17]. **Students** [FMOMG16, G8J+17, Hii18, HILAT16, HL04, IA08, KD09, LJ16, LZX+18, MNBH+05, Mi08, NLS08, Nis17, ODTS07, RGC08, SD16, SV08, SBH+12, Sha06, Yau03, YT07, ZBL+16, AC15, Als12, AMBLL15, AK13, AU15, BSA+14, BRMNH15, CTT+11, CY10, CC14, CCW15, CEB12, CJOC11, DAD0+11, DL12, ED13, IK14, JC10, JW15, JLU+10, KV10, LLWS13, LG13, MLK+15, NEAC10, OBF15, ODC15, Ped15, RR16, SY14, SC11, TSO16, TIG14, WWTC10, WT15, Yü14, ZE15, ZS11]. **Studies** [ERC03, GHP07, TVC15, HSI13, HYC+16, SLES09, WCY16, YL08]. **Study**
[APR^+17, BBT17, BC05, CT17, CABR06, CT04, DNV17, GG09, HNMG1A16, JHWW16, KYA13b, KH06, LB08, Oro16, PBP18, PZA16, PN04, PRW^+07, QVST17, Sap13, SA16, TSMW16, TLHV16a, TLHV16b, VC17, Wan07, WL08, Yan03, YnLL08, YYY04, YCH04, ALA^+15, AB14, BSA^+14, BPG11, BW10, BC11, ÇTC14, Cha10, CL10, CCN^+12, DW15, DRT^+12, ETG16, EDS10, FD12, HFWY14, HY05, JC10, Kau11, KYA13c, KYJS12, KK16, LCC^+09, LIT09, LCC11b, ME13, MMP14, MR14, OS10, OdC15, ÎDC09, PZLR16, PV14, PM1C15, RJHB12, RL12, RT10, Rut11, So16, Tan11, TOV12, TDBLY16, Top13, TCC^+10, VTCvS14, Yan14, YHT16, ZS11, vA06].

teacher-generated [NY11]. teacher-researchers [KB14]. Teachers
[AAAB16, Ala16, ABPD16, AD16, AM04, Bay09, CP17, Che08, Dog16, 
DK16, EH18, ERC03, ELO08, GPCB15, Gub16, HM09, HCBZ03, HL04, 
Kot16, LHC17, Lin05b, Lin16a, Lin17, MDF08, PP08, SC03, Sty08, TYC17, 
WSA07, WSW08, YRR09, BW10, BK13a, BAV11, CA14, CKH15, 
CMME15, DFR06, Ded11, DK15, ELY15, GGD15b, HWW13, KST09, KIR12, 
KY11, KAC15, LCC11a, Maj14, OS10, Oh14, RRW11, WT13, ZKS05, ZC15, ZB13].

Techno [JC17, vdWBD17]. Techno-Mathematical [JC17, vdWBD17].
Technological [YJY08, Aky16, DS15, GCK15]. Technologies [GGD15a, RC08, Su08, ZZ09]. Technological [YJY08, Aky16, DS15, GCK15].

teaching

Technology-Aided [CP17]. Technology-Enhanced [ALT14].
technology-infused [HIS16, HISH16]. Technology-integrated [WCG09].

TEDS [BSD13, WT13]. TEDS-M [BSD13, WT13]. tells [Kni10]. tendency [Bab10].

Tensions [HC16b]. Term [CTC16, TOV12]. Terms [MsdSGG17, SF05].

tertiary-level [AAAB12]. Test [BE17, GG09, LL06, Lin04, LLC16, SP05, 
TDW17, YCH04, AU15, DL12, OEMZ12, WCT12]. Testing 
[Bra12, LOJ08, MQ07]. tests [SWA12, GS16, Joh16]. Text 
[CA07, HC16b, LKC15, WC16, WS16, AM14b, Hun14, Tip10, YHT16].

Text-and-Diagram [HC16b]. Textbook 
[CCT16, Mc03, RA17, ZGZM17, CCWL15, Din14, OO15].

Textbook-Caused [ZGZM17]. Textbooks [BdSSC16, CJ17, JMS16, SB17, 
WBB17, ZF06, Als12, Bay13, DE15, Maj14, NY11]. Texts 
[HY07, TSP16, YL18, AM14a, BPG11, FG14, WCT12]. Thai 
[DC08, NEAC10]. Thailand [YJY08]. Their 
[FMOMG16, Güv09, Kul18, Lin17, MWM05, NK04, OBH17, RH15, SK17, 
AH11, AB13, Arc12, BS15, CPMSW11, Che12, CBDV10, DFR06, FL06,
HBTP13, HEB11, HWW13, KB16b, KKvdW15, Las13, LY10, LLT09, LsL14, Maj14, MAL+11, MMM11, PSO17, STC12, WMP+12, Yan14, Zei10, ZS11.

thematized [GLSM11]. Themes [Sum13]. Theorem [SBM12, ZZ16].

Theoretical [KBH+15, KTBG15, MNE12, Nyi15]. Theories [McC03, WFK+16]. Theory

[LC14b, WFK+16, And14, BHSC10, CA14, HL13, Kön13, TCC+10, LC14a].

there [ZL11]. thermal [GS12].

Thinking [Gub16, SG09, Tay18, TDV+17, VTV16, Wan07, WL08, AW12, AU15, DDG+12, Li11, Lin14b, Lin16b, Ols07, Ozd10, WT15].

Thinking-about-derivative [AU15]. Third

[BBT17, CTGS15, WT18, HT13]. Third-Grader [BBT17]. Third-year

[CTGS15]. those [OC08]. Three

[AWL16, LH08, Wat17, JC10, Kau11, MMP14, MMR15, TSP12]. tidal

[Oh14]. Tier [Lin04, Wan04]. time [BHS15, Che12, LLWS13, PMLC15].

times [BZST10]. TIMSS [Che14, LH15, Ped15, WOB12, ZL12]. to/from [Jr06]. told [SC11]. Tool [DDG+12, Bra12, DS15, WMS13]. Tools [Hew04].

Topic [TT07, BMN16]. topics [AE15]. Toulmin [Oh14]. Toy [KEET17].

tracking [ALA+15, CY14, CMME15, HTWT14, YHT16]. Traditional

[MH17, Din14]. Training [KB14]. Transfer

[RV17, TSMW16, YAC10, RGV15, SB09]. transformational [AE15].

Transformations [LH08]. Translation [RH17, Lin12]. Translation

[MRDCC17, SB09, WLSL14]. Transport [Wan04, Wan07, RT10].

treatments [KG15]. Trenches [Bla04]. Trends [BG17]. Triggered

[HSM006]. trips [MG15b]. troubleshooting [SY14]. trust [BK13a].

Tunisian [ODTS07]. Turkey [AYLW16, AAMU+14, Ded15, Şah10]. Turkish

[Bay13, Bay09, Bur10, ÇK06, Ded11, ETG16, NY11, ODC09, TSA12].

Tutees [KH15]. Tutoring [KH15]. Tutors [KH15]. Two

[EN08, ERC03, Lin04, Lin17, NPT17, RB09, TS04, Wan04, WK09, WSA07, DVV15, LP11, MNE12, MMP14, PK15, RL12, SBR14, Tip10]. Two-Tier

[Lin04, Wan04]. Type [Lin16a, BJ10]. Types

[DNV17, FL06, ZF06, EE11, MNE12]. typical [EFL+13]. typology

[EDMA15].

U.S. [AMBLL16, CW06, HL04, LS14]. Uncertain [RH15]. Uncertainties

[CT17, PH18]. Uncovering [RGC08]. Undergraduate

[CT17, Das05, LsL14, PRW+07, Tlk17, AU15, BHS15, Lep12, Lin14b, Lin16b, Mor09a, Mor09b, Pet13, SC11]. underlying

[BC11, Chi12a, GLSM11]. Undermine [JLC17]. understand

[DBS15, KST09, MRA10, Mor09a, Mor09b]. Understanding

[AT07, Bal18, Bil06, ÇAC07, Das05, EG17, FMOMG16, GS16, HC16a, Hua17, Lin04, LYC04, LH08, MMK11, MWM05, MC04, NPP16, Oh14, PMCG+17, Par07, PBP18, RCT+11, RMH+11, SLC17, SVDK09, TSC17, Wan04, WBB17, WT18, WK09, YCL04, And14, APCK12, CdHD16, CSM12, Che12, Che11, DC08, DVV15, GS12, Gok12, Hal12, Jac12, JW15, KYA13a, KTBG15,
KN13, Lep12, Lin06, MAL+11, MMM11, MMR15, Mor14, NPR12, Oli10, OL14, ÖDC09, PPS12, PC13, PMSK+12, SMFL15, STC12, SVM15, SG15, SW14, TOV12, TCC+10, VRW05, WP12, WLJ14, WMS13].

**Understandings** [HmYB07, WL08, AMBLL16, GS13, RK10]. unexpected

**Units** [O C08].

**Unit** [LB08, AAY15, DFR06, NPR12].

**United** [PZA16, ZF06].

**Units** [O C08].

**Universal** [Kaz14, SBT+06].

**Universality** [Miy08].

**Universe** [Gov17, Liu05].

**universes** [MW09].

**University** [PZA16, ZF06].

**University** [LB08, AAY15, DFR06, NPR12].

**Units** [O C08].

**Universal** [Kaz14, SBT+06].

**Universality** [Miy08].

**Universe** [Gov17, Liu05].

**universities** [MW09].

**University** [LB08, AAY15, DFR06, NPR12].

**Units** [O C08].

**Universal** [PZA16, ZF06].

**Universality** [Miy08].

**Universe** [Gov17, Liu05].

**universities** [MW09].

**University** [AK17b, GS12, SW14, TOV12, TCC+10, VRW05, WP12, WLJ14, WMS13].

**upmap** [RHM+11].

**upon** [WLSN14].

**Upper** [AD16, BS15, CGR17, Sum16a, Sum16b, VT07a, VT07b, Bag11, EGN11, Ped15, RT10, Uit14].

**upper-secondary** [Uit14].

**urban** [Kuw13, PV14].

**USA** [GGD15b, HEB11].

**Use** [APR+17, AMG16, BCC06, Dah17, DKL16, DJE17, Lee16b, LR08, MHIS09, UFW17, Bahl10, CEB12, Din14, DDG+12, GGSP10, KV10, Maj14, RSPK14, RVG15, SKA11].

**Used** [Ala16, DB17, YRR09, Als12].

**usefulness** [CDT+11, LCC11a].

**Using** [ALT+07, AMBLL16, BHSC10, BE16, Che14, Dah17, Dog16, EFL+13, FT05, GPCB15, HmYB07, HL13, JMS16, LL05, Lin05b, MJMOR11, Oh11, OEMZ12, Rut11, TC09, VR12, WLJ14, AAF12, CSA11, Lin06b, LIT09, NPR12, PZLR16, WOB12, LJ16].

**Valid** [DB17].

**validate** [WLJ14].

**Validating** [FUL15, SCS+12].

**Validation** [BMD+17, IAS17, TDW+17, Wan04, WC16, AU15, CMME15, Ded11, GGSP10, HpsH+16, LAMV12, MSH10, RSPK14, SOTF13, TS016].

**Validity** [Oro16, YCL04].

**Valuations** [GC018].

**Value** [HCH16, IAS17, JLC17, ZBL+16, Web13].

**Values** [CT17, Leu05, Ded11, Ded15, KIR12, PC13].

**Variable** [Ble09, BL09].

**Variables** [AWL16, Dog16, ES04, ES09, RH17, SP05, ST05, BNH+15, MMP14, TSP12].

**Variation** [GSO+17, VWH+17, WK08].

**vehicle** [BMN16].

**Verbal** [BB17, FD12].

**Video** [BKC15, DJB15, GPCB15, KBH+15, KLH15, LJ16, Lin05b].

**Video-Based** [BKC15, DJB15, KBH+15].

**Video-cases** [Lin05b].

**videos** [CC014, GLY09].

**Vietnam** [TDBLY16].

**Vietnamese** [TDBLY16].

**View** [BC06, Lin05b].

**Views** [BE16, BCC06, Gov17, LE06, LJC08, RAL+07, SC03, AE10, AB14, CDT+11, JLC08, LCC+09, SB09, WMP+12, DKL16].

**Vignettes** [KLH15].

**Village** [PTW05].

**Virtual** [WT18, LY10, SLW10, WMS13].

**Vision** [SGHM15, SGHM16].

**visits** [MG15a].

**Visual** [WS16].

**Visualization** [WSA07, AT15, Oza10].

**visualizations** [RT10].

**Visualizing** [TYW+17].

**visuals** [Oza10].

**vividness** [AB13].

**Vlaardingerbroek** [VT07a].

**Vocabulary** [ScH14, WK08, FG14].

**Voice** [Mer07, KSE16].

**Voices** [MWM05].

**Volcano** [LB08].

**Volume** [PPB18, SA16].

**vs** [HBP17, SY14].
References


Ambusaidi:2017:IOS


Al-Amoush:2014:BAC


Alghamdi:2013:SES


Ayar:2015:ASA


Al-Balushi:2011:SEC

Al-Balushi:2013:RBL


Aydeniz:2014:WDS


Azaiza:2006:LEE


Atwood-Blaine:2017:MGS


Almudi:2015:AA

REFERENCES


cycle of Pisa (2000–2006) — international perspectives on su-
cesses and challenges: research and policy directions. Interna-

[AD16] Mahmoud A. Alshamali and Wajeeh M. Daher. Scienti-
ﬁc reasoning and its relationship with problem solving: the case
of upper primary science teachers. International Journal of
Science and Mathematics Education, 14(6):1003–1019, August
2016. CODEN ???. ISSN 1571-0068 (print), 1573-1774 (elec-

on the role of mathematics learning in developing deductive rea-
soning. International Journal of Science and Mathematics Ed-
ucation, 8(6):1131–1154, December 2010. CODEN ???. ISSN
springer.com/article/10.1007/s10763-010-9238-z.

[AE15] Michal Ayalon and Ruhama Even. Students’ opportunities
to engage in transformational algebraic activity in different
beginning algebra topics and classes. International Journal
of Science and Mathematics Education, 13(2s):285–307, May
2015. CODEN ???. ISSN 1571-0068 (print), 1573-1774 (elec-

[AE16] Michal Ayalon and Ruhama Even. Factors shaping students’ op-
opportunities to engage in argumentative activity. International
REFERENCES


Adu-Gyamfi:2014:PRR


Adu-Gyamfi:2017:SCB


Akkus:2011:ETS


Areepattamannil:2013:FPS


Asghari:2017:MAO

REFERENCES


REFERENCES


Rebecca Ambrose and Marta Molina. Spanish/English bilingual students’ comprehension of arithmetic story problem texts. *International Journal of Science and Mathematics Education*, 12


Anonymous. 2013 international journal for science and mathematics education. *International Journal of Science and Mathe-
REFERENCES


[AÖÇ10] Alipasha Ayas, Haluk Ozmen, and Muammer Calik. Students’ conceptions of the particulate nature of matter at secondary and


Shaljan Areepattamannil. First- and second–generation immigrant adolescents’ multidimensional mathematics and science
REFERENCES


REFERENCES


REFERENCES


REFERENCES


REFERENCES


REFERENCES


REFERENCES


Beswick:2011:EPC


Beswick:2011:PCC

Beswick:2011:EPC


Babai:2012:PIC


Badillo:2015:ARY


Bergeron:2017:ESP

Blomeke:2015:TCD


Budiman:2014:ECC


Blomeke:2013:ISI


Bah:2015:THA


Battisti:2010:UIR

Bryce Thomas Battisti, Nikki Hanegan, Richard Sudweeks, and Rex Cates. Using item response theory to conduct a distracter


[BKC15] Sigrid Blomeke, Gabriele Kaiser, and David Clarke. Preface for the special issue on “video-based research on teacher

[Bleicher:2009:EVR]


[Black:2004:STE]


[Bleicher:2009:VRA]


[Benjamin:2017:DVS]

REFERENCES


REFERENCES


REFERENCES


REFERENCES

Coertjens:2010:DSM


Clough:2009:PES


Cole:2012:AMM


Chang:2005:DAA


Chen:2014:STS

[Junjun Chen and Bronwen Cowie. Scientists talking to students through videos. *International Journal of Science and Mathematics Education*, 12(2):445–465, April 2014. CODEN ????. ISSN}
Chen:2016:CSE


Chalmers:2017:IBI


Chang:2011:DCS


Chen:2012:EGM


Chang:2016:CMR

Briana L. Chang, Jennifer G. Cromley, and Nhi Tran. Coordinating multiple representations in a reform calculus textbook. *International Journal of Science and Mathematics Education*, 14


REFERENCES


REFERENCES


REFERENCES


References

Choi:2015:SDI


Chen:2010:ICC


Chang:2010:A


Cortina:2015:WLH


Cormas:2017:PTR

REFERENCES


Celik:2017:GCI


Champion:2011:CAS


Cross:2009:COM


Chen:2009:ALE


REFERENCES


REFERENCES


REFERENCES


REFERENCES


REFERENCES

Dolev:2015:JEI


Dede:2011:MEV


Dede:2015:CPS


Nhalevilo:2013:RHI


Dawson:2006:ICT

Vaille Dawson, Patricia Forster, and Doug Reid. Information communication technology (ICT) integration in a science education unit for preservice science teachers; students’ perceptions of their ICT skills, knowledge and pedagogy. *International Journal of Science and Mathematics Education*, 4(2):345–363, October
REFERENCES


REFERENCES

Dolin:2010:RCP

Delice:2015:IRF

Delen:2018:SSE

Dreher:2016:WUM

Diezmann:2012:LTS
REFERENCES


References


REFERENCES


REFERENCES


REFERENCES


[ES09] Nicholas Emepue and Kola Soyibo. Correlations among five demographic variables and the performance of selected Jamaican


REFERENCES


REFERENCES


Friege:2006:TQK


Fies:2011:BWM


Franco-Mariscal:2016:UIC


Foster:2015:EUS


Feng:2005:UAM

REFERENCES


REFERENCES


Georgiou:2012:USU


Grootenboer:2013:RIS


Gandara:2016:UGG


Gravemeijer:2017:WME


Gougis:2017:PSS

Guberman:2016:DAT


Guven:2009:FRP


Hakkarainen:2007:DCC


Halai:2012:DUI


Hoffler:2017:SVS

REFERENCES


Sunyoung Han, Robert Capraro, and Mary Margaret Capraro. How science, technology, engineering, and mathematics (stem) project-based learning (pbl) affects high, middle, and low achievers differently: the impact of student factors on achievement. *International Journal of Science and Mathematics Education*, 13 (5):1089–1113, October 2015. CODEN ????? ISSN 1571-0068.


REFERENCES


REFERENCES


REFERENCES

???? ISSN 1571-0068 (print), 1573-1774 (electronic). URL /content/pdf/10.1007/s10763-007-9080-0.pdf; http://link.springer.com/article/10.1007/s10763-007-9080-0. See [Hua06].


Howe:2011:RNP


Hand:2016:ATL


Ho:2010:FIS


Hobbs:2013:TFB


Higgins:2011:IOM


REFERENCES

Handa:2013:TTS


Ho:2014:PKO


Huang:2006:LLC


Huang:2017:CIA


Hung:2014:WYL

REFERENCES


Ibrahim:2017:TRS

Im:2014:ATS

Ing:2014:GDI

Jacobb:2012:EST

Jao:2017:SPS


REFERENCES


REFERENCES


Kyle:2006:RRJ


Jones:2015:AMP


Jader:2017:SMR


Jin:2015:MCU


Koyuncu:2015:IPG


Kaur:2011:MHS


Kawasaki:2007:TWE


Kazima:2014:UBE


Kyei-Blankson:2014:TMS


Khakasa:2016:STP

 REFERENCES

Khishfe:2016:LSC


Kim:2017:AKE


Kaiser:2015:ACV


Konig:2015:ECM


Klieger:2011:PDS

REFERENCES

Kaberman:2009:QPI

Korur:2017:ETC

Kutnick:2017:IEG

Kerenxhi:2015:DTS

Kellner:2011:PTI
REFERENCES


[Kid11] Ivy Kidron. Constructing knowledge about the notion of limit in the definition of the horizontal asymptote. International Journal
REFERENCES


Hanke Korpershoek, Hans Kuyper, and Greetje van der Werf. The relation between students’ math and reading ability and their mathematics, physics, and chemistry examination grades

**Kang:2018:IMR**


**Knievel:2015:BKM**


**Kim:2013:TRI**


**Koponen:2013:PSP**

REFERENCES

Knipprath:2010:WPT


Ko:2010:MTC


Konig:2013:FCT


Kotsopoulos:2010:ATA


Kotelawala:2016:SPA


Kim:2011:CGE

REFERENCES


Kukliansky:2016:STV


Kariotoglou:2009:HST


Kock:2015:CCI


Kulgemeyer:2018:ISS


Kuwahara:2013:IPB

Jennifer L. H. Kuwahara. Impacts of a place-based science curriculum on student place attachment in Hawaiian and Western cultural institutions at an urban high school in Hawai‘i. International Journal of Science and Mathematics Education, 11
REFERENCES


Kubiatko:2010:RBI


Keraro:2007:ECC


Kala:2013:EPO


Kidman:2013:EIS

REFERENCES

Kidman:2013:ISE

Kim:2012:DLS

Lamb:2012:MSI

Laschke:2013:EFM

Lawson:2005:CHQ
REFERENCES


REFERENCES


Lin:2011:PUT


Lu:2011:CSC


Langley:2006:PHS


Lee:2011:MCS


Lee:2016:ICC

REFERENCES


[Leu05] Yuh-Chyn Leu. The enactment and perception of mathematics pedagogical values in an elementary classroom: Bud-
REFERENCES


REFERENCES


REFERENCES

Lin:2009:PLG


Lin:2012:REE


Li:2011:ETT


Liljedahl:2007:PBJ


Lin:2004:DA

REFERENCES

Lin:2005:E

Lin:2005:URB

Lins:2005:E

Lin:2006:CTU

Lin:2012:ETS
REFERENCES


REFERENCES


Lee:2005:UAI


Lazarowitz:2006:FAP


Lin:2014:CLC


Lin:2017:DRT


Lotter:2018:IPT

Lin:2015:DCB


Lin:2016:ESS


Lu:2015:AAH


Liu:2009:ISH


Leikin:2013:EPE

[LLWS13] Roza Leikin, Mark Leikin, Ilana Waisman, and Shelley Shaul. Effect of the presence of external representations on accuracy and reaction time in solving mathematical double-choice problems by students of different levels of instruction. *International Journal of...*
REFERENCES

Lin:2010:LAS


LM10

Louis:2012:DSS


LM12

Lai:2015:HKG


LM15

Lawson:2008:CSM


LOJ08

Lorenzo:2005:DIE

<table>
<thead>
<tr>
<th>Reference</th>
<th>Year</th>
<th>Authors</th>
<th>Title</th>
<th>Journal</th>
<th>Volume</th>
<th>Pages</th>
<th>Month/Year</th>
<th>CODEN</th>
<th>ISSN</th>
<th>URL</th>
</tr>
</thead>
</table>
REFERENCES


REFERENCES


REFERENCES


REFERENCES


REFERENCES


REFERENCES

Marshall:2009:KSM


Mattheis:2015:EHS


Miyazaki:2008:CIS


Medina-Jerez:2011:UDC


Mikk:2016:RBS

REFERENCES


REFERENCES


[MNE12] Rachel Mamlok-Naaman and Ingo Eilks. Different types of action research to promote chemistry teachers’ professional development — a joined theoretical reflection on two cases from Israel and Germany. *International Journal of Science and Mathematics Education*, 10(3):581–610, June 2012. CODEN ???? ISSN

**Maulana:2012:TSI**


**Moseley:2007:CUJ**


**Moru:2009:EOCa**


**Moru:2009:EOCb**


**Morrison:2014:SPT**

Judith A. Morrison. Scientists’ participation in teacher professional development: the impact on fourth to eighth grade teachers’ understanding and implementation of inquiry science. *In-
REFERENCES


REFERENCES


REFERENCES


NPF2010: PES


Ng2010:EAC


NHS2008:CHS


Nis2017:ORS


Nuk2004:SAP

[NLW16] Betsy L. L. Ng, W. C. Liu, and John C. K. Wang. Student
motivation and learning in mathematics and science: A cluster
analysis. *International Journal of Science and Mathematics Edu-
cation*, 14(7):1359–1376, October 2016. CODEN ???? ISSN

pre-service primary school teachers’ notions of engaging science
lessons. *International Journal of Science and Mathematics Edu-
cation*, 9(2):327–345, April 2011. CODEN ???? ISSN 1571-0068
com/article/10.1007/s10763-010-9244-1.

[NP16] Aristoklis A. Nicolaou and Demetra Pitta-Pantazi. Hierarchi-
cal levels of abilities that constitute fraction understanding at
elementary school. *International Journal of Science and Mathe-
matics Education*, 14(4):757–776, May 2016. CODEN ???? ISSN

[NPR12] Nantawan Nantawanit, Bhinyo Panijpan, and Pintip Ruen-
wongsa. Promoting students’ conceptual understanding of plant
defense responses using the fighting plant learning unit (fplu).
*International Journal of Science and Mathematics Education*,
10(4):827–864, August 2012. CODEN ???? ISSN 1571-0068

[NPT17] Andreas Nehring, Andreas Päßler, and Rüdiger Tiemann. The
complexity of teacher questions in chemistry classrooms: an em-
250, February 2017. CODEN ???? ISSN 1571-0068 (print), 1573-
REFERENCES


REFERENCES

Oliva:2015:CML


Ouertatani:2007:ABA


Otto:2012:UST


Oh:2014:UA

Jun-Young Oh. Understanding the alternative conceptions of pre-service secondary science teachers about tidal phenomena based on Toulmin’s argumentation. International Journal of Science and Mathematics Education, 12(2):353–370, April 2014. CODEN ????. ISSN 1571-0068 (print), 1573-1774 (elec-


REFERENCES


<table>
<thead>
<tr>
<th>Reference</th>
<th>Authors</th>
<th>Title</th>
<th>Journal and Volume</th>
<th>Pages</th>
<th>Year</th>
<th>DOI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prophet:2009:LSP</td>
<td>Robert B. Prophet and Nandkishor B. Badede</td>
<td>Language and student performance in junior secondary science examinations:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


REFERENCES


Priemer:2018:LAM


Partanen:2015:SNN


Park:2015:EMI


Panaoura:2017:SMR


Potvin:2015:PIC

[PMLC15] Patrice Potvin, Steve Masson, Stéphanie Lafontune, and Guillaume Cyr. Persistence of the intuitive conception that heavier objects sink more: a reaction time study with different levels of interference. *International Journal of Science and...
Planinic:2012:CSU

Patterson:2004:CST

Panizzon:2008:APE

Pantziara:2015:SMM

Park:2018:EYC
Do-Yong Park, Mi-Hwa Park, and Alan B. Bates. Exploring Young Children’s understanding about the concept of volume through engineering design in a STEM activity: A case study. *International Journal of Science and Mathematics Education*, 16 (2):275–294, February 2018. CODEN ???. ISSN 1571-0068


[PTW05] Soikava Pauka, David F. Treagust, and Bruce Waldrip. Village elders’ and secondary school students’ explanations of nat-

Paul:2014:UMS


Pimthong:2012:TLA


Pasha-Zaidi:2016:GSE


Paige:2016:RES


REFERENCES


[RK10] Sri Rahayu and Masakazu Kita. An analysis of Indonesian and Japanese students’ understandings of macroscopic and submicroscopic levels of representing matter and its changes. *Internationale
REFERENCES


REFERENCES

Roorda:2015:AOT


Rau:2016:CPC


Sisman:2016:SSG


Sahin:2010:CA


Sapkova:2013:SLM

REFERENCES

**Schonborn:2009:KTB**


**Shehab:2017:ACR**


**Susac:2014:EMR**


**Scataglini-Belghitar:2012:EAC**


**Siraj-Blatchford:2014:CPP**

Siraj-Blatchford:2016:ECP


Seybold:2014:PCE


Scantlebury:2007:AIG


Stavy:2006:IRU


Sade:2003:TTE

REFERENCES

[SC11] Emma Smith and Sandra Cooke. ‘i was told it was going to be hard work but i wasn’t told it was going to be this much work’: the experiences and aspirations of undergraduate science students. *International Journal of Science and Mathematics Education*, 9(2):303–326, April 2011. CODEN ???? ISSN 1571-0068 (print), 1573-1774 (electronic). URL http://link.springer.com/article/10.1007/s10763-010-9228-1.


REFERENCES


REFERENCES


REFERENCES

Lin:2014:E

Shen:2017:ASD

Spektor-Levy:2009:TSC

Sun:2010:DVR

Sanchez-Matamoros:2015:DPS
REFERENCES


Shahbari:2015:RCC


Shahbari:2017:MPS


Stamovlasis:2005:CVP


Sia:2012:HSS


Stylianides:2008:IGO

REFERENCES

Su:2008:ECC

Sumpter:2013:TIB

Sumpter:2016:BPA

Sumpter:2016:IUS

Savinainen:2008:FCI

Skordoulis:2009:SCO
Constantine Skordoulis, Theodore Vitsas, Vassilis Dafermos, and Eugenia Koleza. The system of coordinates as an obstacle in


REFERENCES

Shin:2005:CSC


Shin:2007:ESM


Tytler:2015:ETD


Tang:2011:RCC


Taylan:2018:RBP

REFERENCES


Taskin:2017:STK


Tabach:2010:VJI


Taylor:2007:NSW


Tsai:2009:UCA


Treagust:2010:ESU

[TCC+10] David F. Treagust, A. L. Chandrasegaran, Julianne Crowley, Benny H. W. Yung, Irene P.-A. Cheong, and Jazilah Othman. Evaluating students’ understanding of kinetic particle theory concepts relating to the states of matter, changes of state...


Bonhoffer:2016:BAF

Tesfamariam:2017:NSD


Tippett:2017:FPK


Topcu:2013:PTE


Tao:2012:LTO


Treagust:2004:E

REFERENCES


Tsatsaroni:2005:SRS

Tzur:2004:DTS

Tsatsaroni:2006:MSE

Tan-Sisman:2012:LMT

Tsai:2013:ECP
REFERENCES


REFERENCES


REFERENCES


REFERENCES


REFERENCES


REFERENCES


REFERENCES


Weldeana:2015:GPH


Wright:2016:BTP


Weiss:2004:ICI


Weiland:2014:PFA


[Wei:2014:URM]


[Wong:2009:EMZ]


[Waisman:2014:BAA]


[Wadouh:2014:EKL]


Yang:2003:TLN


Yang:2014:EST


Yip:2004:HKS


Yu:2004:TJH


Yeo:2017:DFC

REFERENCES


REFERENCES


REFERENCES


REFERENCES


Zeidan:2015:CLE

Zhu:2006:FRP

Zohar:2008:GPM

Zajkov:2017:TCM

Zion:2008:LFR


