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#### Title word cross-reference

 $= [GML^{+}23].$ 

 $\times$  [GML<sup>+</sup>23].

1 [LRS21, Zin15]. 12 [BBSPK22, GES14, GYSH19, HAGM14, HAG15b, JK20, OWK21, Tag24, TM14, TSAA+23]. 16-18 [All23]. 19 [MSV+23].

2 [RSL22].

4 [Men24].

6 [IKWR22].

7th [SA20].

ABC [REB23]. ABET [Blu22]. Abilities [AJNN20, JNA18]. **Ability** [Tag24]. Abstraction [DSU20, KDV22, SSD09, SA20]. Academia [NJK19]. Academic [KPM18, WF24]. Academics [SDBJ19]. Academies [DLM11]. Accessibility  $[CGZ^{+}20, PLB^{+}12, WCPF20, vdMHVH23].$ Accomplishment [ZD15]. according [MM12]. Accreditation [Blu22]. Achievement [AANK14, BJCS21, CHA17, Zin15]. ACM [BXS<sup>+</sup>24, Ko22a, TM09, CB19]. **Across** [AM21]. **Action** [IT17, LMGVS<sup>+</sup>16]. Active [VI13, IT13]. Activities [MDS16, MJC23, RKM20]. Activity [LC21].

Adaptive [VMAG22]. Adding [BLNC09, DJHGI19]. Address [RvJP20]. Adoption [EHBA<sup>+</sup>23]. Advocates [SYP24]. Affect [TAL17]. affordable [AGEL13]. African [EKSW11, TSAA+23]. After [PHRC21]. After-Hours [PHRC21]. Agenda [HOC17, SF19, TS20]. Agents [Par23]. **Agile** [FEC17, MSH10]. **AI** [AH24, TMSA22]. **Aimed** [Bra24]. Algorithm [Kar09, RVI09, SCA+10, UFVI09]. Algorithmic [Kie09]. Algorithms [EK17, VI13]. **Alice** [Coo10, UCK+10]. Alignment [Blu22]. All-Female [LBT20]. Alleviate [KV15]. Alliance [DBBR11,  $GHT^+11$ ]. Alone [SNG $^+22$ ]. Aloud [WSLR23]. Also [AH24]. Alternative [BC12]. alternatives [Gri13]. Among [CGON24, MSV+23, Blu22, MVR+24]. Analogical [KMW22]. Analysis [Akd23, AANK14, BF23, DSUP20,  $FWD^{+}24$ , GGT20, KG22,  $LMGVS^{+}16$ , LSSM19, MVR<sup>+</sup>24, PDF15, RVAN15, Shi16, UR17, WCT<sup>+</sup>24, ZJWF11]. **Analytics** [GBB<sup>+</sup>17, GK17, HOC17, KG18, TWH18]. Analyze [VFFT16]. Analyzing [AHL17]. Android [Mod21]. Animation [Kar09, UFVI09]. **Answer** [JK20, Sho23]. Answers [HAG15b, RWS<sup>+</sup>24]. AP [SNG<sup>+</sup>22]. API [TCK21]. Application [CG19, Mod21, RMNC10]. Application-Oriented [RMNC10]. Applications [KMW22, TWH18]. Apply [Tag24]. Applying [ETN<sup>+</sup>21]. Approach [AANK14, BKZL23, BHHMG21, BC12, CMSP20, ETN+21, Joh19, KLS+14, MFM<sup>+</sup>16, Mod21, PGJS17, TAL17, VS22, CHM13]. Approaches [CHU<sup>+</sup>09, GBB<sup>+</sup>17, KLM15, KA16]. **Apps** [CMSP20, NBTC<sup>+</sup>24]. **Aptitude** [VCMV23]. Architecture [Mit14, Shi16, SPR12, Wan11]. Architecture-Based [Shi16].

architectures [ZPB13]. Areas [KS14]. Arising [LC21]. Art [Ip12, PLF22]. Artificial [AMD22, LGGS22]. Artists [Fie19]. Arts [BBD<sup>+</sup>10, BB10, BCD10, WK10]. **Asking** [Ten14]. Aspects [NCW22]. Assembly [SPR12]. Assess [HCAT23]. assessed [Lar16]. Assessing [BCZ19, DTT16, FDW19, MPDS24, Mod21, PGJS17]. Assessment [DJGIO20, DHH+15, Lai22, LFU23, LIG22, NCW22, PLF22, PE23, Ric09, RWS<sup>+</sup>24, RB22, SDBJ19, VMAG22,  $VVM^{+}24$ ,  $WCT^{+}24$ ]. Assessments [Alb20]. Assessors [DJGIO20]. Assignments [AvdM21, RRKP13]. Association [BSS20]. Associations [PCH09]. Athletic [Joh19]. Attainment [LZR24]. Attitudes [BBF<sup>+</sup>21, LLF22, Pad24, PLB<sup>+</sup>12, RVSW23, REB23, TABA12]. AuDeNTES [MM12]. Audience [AMD22]. Authenticity [LBM24]. Autograding [HBVTN21]. Automata [IIRY17]. Automated [KJH19, MBKS24, PLF22]. Automatic [LFU23, MM12]. **Average** [TWH18]. Aware [VGRM19]. Awareness [VGM<sup>+</sup>23].

Back [RS14]. Background [MVR<sup>+</sup>24]. Backward [TM15]. Bare [LMGVS+16]. Barrier [Ros23]. Barriers [GYSH19, PGJS17, Par23]. Based [AAGH14, BL14, DTT16, GGT20, GBB+17, HHM19, HOC17, KCB<sup>+</sup>23, Lai22, LMGVS<sup>+</sup>16, MFR13, MFM<sup>+</sup>16, MR22, O'G12, RT15, Ric09, RV09, RMNC10, SSSC18, Shi16, TAL17, WW17, HM22,  $MGM^{+}23$ , Mod21, VS22]. **Basic** [WZL<sup>+</sup>22]. BDSI  $[WZL^+22]$ . Be [SYP24, SNG<sup>+</sup>22, LGP13, Ros23]. Behavior [CHA17, COK24, DSS21, LFU23, LSTA22, PGJS17]. Behaviours [BBF<sup>+</sup>21]. Behind [PLB<sup>+</sup>12]. **Being** [RHSS20, VGM<sup>+</sup>23]. Beliefs [BA17, CGON24, FPSS22, FPSS23, REB23, Ros23]. Benchmarks [HB15]. Benefit [DCW19]. Benefits [MFCLG19].

Berkeley [CHH<sup>+</sup>11]. Between [DJGIO20, FPSS23, LRVW14, MVR<sup>+</sup>24, SDBJ19]. Beyond [Lai22, PG23]. Bi [Vog21]. Bi/Multilingual [Vog21]. Bidirectionally [RG19]. Binary [PCH09, RVSW23]. Black [BSA+23, BSP24, FTD+24, FWD+24, LGGS22, MFH24, RTE21, RHSS20, TBB24,  $WDC^{+}24$ , WF24,  $ETN^{+}21$ ]. Blending [CHA17, IT17]. **Block** [GBB<sup>+</sup>17, WW17]. Block-Based [GBB+17, WW17]. Blocks [Bra24, CG19]. Bloom [DTT16]. BlueJ [BS10]. **Bob** [RWS<sup>+</sup>24]. **Body** [DTT16]. Bolstering [BSA+23]. Boolean [HLKZ12]. Boot [LG21]. Bot [RWS<sup>+</sup>24]. Botswana [TSAA<sup>+</sup>23]. **Boy** [DBR<sup>+</sup>20]. **Brain** [CG19]. Brain-Computer [CG19]. Brains [CG19]. Brazil [Men24]. Brazilian [DBG<sup>+</sup>23]. Bridge [HM21]. Bridging [LRVW14]. Briefs [MR22]. Bring [RWK<sup>+</sup>15]. Bringing [HB15]. Broadening [CHH<sup>+</sup>11, DBBR11, LV11a, LV11b, Ros23]. Bugged [ABCD20]. Building  $[SGHZS19, TDMN^{+}24].$ 

C [WX18]. Calculus [CKSS21]. California [TMSA22]. Camp [BSP24]. Camps [LG21, OPC17]. Can [ASG19, AH24, IDC+19, LGP13, SNG+22, Sho23]. Candidate [BKZL23]. Cannot [HSGB24]. Capital [FTD<sup>+</sup>24, VSK22]. Capitalize [IDC<sup>+</sup>19]. Capstone [DJGIO20, PD22, TBP21]. Capstones [SH18b]. Capturing [Lar16]. Cards [TBP21]. Career [DBR<sup>+</sup>20, LRJ14, MHP20, RHSS20, SNG<sup>+</sup>22]. Careers [BCZ19, OPC17, PG23, RCS11]. Case [BBD+10, BAR14, BCC+19, BWE11, DMBP22, GND19, GM11, KMB<sup>+</sup>15, LSSM19, Par23, SSD09, VS22]. Cases [SK24]. Cash [RMM21]. Cash-free [RMM21]. Causal [DBM24]. Center [RB24]. Centered [GMM17, LRS21, NAG<sup>+</sup>23, RSL22, RC13]. CER [DM23]. Challenges

[ALHR17, BBG12, GES14, SGHZS19, VGRM19, VGM<sup>+</sup>23]. Change [AB24, FPSS22, PS21]. Characteristics [All23]. Characterizing [YB19]. Chat [HCAT23]. Chatbot [PD22]. ChatGPT [Men24, RWS<sup>+</sup>24, Sho23]. **ChatGPT-4** [Men24]. Child [HHM19]. Children [DCW19, WDC15, WDCT20, vdMHVH23, AH24]. China [CJS<sup>+</sup>17]. Chinese [TB16]. Choice [ASG19, LRJ14, MHP20, RHSS20]. Choices [MDS16]. Chutes [LD19]. CISing [YBV23]. Class [BHHMG21, PCH09, YR15]. Classes [Xin15]. Classifying [All23, SPC19]. Classroom [BWE11, GMM17, HB15, LSSM19, MRG17, SSSC18, Gri13]. Classroom-Based [SSSC18]. Classrooms [RPT<sup>+</sup>22, WW17, ZCJR20]. **cloud** [ZPB13]. clouds [RRKP13]. Co [TDMN<sup>+</sup>24]. Co-ML [TDMN<sup>+</sup>24]. Coaches [IKWR22]. Coaching [MRG17]. Code [ABCD20, CJS<sup>+</sup>17, DJHGI19, ILRD20, NCW22, SOB24, VMFG17, HAA13, LC21, NJK19]. Code.org [MMFR20]. CodePlus [LBT20]. Coding [BKZL23, KO22b, LG21, TK16, TMSA22]. Cognition [Rob22]. Cognitive [DZS22, LRJ14, RJJ10, TAL17]. Cohort [BTF<sup>+</sup>19]. Collaboration [Bol22]. Collaborative  $[CDK^{+}14, MBSBA09, TDMN^{+}24, VFFT16].$ College [BJCS21, BSS20, CKSS21, EKSW11, GMM17, LR11, LD19, MDS16, RP19, WDK20]. Colleges [She13]. Collusion [KSCP22]. Color [DMBP22]. Combining [CDB<sup>+</sup>22, HCAT23]. Comments [VMFG17]. Communication [BBG12, KKNL21, MGM<sup>+</sup>23]. Communications [MAK12]. Communities [LC21]. Community [FKG17, KRH<sup>+</sup>24, LD19, NBTC<sup>+</sup>24, YBV24]. Como [Vog21]. Companies [RB24]. Comparative [FWD+24, MVR+24]. Comparing

[DSU20, ECF18, WW17]. Comparison [CJS+17]. Competence [SSB+23, TSK12]. Competency [BF23, Lai22]. Competitive [COK24]. Compiler [SSD09]. Complexity [EK17, KDV22]. Complications [TSV18]. Component [HSGB24]. Composition [HSGB24]. Comprehension [KDV22]. Compulsory [DJHGI19, Hub12]. Computational

[EVM24, FKG17, FEC17, GBB+17, KLS+14, KCB+23, KKNL21, KO22b, Lai22, LIG22, MBR23, PE23, RG19, SNOT21, Tag24, TM11a, VMFG17, WDC15, WDCT20, WHS+17, WSP+11, YMZ+14, YR15].

#### Computer

[AZK<sup>+</sup>20, All23, Arm11, BVNN22, BBD<sup>+</sup>10, BB10, BDDGT14, BAR14, BSA+23, BHHMG21, BBG12, Ber23, Blu22, BJCS21, BSP24, BWE11, BBF<sup>+</sup>21, BSCH14, BXS<sup>+</sup>24, BCD10, BSS20, CKSS21, CMSP<sup>+</sup>19, CMSP20, CG19, CHP<sup>+</sup>18, DCW19, DJGIO20, DBR<sup>+</sup>20, EBC<sup>+</sup>21, EHPR<sup>+</sup>23, EHBA<sup>+</sup>23, FPSS22, GES14, GM14, GM11, GMM17, GbGG<sup>+</sup>23, HB15, HM22, HHM19, Hub12, HAGM14, HAG15b, IIRY17, IKWR22, JMN<sup>+</sup>22, JK20, KWB20, KS14, KFME11, KMB<sup>+</sup>15, Lai22, LK19, LMGVS<sup>+</sup>16, LLF22, LZRO21, LSHY22, LD19, MFM<sup>+</sup>16, MHP20, MPDS24, MRG17, MMFR20, MLA+24, MW18, MR22, MSV<sup>+</sup>23, Men24, MFH24, NAG<sup>+</sup>23, NBTC<sup>+</sup>24, PLF22, PGJS17, Par23, Pet19, PS21, PO20, RVAN15, RSPB17, RJJ10, RWK<sup>+</sup>15, RWS<sup>+</sup>24, REB23, RHSS20, RV09, RCS11, Ryo19, RB24, SNG<sup>+</sup>22, SCMR24, She13, SPR12, SA20, TK16, TB16]. Computer [UR17, VCMV23, VFFT16, VSK22, Wag16, WK10, WW17, WDK20, YB19, YBV23, YBV24, YVQ+10, ZNF+20, ZCJR20, ZJWF11, AGEL13, Gri13, KG22, LGP13, Zin15]. Computer-Based [Lai22]. Computes [GEME14]. Computing [AM21, Bar09, BH16, BMB<sup>+</sup>18, BBF<sup>+</sup>21, BXS<sup>+</sup>24, Bur11, CHA17, CAL15, CB19,

CGZ<sup>+</sup>20, CGON24, DBBR11, DMBP22, DLM11, DZS22, DBG<sup>+</sup>23, EKSW11, EBC<sup>+</sup>21, ETN<sup>+</sup>21, ET12, ECF18, FTD<sup>+</sup>24, FWD<sup>+</sup>24, GND19, GHT<sup>+</sup>11, GGH<sup>+</sup>10, GYSH19, GK17, HSI<sup>+</sup>19, HCSAz22, HM22, HOC17, KLS<sup>+</sup>14, KRH<sup>+</sup>24, KG18, LRS21, LV11a, LV11b, LSTA22, LR11, LRH<sup>+</sup>22, LZR24, LG21, MFR13, MHP20, MSK<sup>+</sup>23, MT23, MLA+24, MBE+16, MAHC+22, MDS16, MCK17, MW22, MS11, NLWS24, NAG+23, O'G12, OWK21, OHR22, Pad24, PM09, PG23, PCC+24, RB21, Rob22, RLN+22, RHSS20, RP19, RvJP20, RMM21, RSL22, RB24, SH18a, SDBJ19, SYP24, SNG<sup>+</sup>22, SSSC18, SH18b, SS23, TP23, TM09, TM10, TM11a, TM11b, TM14, TC19, TM22, TBB24, TSAA+23, WCPF20, WF24, YR15, AGEL13, HAA13, NCLN13]. Concept [GGH<sup>+</sup>10, IIRY17, PHP<sup>+</sup>22]. Conceptions [RvJP20, VS22, Xin15]. Concepts  $[AWW15, KLS^{+}14, KA16, MLA^{+}24,$ MVR<sup>+</sup>24, MS11, WBK<sup>+</sup>22, YZC19]. Conceptual [TPQE18]. Conceptualizing [MT23, TM22, Ten23]. concurrency [CHM13]. concurrent [BAGM13]. Conditions [RPT<sup>+</sup>22]. Consider [NCW22]. Considerations [TBP21]. Considered [DJGIO20]. Considering [CGZ<sup>+</sup>20]. Consortium [BCD10]. construction [NCLN13]. Constructionist [MSH10]. Content [BSS20, EHBA+23, VMAG22, WCPF20, YB19]. Context [GEME14, LZRO21, ORS16, Rob22]. Contextualization [LBM24]. Continue [Ros23]. Continues [Hun17]. Continuing [All23, DBSH24]. Continuum [CB19]. Contributions [DM23, HCAT23]. Controlled [Bol22, DSUP20, DSU20, MC19, WX18]. Conversation [Ros23]. Conversion [HM21]. Cooperative [BC13].

Coordinator [RB22]. Copying [DJHGI19].

Core [JNA18, ZPB13]. Correctness  $[DHH^+15]$ . Counter  $[EBC^+21]$ . Counter-hegemonic [EBC<sup>+</sup>21]. Countries [GES14, TSAA<sup>+</sup>23]. Country [RVSW23]. Course [AHL17, BHHMG21, BTF<sup>+</sup>19, BCZ19, CKSS21, CDCLK17, EK17, IT17, KKLL16, LLKH18, MTGM21, NGK11, PDF15, RB22, Rit09, She13, SH10, WX18, Wan11, d'A10]. Courses [ASG19, CHA17, CDK+14, Ip12, MFCLG19, Mit14, OHR22, Pad24, Ric09, RB22, SSF+19, SNG+22, SBH+18, TBP21, TK16, UR17, VMAG22, HAA13, LGP13]. Coverage [ECF18]. COVID [MSV<sup>+</sup>23]. **COVID-19**  $[MSV^{+}23]$ . **CPD** [All23]. Crafts [KLS<sup>+</sup>14]. Crafts-Oriented  $[KLS^+14]$ . Creating  $[NBTC^+24, Rit09]$ . Creation [RWK<sup>+</sup>15]. Creative [Fie19]. Creativity [ALP12, Sha22]. Creativity-Supporting [ALP12]. Critical [GHT<sup>+</sup>11, HOC17]. **Cross** [RVSW23, TM14]. Cross-Country [RVSW23]. Cross-National [TM14]. Crossing [HM21]. CS [Blu22, FPSS22, GML<sup>+</sup>23, HM21, KV15, LBT20, MJB<sup>+</sup>23, MSP21, PLB<sup>+</sup>12, RVSW23, RVAN15, RTE21, RB22, SWL<sup>+</sup>22, TABA12, TWH18,  $VTB^{+}20$ , VS22,  $WDC^{+}24$ ]. **CS1** [BC13, ORS16, Sha22]. **CS2** [TPQE18]. CS4HS [RSPB17]. CS=Me [WDC $^+$ 24]. CSF [HBVTN21]. CSLE [ALP12]. CSS [PDF15]. CSTutor [BL14]. CUDA [DSU20]. Culturally [RB24]. Current [ALHR17, CAL15, RB21]. Curricula [AJNN20, BCD10, WCPF20]. Curriculum [Blu22, BMB+18, DTT16, McG12a, NAG+23, NBTC+24, WHS+17, AGEL13]. Cyber [AJNN20, JNA18]. Cyber-Defense [JNA18]. Cybersecurity [BF23, JNA18, LRVW14, PHP<sup>+</sup>22]. **Cyprus**  $[CJS^{+}17].$ 

Dance [DMBP22]. Darmstadt [RVAN15]. Data

[AHL17, BA17, BL14, CHU<sup>+</sup>09, DBSH24, GBB<sup>+</sup>17, HCAT23, WZL<sup>+</sup>22, YR15]. Data-Driven [GBB<sup>+</sup>17, YR15]. Database [MTGM21]. Dataset [TDMN $^+$ 24]. Debieron [Vog21]. Debugger [BS10]. Debugging [ABCD20, DBM24, WSLR23]. Decade [CHH<sup>+</sup>11, JK20]. Deceptive [WCT<sup>+</sup>24]. **Decisions** [HM22]. **Defense** [AJNN20, JNA18]. **Defining** [NLWS24]. Degree [AANK14, McG12a]. Demo [KDXB18]. **Demo-Oriented** [KDXB18]. Demographics [LZRO21]. Derived [AHL17]. Describing [HLKZ12]. Description [LBM24]. Descriptive [Blu22]. Design [BC13, BC12, Bra24, Bur11, CMSP<sup>+</sup>19, Coo10, DCW19, EKSW11, GML<sup>+</sup>23, Ip12, Joh19, KCB<sup>+</sup>23, LSSM19, OWK21, PCH09, RWK+15, RG19, RLN+22, Shi16, TSK12, TP23, TDMN<sup>+</sup>24, Xin15]. Design-Based [KCB<sup>+</sup>23]. Designers [MW22]. **Designing** [BBSPK22, NCLN13, OHR22, Ric09]. Desk [Hun17]. **Detection** [MM12, NJK19]. Developing [MHP20, MR22, TSK12, TDMN<sup>+</sup>24, WHS<sup>+</sup>17]. **Development** [All23, AWW15, BCZ19, BCC+19, BBF+21, CG19, EVM24, HM19, HCAT23, Ip12, JMN<sup>+</sup>22, KO22b, Lar16, MSK<sup>+</sup>23, MJB<sup>+</sup>23, MW22, MC15, Mod21, PDF15, PHRC21, RSPB17, Rit09, REB23, VS22, VGRM19, VGM<sup>+</sup>23, ZD15]. **Devices** [RP19, TSK12]. Diagnosing [Kie09]. Dialog [KDM<sup>+</sup>23]. did [IT13]. Didactical [BDDGT14]. Difference [AM21]. Differences [Har21, RVSW23, SDBJ19]. Different DSU20, DM23, KLM15, KA16, TAL17]. Difficult [EK17, VVM+24, YZC19]. **Difficulties** [HLKZ12, LBK11, MS19, QL17, VVM+24]. Digital [BC12, MW18, RG19]. Dimensions [TB16]. Directed [MBE+16]. Directedness [BBSPK22]. direction [IT13]. Discipline [MFR13, Pet19, TM10]. Discipline-Based

[MFR13]. **Discovering** [VGRM19].

Discrepancies [DJGIO20]. Discrepancy [DBM24]. **Discrimination** [LLF22]. Discussion [UCK<sup>+</sup>10]. Discussions [RB24]. Disgusting [AH24]. Disrupting [RLN<sup>+</sup>22]. **Distributed** [BTF<sup>+</sup>19, BCZ19, BCC<sup>+</sup>19, ORKH09]. District [PS21]. District-Wide [PS21]. Diversified [SNG<sup>+</sup>22]. Diversity [BVNN22, BCC<sup>+</sup>19, GML<sup>+</sup>23, GYSH19, LLF22, RBSS11]. division [LGP13]. Do [AH24, AB24, BBG12, LRH+22, MSP21, MFH24, NCW22, TAL17, CHP+18, HM22]. Does [DCW19]. Doesn't [MS11]. Doing [NLWS24]. **Domain** [Bol22, MSK<sup>+</sup>23]. Domain-specific [MSK+23]. Domains [LRVW14]. **Don't** [GVA22]. **down** [ZPB13]. down-to-earth [ZPB13]. Driven [GBB<sup>+</sup>17, Shi16, YR15, CHM13, LMH21]. Drop  $[DBG^+23]$ . Drop-out  $[DBG^+23]$ . Dual [Rob22]. During [BSP24, RKM20, RJJ10, AL22]. Dynamic  $[CHU^{+}09].$ 

#### Early

[CHA17, MR22, OHR22, RSPB17, HAA13]. EarSketch [MFM<sup>+</sup>16]. earth [ZPB13]. Easily [HSGB24]. Easing [Bra24]. Easy [WBK<sup>+</sup>22]. Ecosystem [FTD<sup>+</sup>24]. Editor [Hun17]. Editorial [MT23, RVI09, TM11a, TM11b, TM14, TM22]. Editors [BB10]. Educating [KSCP22]. Education [AMD22, AM21, BDDGT14, BLM+14, Blu22, BH16, BCC<sup>+</sup>19, BBF<sup>+</sup>21, BXS<sup>+</sup>24, Bur11, CAL15, CB19, CJS<sup>+</sup>17, DBSH24, DZS22, EKSW11, EBC+21, ET12, FTD+24, Fie19, GES14, GND19, GVA22, GbGG<sup>+</sup>23, GK17, GEME14, HSI+19, HCSAz22, HM19, HHM19, Hub12, HAGM14, HAG15b, HOC17, ILRD20, IIRY17, IKWR22, JK20, Joh19, KMW22, Kie09, KCB<sup>+</sup>23, KMB<sup>+</sup>15, KG18, KV15, LRS21, LV11a, LV11b, LMB<sup>+</sup>22, LSTA22, LMH21, LRVW14, LSHY22, MFR13, MFM<sup>+</sup>16, MSK<sup>+</sup>23, MT23, MSV<sup>+</sup>23, MCK17, MBKS24, MW22, O'G12,

OWK21, PLF22, PGJS17, PM09, PCC+24, RVAN15, RTE21, RWK<sup>+</sup>15, RLN<sup>+</sup>22, RVI09, RSL22, RB24, SYP24, SAyC<sup>+</sup>21, SH18b, SKM13, SS23, TS20, TP23, TM10, TM11a, TM11b, TM14, TC19, TM22, TWH18, TSAA+23, VMFG17, VSK22, WF24, YMZ<sup>+</sup>14, NCLN13, Sor13, TM09]. Education [CB19]. education-friendly [NCLN13]. Educational [Har21, KS14, LRH<sup>+</sup>22, MC19, UR17, ZPB13]. **Educator** [BA17]. Effect [Blu22, HSGB24, LBM24, MPDS24, MMFR20, RHSS20]. Effective [All23, ORS16, RJJ10, LGP13]. Effectively [ORKH09]. Effectiveness [MGM<sup>+</sup>23]. Effects [DJHGI19, DBR<sup>+</sup>20, MS11]. Efficacy [LBT20, RCS11, SCMR24, CMSP<sup>+</sup>19, LY21, ZNF<sup>+</sup>20]. **Effort** [RKM20]. Electronic [JK20, KLS<sup>+</sup>14]. Elementary [KCB<sup>+</sup>23, LIG22, VTB<sup>+</sup>20, YMZ<sup>+</sup>14]. **Elo** [VMAG22]. Elo-rating [VMAG22]. Else [MRG17, RP19]. **Emancipation** [EBC<sup>+</sup>21]. Embodied [MCK17, MC19]. Emerging [RB21]. **Emotions** [AL22, AB24]. emphasizing [IT13]. Empirical [AvdM21, GGT20, MFCLG19, MTGM21, Sho23, SS13]. Empiricism [HCSAz22]. Employability [IDC+19]. Employers [SWL+22]. Enabling  $[IDC^+19, LG21]$ . Encourage  $[ETN^+21]$ . Endeavors [CAL15]. Ended [DBM24]. Engagement [CDB<sup>+</sup>22, MBSBA09]. Engaging [KFME11]. Engineer [SK24]. Engineering [Akd23, AL22, AB24, BTF<sup>+</sup>19, CDK<sup>+</sup>14, CB19, DTT16, DJGIO20, FEC17, GVA22, Joh19, KFME11, MFR13, MPTV16, Mit14, Pet19, VMFG17]. Engineers [BCZ19, GGT20, MGM<sup>+</sup>23]. Enjoyment [ZD15]. Enter [LG21]. Entering [RB21]. Enthusiasm [Lar16]. Entry [TM11b]. Environment  $[ALP12, CDK^{+}14, CDB^{+}22, COK24,$ DMBP22, Köl10, LMGVS<sup>+</sup>16, MRR<sup>+</sup>10]. Environments [FU10b, GYSH19, GBB+17,

IDC+19, Kie09, VFFT16]. Epistemological

[Ros23]. Equation [LRJ14]. Equations [BKZL23]. Equitable [GYSH19]. Equity [FKG17, IKWR22, KFME11, VS22, WCPF20, ZCJR20]. Equity-based [VS22]. Errors [MK19, MFA23, PDF15, TSV18, WCT<sup>+</sup>24]. Essential [ZD15]. Estimating [BKZL23]. Ethical [HM22, Pad24]. Ethics [BXS+24, HM22, MAHC+22, RB24, SSF+19]. EU [SOB24]. Evaluating [Men24, VGRM19, WCPF20]. Evaluation [Bra24, HCAT23, Joh19, KM16, KLM15, LFU23, PHP+22, RSPB17, Rit09, Shi16, Wan11, BC13, LY21]. Evaluations [UFVI09]. Event [LMH21]. Event-driven [LMH21]. Everyday [RvJP20]. Evidence [MR22, MGM<sup>+</sup>23]. Evidence-Based [MR22]. Exacerbates [Ros23]. Exam [Men24]. Examination [Ip12, WK10, WF24]. Examining [DMBP22, JMN+22, RTE21, RHSS20, SCMR24, Zin15]. Examples [BNP11, MJC23]. Executing [SH18a]. Execution [BS10]. Exemplars [LMB<sup>+</sup>22]. Exercise [SGHZS19]. Exercises [DJHGI19, KJH19]. Existing [BF23]. Expanding [HM19]. Expect [GVA22]. Expectations [CGON24]. Experience [dCBBOSH24, FKG17, Har21, Pet19]. Experienced [AL22, ET12, RB22]. Experiences [Bar09, BSP24, ECF18, KFME11, LRH<sup>+</sup>22, NAG<sup>+</sup>23, PG23, TBB24, WF24, YBV23, YBV24]. Experiment [Bol22, WX18]. Experimental [VI13]. Expert [MFA23]. Experts [GVA22, SDBJ19]. Explain [VMFG17]. Exploration [LZRO21, MPTV16]. Exploring [dCBBOSH24, ET12, GM11, HM19, MVR<sup>+</sup>24, RWS<sup>+</sup>24, VS22, Vog21,  $WDC^{+}24$ ,  $SNG^{+}22$ ]. Expository [WSP+11]. Extending [KKNL21, MBSBA09]. Extensive [Wan11]. Extent [MLA<sup>+</sup>24]. External [SBH<sup>+</sup>18]. Eye [MPDS24]. Eyes [KDV22, MRG17].

Fabrication [RG19]. Face [MGM<sup>+</sup>23]. Face-to-face [MGM<sup>+</sup>23]. Facilitate [Mit14]. Facilitating [SSSC18]. Factors [COK24, DJGIO20, DBG<sup>+</sup>23, LRJ14, Tag24,  $WDC^{+}24$ , ZD15]. Faculty [Bar09, GMM17, LSHY22, YBV24]. False [WCT<sup>+</sup>24]. Families [MSV<sup>+</sup>23]. Feedback [HBVTN21, KSCP22, KJH19, MBKS24, ORS16, SK24]. **Female** [KWB20, LBT20]. Fiction [GM14]. Field [SCA+10]. Fight [SYP24]. Final [CGZ<sup>+</sup>20]. Final-year [CGZ<sup>+</sup>20]. Findings [MR22]. Finnish [KV15]. **First** [AL22, AB24, BHHMG21, CK09, NGK11, VCMV23]. First-Year [AB24, AL22, VCMV23]. Fit [BBG12, MFH24]. Fitting [Ip12]. Fix [Ber23]. Flipped [LSSM19]. Flipping [IT17]. Focus [Ric09]. Following [LMGVS<sup>+</sup>16]. Forging [LSHY22]. Formal [GEME14, LBT20]. Formation [Ric09]. Formative [HBVTN21, KSCP22]. Formulation [TSV18]. Forum [CHP<sup>+</sup>18]. Forward [RS14, TM15]. FOSS [BMB<sup>+</sup>18]. Fostering [AH24]. Foundation [CHH+11]. Four [TSAA+23]. Fractal [EKSW11]. Fragile [MW18]. Framework [AMD22, FEC17, GBB<sup>+</sup>17, LSSM19, MHP20, MAHC<sup>+</sup>22, MW22]. Frances [SPR12]. free [RMM21]. French [BDDGT14]. friendly [NCLN13]. Fringe [MW18]. fsQCA [PGJS17]. Functional [IT17]. Future [LSHY22, TS20].

Gains [PGJS17]. Game [Bra24, DCW19, HHM19, LK19, McG12a, RWK+15, Rit09, TAL17, VGRM19, VGM+23, Wan11]. Game-Based [HHM19, TAL17]. Games [Ip12, WDC15, WDCT20]. Gamification [AZK+20, dCBBOSH24, MFCLG19, MTGM21, RPT+22]. Gap [Akd23, LRVW14]. Gaps [GGT20, GVA22]. Gender [BVNN22, CHP+18, Har21, KFME11, KKNL21, RVSW23, RCS11, Wag16, WDC+24]. Generalized [BKZL23].

Generalizing [RVSW23]. Generation [BLNC09, CHU<sup>+</sup>09, EBC<sup>+</sup>21, KJH19]. Generic [SKM13]. Genesis [TC19]. Georgia [GEME14]. Germany [DBSH24, KMB<sup>+</sup>15]. **Get** [MS19]. **Getting** [OPC17]. Girl [OPC17]. Girls [BSP24, ETN+21, FTD+24, MFH24, TBB24]. GitHub [HCAT23]. Global [BTF<sup>+</sup>19, CB19, FDW19, IDC<sup>+</sup>19, SGHZS19, VGRM19, VGM<sup>+</sup>23]. Go [DMBP22]. Goals [CHP+18, MS11, SPC19, Zin15]. Good [AH24, NBTC<sup>+</sup>24]. **Google** [RSPB17]. Governance [GND19]. GPU [DSU20]. Grade [KKNL21, SA20, TWH18]. Grades [Zin15]. Grading [AvdM21, MBKS24]. Graduate [KG22]. Graduates  $[CGON24, SWL^+22]$ . Grand [TP23]. Graphical [SSB<sup>+</sup>23]. Graphics [She13]. GRASP [TSK12]. Greater [GML<sup>+</sup>23]. Greedy [VI13]. Greek [TAL17]. Greenfoot [Köl10, UCK+10]. Grounded [HM22, RP19, SMGF24]. Group [AvdM21, Ric09]. **Groups** [RBSS11]. **GSD** [VGRM19]. **GSD-Aware** [VGRM19]. **GSE** [HM19]. **Guest** [BB10]. **Guide** [SH18a]. Guided [NGK11]. Guidelines [TP23].

 $\mathbf{H}$  [BMB<sup>+</sup>18].  $\mathbf{H}/\mathbf{FOSS}$  [BMB<sup>+</sup>18]. Hackathons [Har21]. Happens [RMM21]. Hard [SPC19, WBK<sup>+</sup>22]. Hardas [DMBP22]. Hardware [BC12, LRVW14]. hegemonic [EBC<sup>+</sup>21]. Help [COK24, HS13]. Help-seeking [COK24]. Helping [RT15]. Heuristic [KM16]. High [BSS20, CKSS21, DLM11, KLS+14, MFM<sup>+</sup>16, MVR<sup>+</sup>24, MSV<sup>+</sup>23, MSH10, Par23, TPQE18, WW17, WDK20, ZNF+20, ZCJR20, ZJWF11, AGEL13]. High-Level [TPQE18]. high-performance [AGEL13]. Higher [AMD22, CJS<sup>+</sup>17, GbGG<sup>+</sup>23, ILRD20, MSV<sup>+</sup>23]. Hired [LZR24]. Hiring  $[SWL^+22]$ . Hispanic  $[GHT^+11]$ . Hispanic-Serving [GHT+11]. Hispanics

[GHT<sup>+</sup>11]. Historical [BDDGT14, LZRO21]. History [BCD10]. Holistic [NGK11]. Home [BBF<sup>+</sup>21]. Hours [PHRC21]. HTML [PDF15]. Human [KG22, RC13]. human-centered [RC13]. Human-computer [KG22]. Hybrid [LSSM19]. Hypertext [Kar09]. Hypertextbook [RV09]. Hypothesis [GBB<sup>+</sup>17]. Hypothesis-Driven [GBB<sup>+</sup>17].

i\*CATch [NCLN13]. ICT [TSK12]. IDE [HOC17, OHR22]. IDE-Based [HOC17]. Ideas [SNOT21]. Ideation [LLF22, TBP21]. Identification [RJJ10]. Identify [LRJ14]. Identifying [AANK14, GVA22, LK19,  $VVM^{+}24$ ,  $WBK^{+}22$ ]. **Identity** [DMBP22, GbGG<sup>+</sup>23, JMN<sup>+</sup>22, KRH<sup>+</sup>24, LRH<sup>+</sup>22, MHP20, RTE21, WDC<sup>+</sup>24]. **IEEE** [DTT16]. Impact [AZK<sup>+</sup>20, BCZ19, BJCS21, CDCLK17, KG22, KRH+24, KA16, LK19, LY21, MJB<sup>+</sup>23, MDS16, MSV<sup>+</sup>23, PS21, PLB<sup>+</sup>12]. Impacts [MR22]. Impairments [LR11, vdMHVH23]. Implement [HAG15b]. Implementation [LMGVS<sup>+</sup>16, BC13]. Implementing [AGEL13, MMFR20]. Implications [Bur11, UR17, VSK22, HM22]. Implicit [FPSS23]. Importance [ECF18]. Important [FTD+24]. Improve [LFU23]. Improved [OHR22, TWH18]. Improving [IT17]. In-Classroom [MRG17]. In-Code [VMFG17]. Incarceration [SAyC<sup>+</sup>21]. Including [PLB<sup>+</sup>12]. Inclusion [IKWR22, LLF22]. Inclusive [GML<sup>+</sup>23]. Income [MSV<sup>+</sup>23]. Incorporating [SDBJ19]. Increase [CMSP+19]. Increases [RKM20]. Incremental [RKM20]. Incubators [LC21]. Indian [RVAN15]. Individual [HCAT23]. Industry [Akd23, Ip12, MAK12, MSP21]. Ineffective [RJJ10]. Inequities [Ros23]. Influence [DJGIO20]. Influences [McG12b]. Influencing [COK24]. Informal [CMSP+19, GEME14, LC21, SAyC+21].

Informatics [BLM<sup>+</sup>14, DBSH24, KS14]. Information [BF23, CHH<sup>+</sup>11, KKNL21, KPM18, MHP20, MAK12, RCS11, YBV23, YBV24]. Informatively [WBK<sup>+</sup>22]. Informed [CMSP<sup>+</sup>19]. ing [DMBP22]. Inheritance [LBK11]. Initial [FU10b]. Initiatives [PS21]. Injections [TK16]. Insights [SPC19, TAL17]. INSPIRED [DLM11]. Institutional [BMB+18, LD19]. Institutions [CJS<sup>+</sup>17, GHT<sup>+</sup>11]. Instruction [LIG22, MJB+23, MW18, Shi16, LGP13]. Instructional [IKWR22, BC13]. Instructor [AWW15, SPC19]. Instrument [REB23, VVM<sup>+</sup>24]. Instruments [MSK<sup>+</sup>23]. Insufficient [KV15]. Integrate [HSGB24, KCB<sup>+</sup>23]. Integrated [MLA<sup>+</sup>24, RG19]. **Integrating**  $[CDK^{+}14, HAA13, SSF^{+}19, TK16].$ Integration [BSY<sup>+</sup>10, KPM18]. Intelligence [AMD22, FPSS23, LGGS22]. Intent [DBG<sup>+</sup>23, MLA<sup>+</sup>24]. Intention [ZD15]. Intentions [DBR<sup>+</sup>20, SNG<sup>+</sup>22, TABA12]. **Interaction** [CHU<sup>+</sup>09, KG22, OHR22]. **Interactions** [MC19]. Interactive [BSY+10, HEE+19, JK20, TSK12]. Intercultural [AM21]. Interdisciplinarity [NLWS24]. Interest [BJCS21, CMSP+19, DBR<sup>+</sup>20, MW22, OPC17, SCMR24, Zin15]. Interface [CG19]. Internship [KG22]. Internships [KG22, MSP21]. Intersection [RHSS20]. Intersectional [TBB24, WF24]. Intersectionality [LZRO21]. Intersections [Vog21, WDC<sup>+</sup>24]. Intervening [DBM24, EK17]. Intervention [GEME14, RKM20]. Interventions [FWD<sup>+</sup>24, LK19, LY21, OHR22, Pad24]. Interviews [AJNN20, JNA18, LSHY22]. Intro [MMFR20]. Introduce [EHPR<sup>+</sup>23]. Introducing [Bra24, CG19, KLS<sup>+</sup>14, MFR13, TM09]. Introduction [BB10, BAR14, BAGM13,

GM14, Gri13, Hub12, LRS21, LV11a, MC15, RB21, RSL22, SF19, TBB24]. Introductory [BBG12, BNP11, CKSS21, COK24, GGH<sup>+</sup>10, KLM15, KA16, LY21, NAG<sup>+</sup>23, QL17, RB22, SKM13, TK16, WX18, Sor13]. Inventories [GGH<sup>+</sup>10]. Inventory [PHP<sup>+</sup>22]. **Investigate** [BKZL23]. Investigating [MS19, SOB24, TSAA+23, ZD15]. Investigation [HSI<sup>+</sup>19, HSGB24, MFCLG19, SS13, Xin15]. Investigations [LGGS22]. Involvement [BBF<sup>+</sup>21]. Involving [SBH<sup>+</sup>18]. Israel [GES14]. **Issue** [CB19, FU10b, KG18, LV11a, LV11b, MT23, MC15, RB21, RSL22, TBB24, BAGM13, Gri13]. Issues [CAL15, KKNL21, KDM<sup>+</sup>23]. Italian [BLM<sup>+</sup>14]. **Iteratively** [EK17].

Java [BNP11, BA17, BWTS+23]. Job [ECF18, LZR24]. Judge [WCT+24]. Justice [AM21, ETN+21, LRS21, RSL22]. Justice-Centered [LRS21, RSL22].

K-12 [BBSPK22, GYSH19]. Keep [PD22]. Keeping [Hun16]. Kenya [TSAA+23]. Kingdom [McG12a]. kit [NCLN13]. Know [SDBJ19]. Know-how [SDBJ19]. Knowledge [AJNN20, DTT16, DM23, ECF18, GGT20, JNA18, Sho23, TCK21, YB19]. Korea [CAL15].

Ladders [LD19]. Landscape [PE23].
Language [BWTS+23, KMW22, MRR+10, MPDS24, SPR12, SS13, Vog21, VCMV23].
Languages [KA16]. Large
[BVNN22, BTF+19, BA17, SH18b, WCT+24].
Large-Scale [BA17, WCT+24]. Latina
[ETN+21]. Latino [ZJWF11]. Launching
[SF19]. Leadership [PS21]. Learn
[GVA22, JNA18, LC21, MBE+16, PHRC21, RT15, TB16, ZD15, HS13]. Learn-to-code
[LC21]. Learnable [CGON24]. Learned

[SWL<sup>+</sup>22]. **Learner** [dCBBOSH24, Kie09]. **Learning** 

[AZK<sup>+</sup>20, AANK14, ALP12, BBG12, BS10, Bol22,  $BSY^{+}10$ ,  $CDK^{+}14$ ,  $CDB^{+}22$ ,  $CHP^{+}18$ , DMBP22, DTT16, DJHGI19, Fie19, FU10b, FPSS23, GYSH19, GBB+17, GK17, HEE+19, HHM19, HOC17, IDC+19, Kie09, KG18, KA16, LLKH18, LMGVS<sup>+</sup>16, LZT+19, LBK11, LIG22, MSK+23, MRG17, MVR<sup>+</sup>24, MBE<sup>+</sup>16, MAHC<sup>+</sup>22, McG12b, MAK12, MS11, MS19, MBSBA09, NBTC+24, O'G12, PCH09, PHRC21, RT15, RG19, RPT+22, RvJP20, RMM21, SSF+19, SSSC18, SF19, SMGF24, SPC19, SS23, TMSA22, TAL17, TB16, TDMN<sup>+</sup>24, TPQE18, VI13, VFFT16, WDC15, YBV23, YBV24, BC13]. lecture [Gri13]. Led [RLN<sup>+</sup>22, MAHC<sup>+</sup>22]. Left [PLB<sup>+</sup>12]. LEGO [SGHZS19]. Lens [Arm11]. Lessons [EHPR+23, OPC17, RSPB17]. Let [Ros23]. Level [TPQE18]. Levels [Lar16]. Liberal [BBD<sup>+</sup>10, BB10, BCD10, WK10]. Libraries [RLN<sup>+</sup>22]. Life [BBG12]. Limited [Rit09, Ros23]. Limits [LFU23]. Lines [ALHR17]. Link [MBR23]. Linking [OPC17]. Literacy [KKNL21, MW18]. Literal [MS19]. Literature [BXS<sup>+</sup>24, EVM24, GbGG<sup>+</sup>23, HCSAz22, KJH19, LSTA22, PCC<sup>+</sup>24, PO20, QL17, Sha22]. Load [DZS22]. Local [BTF<sup>+</sup>19]. Logic [HLKZ12]. Long [LK19]. Long-Term [LK19]. Longitudinal [BCC<sup>+</sup>19, MAHC<sup>+</sup>22, OPC17, Pet19]. **Look** [MK19, OPC17, RS14, TM15]. Looking [Arm11, TM15]. Low [LZT $^{+}$ 19]. Low-performing [LZT+19]. Lower [IIRY17,  $MSV^+23$ ].

Machine [BLNC09, Fie19, LMGVS<sup>+</sup>16, LZT<sup>+</sup>19, MVR<sup>+</sup>24, SSF<sup>+</sup>19, SF19, SPC19, TDMN<sup>+</sup>24]. Machines [FU10a, MBR23, Sor13]. Major [LRJ14, MDS16, SNG<sup>+</sup>22, ZJWF11]. Majority [RBSS11]. Majors

[AZK<sup>+</sup>20, RB22, SPC19, WDK20]. **Make** [HM22, MS11]. Making [CMSP20, RG19]. Maladaptive [FPSS23]. man [RMM21]. Manager [VGM<sup>+</sup>23]. Managing [BCC<sup>+</sup>19]. **Many** [HAG15b, ZPB13]. many-core [ZPB13]. Mapping [BSA<sup>+</sup>23, LMH21, TS20]. MapReduce [RRKP13]. Materials [vdMHVH23]. Mathematical [DHH+15]. Matters [TM10]. Measurement [DSUP20, KKNL21, WDCT20, RRKP13]. Measures [CHA17]. Measuring [GBB<sup>+</sup>17, Lar16, LBT20, WDC15]. Mechanisms [SOB24]. Medium [She13]. Medium-sized [She13]. Memoriam [HAG15a]. Mentoring [BSP24, MSH10]. Mentors [BSP24]. Merging [Kar09]. Meta [DCW19, UR17]. Meta-Analysis [UR17]. Meta-Synthesis [DCW19]. Metacognition [LMB<sup>+</sup>22]. Method [AHL17, VI13, VFFT16]. Methodology [MSH10, SH18a]. Methods [FEC17, LLKH18, PO20, BC13]. Middle [DBR<sup>+</sup>20, FEC17, KO22b, MVR<sup>+</sup>24, MR22, NBTC<sup>+</sup>24, OPC17, TABA12, WSP<sup>+</sup>11]. Middle-School [TABA12]. Milestones [SNOT21]. Mindset [RKM20]. Mindsets [FPSS22]. Minecraft [KO22b]. Mirror [BSP24, LGGS22]. Misconceptions [QL17]. Missing [MBR23]. Mistakes [BA17]. Mittermeir [HAG15a]. ML [TDMN<sup>+</sup>24]. MLeXAI [RMNC10]. Model [BF23, BBF<sup>+</sup>21, BCD10, EHBA<sup>+</sup>23, HOC17, LMGVS<sup>+</sup>16, RVAN15, RMNC10, Shi16, SK24, SSB+23, TDMN+24, WDCT20, CHM13]. model-driven [CHM13]. Modeling [Bol22, LRJ14, Mit14, SSB+23]. Models [BF23, Blu22, CHA17, MSK<sup>+</sup>23]. Moderator [RPT<sup>+</sup>22]. MOOC [CHP<sup>+</sup>18, KV15]. Most [EK17]. Motivate [BHHMG21]. Motivated [ASG19]. Motivation [MBE<sup>+</sup>16, McG12b, NGK11, WF24]. Motivations [CGZ<sup>+</sup>20]. Move [RS14].

Movements [MPDS24]. Multi [BMB+18]. Multi-Institutional [BMB+18]. Multilingual [JMN+22, Vog21]. Multimodal [RG19]. Multiple [ASG19, CHU+09]. Multiple-Choice [ASG19]. multipurpose [NCLN13]. Musicians [Fie19]. Must [RB24, SYP24]. Myself [MRG17].

National [KWB20, Men24, TM14]. Navigating [FTD<sup>+</sup>24]. Need [Ber23]. Needed [DM23]. Needs [Ip12]. Network [MW18]. Networks [PO20]. Next [KMW22, Ko22a]. **Nexus** [MAK12]. Nigeria [TSAA<sup>+</sup>23]. No [PLB<sup>+</sup>12]. Non [DJHGI19, GVA22, Har21, LBT20, SPC19, RB22]. Non-Compulsory [DJHGI19]. Non-CS [RB22]. Non-Formal [LBT20]. Non-Majors [SPC19]. Non-Technical [GVA22]. Non-traditional [Har21]. nontraditional [RC13]. Normative [Blu22]. Norms [HCSAz22]. North  $[KMB^+15]$ . North-Rhine  $[KMB^+15]$ . Noticing [DBM24]. Notional [MBR23, Sor13]. Novice [ABCD20, BA17, BWTS<sup>+</sup>23, CG19, KM16, MK19, MS19, WSLR23, Xin15]. Novices [RT15]. **NZ** [BAR14].

#### Object

[AANK14, BS10, KKLL16, Shi16, Xin15].

Object-Oriented
[AANK14, BS10, KKLL16, Shi16, Xin15].
Objectives [PM09]. Objects [Xin15].
Offering [Par23]. One [KMW22]. Online
[BBG12, DJHGI19, FKG17, HM21,
VMAG22, VFFT16, WCT+24]. Open
[DBM24, HM19]. Open-Ended [DBM24].
operating [ZPB13]. Opportunities
[CHH+11, PS21]. Optimization [SSD09].
Orientation [RCS11]. Oriented
[AAGH14, AANK14, BS10, KLS+14,
KKLL16, KDXB18, RMNC10, Shi16, Xin15,
d'A10, AGEL13]. Other [Fie19, QL17]. Our

[SYP24]. Outcome [LLKH18]. Outcomes [AZK+20, NBTC+24, OHR22, WX18]. Outreach [LK19, LBT20]. Outsiders [MFH24]. Own [MBE+16].

**Pair** [BJCS21, BWE11, UR17]. Pair-Programming [UR17]. Paradigms [DSU20]. Parallel [DSUP20, BAGM13]. Parental [BBF+21, CMSP+19, SCMR24]. Part [LV11a, LV11b, LRS21, RSL22]. Partially [ORKH09]. Participating [FKG17]. Participation [CHP+18, CHH+11, DBBR11, ETN+21, FKG17, KWB20, LV11a, LV11b, LZRO21, MPTV16, PG23, Pet19, Ros23, SOB24]. Participatory [RLN<sup>+</sup>22]. Partner [YBV24]. Partnership [EHPR<sup>+</sup>23]. Pass [SSD09]. Path [LSHY22]. Pathway [LD19]. Pathways [DBM24, LK19, LZR24]. PatternCoder [PCH09]. Patterns [Bol22, PCH09]. Pedagogical [EHBA+23, TSK12, VSK22, YB19, HAA13]. Pedagogy [BSS20, Ryo19, Zin15]. Peer [HCAT23, ILRD20, MJB<sup>+</sup>23, MAHC<sup>+</sup>22, TPQE18, LGP13]. Peer-led  $[MAHC^{+}22]$ . Peers [BBSPK22]. Penalties [LFU23]. Pensarse [Vog21]. People [SNOT21]. Perceived [ZD15]. Perception [AAGH14, vdMHVH23]. Perceptions [AvdM21, Bar09, BJCS21, CMSP+19, ECF18, MDS16, ZCJR20]. Perceptual [CJS<sup>+</sup>17]. Perfect [MS11]. Performance DSUP20, DJHGI19, KWB20, LY21, MTGM21, RKM20, Wag16, WZL<sup>+</sup>22, YB19, AGEL13]. Performative [DMBP22]. performing [LZT+19]. Persistence [BSA+23, CHP+18, FWD+24, WDK20]. Personal [McG12b]. Personalization [BSY<sup>+</sup>10]. **Perspective** [AWW15, BMB<sup>+</sup>18, LIG22, TM14, VSK22]. Perspectives [BDDGT14, HAGM14, IKWR22, KLS+14, MSV<sup>+</sup>23, MFA23, RB22, YZC19, TP23]. Phase [Shi16]. Phenomenographic

[LZR24]. Philosophical [WK10]. Physical [RG19, NCLN13]. Picture [KWB20]. Pilot [EHPR<sup>+</sup>23]. **Plagiarism** [Alb20, CJS<sup>+</sup>17, KSCP22, MM12]. Planning [McG12a]. Platforms [MCK17]. Play [HHM19]. Playbook [RB24]. Playing [RPT<sup>+</sup>22]. Plays [FTD<sup>+</sup>24]. POGIL [HS13]. Point [MS19, TWH18]. Points [GHT+11, TM11b]. **Policy** [GEME14]. Polymorphism [LBK11]. Populations  $[MFM^+16]$ . Positive [Hun16, Hun17]. Positives [WCT<sup>+</sup>24]. Potential  $[DBG^+23, GK17]$ . Power [RTE21, RB24, Vog21]. **Powerful** [RvJP20]. Practical [O'G12]. Practice [CB19, EHPR<sup>+</sup>23, KRH<sup>+</sup>24, MR22, MS11, PE23, UR17]. Practices [ALHR17, KLS<sup>+</sup>14, KFME11,  $MLA^+24$ ,  $TDMN^+24$ ]. Practitioner [MSV<sup>+</sup>23]. Practitioners [Fie19]. **Pre** [EKSW11, LR11, MDS16, RP19]. Pre-College [EKSW11, LR11, MDS16, RP19]. Predict  $[CHP^{+}18, LZT^{+}19, LRH^{+}22, Tag24].$ Predicting [WDK20]. Prediction [LLKH18]. **Predictive** [CHA17]. Predictors [BKZL23, CKSS21]. Preface [FU10b]. **Preliminary** [NBTC<sup>+</sup>24]. Preparation [Arm11]. Prescriptive [Blu22]. Present [LSHY22]. Presuppositions [Ten14]. Primary [EHBA<sup>+</sup>23, HAGM14, IIRY17]. **Principles** [DHH<sup>+</sup>15, MJB<sup>+</sup>23, MMFR20, ORS16, SNG<sup>+</sup>22]. **Prior** [Sho23]. **Privacy** [TBP21]. Privilege [RTE21]. Problem [DTT16, Kie09, LBM24, O'G12]. Problem-Based [DTT16, O'G12]. Problem-Solving [Kie09]. Problems [AANK14, AB24, Kie09, PE23]. Procedural [SSD09]. Process [CK09, HOC17, McG12a, Rob22]. Processes [RJJ10]. Processors [SH10]. Procrastination [PD22]. Product [ALHR17]. **Productivity** [DSU20].

#### **Professional**

[All23, CGON24, EVM24, ET12, ECF18, FDW19, KPM18, MJB<sup>+</sup>23, PHRC21, RSPB17, SDBJ19, SSSC18, VS22, YZC19]. Professionals [AJNN20, BF23, JNA18]. Professions [LG21]. Profiles [KPM18]. Program [DSS21, EHPR<sup>+</sup>23, HM21, KRH<sup>+</sup>24, KDV22, McG12b, RSPB17, RT15, RVI09, SKM13, UFVI09, HS13]. Programadores [Vog21]. Programme [LBT20]. **Programmed** [WDCT20]. Programmer [MK19, YZC19]. Programmers [ABCD20, CG19]. Programming [ASG19, AvdM21, Alb20, AAGH14, AANK14, AMSBA15, AL22, AB24, dCBBOSH24, BJCS21, Bra24, BWE11, BA17, BWTS<sup>+</sup>23, BSY<sup>+</sup>10, CHA17, CK09, COK24, DSUP20, DSU20, DCW19, FKG17, GBB+17, HSGB24, IT17, KKLL16, KMW22, KSCP22, KJH19, Köl10, KM16, KLM15, KA16, LLKH18, Lai22, LK19, LY21, LMB<sup>+</sup>22, LMH21, MRR<sup>+</sup>10, MPDS24, MMFR20, MFCLG19, MCK17, MC19, MBKS24, MS19, MJC23, NGK11, OHR22, PCH09, QL17, RKM20, RJJ10, RB22, RPT<sup>+</sup>22, RS14, SCMR24, SMGF24, SKM13, SS13, TAL17, UR17, VCMV23, VMAG22, VVM+24, WX18, WW17, WDC15, WHS<sup>+</sup>17, Xin15, YZC19, vdMHVH23, BAGM13, IT13, Sor13]. **Programs** [BBD<sup>+</sup>10, BSA<sup>+</sup>23, BS10, CMSP<sup>+</sup>19, DBG<sup>+</sup>23, McG12a, PG23, RBSS11]. Project [FDW19, IT17, LMGVS+16, Ric09, RMNC10, SBH<sup>+</sup>18, VGM<sup>+</sup>23, Wan11]. **Project-Based** [LMGVS<sup>+</sup>16, Ric09, RMNC10]. **Projects** [BH16, BMB<sup>+</sup>18, BBSPK22, DJGIO20, HCAT23, MSH10, Mit14, PD22, PLB+12, SH18a, SSSC18, SH18b, TBP21]. Promising [KFME11]. Promote [LR11, OHR22]. Promoting [KFME11, TBP21]. Prototype [RV09]. **Prototyping** [KDXB18]. Psychometric [PHP+22]. Public

[BVNN22, SYP24]. **Publications** [BXS<sup>+</sup>24]. **Purpose** [TMSA22]. **Purposeful** [KV15]. **Pyrates** [Bra24]. **Python** [Bra24, WX18].

#### Qualitative

[AL22, KG22, RB22, SMGF24, YR15]. Quality [BNP11]. Quantitative [KLM15]. Query [TSV18]. Questions [ASG19, HAG15b, Sho23, Ten14, VVM+24].

**R1** [BVNN22]. **Race** [VS22, WDC<sup>+</sup>24]. Racism [VS22]. Raise [VGM+23]. Randomized [DSUP20, DSU20]. Raspado [RMM21]. rating [VMAG22]. Re [RVSW23, RB21]. Re-Entering [RB21]. Re-Validating [RVSW23]. react [IT13]. Real [AMSBA15, BHHMG21, LMGVS<sup>+</sup>16, TBP21]. Real-World [TBP21, BHHMG21]. Realist [Pad24]. Reasoning [DBM24, DHH<sup>+</sup>15]. **Recognised** [DM23]. Recommendation [VMAG22]. Reconfigurable [SH10]. Recruiting [CMSP20]. Recursion [HEE $^+$ 19]. RecurTutor [HEE+19]. Redesign [TSK12]. Redesigning [KKLL16]. Reference [MS19, MM12]. Reference-Point [MS19]. Reflect [PG23]. Reflections [ET12, Mal23]. Reform [GM11]. Regarding [TABA12]. Regression [LFU23]. Regular [GML<sup>+</sup>23]. Regulation [FPSS23, LMB<sup>+</sup>22, SMGF24]. Rehabilitation [NGK11]. Related [WDK20]. Relation [Ten23]. Relationship [FPSS23, MVR<sup>+</sup>24]. Relationships [RHSS20, SS23]. Relevant [KS14]. Remotely [MC19]. Replications [HSI+19]. Reporting [BVNN22, HCSAz22]. Reports [KG22]. required [IT13]. Research [BVNN22, Bar09, DCW19, DZS22, EHPR<sup>+</sup>23, GM14, GbGG<sup>+</sup>23, HSI<sup>+</sup>19, HB15, HCSAz22, HOC17, IT17, JK20, KCB<sup>+</sup>23, KFME11, LMGVS<sup>+</sup>16, MT23, MAK12, PM09, SSSC18, SF19, SS23, TS20, TP23, TM11b, Ten14, TM22]. Research-Practice [EHPR+23].

Researcher [Ten23]. Researcher-Theory [Ten23]. Researchers [MW22]. Resources [Rit09]. Response [LLF22]. Responsible [MAHC<sup>+</sup>22, RMM21]. Responsive [RG19, RB24]. Restart [BSCH14]. Results [AJNN20, JNA18]. Resurgence [BSCH14]. Retaining [FWD<sup>+</sup>24, HM21]. Retention [DBG<sup>+</sup>23]. Reusing [ABCD20]. Review [Alb20, BXS+24, DZS22, EVM24, GbGG<sup>+</sup>23, HCSAz22, HOC17, ILRD20, KJH19, LSTA22, LMH21, MBKS24, MJC23, NJK19, Pad24, PLF22, PCC+24, PO20, QL17, Sha22, SKM13, TPQE18, YBV23]. reviews [HAA13]. Rhine [KMB<sup>+</sup>15]. Rigorous [HAG15b]. Robot [MC19]. Robotics [LR11, MCK17, WHS<sup>+</sup>17]. Robots [AH24, McG12b]. Robust [CHU<sup>+</sup>09, LZT<sup>+</sup>19, TCK21]. **Roland** [HAG15a]. Role [FTD+24, OWK21, PGJS17, RBSS11, SNG<sup>+</sup>22, SCMR24, TP23, IT13]. **Rubric** [WCPF20]. Rules [DSS21]. Rural [TMSA22]. Russia [KS14].

Sampler [JK20]. Scaffolding [RT15]. Scalable [RWK<sup>+</sup>15, SH18a]. Scale [BBF<sup>+</sup>21, BA17, RVSW23, WCT<sup>+</sup>24]. Scenario [AAGH14]. Scenario-Based [AAGH14]. Scholarship [KRH<sup>+</sup>24, TM10]. School [Ber23, BSS20, CKSS21, DLM11, DBR<sup>+</sup>20, EHPR<sup>+</sup>23, EHBA<sup>+</sup>23, GM11, IIRY17, JNA18, KLS<sup>+</sup>14, KS14, KO22b, MFM<sup>+</sup>16, MVR<sup>+</sup>24, MR22, MSH10, NBTC<sup>+</sup>24, OPC17, RVSW23, RS14, TABA12, WW17, WDK20, WSP+11, ZNF+20, ZCJR20, ZJWF11]. Schools [BDDGT14, BAR14, BLM+14, BSCH14, FEC17, Hub12, HAGM14, HAG15b, KV15, MSV<sup>+</sup>23, Par23, RVAN15, RWK<sup>+</sup>15, SYP24, TM14, TAL17]. Science [AZK<sup>+</sup>20, All23, Arm11, BVNN22, BBD<sup>+</sup>10, BB10, BDDGT14, BAR14, BSA<sup>+</sup>23, BHHMG21, BBG12, Ber23, Blu22, BJCS21, BSP24, BWE11, BBF+21, BSCH14,

BXS<sup>+</sup>24, BCD10, BSS20, CKSS21, CMSP+19, CMSP20, CHP+18, DJGIO20, DBR<sup>+</sup>20, EBC<sup>+</sup>21, EHPR<sup>+</sup>23, EHBA<sup>+</sup>23, FPSS22, GES14, GM14, GM11, GMM17, HM22, HHM19, Hub12, HAGM14, HAG15b, IIRY17, IKWR22, JMN<sup>+</sup>22, JK20, KWB20, KS14, KCB<sup>+</sup>23, KFME11, KMB<sup>+</sup>15, LK19, LLF22, LZRO21, LSHY22, LD19, MFM<sup>+</sup>16, MHP20, MPDS24, MRG17, MMFR20, MLA<sup>+</sup>24, MW18, MR22, MSV<sup>+</sup>23, Men24, MFH24, NAG+23, NBTC+24, PLF22, PGJS17, Par23, Pet19, PS21, RVAN15, RSPB17, RWK<sup>+</sup>15, RWS<sup>+</sup>24, REB23, RHSS20, RV09, Rvo19, RB24, SNG<sup>+</sup>22, SA20, TK16, TB16, VMFG17, VFFT16, VSK22, Wag16, WK10, WW17, WDK20, YB19, YBV23, YBV24, ZNF<sup>+</sup>20, ZCJR20]. Science [ZJWF11, Zin15, AGEL13, Gri13, LGP13]. Science- [WDK20]. Sciences [RCS11]. Scientometric [SNOT21]. Scope [GGH<sup>+</sup>10]. Scratch [AMSBA15, FKG17, MRR<sup>+</sup>10, UCK<sup>+</sup>10]. Script [Mod21]. Script-based [Mod21]. SCS1 [VVM $^+$ 24]. Seamless [Kar09]. Searching [IDC<sup>+</sup>19]. Second [KG18, MT23]. Secondary [Arm11, BDDGT14, BLM+14, Ber23, EHPR<sup>+</sup>23, Hub12, HAGM14, IIRY17, Kie09, MCK17, RVSW23, RvJP20, YMZ<sup>+</sup>14]. Section [LRS21, SF19]. Sector [All23]. Secure [TK16]. Security [BF23, LSSM19, TK16, YVQ+10, RC13]. Seeing [MRG17]. seeking [COK24]. Select [ZJWF11]. Self [BVNN22, CMSP+19, FPSS23, Lar16, LY21, LMB<sup>+</sup>22, MBE<sup>+</sup>16, RCS11, SCMR24, SMGF24, VMFG17, ZNF<sup>+</sup>20, IT13]. Self-assessed [Lar16]. Self-Directed  $[MBE^{+}16]$ . self-direction [IT13]. Self-Efficacy [RCS11, SCMR24, CMSP+19, LY21, ZNF<sup>+</sup>20]. **Self-evaluation** [LY21]. Self-Explain [VMFG17]. Self-Regulation [FPSS23, LMB<sup>+</sup>22, SMGF24]. **Self-study** 

[BVNN22]. Serious [Bra24, VGRM19, VGM<sup>+</sup>23]. Service [YBV23, YBV24]. Serving [BSP24, GHT<sup>+</sup>11, MSV<sup>+</sup>23]. **Setbacks** [LD19]. **Setting** [FDW19, GGH<sup>+</sup>10, VS22]. Setup [AvdM21]. Shape [WDC<sup>+</sup>24]. Shifting [FPSS22]. Shifts [LZRO21]. Short [LK19, LBT20]. Short-Term [LK19, LBT20]. **Should** [JNA18, RP19]. Show [RB24]. Similarity [NJK19]. Simulation [RWK<sup>+</sup>15]. Simulations [EKSW11]. Singleton [She13]. Situating [TBB24]. Situation [RVAN15]. Situations [HM22]. sized [She13]. Sketch [BL14]. Sketch-Based [BL14]. Skill [GVA22, Lar16]. Skills [Akd23, AJNN20, CGON24, ECF18, HSGB24, JNA18, MGM<sup>+</sup>23, Tag24, YR15]. Small [BTF<sup>+</sup>19, RvJP20, She13]. Smarter [GML<sup>+</sup>23]. Smartphones [RT15]. Snapshot [ALHR17]. Social [CHA17, COK24, FTD+24, KPM18, LRJ14, NBTC<sup>+</sup>24, OHR22, RHSS20, RCS11, TC19]. Socially [RMM21]. Society [RMM21]. Sociocultural [VSK22]. Socioeconomic [MVR<sup>+</sup>24]. Software [ALHR17, Akd23, BTF<sup>+</sup>19, BCZ19, BCC<sup>+</sup>19,  $CDK^{+}14$ , CDCLK17,  $CDB^{+}22$ , CB19, DTT16, DHH<sup>+</sup>15, FEC17, GGT20, GVA22, HM19, HCAT23, Joh19, KDXB18, LRVW14, MPTV16, MSH10, Mit14, MGM<sup>+</sup>23, MBSBA09, VGRM19, VGM<sup>+</sup>23, Wan11]. Solidarity [SYP24]. Solution [MM12]. Solving [Kie09]. Some [HAG15b]. Someone [MRG17]. Sophistication [WDCT20]. Source [ABCD20, CJS<sup>+</sup>17, HM19, NJK19]. Source-Code [CJS<sup>+</sup>17, NJK19]. South [CJS<sup>+</sup>17]. **Spanish** [VCMV23, VVM<sup>+</sup>24]. Spanish-language [VCMV23]. Speak [RTE21]. Special [CB19, FU10b, KDM<sup>+</sup>23, KG18, LRS21, LV11a, LV11b, MT23, MC15, RB21, RSL22, SF19, TBB24, BAGM13, Gri13].

Specialized [AJNN20]. specific [MSK<sup>+</sup>23]. **SQL** [BSY<sup>+</sup>10, MFA23, MTGM21, TSV18, TS20, WCT<sup>+</sup>24]. Stakeholders [SBH<sup>+</sup>18]. STARS [DBBR11]. State [GND19, GEME14, PLF22, RB21, SCA+10]. State-of-the-Art [PLF22]. States [GES14, LSHY22, McG12a]. Status  $[MVR^{+}24]$ . **STEAM**  $[MFM^{+}16]$ . STEAM-Based [MFM<sup>+</sup>16]. STEM [HM21]. Steps [Ko22a]. Stereotypes [DBR<sup>+</sup>20]. Stitch [JK20]. Story [ZJWF11]. Storytelling [AH24]. Strategies [CDB+22, DBBR11, Kie09, SMGF24]. Strategy [RWK<sup>+</sup>15, WDC15]. STREAM [CK09]. Structural [LRJ14]. Structure [CHU<sup>+</sup>09, LMGVS<sup>+</sup>16]. Structures [BL14, Par23, WZL<sup>+</sup>22]. Struggling [PD22]. Student [AvdM21, AB24, Bar09, BJCS21, BBSPK22, BSS20, CHA17, DSUP20, DJHGI19, FPSS22, FDW19, GMM17, HLKZ12, JMN<sup>+</sup>22, KRH<sup>+</sup>24, KA16, KO22b, LFU23, LLF22, LZR24, MPTV16, McG12b, MDS16, MFA23, MTGM21, NAG+23, Pad24, PGJS17, PD22, Pet19, PS21, PLB+12, QL17, RVSW23, RP19, RvJP20, SH18a, SNG<sup>+</sup>22, TABA12, VTB+20, VVM+24, VFFT16, WX18, WZL<sup>+</sup>22, YBV24, YR15, ZD15]. Student-Centered [NAG+23]. Student-Directedness [BBSPK22]. Students [ASG19, AL22, BSA+23, BHHMG21, COK24, CJS<sup>+</sup>17, GML<sup>+</sup>23, GVA22, HM22, HM21, HSGB24, IIRY17, IDC+19, JNA18, KG22, KSCP22, KPM18, LZT<sup>+</sup>19, LR11, MPDS24, MVR<sup>+</sup>24, MBE+16, MSV+23, MSP21, ORKH09, ORS16, Pet19, RJJ10, SDBJ19, SK24, Sho23, SMGF24, SA20, TB16, VCMV23, Vog21, ZJWF11, HS13, IT13, YZC19]. Studies [BBD<sup>+</sup>10, LSSM19]. Studio [BTF<sup>+</sup>19, RT15]. **Studio-Based** [RT15]. Study [AvdM21, AL22, BAR14, BSA+23, BCC<sup>+</sup>19, DMBP22, GND19, GM11, HM22, KCB<sup>+</sup>23, KMB<sup>+</sup>15, LSTA22, LZR24,

MAHC<sup>+</sup>22, MGM<sup>+</sup>23, MTGM21, Par23, Pet19, RB22, Rit09, RvJP20, SNOT21, Sho23, SMGF24, TS20, VS22, WSLR23, YR15, Zin15, BVNN22]. Styles [TAL17]. Subgoals [MMFR20]. Subject [Hub12, KS14]. **Subjects** [GGH<sup>+</sup>10]. Submission [LFU23]. Success [BSS20, CKSS21, RPT<sup>+</sup>22, ZJWF11]. Successes [GES14]. Successful [UFVI09]. Support [ABCD20, BBSPK22, CMSP+19, GBB+17, PCH09, RCS11, SCMR24]. Supported [CDK+14, CDCLK17, MW18]. Supporting [ALP12, GHT+11]. Supports [Par23, Ryo19]. Survey [GMM17, REB23, UFVI09]. Sustainability [PCC<sup>+</sup>24]. SWEBOK [GGT20]. Syntax [PDF15, SS13]. Synthesis [DCW19, JK20, d'A10]. Synthesis-Oriented [d'A10]. system [ZPB13]. Systematic [Alb20, BSA+23, BXS<sup>+</sup>24, EVM24, GbGG<sup>+</sup>23, HSI<sup>+</sup>19, HCSAz22, KJH19, LSTA22, MBKS24, NJK19, PCC<sup>+</sup>24, TS20, YBV23]. Systemic  $[RWK^+15]$ . Systems [KM16, LFU23, LC21, PS21, RG19, SKM13, TSK12, UFVI09, WCT $^{+}24$ ].

T [REB23]. T-ABC [REB23]. Table [AHL17]. Tabs [PD22]. Tackle [PD22]. TACS [EHBA<sup>+</sup>23]. Taking [BTF<sup>+</sup>19, CKSS21]. Tale [GES14]. Talking [HAA13]. Task [MPDS24, MS11]. Tasks [ABCD20, AL22]. Taught [OPC17]. Taxonomy [DTT16, MBSBA09]. Teacher [Arm11, BKZL23, EHBA<sup>+</sup>23, GYSH19, KCB+23, MJB+23, MW18, NAG+23, RSPB17, REB23, Tag24, VS22, WCPF20,  $YMZ^{+}14$ , YB19,  $ZNF^{+}20$ , ZCJR20]. Teachers [All23, BBSPK22, IKWR22, MR22, NCW22, SSSC18, vdMHVH23]. Teaching [ALHR17, AMD22, BC12, Bol22, BXS<sup>+</sup>24, BLNC09, DHH<sup>+</sup>15, FEC17, HB15, HM22, IIRY17, IT13, KLM15, KDXB18, KA16, LMGVS+16, LSSM19, MRG17,

MAK12, MCK17, Mod21, PO20, RC13, RMM21, SGHZS19, SA20, SPC19, YVQ<sup>+</sup>10,  $ZNF^{+}20$ , AGEL13, CHM13]. teaching-oriented [AGEL13]. Team [BH16, HCAT23, Lar16]. Teams [MPTV16, ORKH09, SH18a]. Teamwork [VFFT16]. TEC [WCPF20]. Technical [GVA22, Pad24]. Technique [DSUP20, LZT<sup>+</sup>19]. **techniques** [RC13]. Technology [KKNL21, KPM18, MHP20, MAK12, RB21, RvJP20, SAyC<sup>+</sup>21, TBB24, Vog21, WDK20, CHH+11]. Technology-Related [WDK20]. Teen [RLN<sup>+</sup>22]. Teen-Led [RLN<sup>+</sup>22]. Tensions [PS21]. teNtative [MM12]. Term [LK19, LBT20]. **Terms** [VTB<sup>+</sup>20]. **Test** [BLNC09, SK24, Sho23, VCMV23]. Testing  $[CDK^{+}14, CDCLK17, CDB^{+}22].$  Text [WW17]. Text-Based [WW17]. Textbooks [BNP11]. **Textiles** [JK20, KLS<sup>+</sup>14]. Theater [KDXB18]. Theater-Teaching [KDXB18]. **Their** [DJGIO20, KDV22, MBE+16, PG23, SYP24]. Them [ASG19, RB24, IT13]. Theoretical [Ten14]. **Theories** [LMB<sup>+</sup>22, MSK<sup>+</sup>23, Rob22, SS23, TP23]. Theory [DZS22, HM22, KDM<sup>+</sup>23, LRJ14, MT23, Mal23, MW22, RP19, SMGF24, TP23, TM22, Ten23, TCK21]. **These** [RB24]. Things [AH24]. Think [WSLR23]. Think-Aloud [WSLR23]. Thinking [EVM24, FU10a, FEC17, GBB+17, KCB+23, KKNL21, KO22b, Lai22, LIG22, MBR23, PE23, RG19, SNOT21, Tag24, TPQE18,  $WHS^{+}17, WSP^{+}11, YMZ^{+}14, YR15$ ]. Three [Mit14, MGM<sup>+</sup>23]. Three-Tier [Mit14]. Three-year [MGM $^+$ 23]. Threshold [AWW15]. Thrust [DSU20]. Tier [Mit14]. Ties [MW18]. TOCE [Hun16, Hun17, Ko22a, TM15]. Together [OPC17]. **Tool** [BL14, DJHGI19, PCH09, SPR12, TSK12]. Toolkit [MW22]. Tools [BSY<sup>+</sup>10, CDCLK17, MBKS24, NJK19,

 $TM11a, YVQ^+10$ ]. Topic [MW18]. Topics [EK17]. Towers [SGHZS19]. Towson [TK16]. Tracing [PG23]. Tracking [KDV22]. traditional [Har21]. Training [DBSH24, MGM<sup>+</sup>23, ORKH09]. **Trajectory** [Hun16, Hun17, LIG22]. Transactions [CB19, TM09]. Transfer [KMW22, LLKH18, LD19]. Transfer-Learning [LLKH18]. Transformative [ETN+21, YZC19]. Transition [Bra24, GHT<sup>+</sup>11, TM15]. Transitioning [SAyC+21]. Transitions [Shi16]. Translating [ORS16]. Trial [DSUP20, DSU20]. Troublesome [YZC19]. Tutorial [HEE+19]. Two [GES14]. Type [MPDS24]. **Types** [DM23].

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[GK17]

[GM11]

[GM14]

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[LSHY22]

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[LRS21]

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[LZRO21]

 $[LZT^{+}19]$ 

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[MCK17]

[MDS16]

[Men 24]

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[MFM+16]

[MFR13]

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[MLA+24]

[MM12]

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[MR22]

[MRG17]

[MRR+10]

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Paolo Modesti. A script-based approach for teaching and assessing Android application development. ACM Transactions on Computing Education, 21(1):7:1-7:24, March 2021. CODEN ???? 1946-6226. URL https:/ /dl.acm.org/doi/10.1145/ 3427593.

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[MPDS24]

[Mod21]

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[MSP21]

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 $[MVR^+24]$ 

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[MW18]

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[NGK11]

[NJK19]

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[O'G12]

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[NBTC+24]

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tion, 16(1):1:1-1:??, February

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Christina N. Outlay, Alana J. Platt, and Kacie Conroy. Getting IT together: a longitudinal look at linking girls' interest in IT careers to lessons taught in middle school camps. ACM Transactions on Computing Education, 17(4): 20:1-20:??, September 2017. CODEN ???? ISSN 1946-6226.

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 $[PCC^+24]$ 

Anne-Kathrin Peters, Rafael Capilla, Vlad Constantin Coroama, Rogardt Heldal, Patricia Lago, Ola Leifler, Ana Moreira, João Paulo Fernandes, Birgit Penzenstadler, Jari Porras, and Colin C. Venters. Sustainability in computing education: a systematic literature review. ACM Transactions on Computing 24(1):13:1-13:??, Education, March 2024. CODEN ???? ISSN 1946-6226. URL https: //dl.acm.org/doi/10.1145/ 3639060.

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Juanan Pereira and Óscar Díaz. Struggling to keep tabs on capstone projects: a chatbot to tackle student procrastination. *ACM Transactions on Computing Education*, 22 (1):4:1–4:22, March 2022. CODEN ???? ISSN 1946-

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[PM09]

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[PGJS17]

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[RB24]

[RBSS11]

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[Ric09]

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[Rob22]

[RS14]

[RSL22]

[RSPB17]

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[RVI09]

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[SA20]

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[RWK<sup>+</sup>15]

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[SGHZS19]

[SH18a]

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[Sho23]

[SK24]

[SKM13]

[SMGF24]

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[SPC19]

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[SSB+23]

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2009. CODEN ???? ISSN 1946-6226.

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 $[SSF^+19]$ 

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 $[SWL^+22]$ 

[SSSC18]

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[SYP24]

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