

# A Complete Bibliography of the *ACM Transactions on Computing Education (TOCE)*

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04 April 2025  
Version 1.57

## Title word cross-reference

× [GML<sup>+</sup>23].

**1** [LRS21, Zin15]. **12** [BS24, BBSPK22, GES14, GYSH19, HAGM14, HAG15b, JK20, MMK25, OWK21, Tag24, TM14, TSAA<sup>+</sup>23]. **16-18** [All23]. **19** [MSV<sup>+</sup>23].

**2** [RSL22].

**4** [Men24].

**6** [IKWR22].

**7th** [SA20].

= [GML<sup>+</sup>23].

**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<sup>+</sup>20, PLB<sup>+</sup>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, MMK25, MJC23, RKM20].

**Activity** [LC21]. **Adaptive** [VMAG22].

**Adding** [BLNC09, DJHGI19]. **Address**

[RvJP20]. **Adolescents** [SAK<sup>+</sup>25].

**Adoption** [EHBA<sup>+</sup>23]. **Advocates** [SYP24]. **Affect** [TAL17]. **affordable** [AGEL13]. **African** [EKSW11, TSAA<sup>+</sup>23]. **After** [PHRC21]. **After-Hours** [PHRC21]. **Age** [Con24]. **Agenda** [HOC17, SF19, TS20]. **Agents** [Par23]. **Agile** [FEC17, MSH10]. **AI** [AH24, Con24, SMM<sup>+</sup>24, TMSA22]. **Aimed** [Bra24]. **Algorithm** [Kar09, MMK25, RVI09, SCA<sup>+</sup>10, UFVI09]. **Algorithmic** [Kie09]. **Algorithms** [EK17, VI13]. **Alice** [Coo10, UCK<sup>+</sup>10]. **Alignment** [Blu22]. **All-Female** [LBT20]. **Alleviate** [KV15]. **Alliance** [DBBR11, GHT<sup>+</sup>11]. **Alone** [SNG<sup>+</sup>22]. **Aloud** [WSLR23]. **Also** [AH24]. **Alternative** [BC12]. **alternatives** [Gri13]. **Among** [CGON24, MSV<sup>+</sup>23, Blu22, BDY<sup>+</sup>25, MVR<sup>+</sup>24, NIA<sup>+</sup>25]. **Analogical** [KMW22]. **Analysis** [Akd23, AANK14, BF23, DSUP20, FWD<sup>+</sup>24, GGT20, KG22, LMGVS<sup>+</sup>16, LSSM19, MVR<sup>+</sup>24, PDF15, RVAN15, Shi16, UR17, WCT<sup>+</sup>24, ZJWF11]. **Analytcs** [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]. **App** [NIA<sup>+</sup>25]. **Application** [CG19, Mod21, RMNC10]. **Application-Oriented** [RMNC10]. **Applications** [KMW22, TWH18]. **Apply** [Tag24]. **Applying** [ETN<sup>+</sup>21]. **Approach** [AANK14, BKZL23, BHHMG21, BC12, CMSP20, ETN<sup>+</sup>21, Joh19, KLS<sup>+</sup>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]. **Arduino** [NIA<sup>+</sup>25]. **Areas** [KS14]. **Arising** [LC21]. **Art** [Ip12, PLF22]. **Artificial** [AMD22, LGGS22, RAS24]. **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<sup>+</sup>15, Lai22, LFU23, LIG22, NCW22, PLF22, PE23, Ric09, RWS<sup>+</sup>24, RB22, SDBJ19, VMAG22, VVM<sup>+</sup>24, WCT<sup>+</sup>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, ZQLW24]. **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<sup>+</sup>16]. **Barrier** [Ros23]. **Barriers** [GYSH19, PGJS17, Par23]. **Based** [AAGH14, BL14, DTT16, GGT20, GBB<sup>+</sup>17, HHM19, HOC17, KCB<sup>+</sup>23, Lai22, LMGVS<sup>+</sup>16, MFR13, MFM<sup>+</sup>16, MR22, NIA<sup>+</sup>25, O'G12, RAS24, RT15, Ric09, RV09, RMNC10, SSSC18, Shi16, TAL17, WLY<sup>+</sup>25, WWO25, WW17, HM22, MGM<sup>+</sup>23, Mod21, VS22]. **Basic** [WZL<sup>+</sup>22]. **BDSI** [WZL<sup>+</sup>22]. **Be** [SYP24, SNG<sup>+</sup>22, LGP13, Ros23]. **Behavior** [CHA17, COK24, DSS21, LFU23, LSTA22, PGJS17, WLY<sup>+</sup>25]. **Behavioral** [WLY<sup>+</sup>25]. **Behaviours** [BBF<sup>+</sup>21]. **Behind** [PLB<sup>+</sup>12]. **Being** [RHSS20, VGM<sup>+</sup>23]. **Beliefs** [BA17, CGON24, FPSS22, FPSS23, REB23, Ros23]. **Belonging** [RMBM24].

**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<sup>+</sup>23, BSP24, FTD<sup>+</sup>24, FWD<sup>+</sup>24, LGGS22, MFH24, RTE21, RHSS20, TBB24, WDC<sup>+</sup>24, WF24, ETN<sup>+</sup>21]. **Blending** [CHA17, IT17]. **Block** [GBB<sup>+</sup>17, WW17]. **Block-Based** [GBB<sup>+</sup>17, WW17]. **Blocks** [Bra24, CG19]. **Bloom** [DTT16]. **BlueJ** [BS10]. **Bob** [RWS<sup>+</sup>24]. **Body** [DTT16]. **Bolstering** [BSA<sup>+</sup>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]. **Bubble** [MMK25]. **Bugged** [ABCD20]. **Building** [SGHZZ19, TDMN<sup>+</sup>24].

**C** [WX18]. **Calculus** [CKSS21]. **California** [TMSA22]. **Camp** [BSP24]. **Camps** [LG21, OPC17]. **Can** [ASG19, AH24, IDC<sup>+</sup>19, LGP13, SNG<sup>+</sup>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<sup>+</sup>10, BAR14, BCC<sup>+</sup>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, SGHZZ19, SSAT24, VGRM19, VGM<sup>+</sup>23]. **Change** [AB24, FPSS22, PS21]. **Characteristics** [All23, WLY<sup>+</sup>25]. **Characterizing** [ENC<sup>+</sup>24, 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, WLY<sup>+</sup>25]. **Classroom** [BWE11, GMM17, HB15, LSSM19, MRG17, SAK<sup>+</sup>25, 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, KLRT25, 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, ZQLW24]. **Collaborative** [CDK<sup>+</sup>14, MBSBA09, TDMN<sup>+</sup>24, VFFT16]. **College** [BJCS21, BSS20, CKSS21, EKSW11, GMM17, LR11, LD19, MDS16, RP19, WDK20]. **Colleges** [She13]. **Collusion** [KSCP22]. **coloniality** [Gey24]. **Color** [DMBP22, SAK<sup>+</sup>25]. **Combining** [CDB<sup>+</sup>22, HCAT23]. **Comments** [VMFG17]. **Communication** [BBG12, KKNL21, MGM<sup>+</sup>23]. **Communications** [MAK12]. **Communities** [LC21]. **Community**

[FKG17, KRH<sup>+24</sup>, LD19, NBTC<sup>+24</sup>, YBV24]. **Como** [Vog21]. **Companies** [RB24]. **Comparative** [FWD<sup>+24</sup>, MVR<sup>+24</sup>]. **Comparing** [DSU20, ECF18, WW17]. **Comparison** [CJS<sup>+17</sup>]. **Competence** [NIA<sup>+25</sup>, SSB<sup>+23</sup>, 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<sup>+17</sup>, KLS<sup>+14</sup>, KCB<sup>+23</sup>, KKNL21, KO22b, Lai22, LIG22, MBR23, PE23, RG19, SNOT21, Tag24, TM11a, VMFG17, WWO25, WDC15, WDCT20, WHS<sup>+17</sup>, WSP<sup>+11</sup>, YMZ<sup>+14</sup>, YR15]. **Computer** [AZK<sup>+20</sup>, All23, Arm11, BVNN22, BBD<sup>+10</sup>, BB10, BDDGT14, BAR14, BSA<sup>+23</sup>, BHHMG21, BBG12, Ber23, Blu22, BJCS21, BSP24, BWE11, BBF<sup>+21</sup>, BDY<sup>+25</sup>, BSCH14, BXS<sup>+24</sup>, BCD10, BSS20, CKSS21, CMSP<sup>+19</sup>, CMSP20, CG19, CHP<sup>+18</sup>, DCW19, DJGIO20, DBR<sup>+20</sup>, EBC<sup>+21</sup>, EHPR<sup>+23</sup>, EHBA<sup>+23</sup>, FPSS22, GES14, Gey24, GM14, GM11, GMM17, GbGG<sup>+23</sup>, HB15, HM22, HHM19, Hub12, HAGM14, HAG15b, IIRY17, IKWR22, JMN<sup>+22</sup>, JK20, KWB20, KS14, KFME11, KMB<sup>+15</sup>, Lai22, LK19, LMGVS<sup>+16</sup>, LLF22, LKOL<sup>+24</sup>, LZRO21, LSHY22, LD19, MFM<sup>+16</sup>, MHP20, MPDS24, MRG17, MMFR20, MLA<sup>+24</sup>, MW18, MR22, MSV<sup>+23</sup>, Men24, MFH24, NIA<sup>+25</sup>, NAG<sup>+23</sup>, NBTC<sup>+24</sup>, PLF22, PGJS17, Par23, Pet19, PS21, PO20, RVAN15, RSPB17, RJJ10, RWK<sup>+15</sup>, RWS<sup>+24</sup>, REB23, RHSS20, RV09, RCS11, Ryo19, RB24, SNG<sup>+22</sup>, SCMR24, She13, SPR12]. **Computer** [SA20, TK16, TB16, UR17, VCMV23, VFFT16, VSK22, Wag16, WK10, WW17, WDK20, YB19, YBV23, YBV24, YVQ<sup>+10</sup>, ZNF<sup>+20</sup>, ZCJR20, ZJWF11, AGEL13, Gri13, KG22, LGP13, Zin15]. **Computer-Based** [Lai22]. **Computes** [GEME14]. **Computing** [AM21, Bar09, BH16, BMB<sup>+18</sup>, BBF<sup>+21</sup>, BXS<sup>+24</sup>, BNW25, Bur11, CHA17, CAL15, CB19, CGZ<sup>+20</sup>, Con24, CGON24, DDBR11, DMBP22, DLM11, DZS22, DBG<sup>+23</sup>, EKSW11, EBC<sup>+21</sup>, ENC<sup>+24</sup>, ETN<sup>+21</sup>, ET12, ECF18, FTD<sup>+24</sup>, FWD<sup>+24</sup>, GND19, GHT<sup>+11</sup>, GGH<sup>+10</sup>, GYSH19, GK17, HSI<sup>+19</sup>, HCSAz22, HM22, HOC17, KLS<sup>+14</sup>, KRH<sup>+24</sup>, KRK24, KLRT25, KSM25, KG18, LRS21, LV11a, LV11b, LSTA22, LR11, LRH<sup>+22</sup>, LZR24, LG21, MFR13, MHP20, MSK<sup>+23</sup>, MT23, MLA<sup>+24</sup>, MBE<sup>+16</sup>, MAHC<sup>+22</sup>, MDS16, MCK17, MW22, MS11, NLWS24, NAG<sup>+23</sup>, O'G12, OWK21, OHR22, Pad24, PM09, PG23, PCC<sup>+24</sup>, RB21, Rob22, RLN<sup>+22</sup>, RHSS20, RP19, RvJP20, RMBM24, RMM21, RSL22, RB24, SAK<sup>+25</sup>, SH18a, SDBJ19, SYP24, SNG<sup>+22</sup>, SSSC18, SH18b, SS23, TP23, TM09, TM10, TM11a, TM11b, TM14, TC19, TM22, TBB24, TSAA<sup>+23</sup>]. **Computing** [WCPF20, WF24, YR15, AGEL13, HAA13, NCLN13]. **Concept** [GGH<sup>+10</sup>, IIRY17, PHP<sup>+22</sup>]. **Conceptions** [RvJP20, VS22, Xin15]. **Concepts** [AWW15, KLS<sup>+14</sup>, KA16, MLA<sup>+24</sup>, MVR<sup>+24</sup>, MS11, WBK<sup>+22</sup>, YZC19]. **Conceptual** [TPQE18]. **Conceptualizing** [MT23, TM22, Ten23]. **concurrency** [CHM13]. **concurrent** [BAGM13]. **Conditions** [RPT<sup>+22</sup>]. **Consider** [NCW22]. **Considerations** [TBP21]. **Considered** [DJGIO20]. **Considering** [CGZ<sup>+20</sup>]. **Consortium** [BCD10]. **construction** [NCLN13]. **Constructionist** [MSH10]. **Content** [BSS20, EHBA<sup>+23</sup>, VMAG22, WCPF20, YB19]. **Context** [BS24, GEME14, LZRO21, ORS16, Rob22]. **Contextualization** [LBM24]. **Contingency** [AHL17]. **Continue** [Ros23]. **Continues** [Hun17]. **Continuing** [All23, DBSH24]. **Continuum** [CB19].

**Contributions** [DM23, HCAT23]. **Controlled** [Bol22, BNW25, DSUP20, DSU20, MC19, WX18]. **Conversation** [Ros23]. **Conversion** [HM21]. **Cooperative** [BC13]. **Coordinator** [RB22]. **Copying** [DJHGI19]. **Core** [JNA18, ZPB13]. **Correctness** [DHH<sup>+</sup>15]. **Counter** [EBC<sup>+</sup>21]. **Counter-hegemonic** [EBC<sup>+</sup>21]. **Countries** [GES14, TSAA<sup>+</sup>23]. **Country** [RVS23, ZQLW24]. **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<sup>+</sup>14, Dou25, Ip12, MFCLG19, Mit14, OHR22, Pad24, Ric09, RB22, SSF<sup>+</sup>19, SNG<sup>+</sup>22, SBH<sup>+</sup>18, TBP21, TK16, UR17, VMAG22, HAA13, LGP13]. **Coverage** [ECF18]. **COVID** [MSV<sup>+</sup>23]. **COVID-19** [MSV<sup>+</sup>23]. **CPD** [All23]. **Crafts** [KLS<sup>+</sup>14]. **Crafts-Oriented** [KLS<sup>+</sup>14]. **Creating** [NBTC<sup>+</sup>24, Rit09]. **Creation** [RWK<sup>+</sup>15]. **Creative** [Fie19]. **Creativity** [ALP12, Sha22]. **Creativity-Supporting** [ALP12]. **Crisis** [Con24]. **Critical** [GHT<sup>+</sup>11, HOC17, SAK<sup>+</sup>25]. **Cross** [RVS23, TM14]. **Cross-Country** [RVS23]. **Cross-National** [TM14]. **Crossing** [HM21]. **CS** [Blu22, Dou25, FPSS22, GML<sup>+</sup>23, HM21, KV15, LBT20, MJB<sup>+</sup>23, MSP21, MMK25, PSK24, PLB<sup>+</sup>12, RVS23, RVAN15, RTE21, RB22, SWL<sup>+</sup>22, TABA12, TWH18, VTB<sup>+</sup>20, VS22, WDC<sup>+</sup>24]. **CS1** [BC13, ORS16, Sha22]. **CS2** [TPQE18]. **CS4HS** [RSPB17]. **CS=Me** [WDC<sup>+</sup>24]. **CSF** [HBVTN21]. **CSLE** [ALP12]. **CSM** [KLRT25]. **CSS** [PDF15]. **CSTutor** [BL14]. **CUDA** [DSU20]. **Culturally** [RB24]. **Current** [ALHR17, CAL15, RB21]. **Curricula** [AJNN20, BCD10, WCPF20]. **Curriculum** [Blu22, BMB<sup>+</sup>18, DTT16, McG12a, NAG<sup>+</sup>23, NBTC<sup>+</sup>24, SMM<sup>+</sup>24, WHS<sup>+</sup>17, AGEL13]. **Cyber** [AJNN20, JNA18]. **Cyber-Defense** [JNA18]. **Cybersecurity** [JNA18]. **Cybersecurity** [JNA18, LRVW14, PHP<sup>+</sup>22, SSAT24]. **Cyprus** [CJS<sup>+</sup>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<sup>+</sup>24]. **Debieron** [Vog21]. **Debugger** [BS10]. **Debugging** [ABCD20, DBM24, ENC<sup>+</sup>24, WSLR23, YBO<sup>+</sup>24]. **Decade** [CHH<sup>+</sup>11, JK20]. **Deceptive** [WCT<sup>+</sup>24]. **Decisions** [HM22]. **Decoding** [YBO<sup>+</sup>24]. **Decoloniality** [Gey24]. **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<sup>+</sup>15, RG19, RLN<sup>+</sup>22, Shi16, TSK12, TP23, TDMN<sup>+</sup>24, Xin15]. **Design-Based** [KCB<sup>+</sup>23]. **Designers** [MW22]. **Designing** [BBSPK22, NCLN13, OHR22, Ric09]. **Desk** [Hun17]. **Detecting** [WLY<sup>+</sup>25]. **Detection** [MM12, NJK19]. **Developing** [MHP20, MR22, TSK12, TDMN<sup>+</sup>24, WHS<sup>+</sup>17, ZQLW24]. **Development** [All23, AWW15, BCZ19, BCC<sup>+</sup>19, BBF<sup>+</sup>21, CG19, EVM24, HM19, HCAT23, Ip12, JMN<sup>+</sup>22, KO22b, Lar16, MSK<sup>+</sup>23, MJB<sup>+</sup>23, MW22, MC15, Mod21, NIA<sup>+</sup>25, 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, RVS23, SDBJ19].  
**Different**  
 [DSU20, DM23, KLM15, KA16, TAL17].  
**Difficult** [EK17, VVM<sup>+</sup>24, YZC19].  
**Difficulties**  
 [HLKZ12, LBK11, MS19, QL17, VVM<sup>+</sup>24].  
**Digital** [BC12, Gey24, MW18, RG19].  
**Digital-coloniality** [Gey24]. **Dimensional**  
 [WLY<sup>+</sup>25]. **Dimensions** [TB16]. **Directed**  
 [MBE<sup>+</sup>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, Dou25, LRH<sup>+</sup>22,  
 MSP21, MFH24, NCW22, TAL17, CHP<sup>+</sup>18,  
 HM22]. **Does** [DCW19]. **Doesn't** [MS11].  
**Doing** [NLWS24]. **Domain**  
 [Bol22, MSK<sup>+</sup>23]. **Domain-specific**  
 [MSK<sup>+</sup>23]. **Domains** [LRVW14]. **Don't**  
 [GVA22]. **down** [ZPB13]. **down-to-earth**  
 [ZPB13]. **Driven**  
 [GBB<sup>+</sup>17, Shi16, YR15, CHM13, LMH21].  
**Drop** [DBG<sup>+</sup>23]. **Drop-out** [DBG<sup>+</sup>23].  
**Dual** [Rob22]. **During**  
 [BSP24, RKM20, RJJ10, AL22]. **Dynamic**  
 [CHU<sup>+</sup>09].

**Early**  
 [CHA17, MR22, OHR22, RSPB17, HAA13].  
**EarSketch** [MFM<sup>+</sup>16]. **earth** [ZPB13].  
**Easily** [HSGB24]. **Easing** [Bra24]. **Easy**  
 [WBK<sup>+</sup>22]. **Economically** [SAK<sup>+</sup>25].

**Ecosystem** [FTD<sup>+</sup>24]. **Editor** [Hun17].  
**Editorial** [MT23, RVI09, TM11a, TM11b,  
 TM14, TM22]. **Editors** [BB10]. **Educating**  
 [KSCP22]. **Education**  
 [AMD22, AM21, BDDGT14, BLM<sup>+</sup>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<sup>+</sup>21, ET12, FTD<sup>+</sup>24, Fie19,  
 GES14, GND19, Gey24, GVA22, GbGG<sup>+</sup>23,  
 GK17, GEME14, HSI<sup>+</sup>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,  
 NIA<sup>+</sup>25, O'G12, OWK21, PLF22, PGJS17,  
 PM09, PCC<sup>+</sup>24, RVAN15, RTE21, RWK<sup>+</sup>15,  
 RLN<sup>+</sup>22, RVI09, RSL22, RB24, SSAT24,  
 SYP24, SAyC<sup>+</sup>21, SH18b, SKM13, SS23,  
 TS20, TP23, TM10, TM11a, TM11b, TM14,  
 TC19, TM22, TWH18, TSAA<sup>+</sup>23, VMFG17,  
 VSK22, WF24, YMZ<sup>+</sup>14]. **Education**  
 [ZQLW24, NCLN13, Sor13, TM09, CB19].  
**education-friendly** [NCLN13].  
**Educational** [Har21, KS14, LRH<sup>+</sup>22, MC19,  
 UR17, ZPB13]. **Educator** [BA17].  
**Educators** [KLRT25]. **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, RAS24, RCS11, SCMR24,  
 ZQLW24, CMSP<sup>+</sup>19, LY21, ZNF<sup>+</sup>20].  
**Effort** [RKM20]. **Electronic**  
 [JK20, KLS<sup>+</sup>14]. **Elementary** [KCB<sup>+</sup>23,  
 LKOL<sup>+</sup>24, 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<sup>+</sup>19]. **Employers** [SWL<sup>+</sup>22]. **Enabling** [IDC<sup>+</sup>19, LG21]. **Encourage** [ETN<sup>+</sup>21]. **Endeavors** [CAL15]. **Ended** [DBM24]. **Engagement** [CDB<sup>+</sup>22, MBSBA09, SMM<sup>+</sup>24]. **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** [RMBM24, TM11b]. **Environment** [ALP12, CDK<sup>+</sup>14, CDB<sup>+</sup>22, COK24, DMBP22, Köll10, LMGVS<sup>+</sup>16, MRR<sup>+</sup>10]. **Environments** [FU10b, GYSH19, GBB<sup>+</sup>17, IDC<sup>+</sup>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<sup>+</sup>24, HM22, MAHC<sup>+</sup>22, RB24, SSF<sup>+</sup>19, SMM<sup>+</sup>24]. **Ethics-Infused** [SMM<sup>+</sup>24]. **EU** [SOB24]. **Evaluating** [BNW25, Men24, VGRM19, WCPF20]. **Evaluation** [Bra24, HCAT23, Joh19, KM16, KLM15, LFU23, PHP<sup>+</sup>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<sup>+</sup>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, BNW25, WX18]. **Experimental** [VI13]. **Expert** [MFA23]. **Experts** [GVA22, SDBJ19]. **Explain** [VMFG17]. **Exploration** [LZRO21, MPTV16]. **Exploring** [BS24, dCBBOSH24, ET12, GM11, HM19, MVR<sup>+</sup>24, RWS<sup>+</sup>24, VS22, Vog21, WDC<sup>+</sup>24, ZQLW24, SNG<sup>+</sup>22]. **Expository** [WSP<sup>+</sup>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<sup>+</sup>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<sup>+</sup>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** [BS24, Ric09]. **Following** [LMGVS<sup>+</sup>16]. **Forging** [LSHY22]. **Formal** [GEME14, LBT20]. **Formation** [Ric09]. **Formative** [HBVTN21, KSCP22]. **Formed** [BAV25]. **Formulation** [TSV18]. **Forum**

[CHP<sup>+</sup>18]. **Forward** [RS14, TM15]. **FOSS** [BMB<sup>+</sup>18]. **Fostering** [AH24, NIA<sup>+</sup>25, SMM<sup>+</sup>24]. **Foundation** [CHH<sup>+</sup>11]. **Four** [TSAA<sup>+</sup>23]. **Fractal** [EKSW11]. **Fragile** [MW18]. **Framework** [AMD22, FEC17, GBB<sup>+</sup>17, LSSM19, MHP20, MAHC<sup>+</sup>22, MW22, SSAT24, WWO25]. **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<sup>+</sup>15, Rit09, TAL17, VGRM19, VGM<sup>+</sup>23, Wan11]. **Game-Based** [HHM19, TAL17]. **Games** [Ip12, WDC15, WDCT20]. **Gamification** [AZK<sup>+</sup>20, dCBBOSH24, MFCLG19, MTGM21, RPT<sup>+</sup>22]. **Gap** [Akd23, LRVW14]. **Gaps** [GGT20, GVA22]. **Gender** [BVNN22, CHP<sup>+</sup>18, Har21, KFME11, KKNL21, RVS23, RCS11, Wag16, WDC<sup>+</sup>24, ZQLW24]. **Generalized** [BKZL23]. **Generalizing** [RVS23]. **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<sup>+</sup>21, FTD<sup>+</sup>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<sup>+</sup>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<sup>+</sup>22]. **Grand** [TP23]. **Graphical** [SSB<sup>+</sup>23]. **Graphics** [She13]. **GRASP** [TSK12]. **Greater** [GML<sup>+</sup>23].

**Greedy** [VI13]. **Greek** [TAL17]. **Greenfoot** [Köl10, UCK<sup>+</sup>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].

**H** [BMB<sup>+</sup>18]. **H/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, KSM25, HS13]. **Help-seeking** [COK24]. **Helping** [RT15]. **Heuristic** [KM16]. **High** [BSS20, CKSS21, DLM11, KLS<sup>+</sup>14, MFM<sup>+</sup>16, MVR<sup>+</sup>24, MSV<sup>+</sup>23, MSH10, Par23, TPQE18, WW17, WDK20, ZNF<sup>+</sup>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<sup>+</sup>22]. **Hispanic** [GHT<sup>+</sup>11]. **Hispanic-Serving** [GHT<sup>+</sup>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<sup>+</sup>24, WBK<sup>+</sup>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]. **Immersive** [WWO25]. **Impact** [AZK<sup>+</sup>20, BCZ19, BJCS21, CDCLK17,

KG22, KRH<sup>+24</sup>, KA16, LK19, LY21, MJB<sup>+23</sup>, MDS16, MSV<sup>+23</sup>, PS21, PLB<sup>+12</sup>, ZQLW24]. **Impacts** [MR22]. **Impairments** [LR11, vdMHVH23]. **Implement** [HAG15b]. **Implementation** [LMGVS<sup>+16</sup>, BC13]. **Implementing** [AGEL13, MMFR20]. **Implications** [Bur11, UR17, VSK22, HM22]. **Implicit** [FPSS23]. **Importance** [ECF18]. **Important** [FTD<sup>+24</sup>]. **Improve** [LFU23]. **Improved** [OHR22, TWH18]. **Improving** [IT17]. **In-Classroom** [MRG17]. **In-Code** [VMFG17]. **Incarceration** [SAyC<sup>+21</sup>]. **Including** [PLB<sup>+12</sup>]. **Inclusion** [IKWR22, LLF22]. **Inclusive** [GML<sup>+23</sup>]. **Income** [MSV<sup>+23</sup>]. **Incorporating** [SDBJ19]. **Increase** [CMSP<sup>+19</sup>]. **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<sup>+19</sup>, GEME14, LC21, PSK24, SAyC<sup>+21</sup>]. **Informatics** [BLM<sup>+14</sup>, BS24, DBSH24, KS14]. **Information** [BF23, CHH<sup>+11</sup>, KKNL21, KPM18, MHP20, MAK12, RCS11, YBV23, YBV24]. **Informatively** [WBK<sup>+22</sup>]. **Informed** [CMSP<sup>+19</sup>]. **Infused** [SMM<sup>+24</sup>]. **ing** [DMBP22]. **Inheritance** [LBK11]. **Initial** [FU10b]. **Initiatives** [PS21]. **Injections** [TK16]. **Insertion** [BNW25]. **Insights** [SSAT24, SPC19, TAL17]. **INSPIRED** [DLM11]. **Institutional** [BMB<sup>+18</sup>, LD19]. **Institutions** [CJS<sup>+17</sup>, GHT<sup>+11</sup>]. **Instruction** [LIG22, MJB<sup>+23</sup>, MW18, Shi16, YBO<sup>+24</sup>, LGP13]. **Instructional** [IKWR22, BC13]. **Instructor** [AWW15, SPC19]. **Instructors** [Ebl24]. **Instrument** [REB23, VVM<sup>+24</sup>]. **Instruments** [MSK<sup>+23</sup>]. **Insufficient** [KV15]. **Integrate** [HSGB24, KCB<sup>+23</sup>]. **Integrated** [MLA<sup>+24</sup>, RG19]. **Integrating** [CDK<sup>+14</sup>, HAA13, SSF<sup>+19</sup>, TK16]. **Integration** [BSY<sup>+10</sup>, KPM18, LKOL<sup>+24</sup>]. **Intellectuals** [Con24]. **Intelligence** [AMD22, FPSS23, LGGS22, RAS24]. **Intent** [DBG<sup>+23</sup>, MLA<sup>+24</sup>]. **Intention** [ZD15]. **Intentions** [DBR<sup>+20</sup>, SNG<sup>+22</sup>, TABA12]. **Interaction** [CHU<sup>+09</sup>, KG22, OHR22]. **Interactions** [MC19]. **Interactive** [BSY<sup>+10</sup>, HEE<sup>+19</sup>, JK20, TSK12]. **Intercultural** [AM21]. **Interdisciplinarity** [NLWS24]. **Interest** [BS24, BJCS21, CMSP<sup>+19</sup>, DBR<sup>+20</sup>, MW22, OPC17, SCMR24, Zin15]. **Interface** [CG19]. **Internet** [BDY<sup>+25</sup>]. **Internship** [KG22]. **Internships** [KG22, MSP21]. **Intersection** [RHSS20]. **Intersectional** [TBB24, WF24]. **Intersectionality** [LZRO21]. **Intersections** [Vog21, WDC<sup>+24</sup>]. **Intervening** [DBM24, EK17]. **Intervention** [GEME14, RKM20]. **Interventions** [FWD<sup>+24</sup>, LK19, LY21, OHR22, Pad24, YBO<sup>+24</sup>]. **Interviews** [AJNN20, JNA18, LSHY22]. **Intro** [MMFR20]. **Introduce** [EHPR<sup>+23</sup>]. **Introducing** [Bra24, CG19, KLS<sup>+14</sup>, MFR13, TM09]. **Introduction** [BB10, BAR14, BAGM13, GM14, Gri13, Hub12, LRS21, LV11a, MC15, RB21, RSL22, SF19, TBB24]. **Introductory** [BBG12, BNP11, CKSS21, COK24, GGH<sup>+10</sup>, KLM15, KA16, LY21, NAG<sup>+23</sup>, QL17, RB22, SKM13, TK16, WX18, Sor13]. **Inventories** [GGH<sup>+10</sup>]. **Inventory** [PHP<sup>+22</sup>]. **Investigate** [BKZL23]. **Investigating** [BAV25, MS19, SOB24, TSAA<sup>+23</sup>, ZD15]. **Investigation** [HSI<sup>+19</sup>, HSGB24, MFCLG19, SS13, Xin15]. **Investigations** [LGGS22]. **Involvement** [BBF<sup>+21</sup>]. **Involving** [SBH<sup>+18</sup>]. **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<sup>+</sup>23]. **Job** [ECF18, LZR24]. **Judge** [WCT<sup>+</sup>24]. **Justice** [AM21, ETN<sup>+</sup>21, LRS21, RSL22]. **Justice-Centered** [LRS21, RSL22].

**K-12** [BBSPK22, GYSH19]. **Keep** [PD22]. **Keeping** [Hun16]. **Kenya** [TSAA<sup>+</sup>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<sup>+</sup>23, KMW22, MRR<sup>+</sup>10, MPDS24, SPR12, SS13, Vog21, VCMV23]. **Languages** [KA16]. **Lanka** [RAS24]. **Large** [BVNN22, BTF<sup>+</sup>19, BA17, SH18b, WCT<sup>+</sup>24]. **Large-Scale** [BA17, WCT<sup>+</sup>24]. **Latina** [ETN<sup>+</sup>21]. **Latino** [ZJWF11]. **Launching** [SF19]. **Leadership** [PS21]. **Learn** [GVA22, JNA18, LC21, MBE<sup>+</sup>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, BAV25, Bol22, BSY<sup>+</sup>10, CDK<sup>+</sup>14, CDB<sup>+</sup>22, CHP<sup>+</sup>18, DMBP22, DTT16, DJHGI19, Fie19, FU10b, FPSS23, GYSH19, GBB<sup>+</sup>17, GK17, HEE<sup>+</sup>19, HHM19, HOC17, IDC<sup>+</sup>19, Kie09, KG18, KA16, LLKH18, LMGVS<sup>+</sup>16, LZT<sup>+</sup>19, LBK11, LIG22, MSK<sup>+</sup>23, MRG17, MVR<sup>+</sup>24, MBE<sup>+</sup>16, MAHC<sup>+</sup>22, McG12b, MAK12, MS11, MS19, MBSBA09, NIA<sup>+</sup>25, NBTC<sup>+</sup>24, O'G12, PCH09, PHRC21, PSK24, RT15, RG19, RPT<sup>+</sup>22, RvJP20, RMM21, SSF<sup>+</sup>19, SMM<sup>+</sup>24, 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]. **Legitimacy** [KRK24]. **LEGO** [SGHS19]. **Lens** [Arm11]. **Lessons** [EHPR<sup>+</sup>23, OPC17, RSPB17]. **Let** [Ros23]. **Level** [MMK25, 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, Ebl24, EVM24, GbGG<sup>+</sup>23, HCSAz22, KJH19, LSTA22, PCC<sup>+</sup>24, PO20, QL17, Sha22, YBO<sup>+</sup>24]. **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<sup>+</sup>19]. **Low-performing** [LZT<sup>+</sup>19]. **Lower** [IIRY17, MSV<sup>+</sup>23].

**Machine** [BLNC09, Fie19, LMGVS<sup>+</sup>16, LZT<sup>+</sup>19, MVR<sup>+</sup>24, SSF<sup>+</sup>19, SMM<sup>+</sup>24, 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]. **Marginalized** [SAK<sup>+</sup>25]. **Materials** [vdMHVH23]. **Mathematical** [DHH<sup>+</sup>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]. **Mental** [BAV25]. **Mentoring** [BSP24, MSH10]. **Mentors** [BSP24]. **Merging** [Kar09]. **Meta** [DCW19, UR17]. **Meta-Analysis** [UR17]. **Meta-Synthesis** [DCW19]. **Metacognition** [LMB<sup>+</sup>22]. **Method** [AHL17, BNW25, VI13, VFFT16, WLY<sup>+</sup>25]. **Methodology** [MSH10, SH18a]. **Methods** [FEC17, LLKH18, PO20, BC13]. **Micro** [BNW25]. **Micro-Insertion** [BNW25]. **Middle** [DBR<sup>+</sup>20, FEC17, KO22b, MVR<sup>+</sup>24, MR22, NBTC<sup>+</sup>24, OPC17, SMM<sup>+</sup>24, TABA12, WSP<sup>+</sup>11]. **Middle-School** [TABA12]. **Milestones** [SNOT21]. **Mindset** [RKM20]. **Mindsets** [FPSS22]. **Minecraft** [KO22b]. **Mirror** [BSP24, LGG22]. **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, KLRT25, LMGVS<sup>+</sup>16, RVAN15, RMNC10, Shi16, SK24, SSB<sup>+</sup>23, TDMN<sup>+</sup>24, WDCT20, CHM13]. **model-driven** [CHM13]. **Modeling** [Bol22, LRJ14, Mit14, SSB<sup>+</sup>23, WLY<sup>+</sup>25]. **Models** [BF23, BAV25, 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]. **Much** [Dou25]. **Multi** [BMB<sup>+</sup>18, WLY<sup>+</sup>25]. **Multi-Dimensional** [WLY<sup>+</sup>25]. **Multi-Institutional** [BMB<sup>+</sup>18]. **Multilingual** [JMN<sup>+</sup>22, Vog21]. **Multimodal** [RG19]. **Multiple** [ASG19, CHU<sup>+</sup>09]. **Multiple-Choice** [ASG19]. **multipurpose** [NCLN13]. **Musicians** [Fie19]. **Must** [RB24, SYP24]. **MyData** [SMM<sup>+</sup>24]. **Myself** [MRG17]. **National** [KWB20, Men24, TM14]. **Navigating** [FTD<sup>+</sup>24, SSAT24]. **Need** [Ber23]. **Needed** [DM23]. **Needs** [Ip12]. **Negotiate** [SAK<sup>+</sup>25]. **Network** [MW18]. **Networks** [PO20]. **Neurodivergent** [KRK24]. **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<sup>+</sup>15]. **North-Rhine** [KMB<sup>+</sup>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, SSAT24, VMAG22, VFFT16, WCT<sup>+</sup>24]. **Open** [DBM24, HM19]. **Open-Ended** [DBM24]. **Operating** [Ebl24, ZPB13]. **Opportunities** [CHH<sup>+</sup>11, PS21]. **Optimization** [SSD09]. **Orientation** [RCS11]. **Oriented** [AAGH14, AANK14, BS10, KLS<sup>+</sup>14, KKLL16, KDXB18, RMNC10, Shi16, Xin15, d'A10, AGEL13]. **Other** [Fie19, QL17]. **Our** [SYP24]. **Outcome** [LLKH18]. **Outcomes** [AZK<sup>+</sup>20, NBTC<sup>+</sup>24, OHR22, WX18]. **Outreach** [LK19, LBT20]. **Outsiders** [MFH24]. **Own** [MBE<sup>+</sup>16]. **Pair** [BJCS21, BWE11, UR17].

**Pair-Programming** [UR17]. **Pairing** [ZQLW24]. **Paradigms** [DSU20]. **Parallel** [BAV25, DSUP20, BAGM13]. **Parental** [BBF<sup>+</sup>21, CMSP<sup>+</sup>19, SCMR24]. **Part** [LV11a, LV11b, LRS21, RSL22]. **Partially** [ORKH09]. **Participating** [FKG17]. **Participation** [CHP<sup>+</sup>18, CHH<sup>+</sup>11, DBBR11, ETN<sup>+</sup>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, RMBM24]. **PatternCoder** [PCH09]. **Patterns** [Bol22, PCH09]. **Pedagogical** [EHBA<sup>+</sup>23, TSK12, VSK22, YB19, HAA13]. **Pedagogies** [ENC<sup>+</sup>24]. **Pedagogy** [BSS20, Ryo19, SAK<sup>+</sup>25, Zin15]. **Peer** [HCAT23, ILRD20, MJB<sup>+</sup>23, MAHC<sup>+</sup>22, TPQE18, LGP13]. **Peer-led** [MAHC<sup>+</sup>22]. **Peers** [BBSPK22]. **Penalties** [LFU23]. **Pensarse** [Vog21]. **People** [SNOT21]. **Perceived** [ZD15]. **Perception** [AAGH14, vdMHVH23]. **Perceptions** [AvdM21, Bar09, BJCS21, CMSP<sup>+</sup>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<sup>+</sup>19]. **Persistence** [BSA<sup>+</sup>23, CHP<sup>+</sup>18, FWD<sup>+</sup>24, WDK20]. **Personal** [McG12b]. **Personalization** [BSY<sup>+</sup>10]. **Perspective** [AWW15, BMB<sup>+</sup>18, LIG22, TM14, VSK22]. **Perspectives** [BDDGT14, HAGM14, IKWR22, KLS<sup>+</sup>14, MSV<sup>+</sup>23, MFA23, RB22, YZC19, TP23]. **Phase** [Shi16]. **Phenomenographic** [LZR24]. **Philosophical** [WK10]. **Physical** [ENC<sup>+</sup>24, 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<sup>+</sup>11, TM11b]. **Policy** [GEME14]. **Polymorphism** [LBK11]. **Populations** [MFM<sup>+</sup>16]. **Positive** [Hun16, Hun17]. **Positives** [WCT<sup>+</sup>24]. **Postgraduate** [SSAT24]. **Potential** [DBG<sup>+</sup>23, GK17]. **Power** [RTE21, RB24, Vog21]. **Powerful** [RvJP20]. **Practical** [O'G12]. **Practice** [CB19, EHPR<sup>+</sup>23, ENC<sup>+</sup>24, KRH<sup>+</sup>24, MR22, MS11, PE23, UR17]. **Practices** [ALHR17, KLS<sup>+</sup>14, KFME11, LKOL<sup>+</sup>24, MLA<sup>+</sup>24, PSK24, TDMN<sup>+</sup>24]. **Practitioner** [MSV<sup>+</sup>23]. **Practitioners** [Fie19]. **Pre** [EKSW11, LR11, MDS16, RP19]. **Pre-College** [EKSW11, LR11, MDS16, RP19]. **Predict** [CHP<sup>+</sup>18, LZT<sup>+</sup>19, LRH<sup>+</sup>22, Tag24]. **Predicting** [WDK20]. **Prediction** [LLKH18]. **Predictive** [CHA17]. **Predictors** [BKZL23, CKSS21]. **Preface** [FU10b]. **Preferences** [BS24, WWO25]. **Preliminary** [NBTC<sup>+</sup>24]. **Preparation** [Arm11]. **Prescriptive** [Blu22]. **Present** [LSHY22]. **Preservice** [NIA<sup>+</sup>25]. **Presuppositions** [Ten14]. **Primary** [EHBA<sup>+</sup>23, HAGM14, IIRY17, ZQLW24]. **Principles** [BDY<sup>+</sup>25, 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]. **Problematic** [WLY<sup>+</sup>25]. **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>+23</sup>, PHRC21, RSPB17, SDBJ19, SSSC18, VS22, YZC19]. **Professionals** [AJNN20, BF23, JNA18]. **Professions** [LG21]. **Profiles** [KPM18]. **Program** [DSS21, EHPR<sup>+23</sup>, HM21, KRH<sup>+24</sup>, KDV22, McG12b, RSPB17, RT15, RVI09, SKM13, UFVI09, HS13]. **Programadores** [Vog21]. **Programme** [LBT20]. **Programmed** [WDCT20]. **Programmer** [MK19, YZC19]. **Programmers** [ABCD20, BAV25, CG19]. **Programming** [ASG19, AvdM21, Alb20, AAGH14, AANK14, AMSBA15, AL22, AB24, dCBBOSH24, BAV25, BJCS21, Bra24, BWE11, BA17, BWTS<sup>+23</sup>, BSY<sup>+10</sup>, CHA17, CK09, COK24, DSUP20, DSU20, DCW19, FKG17, Gey24, GBB<sup>+17</sup>, HSGB24, IT17, KKLL16, KMW22, KSCP22, KJH19, Köll10, KM16, KLM15, KA16, LLKH18, Lai22, LK19, LY21, LMB<sup>+22</sup>, LMH21, MRR<sup>+10</sup>, MPDS24, MMFR20, MFCLG19, MCK17, MC19, MBKS24, MS19, MJC23, NIA<sup>+25</sup>, NGK11, OHR22, PCH09, QL17, RKM20, RJJ10, RB22, RPT<sup>+22</sup>, RS14, SCMR24, SMGF24, SKM13, SS13, TAL17, UR17, VCMV23, VMAG22, VVM<sup>+24</sup>, WX18, WW17, WDC15, WHS<sup>+17</sup>, Xin15, YZC19, ZQLW24, vdMHVH23, BAGM13, IT13, Sor13].

**Programs** [BBD<sup>+10</sup>, BSA<sup>+23</sup>, BS10, CMSP<sup>+19</sup>, DBG<sup>+23</sup>, McG12a, PG23, RBSS11]. **Progression** [BAV25]. **Project** [FDW19, IT17, LMGVS<sup>+16</sup>, NIA<sup>+25</sup>, Ric09, RMNC10, SBH<sup>+18</sup>, VGM<sup>+23</sup>, Wan11]. **Project-Based** [LMGVS<sup>+16</sup>, NIA<sup>+25</sup>, Ric09, RMNC10]. **Projects** [BH16, BMB<sup>+18</sup>, BBSPK22, DJGIO20, HCAT23, MSH10, Mit14, PD22, PLB<sup>+12</sup>, SH18a, SSSC18, SH18b, TBP21]. **Promising** [KFME11]. **Promote** [LR11, OHR22]. **Promoting** [KFME11, TBP21]. **Prospects** [SSAT24]. **Prototype** [RV09]. **Prototyping** [KDXB18]. **Psychometric** [PHP<sup>+22</sup>]. **Public** [BVNN22, Con24, RAS24, SYP24]. **Publications** [BXS<sup>+24</sup>]. **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<sup>+24</sup>].

**R1** [BVNN22]. **Race** [VS22, WDC<sup>+24</sup>]. **Racism** [VS22]. **Raise** [VGM<sup>+23</sup>]. **Randomized** [BNW25, DSUP20, DSU20]. **Raspado** [RMM21]. **rating** [VMAG22]. **Rationales** [LKOL<sup>+24</sup>]. **Re** [RVSW23, RB21]. **Re-Entering** [RB21]. **Re-Validating** [RVSW23]. **react** [IT13]. **Readiness** [RAS24]. **Real** [AMSBA15, BHHMG21, LMGVS<sup>+16</sup>, TBP21]. **Real-World** [TBP21, BHHMG21]. **Realist** [Pad24]. **Reality** [WVO25]. **Reasoning** [DBM24, DHH<sup>+15</sup>]. **Recognised** [DM23]. **Recommendation** [VMAG22]. **Reconfigurable** [SH10]. **Recruiting** [CMSP20, PSK24]. **Recursion** [HEE<sup>+19</sup>]. **RecurTutor** [HEE<sup>+19</sup>]. **Redesign** [TSK12]. **Redesigning** [KKLL16]. **Reference** [MS19, MM12]. **Reference-Point** [MS19]. **Reflect** [PG23]. **Reflections** [ET12, Mal23]. **Reform** [GM11]. **Regarding** [TABA12]. **Regression** [LFU23]. **Regular** [GML<sup>+23</sup>]. **Regulation** [FPSS23, LMB<sup>+22</sup>, SMGF24]. **Rehabilitation** [NGK11]. **Related** [WDK20]. **Relation** [Ten23]. **Relationship** [FPSS23, MVR<sup>+24</sup>]. **Relationships** [RHSS20, SS23]. **Relevant** [KS14]. **Remotely** [MC19]. **Replications** [HSI<sup>+19</sup>]. **Reporting** [BVNN22, HCSAz22]. **Reports** [KG22]. **required** [IT13]. **Research** [BVNN22, Bar09, DCW19, DZS22, EHPR<sup>+23</sup>, GM14, GbGG<sup>+23</sup>, HSI<sup>+19</sup>, HB15, HCSAz22, HOC17, IT17, JK20,

KCB<sup>+23</sup>, KFME11, LMGVS<sup>+16</sup>, MT23, MAK12, PM09, SSSC18, SF19, SS23, TS20, TP23, TM11b, Ten14, TM22].

**Research-Practice** [EHPR<sup>+23</sup>].

**Researcher** [Ten23]. **Researcher-Theory** [Ten23]. **Researchers** [MW22]. **Resource** [KSM25]. **Resources** [Ebl24, Rit09].

**Response** [LLF22]. **Responsible** [BNW25, MAHC<sup>+22</sup>, RMM21]. **Responsive** [RG19, RB24]. **Restart** [BSCH14]. **Results** [AJNN20, BNW25, JNA18]. **Resurgence** [BSCH14]. **Retaining** [FWD<sup>+24</sup>, HM21].

**Retention** [DBG<sup>+23</sup>]. **Rethinking** [KSM25]. **Reusing** [ABCD20]. **Review** [Alb20, BXS<sup>+24</sup>, DZS22, Ebl24, EVM24, GbGG<sup>+23</sup>, HCSAz22, HOC17, ILRD20, KJH19, LSTA22, LMH21, MBKS24, MJC23, NJK19, Pad24, PLF22, PCC<sup>+24</sup>, PO20, QL17, Sha22, SKM13, TPQE18, YBV23, YBO<sup>+24</sup>]. **reviews** [HAA13]. **Rhine** [KMB<sup>+15</sup>]. **Rigorous** [HAG15b]. **Robot** [MC19]. **Robotics** [BS24, LR11, MCK17, NIA<sup>+25</sup>, WHS<sup>+17</sup>].

**Robots** [AH24, McG12b]. **Robust** [CHU<sup>+09</sup>, LZT<sup>+19</sup>, TCK21]. **Roland** [HAG15a]. **Role** [FTD<sup>+24</sup>, OWK21, PGJS17, RBSS11, SNG<sup>+22</sup>, SCMR24, TP23, IT13]. **Routes** [RMBM24]. **Rubric** [WCPF20]. **Rules** [DSS21]. **Rural** [TMSA22, ZQLW24]. **Russia** [KS14].

**Sampler** [JK20]. **Satellites** [BDY<sup>+25</sup>].

**Scaffolding** [RT15]. **Scalable** [RWK<sup>+15</sup>, SH18a]. **Scale** [BBF<sup>+21</sup>, BA17, RVS23, WCT<sup>+24</sup>].

**Scenario** [AAGH14]. **Scenario-Based** [AAGH14]. **Scholarship** [KRH<sup>+24</sup>, TM10].

**School** [Ber23, BSS20, CKSS21, DLM11, DBR<sup>+20</sup>, EHPR<sup>+23</sup>, EHBA<sup>+23</sup>, GM11, IIRY17, JNA18, KLS<sup>+14</sup>, KS14, KO22b, MFM<sup>+16</sup>, MVR<sup>+24</sup>, MR22, MSH10, NBTC<sup>+24</sup>, OPC17, RVS23, RS14, SMM<sup>+24</sup>, TABA12, WW17, WDK20, WSP<sup>+11</sup>, ZQLW24, ZNF<sup>+20</sup>, ZCJR20, ZJWF11].

**Schools** [BDDGT14, BAR14, BLM<sup>+14</sup>, BSCH14, FEC17, Hub12, HAGM14, HAG15b, KV15, MSV<sup>+23</sup>, Par23, RAS24, RVAN15, RWK<sup>+15</sup>, SYP24, TM14, TAL17].

**Science** [AZK<sup>+20</sup>, All23, Arm11, BVNN22, BBD<sup>+10</sup>, BB10, BDDGT14, BAR14, BSA<sup>+23</sup>, BHHMG21, BBG12, Ber23, Blu22, BJCS21, BSP24, BWE11, BBF<sup>+21</sup>, BDY<sup>+25</sup>, BSCH14, BXS<sup>+24</sup>, BCD10, BSS20, CKSS21, CMSP<sup>+19</sup>, CMSP20, CHP<sup>+18</sup>, DJGIO20, DBR<sup>+20</sup>, EBC<sup>+21</sup>, EHPR<sup>+23</sup>, EHBA<sup>+23</sup>, FPSS22, GES14, GM14, GM11, GMM17, HM22, HHM19, Hub12, HAGM14, HAG15b, IIRY17, IKWR22, JMN<sup>+22</sup>, JK20, KWB20, KS14, KCB<sup>+23</sup>, KFME11, KMB<sup>+15</sup>, LK19, LLF22, LKOL<sup>+24</sup>, LZRO21, LSHY22, LD19, MFM<sup>+16</sup>, MHP20, MPDS24, MRG17, MMFR20, MLA<sup>+24</sup>, MW18, MR22, MSV<sup>+23</sup>, Men24, MFH24, NAG<sup>+23</sup>, NBTC<sup>+24</sup>, PLF22, PGJS17, Par23, Pet19, PS21, RVAN15, RSPB17, RWK<sup>+15</sup>, RWS<sup>+24</sup>, REB23, RHSS20, RV09, Ryo19, RB24, SNG<sup>+22</sup>, SA20, TK16, TB16, VMFG17, VFFT16, VSK22, Wag16, WK10, WW17, WDK20, YB19, YBV23, YBV24].

**Science** [ZNF<sup>+20</sup>, ZCJR20, ZJWF11, Zim15, AGEL13, Gri13, LGP13]. **Science-** [WDK20]. **Sciences** [RCS11].

**Scientometric** [SNOT21]. **Scope** [GGH<sup>+10</sup>]. **Scratch** [AMSBA15, FKG17, MRR<sup>+10</sup>, UCK<sup>+10</sup>].

**Script** [Mod21]. **Script-based** [Mod21].

**SCS1** [VVM<sup>+24</sup>]. **Seamless** [Kar09].

**Searching** [IDC<sup>+19</sup>]. **Second** [KG18, MT23]. **Secondary** [Arm11, BDDGT14, BLM<sup>+14</sup>, Ber23, EHPR<sup>+23</sup>, Hub12, HAGM14, IIRY17, Kie09, MCK17, RVS23, RvJP20, YMZ<sup>+14</sup>].

**Section** [LRS21, SF19]. **Sector** [All23].

**Secure** [TK16]. **Security** [BF23, LSSM19, TK16, YVQ<sup>+10</sup>, RC13].

**Seeing** [MRG17]. **seeking** [COK24]. **Select**

[ZJWF11]. **Self** [BVNN22, CMSP<sup>+</sup>19, FPSS23, Lar16, LY21, LMB<sup>+</sup>22, MBE<sup>+</sup>16, RAS24, RCS11, SCMR24, SMGF24, VMFG17, ZQLW24, ZNF<sup>+</sup>20, IT13]. **Self-assessed** [Lar16]. **Self-Directed** [MBE<sup>+</sup>16]. **self-direction** [IT13]. **Self-Efficacy** [RAS24, RCS11, SCMR24, ZQLW24, CMSP<sup>+</sup>19, LY21, ZNF<sup>+</sup>20]. **Self-evaluation** [LY21]. **Self-Explain** [VMFG17]. **Self-Regulation** [FPSS23, LMB<sup>+</sup>22, SMGF24]. **Self-study** [BVNN22]. **Sense** [RMBM24]. **Sequentiality** [KSM25]. **Serious** [Bra24, VGRM19, VGM<sup>+</sup>23]. **Servers** [BDY<sup>+</sup>25]. **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** [RMBM24, 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<sup>+</sup>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<sup>+</sup>14, CDCLK17, CDB<sup>+</sup>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, WLY<sup>+</sup>25]. **Solidarity** [SYP24]. **Solution** [MM12]. **Solving** [Kie09]. **Some** [HAG15b]. **Someone** [MRG17]. **Sophistication** [WDCT20]. **Sort** [MMK25]. **Source** [ABCD20, CJS<sup>+</sup>17, HM19, NJK19]. **Source-Code** [CJS<sup>+</sup>17, NJK19]. **South** [CJS<sup>+</sup>17]. **Spaces** [KRK24]. **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]. **Sri** [RAS24]. **Stakeholders** [SBH<sup>+</sup>18]. **Standardized** [SSAT24]. **STARS** [DBBR11]. **State** [GND19, GEME14, PLF22, RB21, SCA<sup>+</sup>10]. **State-of-the-Art** [PLF22]. **States** [GES14, LSHY22, McG12a]. **Status** [MVR<sup>+</sup>24]. **STEAM** [MFM<sup>+</sup>16]. **STEAM-Based** [MFM<sup>+</sup>16]. **STEM** [HM21]. **Steps** [Ko22a]. **Stereotypes** [DBR<sup>+</sup>20]. **Stitch** [JK20]. **Story** [ZJWF11]. **Storytelling** [AH24]. **Strategies** [CDB<sup>+</sup>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]. **Struggle** [Dou25]. **Struggling** [PD22]. **Student** [AvdM21, AB24, Bar09, BS24, BJCS21, BBSPK22, BSS20, CHA17, DSUP20, DJHGI19, FPSS22, FDW19, GMM17, HLKZ12, JMN<sup>+</sup>22, KRH<sup>+</sup>24, KSM25, KA16, KO22b, LFU23, LLF22, LZR24, MPTV16, McG12b, MDS16, MFA23, MTGM21, NAG<sup>+</sup>23, Pad24, PGJS17, PD22, Pet19, PS21, PLB<sup>+</sup>12, QL17, RVSW23, RP19, RvJP20, SH18a, SMM<sup>+</sup>24, SNG<sup>+</sup>22, TABA12, VTB<sup>+</sup>20, VVM<sup>+</sup>24, VFFT16, WX18, WZL<sup>+</sup>22, WWO25, YBV24, YR15, ZD15]. **Student-Centered** [NAG<sup>+</sup>23]. **Student-Directedness**

[BBSPK22]. **Students** [ASG19, AL22, BSA<sup>+23</sup>, BHHMG21, COK24, CJS<sup>+17</sup>, Dou25, GML<sup>+23</sup>, GVA22, HM22, HM21, HSGB24, IIRY17, IDC<sup>+19</sup>, JNA18, KG22, KSCP22, KPM18, LZT<sup>+19</sup>, LR11, MPDS24, MVR<sup>+24</sup>, MBE<sup>+16</sup>, MSV<sup>+23</sup>, MSP21, ORKH09, ORS16, Pet19, RJJ10, RMBM24, SSAT24, SDBJ19, SK24, Sho23, SMGF24, SA20, TB16, VCMV23, Vog21, ZJWF11, HS13, IT13, YZC19]. **Studies** [BBD<sup>+10</sup>, LSSM19]. **Studio** [BTF<sup>+19</sup>, RT15]. **Studio-Based** [RT15]. **Study** [AvdM21, AL22, BAR14, BSA<sup>+23</sup>, BCC<sup>+19</sup>, DMBP22, GND19, GM11, HM22, KCB<sup>+23</sup>, KMB<sup>+15</sup>, LSTA22, LZR24, MAHC<sup>+22</sup>, MGM<sup>+23</sup>, MTGM21, Par23, Pet19, RAS24, RB22, Rit09, RvJP20, SNOT21, Sho23, SMGF24, TS20, VS22, WSLR23, YR15, Zin15, BVNN22]. **Style** [KLRT25]. **Styles** [TAL17]. **Subgoals** [MMFR20]. **Subject** [Hub12, KS14]. **Subjects** [GGH<sup>+10</sup>]. **Submission** [LFU23]. **Success** [BSS20, CKSS21, RPT<sup>+22</sup>, ZJWF11]. **Successes** [GES14]. **Successful** [UFVI09]. **Support** [ABCD20, BBSPK22, CMSP<sup>+19</sup>, ENC<sup>+24</sup>, GBB<sup>+17</sup>, PCH09, RCS11, SCMR24]. **Supported** [CDK<sup>+14</sup>, CDCLK17, MW18]. **Supporting** [ALP12, GHT<sup>+11</sup>]. **Supports** [Par23, Ryo19]. **Survey** [Ebl24, GMM17, REB23, UFVI09]. **Sustainability** [PCC<sup>+24</sup>]. **SWEBOK** [GGT20]. **Syntax** [PDF15, SS13]. **Synthesis** [DCW19, JK20, d'A10]. **Synthesis-Oriented** [d'A10]. **system** [ZPB13]. **Systematic** [Alb20, BSA<sup>+23</sup>, BXS<sup>+24</sup>, EVM24, GbGG<sup>+23</sup>, HSI<sup>+19</sup>, HCSAz22, KJH19, LSTA22, MBKS24, NJK19, PCC<sup>+24</sup>, TS20, YBV23, YBO<sup>+24</sup>]. **Systemic** [RWK<sup>+15</sup>]. **Systems** [Ebl24, KM16, LFU23, LC21, PS21, RG19, SKM13, TSK12, UFVI09, WCT<sup>+24</sup>].

**T** [REB23]. **T-ABC** [REB23]. **Table** [AHL17]. **Tabs** [PD22]. **Tackle** [PD22]. **TACS** [EHBA<sup>+23</sup>]. **Taking** [BTF<sup>+19</sup>, CKSS21]. **Tale** [GES14]. **Talking** [HAA13]. **Task** [MPDS24, MS11]. **Tasks** [ABCD20, AL22]. **Taught** [OPC17]. **Taxonomy** [DTT16, MBSBA09]. **Teach** [RAS24]. **Teacher** [Arm11, BKZL23, EHBA<sup>+23</sup>, ENC<sup>+24</sup>, GYSH19, KCB<sup>+23</sup>, MJB<sup>+23</sup>, MW18, NAG<sup>+23</sup>, RAS24, RSPB17, REB23, Tag24, VS22, WCPF20, YMZ<sup>+14</sup>, YB19, ZNF<sup>+20</sup>, ZCJR20]. **Teachers** [All23, BBSPK22, BDY<sup>+25</sup>, IKWR22, LKOL<sup>+24</sup>, MR22, NIA<sup>+25</sup>, NCW22, SSSC18, vdMHVH23]. **Teaching** [ALHR17, AMD22, BC12, Bol22, BXS<sup>+24</sup>, BNW25, BLNC09, DHH<sup>+15</sup>, Ebl24, FEC17, HB15, HM22, IIRY17, IT13, KLM15, KDXB18, KA16, LMGVS<sup>+16</sup>, LSSM19, MRG17, MAK12, MCK17, MMK25, Mod21, PO20, RC13, RMM21, SGHZS19, SA20, SPC19, YVQ<sup>+10</sup>, ZNF<sup>+20</sup>, AGEL13, CHM13]. **teaching-oriented** [AGEL13]. **TeachVR** [WWO25]. **Team** [BH16, HCAT23, Lar16]. **Teams** [MPTV16, ORKH09, SH18a]. **Teamwork** [VFFT16]. **TEC** [WCPF20]. **Technical** [GVA22, Pad24]. **Technique** [DSUP20, LZT<sup>+19</sup>]. **techniques** [RC13]. **Technology** [KKNL21, KPM18, MHP20, MAK12, RB21, RvJP20, SAyC<sup>+21</sup>, TBB24, Vog21, WDK20, CHH<sup>+11</sup>]. **Technology-Related** [WDK20]. **Teen** [RLN<sup>+22</sup>]. **Teen-Led** [RLN<sup>+22</sup>]. **Tensions** [PS21]. **teNtative** [MM12]. **Term** [LK19, LBT20]. **Terms** [VTB<sup>+20</sup>]. **Test** [BLNC09, SK24, Sho23, VCMV23]. **Testing** [CDK<sup>+14</sup>, CDCLK17, CDB<sup>+22</sup>]. **Text** [WW17]. **Text-Based** [WW17]. **Textbooks** [BNP11]. **Textiles** [JK20, KLS<sup>+14</sup>]. **Theater** [KDXB18]. **Theater-Teaching** [KDXB18]. **Their** [DJGIO20, KDV22, MBE<sup>+16</sup>, PG23, SYP24]. **Them** [ASG19, RB24, IT13]. **Theoretical** [Ten14]. **Theories**

[LMB<sup>+</sup>22, MSK<sup>+</sup>23, Rob22, SS23, TP23].  
**Theory** [Dou25, DZS22, HM22, KDM<sup>+</sup>23, LRJ14, MT23, Mal23, MW22, RAS24, RP19, SMGF24, TP23, TM22, Ten23, TCK21].  
**Theory-Based** [RAS24]. **These** [RB24].  
**Things** [AH24]. **Think** [WSLR23].  
**Think-Aloud** [WSLR23]. **Thinking** [EVM24, FU10a, FEC17, GBB<sup>+</sup>17, KCB<sup>+</sup>23, KKNL21, KO22b, Lai22, LIG22, MBR23, PE23, RG19, SNOT21, Tag24, TPQE18, WWO25, WHS<sup>+</sup>17, WSP<sup>+</sup>11, YMZ<sup>+</sup>14, YR15]. **Three** [Mit14, MGM<sup>+</sup>23].  
**Three-Tier** [Mit14]. **Three-year** [MGM<sup>+</sup>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<sup>+</sup>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<sup>+</sup>21, YZC19].  
**Transition** [Bra24, GHT<sup>+</sup>11, TM15].  
**Transitioning** [SAyC<sup>+</sup>21]. **Transitions** [Shi16]. **Translating** [ORS16]. **Trial** [DSUP20, DSU20]. **Troublesome** [YZC19].  
**Tutorial** [HEE<sup>+</sup>19]. **Two** [GES14]. **Type** [MPDS24]. **Types** [DM23].

**UDL** [IKWR22]. **Uganda** [TSAA<sup>+</sup>23]. **UK** [BSCH14, CJS<sup>+</sup>17, Ip12]. **UML** [Mit14].  
**Uncover** [LLF22]. **Uncovering** [AWW15].  
**Undergraduate** [Bar09, BSA<sup>+</sup>23, CDCLK17, ECF18, KFME11, LZR24, MFR13, McG12a, MDS16, Men24, NLWS24, Pad24, RMBM24, She13, TWH18, WF24].

**Undergraduates** [CGZ<sup>+</sup>20, RCS11].  
**Underrepresented** [MFM<sup>+</sup>16].  
**Understanding** [AH24, BDY<sup>+</sup>25, CGZ<sup>+</sup>20, DBSH24, EHBA<sup>+</sup>23, FKG17, GGT20, Lar16, LZRO21, MHP20, MJB<sup>+</sup>23, RG19, RP19, RMBM24, Shi16, SPR12, VTB<sup>+</sup>20]. **Unit** [MMFR20]. **United** [GES14, LSHY22, McG12a]. **Universal** [Bur11]. **University** [COK24, RWS<sup>+</sup>24, RMBM24, VCMV23, BVNN22]. **Unlocking** [GK17]. **Unplugged** [dCBBOSH24, MMK25, TABA12].  
**up-in-the-cloud** [ZPB13]. **upper** [LGP13]. **upper-division** [LGP13]. **Usability** [AAGH14, vdMHVH23].  
**Usability-Oriented** [AAGH14]. **Use** [ASG19, dCBBOSH24, BWTS<sup>+</sup>23, LMB<sup>+</sup>22, LR11, MSK<sup>+</sup>23, Sho23, SS23, VMAG22].  
**Used** [NJK19, SMGF24]. **User** [PLB<sup>+</sup>12].  
**Using** [CMSP<sup>+</sup>19, CDCLK17, DTT16, FEC17, GBB<sup>+</sup>17, HS13, JK20, Kie09, LMGVS<sup>+</sup>16, LLF22, LSSM19, MT23, Mit14, MMK25, RRKP13, RB24, TM22, Wan11, DSUP20, RVAN15, RC13]. **Utilization** [KSM25]. **Utilize** [BBSPK22]. **Utilizing** [LRJ14]. **UX** [KG22].

**Validating** [RVSW23]. **Validation** [REB23, VCMV23]. **Value** [EBC<sup>+</sup>21, MRG17, MSP21]. **Valued** [NCW22]. **Values** [FDW19, PM09].  
**Variation** [RVSW23, TB16]. **Veces** [Vog21].  
**Version** [VCMV23, VVM<sup>+</sup>24]. **VHDL** [d'A10]. **via** [KSCP22]. **Viable** [DBBR11].  
**Video** [MGM<sup>+</sup>23]. **Video-based** [MGM<sup>+</sup>23]. **Views** [BKZL23, GYSH19, TABA12]. **Virtual** [BSP24, WWO25, WHS<sup>+</sup>17]. **Vision** [HB15, Men24]. **Visions** [HAGM14]. **Visual** [BS10, LR11, vdMHVH23]. **Visualization** [MBSBA09, RVI09, RV09, SSD09, SCA<sup>+</sup>10, SKM13, UFVI09, YVQ<sup>+</sup>10].  
**Visualization-Based** [RV09].  
**Visualizations** [CHU<sup>+</sup>09]. **Visualizing**

[BL14]. **Vocational** [DBSH24]. **Voices** [LKOL<sup>+</sup>24, RB24]. **vs** [BA17, WX18].

**wearable** [NCLN13]. **Wearables** [MCK17]. **Web**

[AWW15, MC15, PDF15, PHRC21, ZD15].

**Week** [SOB24]. **Westphalia** [KMB<sup>+</sup>15].

**Where** [JK20]. **Which** [NCW22]. **while**

[AB24]. **White** [VS22]. **Who** [JK20]. **Wide**

[PS21]. **Wild** [FKG17]. **will** [Ros23].

**Within**

[MFH24, TB16, CJS<sup>+</sup>17, DMBP22, SSF<sup>+</sup>19].

**without** [Sho23]. **Woman**

[DMBP22, RHSS20]. **Women**

[BSP24, FWD<sup>+</sup>24, HM21, KFME11, LC21,

LG21, PHRC21, PG23, RTE21, SAyC<sup>+</sup>21,

TBB24, WDK20, WDC<sup>+</sup>24, WF24]. **Work**

[BF23, DMBP22, ORKH09, RP19, SGHZS19].

**Worked** [MJC23]. **Working** [AB24].

**Workload** [BBG12]. **Workshop** [BS24].

**Workshops** [PHRC21]. **World**

[TBP21, BHHMG21]. **WReSTT**

[CDCLK17]. **Writing** [VMFG17, WSP<sup>+</sup>11].

**Year** [AB24, AL22, CGZ<sup>+</sup>20, MGM<sup>+</sup>23, VCMV23]. **Young** [BCZ19]. **You're**

[LZR24].

**Youth** [CMSP<sup>+</sup>19, CMSP20,

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