

# A Complete Bibliography of Publications in *SIGCSE Bulletin*: 1980–1989

Nelson H. F. Beebe  
University of Utah  
Department of Mathematics, 110 LCB  
155 S 1400 E RM 233  
Salt Lake City, UT 84112-0090  
USA

Tel: +1 801 581 5254  
FAX: +1 801 581 4148

E-mail: [beebe@math.utah.edu](mailto:beebe@math.utah.edu), [beebe@acm.org](mailto:beebe@acm.org),  
[beebe@computer.org](mailto:beebe@computer.org) (Internet)  
WWW URL: <http://www.math.utah.edu/~beebe/>

10 February 2022  
Version 1.07

## Title word cross-reference

+ [Tex82]. := [Tex82].

-or- [Ree89a].

0 [Per89].

1 [DC84, Per89]. 1/0 [Per89]. 11 [FM84, FM86, LR86]. 11/40 [GBO87].  
12th [Dei88]. 15-pegs [Lew88]. 18th [RS87]. 1980 [WB80]. 1980s  
[Mit80, Sha84]. 1981 [WMD81]. 1983 [Ker84, LJ83, Lan83]. 1984 [Ker85].  
1985 [Tay85]. 1987 [RS87]. 1988 [Der88]. 1989 [BM89]. 19th [Der88]. 1K  
[Bar86b].

2

[Bru86, Bru87, Fel86, GAK86, Kof88, Lee85, Moh89, MFMN89, Sch88, Sch89b].

20th [BM89].

3 [FHW84]. 370 [Ber86].

40 [GBO87].

58 [Cor83].

'78 [DG81, Fos82].

'81 [Wag89a].

**ability** [Cor86]. **ABISS** [PTKG83]. **ABISS-an** [PTKG83]. **Abstract** [Fel84, BU83, Bro87, Cro88, Hit87, Kur80, LM89a, Pio89]. **Abstraction** [Git86, Pat87, Fel80, LM87c, LM89b, Mil87, Moh89, RR86]. **academe** [Che84, WD84]. **academic** [AL85, DAH86, Fra87, LCD<sup>+</sup>88, Sza80a]. **academy** [JBT83, KSG82]. **accelerated** [SB82]. **access** [Eze86, FL84]. **accessing** [Bar83]. **Accommodating** [Fri84]. **account** [Paq84a]. **accounting** [RR83]. **Accreditation** [DMC<sup>+</sup>83, ECD<sup>+</sup>84, CGHM88, DFM<sup>+</sup>82, DBM<sup>+</sup>85, DMS85, Gib85, GHM87, Wal88]. **achievement** [Aus87, MP82]. **ACM** [ACH<sup>+</sup>88, BAC84, Bel84, Dei84, Dei88, DCG<sup>+</sup>88, FHW84, Kar83, KSW85, MP81, RD85, Wag89a]. **acquisition** [SB88]. **action** [Eze86]. **action-on-data** [Eze86]. **activities** [ACH<sup>+</sup>88, HC87a]. **ADA** [BBP<sup>+</sup>84, Fel84, AH85, BHM<sup>+</sup>82, EP85, GBO87, LL86, Owe87, Owe89b, Per89, RZP<sup>+</sup>88, Ree85, TE87, Tem86, WL89]. **Ada-based** [Owe89b]. **Ada-like** [Ree85]. **Ada\_constructs** [Tex82]. **Ada\_education** [Tex82]. **Adapting** [Fos82, Vil86]. **administration** [Blu83, Den81]. **adopting** [Vil86]. **Adult** [Kne86, Jac81, Sol80]. **advance** [MM88a]. **Advanced** [CS84, Coo83, GRW83, Ogb85, WS87, Far88, Hod85, Mol83, Owe89a, Pot85, Zie84, BCL<sup>+</sup>85]. **advancement** [Met83]. **adventure** [Rin80]. **Adventures** [JBT83]. **advisory** [Bal87]. **after** [BT86, MCR<sup>+</sup>88]. **agency** [Kha81a, Kha81b]. **ages** [RB84]. **Aid** [McB83, Pag89, DU89, LLH87, MTT83, RS80]. **AIDE** [ST89]. **aided** [AP89, ME87]. **aiding** [Hig84]. **aids** [Lea84]. **Air** [KSG82]. **Algorithm** [Gia87, BMW87, Coo83, HL82, Ten85]. **Algorithmic** [De 88]. **Algorithms** [Gre89, Org85, WGT89, Arc87, Boz89, BST86, HC87b, LW86, Mar85, ME87, McC89b, MTT83, Sca87, Sca88, Sto89, Wee89]. **alike** [MST<sup>+</sup>81]. **alone** [Wil82]. **alphabets** [SP89]. **alternative** [Boz89, Cox87, Gou81, San88, Ste85]. **Alternatives** [MB81, Bai87a, Hin80]. **ALU** [Smi85]. **amazing** [LM88]. **American** [Vil82a, Vil82b, WMH81]. **Amsterdam** [Gra87]. **analysers** [CF82]. **analysis** [ASNN89, Bab88, BKS83, Blu83, BU85, CB86, Dan81, Dil84, Din83b, Fri87, Gol82, Gor82a, Jor89, Mea87, Mea88b, Poo88, Pra88, Rig87, Sid86, Sto87b, Tem87, Wil87a, Zie84]. **analysts** [ASNN89, Din81]. **analytic** [Ols88]. **Anatomy** [BCH<sup>+</sup>88, Hen86, Gil80]. **ancient** [ACZ82].

**Animation** [ZPS88, BMvD83]. **Animations** [Lea84]. **animator** [Gia87].  
**analysis** [Arc85]. **Annotated** [Pop83]. **Annual** [Tau86, Dei88]. **answer**  
 [Mit83]. **anything** [Bar84]. **APEX1** [Bri89b]. **appearing** [Ker83].  
**Appendices** [Aik84]. **Apple** [BM81, BST86]. **Application**  
 [PL88, DMS85, Tem87]. **applications** [Boz86, CR85, Ste85, WJ88]. **applied**  
 [Bru89, Gra84, Sca85, Whi83]. **apply** [HC87a]. **Applying** [MC82]. **approach**  
 [AL82, Ahm82, Arc85, Arn81, BC84, CRP89, Che89, Chr82, CW88, Cor83,  
 Cox87, Dec85, FHW84, For82b, For84, FGU83, Fri87, Gan89, JBT83, Lan81,  
 Mer81, Mur82, NW89, Ols83, Pli88, Pra85, Pra88, Pri88, Ryd84, Sch87, SG84,  
 Spr85, Ste85, Sto87a, Tam85, Wal81, Wil87b, Yav87]. **approaches**  
 [BKS83, Fis84, SEF<sup>+</sup>88]. **approval** [DFM<sup>+</sup>82]. **approval/accreditation**  
 [DFM<sup>+</sup>82]. **approximate** [HC87b]. **aptitude** [GF82]. **Archibald** [Nem85].  
**architecture** [Law80]. **architecture** [Ber86, KW80, Lan81, SC80].  
**architecture-more** [Lan81]. **architectures** [Cuh83]. **aren't** [MST<sup>+</sup>81].  
**ARM** [Fig87]. **art** [SV86]. **article** [Coo85, Coo86, Nem85, Rem83]. **articles**  
 [Ker83, Ker85]. **Articulation** [Gor82b]. **artificial**  
 [Den85, D'h83, Doo88, LCD<sup>+</sup>88, Our85, SS89, Whi88, bY89]. **arts**  
 [BCA89, Bei84, Cun83, Cun86a, D'h82, Dil84, Doo88, Ell80, GBC<sup>+</sup>85, Hag87,  
 Our86, Rot80, Scr87, SH85, Smi88, WJ88]. **aspects** [VS89]. **assembler**  
 [Eze85, GBO87, MM82a, Mil83b, Mol84, Shu81, TR85]. **Assembly**  
 [LS88, Ten80, Ber86, Coo82, Cro83, Dec85, Dec87, Don88, Eck87, Heu84,  
 LR86, Seb83, SL83, Wei89]. **assembly/machine** [Eck87]. **assess** [Ent84].  
**Assessing** [SH87, Pig87]. **assessment** [Hor83, SN88]. **assignments**  
 [Ben85, GW85, HW89, HCF<sup>+</sup>82, HG82, Lee89, McC89b, McM82, Paq84a].  
**assist** [Ger85]. **assisted** [Ben85, Pio88]. **associate** [Ric89].  
**associate-degree-level** [Ric89]. **associated** [Car87a]. **Atlanta** [Der88].  
**attitude** [WT81b, WT81a]. **attitudes** [Ogo89]. **audiences** [Mei82, RW87].  
**auditor** [RR83]. **augmented** [Gar86]. **Augmenting** [Mei87b]. **authoring**  
 [LW87]. **automata** [Hea88]. **automated** [ST89, Ull80]. **Automatic**  
 [AL88, Pop83, Pop84]. **Automating** [IS89]. **automation** [Jue82, Koc87].  
**avoid** [Ree89a]. **award** [Bel84, Kar83]. **awards** [Bel84]. **awareness**  
 [Coo85, Coo86]. **away** [Kne86, MCR<sup>+</sup>88].

**Bachelors** [GSK80]. **background** [Har88a]. **backgrounds** [Fri84]. **Backus**  
 [Pag86]. **Backus-type** [Pag86]. **banker** [Ten85]. **base** [EH84, SB88]. **based**  
 [BU83, Car85b, Che89, CSH86, EGP81, FL87, Gra87, How87, Kan88, MS80,  
 Mei84, NW89, Owe89b, PTKG83, Pra88, Sat86, Sch87, SCH85b, WJ82].  
**basic** [Bag89b, BB85, Law80, Lem81, Mar85, SC80, Coo80, MPW87].  
**BASIC1** [MM82a]. **Batch** [DC84]. **Be** [FFM82, BF88, Doy86, Sca88, Wil85].  
**beasts** [Mye86]. **become** [Mit89]. **beginners** [EN81]. **beginning**  
 [Cor86, DO82, Gab82, Hay88, RR86, Sid86, Wer86]. **behaviors** [Coo87].  
**Berkeley** [AW88]. **between** [Bul85, HKW81, Kur80, MS89]. **Beyond**  
 [DBF87, VS85, Cal87]. **bibliography** [Pop83]. **Binary**  
 [Van88, Arc87, Khu86, KJ85, Pat88]. **binding** [Smo87]. **biodata** [Blu83].

**Birds** [LJ83]. **Birds-of-a-feather** [LJ83]. **blind** [TG82]. **both** [Sca88]. **Boulder** [Abs81a]. **Brazil** [Lis80, LL80]. **Breadth** [SL81]. **Brown** [BS84]. **Bubble** [Zah87, KF88]. **Bucking** [Che84]. **budgeting** [HC84]. **Bulletin** [Ker84, Ker85, Ker83]. **business** [Arc83, Bay87, BB85, Blu83, Cas83, EH84, Lei81b, Lei81a, Lem81, Rod87, SBLL82]. **byte** [BM81].

**C** [Les89, Moo88]. **C.S.** [Coo86]. **Cactus** [How88]. **CAI** [KN81]. **Cal** [MW81]. **calculator** [Mea88a]. **campus** [Mei85, Oli85, WSC87]. **campuses** [Bul85]. **Canada** [Sch89a]. **capacity** [Con83]. **capitulate** [Org85]. **capstone** [FLK<sup>+</sup>88, How88, Oma86]. **card** [BD80]. **career** [Sim86]. **careers** [MMMM85]. **Carlo** [Arc87]. **Carnegie** [Car85a]. **Carnegie-Mellon** [Car85a]. **Carolina** [CB80, Dei82]. **Case** [Bab88, Bal87, BS82, Bro87, Bro88, Fel80, Kof88, Lor81, Mil83a, Oma86, War88, ML89, SPB89]. **CC** [MFMN89]. **CC-modula** [MFMN89]. **center** [McM82, Has82]. **centered** [Tre87]. **Central** [Kha81a, Kha81b, Ker88, KZ84]. **certification** [Che89, PLN<sup>+</sup>85]. **chairman** [Gib85]. **Changes** [Les89]. **changing** [Whi88]. **charts** [HL82]. **Cheating** [SJK<sup>+</sup>80]. **checker** [FL84]. **chief** [Ten87]. **China** [AAF<sup>+</sup>88, Dal80]. **Chinese** [ES85, Rud88]. **Choosing** [Far88]. **CICS** [CS88]. **Cincinnati** [LC86]. **circuit** [AM85]. **CIS** [Bro82, MCC89a]. **City** [WB80]. **class** [BU83, Din83a, Dob87, Doy86, Kur80, Lor81, RR86, Ril81, RW87, Wer86, Wer88]. **classes** [Boz89, CF82, Coo85, Sid86]. **classify** [San83]. **classifying** [LW86]. **Classroom** [WI81, Arn81, BF88, Car87b, McC80, Our85, RHA82, Rud88, Yav85]. **clone** [Hum89]. **close** [UC89]. **closed** [PM85]. **Cloze** [vVBK89, Ent84, Ent86]. **CMS** [Dei82]. **co** [MHH<sup>+</sup>81]. **co-op** [MHH<sup>+</sup>81]. **COBOL** [Dai85, FG83, Lin82, MP82, Mol83, Pop87, Ric87, SBLL82, Uck86, Cit84, Lys86, Ric84, Tri87]. **code** [Smo89, Wei81]. **coding** [Ris89]. **cognition** [Whi88]. **Cognitive** [Cor86, WBJ<sup>+</sup>85, MC82, Rog84b]. **College** [Bro82, Car87a, LJ83, Arc85, Aus87, BRM83, Cun83, Ell80, Fol86, Fra87, Gor82b, Kor83, MR87, MBM<sup>+</sup>83, PTN88, RB84, Sca85, SP80, Sel88, Sig87, TN88, TM89, Vil82a, Vil82b, Bul85, Ten80]. **colleges** [BCA83, BAC84, Bei84, GBC<sup>+</sup>85, GSK80, Hag87, Scr87, SBD<sup>+</sup>88, Smi88, WJ88, WMH81]. **Color** [McB83, FM86, Ram86a]. **combination** [SL85]. **command** [SB88]. **command-level** [SB88]. **comment** [Hav80]. **comments** [Ten85]. **commercial** [Adi86, BF88, CG87, Hon83]. **committee** [BAC84, KSW85]. **communicate** [Har89]. **communication** [AW88, Cot87, HH86, Mei87b, RD84]. **communications** [Bru89, GP87, Hug89, PS81]. **Community** [Bul85, Aus87, Sca85]. **Comparison** [Car85b, Arc87, Dob87, Jor87, Lem81, MP81, MM82b, Ogo89, VD83]. **Competency** [Car85a, Che89]. **competency-based** [Che89]. **competitions** [SN88]. **COMPI** [Pan81]. **compiled** [Smo89]. **Compiler** [MT86, Noo86, Pag89, Gou81, Gra87, MK85, Pet85, RV82, Sat86, Shr84]. **complex** [PW87, Sca88]. **complexity** [FH88, Plu89, Wil86, vVBK89].

**component** [ARC<sup>+</sup>81, CW83a, Koc87, Shi84, Shu86, Sim86].

**Comprehending** [Ker88]. **comprehensibility** [Ram86a]. **Comprehension**

[McB83, BK80, Ent84]. **comprehensive** [BS89]. **compromise** [UHC87].

**computability** [Mal85b]. **Computation** [Pag89, Ash87, CW88].

**computational** [De 88, LD86, Our86]. **Computer**

[AP89, AL85, AHM80, AAF<sup>+</sup>88, Atc81, BC80, BM89, BCA89, BCA83, Bri85, CL84, CB80, Cri80, CC82, CBO85, DFM<sup>+</sup>82, DBM<sup>+</sup>85, DMS85, DE80a, DE80b, Der88, D'h82, Dod82, Fis84, FLK<sup>+</sup>88, GWD<sup>+</sup>81, KSG82, LJ83, Lan83, LC86, Mag82, Mag85, Mar87a, Mei84, Mil83b, Mit80, Mon87, MHGA81, NBLD81, Ogb85, Ohl86, RS87, RHL85, RB84, San88, Shi84, Tay85, Tea81, WB80, WMD81, Wal88, Woo82, Abs81a, Abs81b, Abs86, Aik83a, Aik83b, Aik84, Aik81, App86, Arc83, ARC<sup>+</sup>81, AG83, Bad82, BCF<sup>+</sup>88, Bag88a, Bag88b, Bag89a, Bag89b, BT86, Bai87a, Bal85, Bal86, Bal87, Bal81, BHH<sup>+</sup>86, Bar84, Bar86a, BDL85, BS81, Beh84, BS89, Ben81, Ber83, BRL83, BK80, Boz86, Boz89, Bra88, BCL<sup>+</sup>85, Bro85, BMvD83, BW82, Cam84, CGHM88, Car85a, Cha83, Che89]. **computer**

[Che86, CSH86, CW83a, CW83b, CM84, CA88, CF82, Coe87, CS84, Cor82, Cot87, Cra87, CR83, Cun83, CBBO88, Cze85, Dal80, DO82, Dan81, Dec85, Dei82, Del89, Den87, DP88, DCG<sup>+</sup>88, Der81, DM86, Don87a, Doo86, Doy86, DBF87, Eck87, EH84, EB82, ECD<sup>+</sup>84, Ent83, Ent86, EASP87, Fer87, FW87, Fol82b, Fol82a, FS88, Fol86, For82b, Fos89, Fra87, FM85, Fri83, Ful85, Gab82, GRW83, Gar86, Gat86, GG81, GBC<sup>+</sup>85, Gil80, GW81a, GW81b, Gol89, GK85, GF85, HW89, Hag87, HFG<sup>+</sup>80, Har88a, Har88b, HM81, Hee83, Hen86, Hen87a, Hen87b, Heu84, Hin80, Hof83, Hor83, How88, HKW81, Jon82, Jon87, KZ84, KW80, Kha82, KN85, KRT89, KMW84, Kor83, KA88, Lar89, Lea88, Lee86a, Lee89, Lem83, Lev80a, LWB<sup>+</sup>80, MM88a, Mag84, Mah86, Mah87].

**computer**

[MB87, MMMM85, Mar89, Mar84a, Mar84b, MM86, MM88b, ME87, MCR<sup>+</sup>88, MFAN81, MPW87, McI83, Mea87, Med84, Mei82, Mei87a, Mie85, MP80, MP81, MDL<sup>+</sup>81, MM82a, MFM88, MTT83, MW81, MHH<sup>+</sup>81, MBM<sup>+</sup>83, Mit83, MC82, Mye89, ML89, New80, Ogo89, Ols88, Org85, Our86, Owe89a, Pan81, Par86, PTKG83, PS87a, Pet83, Pet87, Phi80, Pio88, PLN<sup>+</sup>85, PTN88, Pot85, Pri88, PLT87, Qui88, Ram86b, RG83, Reh87, Ric87, Ric89, Rig87, Ril81, Rod87, Rog84a, Rot80, RCN<sup>+</sup>81, RW87, Ryd84, SM88, Sca85, Sch85a, Sch86b, Sch89a, Scr87, Sea88, SK80, SP80, Sel88, Sew89, Sha86a, Sha88, SB82, SB85, Sha84, SBK<sup>+</sup>85, SK86, Shu80, Shu82, Sid86, Sim86, Smi85, Spr85, SC80, SL81, SCH85b, Sto87a, Sto84, Sza80a, Sza80b, Taf86, TE87, Tau86, TP84, TM89].

**computer** [TG82, TA83a, TA83b, Tra85, Tri87, Uck86, Ull80, VD83, VS89, Van85, Wag85a, Wai80, WS87, War88, Wea81, WSK84, Wer86, WJ88, Whi83, Whi86, WT81b, WT81a, WB85, WGT89, Zie84, Zie87, vH87, vK88, DG81, Has82, PM85, SJK<sup>+</sup>80]. **Computer-1-a** [Mil83b].

**computer-augmented-curriculum** [Gar86]. **Computer-based**

[Mei84, CSH86, PTKG83]. **computer-science** [Abs81b, Abs86].

**computerization** [Mei85]. **computerized** [RR83]. **computerphobia**

[Kne86]. **Computers**  
[Cun86a, FL85, Lei81b, Lei81a, Paq84b, Rot81, BPHN82, BOW80, Bay87, Eck88, GW81a, GW81b, KH82, Lea84, Ogo89, Owe89a, SKR80, Wil82].  
**Computing** [Bei84, Cun83, DCG<sup>+</sup>88, Dew80a, Dew80b, Gre89, HKW81, SBD<sup>+</sup>88, Smi88, BDL85, BAC84, Bro83a, Bro83b, BS84, BST86, DMC<sup>+</sup>83, FL84, Fra87, GF82, Kha81a, Kha81b, Mal85a, McM82, MB81, MH85a, Mit86, Oli85, Pli86, PAA85, Ric82c, Rin80, Sid86, Sig87, SH85, Smi81a, Sol80, TN88, Van88, Vil82a, Vil82b, WR80, WMH81]. **concentration** [Ree89b]. **concept** [KA88, Wie88]. **Concepts** [MTT80, Cal87, Coo86, Cze85, Dec87, Don88, HC87a, How87, Ker86, Kin83, Lee86b, Lei86, MM88a, Osb82, SK80, Wag89b]. **conceptual** [Lew88, Sco82]. **Concurrency** [LBFS88, RWW89]. **Concurrent** [Bru87, Gri88, Sil89, ZPS88, Col83, Dob87, FGU83, Lee85, MFMN89, Org85, Sch89b]. **concurrently** [Org85]. **conducting** [Pot85]. **Conference** [Fer87, LJ83, Fol82a]. **confronting** [BHM<sup>+</sup>82]. **connected** [Bur84]. **consideration** [OB87]. **considered** [Cun86b]. **Consortium** [KZ84]. **constructing** [Tho87]. **Construction**  
[Pag89, Den81, Gou81, MK85, MT86, Noo86, RV82, Sat86]. **consultants** [Rod87]. **contain** [Bag88b]. **Contemporary** [Pli86]. **content** [Mea87, Mea88b, Rog84a, RHL85]. **Contest**  
[RD85, Bel84, Dei84, Dei88, MN86, Car87a]. **contests** [CWR83, Met83]. **Continuing** [ACH<sup>+</sup>88, Lei81b, Lei81a]. **Continuity** [Dun85]. **contour** [Den87]. **contribution** [HW89]. **control**  
[Cun86b, Eck88, Fig87, Maz83, McC88, Pat87]. **conventional** [SM88]. **Conversion** [GBO87, Bab88, Bri89a]. **Conversions** [Ris86]. **Converting** [GAK86]. **cooperation** [Has82]. **cooperative**  
[HKW81, Sim86, WSC87, Zie87]. **Coordination** [Hoc87]. **coordinators** [TN88]. **copyright** [Cro89]. **core**  
[Bag89a, BCA89, DCG<sup>+</sup>88, Hin80, KSG82, WJ82]. **correctness** [Pli88]. **Cost** [BDW<sup>+</sup>80, Ric82b, Hug89]. **costs** [Her85]. **council** [Bal87]. **Counseling** [Sha88]. **Counting** [Khu86, DG87]. **countries**  
[Add80a, Add80b, DE80a, DE80b, Kha81a, Kha81b, Kha82]. **County** [Bul85]. **Course** [Col87, Hay89, McG86b, McM87, Pag89, Rog84a, AL82, Ada86, Aik81, Bag89a, Bal86, Bal81, Bar82, BDL85, BOW80, BS81, Beh84, BS87, Ben81, Bic85, BJ83, Bri89a, Bro87, Bru89, Cal87, Cam84, Cas87, Che86, CA88, CW82, Col85, Col89, Con83, Coo81, Cri80, Den85, Der81, Don88, Doo86, Doo88, Doy86, Eck87, EH84, EASP87, EGP81, Eze85, FL87, FL85, Fel86, FHW84, FLK<sup>+</sup>88, Ger82, Gil80, Gip86, Gol82, Gor82a, Gra84, GP87, Gum89, HH86, Har88b, HM81, Har89, Hay83, Hea88, Hen86, Hen83, Hen87b, Hod85, Hos83, Hyd89, Jor89, Jue82, Kan88, KN85, Kin88, KMW84, KB89, Kun87, KP87, KA88, LOP81, Lam89a, Lam89b, LL86, LS86, Lea88, Lee86a, LS82, LN86, Lei86, Lev80a, LCD<sup>+</sup>88, Mah86, Mal85a, Mas80, Maz81, Maz83]. **course** [McC89b, Med84, MB81, Mei87b, Mie85, MT86, MP80, Mof86, Mol83, Nor89, Our86, Owe89b, PRLJ88, PB80, PS81, Pet85, Pet87, Plu89, Poo88, Pop84, Pri88, Qui88, Reh87, RV82, RD84, Ris89, RHL85, Rot81, San84,

SH87, Sat84, Sat86, Sch86a, Sch86b, ST89, Seb83, SP80, Sei87, SL85, Sel88, Sew89, Sha86a, Sha82, Shu80, Shu81, Shu82, Shu83, Shu86, Shu89, SV85, Sil89, Smi81a, Sol80, SCH85b, Tea81, Tem86, Tem87, Tre87, VS85, Wai80, Wil82, Wil87a, Wit87, Yav88, bY89, Zie84, vK88]. **Courses** [Mag82, Abs86, Adi86, AH85, Ash87, BS86, Bai87b, BCLO85, BW82, Car85b, CG87, CB85, CBBO88, Den87, Den81, DM86, Dod82, Don87a, Ent83, Far88, For82b, For83, Fos89, Fra87, FM85, Fri83, Gab82, Gou81, Hoc87, Hov88, Lee89, LS88, MPW87, MDL<sup>+</sup>81, Mye86, ML87, Ols83, PS87a, PDHS83, PS87b, Pot85, RMS88, Ric82b, RW87, Shr84, Smo87, SC80, SL81, VD83, VS89, WH84, Wal81, WCC83, vH87]. **courseware** [BHH<sup>+</sup>86]. **created** [Etl85]. **Creating** [PAA85]. **credit** [BCL<sup>+</sup>85]. **Crisis** [Cha83, Cor82, Scr87]. **criteria** [CGHM88, GHM87]. **critical** [Fis84]. **Critique** [MW81]. **cross** [Blu83]. **cross-validation** [Blu83]. **CS** [FHW84, Bai87b, BBS<sup>+</sup>88, Mil83a, RMS88]. **CS/EE** [BBS<sup>+</sup>88]. **CS1** [Bro88, Kof88, LM88, WL89]. **CS2** [KSW85, KSW85, Kof88, KB89, LM89a, LM87a, LM87c, LM88, SH87]. **CSI** [Joy88]. **cube** [bY89]. **cube-4** [bY89]. **Culture** [Den88, ACZ82]. **cumulative** [Sto89]. **current** [Hov88, SEF<sup>+</sup>88]. **curricula** [BCF<sup>+</sup>88, Bag88a, DMS85, MP81, Sto84]. **Curriculum** [Gre89, Abs81a, Abs81b, AHM80, ARC<sup>+</sup>81, BS89, BCA83, BAC84, Bra88, Bro85, BU85, Chr80a, CW83a, CW83b, CCS85, Co081, CBO85, Dil84, Fos81, Fra87, GAK86, Gar86, GBC<sup>+</sup>85, KH82, KSG82, LS85, LS87, LBFS88, Mag85, MB87, Mar84a, Mei82, Mer80, Mil83a, MW81, Mol83, Owe87, PLN<sup>+</sup>85, PLT87, Rig87, SPB89, Sim86, TE87, TP84, TA83a, TA83b, Vil86, Wag89a, WGT89, WJ82, ACZ82, DG81, Fos82].

**D** [Rem83]. **dangers** [Dan89]. **Data** [Bec84, Ber83, Sca87, AL86, AL88, BK87, Blu83, Bro87, Bru89, CRP89, CB86, Co085, Doy86, EH84, Eze86, Fel80, Fel84, Fon83, GP87, HH86, HC87a, Har89, Hit87, Hug89, Ker86, Kin88, LM89a, Lei86, LM87c, Mil87, Mof86, Moh89, Mol81, Owe86, Pat87, PS81, Ram85, RR86, San83, SB88, Wee89]. **Data-structures** [Sca87]. **Database** [PDHS83, Ada86, Bab88, CG87, CR84, CR87, DAH86, Din83a, Haa88, Hod85, Hon83, Kin83, NW89, Osb82, PS87b, Pig87, Pra85, Sei87, Wil86, Wil87a, Chr82, Sha82]. **databases** [Bai87a, Ber84]. **day** [Mas80]. **DBMS** [Haa88, Sha82]. **deadlock** [Par86]. **Dealing** [BS86, RW87]. **debug** [Wil87b]. **debugger** [Von87]. **debugging** [LLH87]. **DEC** [FM84]. **decision** [Yav85]. **decisions** [EB82, MMMM85]. **decline** [Shu87]. **decomposition** [Git86]. **deeper** [Ent86]. **Defensive** [Lin82]. **define** [San83]. **Defining** [Coo87, Cro89]. **definition** [SH85]. **degree** [BU85, Hee83, Ric89, Sca85, Tra85, WJ82]. **degrees** [GSK80, Sig87]. **Delphi** [Che89]. **Demonstrating** [Dan89]. **demonstration** [Col83, Hit87, Our85]. **Denning** [Bag89b]. **department** [Bal87, Bal81, Mar87a, SJK<sup>+</sup>80]. **departmental** [Coo87]. **dependencies** [Per87]. **depth** [SL81]. **description** [Chr80a, Mat80, MT86]. **Design**

[CSH86, LW87, MN86, Wea81, AP89, Ahm82, ASNN89, Bab88, Bag89a, Bal86, CRP89, Chr82, CB86, Col84, CCS85, Dai85, Din83b, The87, Fol82b, For83, Fri87, Gab82, Gol82, Gor82a, HL82, How87, Jor89, KP87, Lam89b, LN86, Med84, PRLJ88, Poo88, Pra85, ST89, SH88, Sto87b, Wil86, Wil87a]. **Design concepts** [Tex82]. **designed** [PML86]. **designers** [GF85]. **Designing** [Bad82, McM82]. **desktop** [Jor89]. **detection** [DLS81]. **detects** [Gri81]. **determination** [BH88]. **determined** [ASNN89]. **determining** [Bur84]. **Developed** [Kha82, Kha81a, Kha81b]. **developing** [AL85, Add80a, Add80b, Ben81, DE80a, DE80b, PTN88]. **Development** [DP88, Gol82, BU83, BBS<sup>+</sup>88, BC84, Bic85, Boz86, BST86, CB85, CB87, CCS85, Coo83, Dun85, Gra87, Har82, Hir88, Hoc87, Jor87, Kan88, Kur80, Moo88, PJJ87, Sat84, TGHM83]. **developmental** [BDL85]. **diagrammatic** [AP89]. **diagrammer** [Hir88]. **diagrams** [San83, Wil87a]. **dialogue** [Ric87]. **didactic** [Sco82]. **difference** [Shu82]. **differences** [WB85]. **different** [Bal88, Mye86]. **digital** [McC88, PW87, Rei86]. **digits** [DG87]. **dilemma** [HC84]. **direct** [Del89]. **directed** [San84]. **directions** [Dal80]. **disciplinary** [Rig87]. **discipline** [BCA89, DCG<sup>+</sup>88]. **disciplined** [Ahm82]. **discovering** [Hay88]. **Discrete** [Dor89, Mar89, Mar84a, Sid86]. **Discrete-event** [Dor89]. **Discussion** [ARC<sup>+</sup>81, BPHN82, BFW82, BHM<sup>+</sup>82, BDW<sup>+</sup>80, DBM<sup>+</sup>80, DFM<sup>+</sup>82, GWD<sup>+</sup>81, GB82, HFG<sup>+</sup>80, HCF<sup>+</sup>82, Kha82, LWB<sup>+</sup>80, MDL<sup>+</sup>81, MST<sup>+</sup>81, MHH<sup>+</sup>81, NBLD81, RHA82, RCN<sup>+</sup>81, SBLL82, SKR80, WHL<sup>+</sup>80]. **disk** [How87]. **disk-based** [How87]. **disparate** [RW87]. **disparities** [Fri84]. **displays** [AL86, AL88, Eze86]. **Disposable** [Lev80b]. **dissertation** [Bel84]. **distributed** [Ree89b, Whi88]. **Distribution** [Cal87]. **Do** [LWF84, Etl85, Hig85, Mar89, MCR<sup>+</sup>88]. **doctoral** [Bel84]. **documentation** [DP88, Fol83, RD84, Ris87, Rot80]. **Does** [Shu82, Arc83]. **doing** [Cit84]. **don't** [Coo86]. **down** [CRP89, Mer81]. **DPMA** [MW81]. **driven** [Van85]. **Dual** [MMMM85]. **Duke** [BRL83]. **during** [BK87]. **dynamic** [Bri89b, FR85, ML85, WI81].

**each** [Mei87a]. **early** [Sch86a, Smo87]. **easing** [Gor82b]. **easy** [Sal86]. **Economics** [Ogb85]. **editing** [Gol89]. **editor** [FM84]. **EDP** [RR83]. **Educating** [Dan81, SG84]. **Education** [BM89, CL84, Der88, Lan83, Ohl86, RS87, Tay85, WB80, WMD81, Ahm81a, Ahm81b, ACH<sup>+</sup>88, AAF<sup>+</sup>88, Atc81, Bar86a, Bay87, Bro85, BMvD83, Car87c, Cha83, CM84, Cor82, CR83, Din81, Din82, FS88, Ful85, Gol89, GF85, HW89, Hin80, HKW81, Jac81, KRT89, Lei81b, Lei81a, LC86, Lop80, Mau80, Mit80, MS89, MHGA81, NCKMM88, Org85, Pan81, PF84, Ric89, San89, Sca85, Sch87, SKR80, Scr87, Sha84, Sim86, Sol80, Tam85, TP84, TA83a, TA83b, Tom81, UL84, WR80, WSK84, WSC87, Zie87]. **educational** [BHM<sup>+</sup>82, Cro89, Dal80, Kus84, Mal85a, RG83]. **educator** [Sch85a]. **educators** [ASNN89, HKW81, ML89]. **EE** [BBS<sup>+</sup>88]. **effect** [Cam84, MP82, Sid86, TM89]. **Effective** [VS89, BS86, HG82, RMS88, Ric82b]. **effectiveness** [Sha80, Shu82]. **Effects**



[DM86, Hin80]. **efficiency** [RR83]. **effort** [HKW81]. **Eighteen** [MM82b]. **eighties** [Sum84]. **ELAN** [Car82]. **electrical** [Wit87]. **electronics** [Hen87b]. **elementary** [Coo85, Den87, FM85, Mol81, Pan81, SK80, Shi84, Car82]. **elements** [Cas87, Sei87]. **Eleventh** [WB80]. **ELROND** [SCH85b]. **EMACS** [Gra87]. **embedded** [Wu85]. **emerging** [Har88a]. **emhanced** [Wei81]. **emphasis** [Ris89]. **emphasizing** [BST86]. **empirical** [DMW89]. **employability** [TG82]. **employed** [GK85]. **Employment** [EB82, MMMM85, Tau86]. **emulation** [Lam88]. **emulators** [OB87]. **encountered** [Wil87a]. **endurant** [Lev80b]. **Engineering** [Col87, Adi86, AH85, Bay87, BM81, BJ83, BCH<sup>+</sup>88, Cal87, Car84, Car87c, CW82, Col85, Col89, CCS85, DMW89, For82b, For81, GF85, HW89, Hen83, Heu84, Jac81, LL86, LS86, Lei86, LWB<sup>+</sup>80, Maz81, Med84, Mei87b, ML87, Nor89, Oma86, Owe89b, PB80, PF84, Ree85, Ric89, Ris89, SL85, Sho83, SV85, SV86, Tam85, UL84, VS85, WH84, Wer88, Wit87, Wu83, Yav88, Bro82]. **engineering/professional** [SL85]. **engineers** [Tab88]. **engines** [NW89]. **England** [Car87a]. **English** [Wil87a]. **enhance** [KB89]. **Enhancing** [Kha82, Ric84]. **enrollment** [Dod82]. **Entity** [CB86, Wil87a, Chr82]. **Entity-relationship** [Wil87a, Chr82]. **Entry** [Phi80, BD80, Fra87]. **Entry-level** [Phi80, Fra87]. **environment** [AG83, DO82, DG81, D'h82, Don87b, EN81, Fis87, Fos82, FM86, Fri84, Gra87, Hon83, Jac81, Osb82, PAA85, SH85, Sto87b, Yav85]. **environments** [BRM83, Ber84, Van85]. **equal** [Etl85]. **equal-but** [Etl85]. **errors** [Chr88, LLH87, Pat88]. **ES3** [Gor82b]. **essential** [Sei87]. **Ethical** [RCN<sup>+</sup>81, Coo86, Coo87]. **ethics** [AL85, Aik83a, Aik83b, Aik84, KN85, Sea88]. **Euclid** [Gri88]. **evaluate** [SH88, Sha80]. **Evaluating** [CB87, Col85, MP80, RR83, San84]. **Evaluation** [SV85, Fol82b, GHM87, Her85, MP81, MW81, Sch89a, Yav87]. **evaluations** [DMW89]. **event** [Dor89]. **events** [WI81]. **everybody** [Tom82]. **everyone** [Bar84]. **Evolution** [Vil82a, Vil82b, Bic85, Pet85]. **exam** [BCL<sup>+</sup>85]. **examination** [Car85a, Mur82, VD83]. **examinations** [Bag88b]. **Examining** [Smo89]. **example** [Git86, Hav80, KH82, LM89b, bY89]. **examples** [Bri89b, De 88, ML85, Whi88]. **exciting** [Fos89]. **exclusion** [Par86]. **execution** [IS89, Kem86]. **exemplary** [Sch87]. **exercise** [LM87a, LM88, Wee89]. **Exercises** [Lei86, Tha81]. **existing** [DMS85]. **expansion** [KA88]. **expect** [Arc83]. **expectations** [SBLL82]. **expensive** [Lem83]. **Experience** [AW88, Cro83, RZP<sup>+</sup>88, Bar86b, Cri80, DG81, Fig87, Haa88, PL88, Sch88, WHL<sup>+</sup>80]. **Experiences** [BBP<sup>+</sup>84, Fri83, Lei81b, Lei81a, WCC83]. **Experiment** [FO84, For83, LL86, LCD<sup>+</sup>88, Mav81, Uck86]. **experimental** [Rot81, SL81, UC89]. **experimentation** [Shn82]. **Experiments** [Bar83, AP89, Coe87, Shu89]. **expert** [Wit87]. **expertise** [Bro83a, Bro83b]. **explaining** [Law80]. **exposure** [DM86]. **expression** [Bru85]. **Extension** [Wir87]. **extensions** [Les89]. **Extra** [Rig87]. **Extra-disciplinary** [Rig87].

**factors** [Cor86, Fol82a]. **factory** [BHH<sup>+</sup>86]. **Faculty** [GB82, App86, EB82, Har82, MBM<sup>+</sup>83, Mit83, MH85a, Mit86, SBK<sup>+</sup>85]. **fall** [Shu87]. **family** [Les89]. **far** [Gol89]. **Fast** [Ker86]. **feasibility** [GW81a, GW81b, Pag86]. **feather** [LJ83]. **features** [Coo85, Fis87]. **February** [BM89, Der88, LJ83, Lan83, LC86, RS87, WB80, WMD81]. **feedback** [SB88]. **female** [Ogo89]. **Fewer** [Cun86b]. **Fibonacci** [Cox87]. **Fifteenth** [CL84]. **File** [MB87, Pli88, Bar83, How87, Ric81, Ric82a, UM87]. **files** [Cas87]. **Financing** [Sza80a]. **find** [Poo88]. **Finding** [HK86]. **finite** [Hea88, Jag88]. **first** [Aik81, BS87, Doy86, DLM84, EASP87, FJ87, For82b, Gum89, Hea88, KMW84, LS87, Lea88, LS82, Lev80a, Maz81, Maz83, MB81, Pag86, PRLJ88, RZP<sup>+</sup>88, Sch86a, VS85]. **five** [Bar82]. **Florida** [Bro82, LJ83, Lan83]. **flow** [CRP89]. **focus** [Mon87, Rog84b]. **for-loop** [Col88]. **Force** [KSG82, DCG<sup>+</sup>88, Den88]. **form** [BH88, Sal86]. **formal** [Bur84, TGHM83]. **formalism** [For83]. **format** [SS84]. **FORTRAN** [EGP81]. **foundation** [BL84, Beh84]. **foundations** [Ben81, Lar89]. **four** [DBM<sup>+</sup>80, MH85a, Wil85]. **Fourier** [Ker86]. **Fourteenth** [Lan83]. **fourth** [CB85, Tha84]. **FP** [Pag86]. **Fractals** [LM87a, EO88]. **framework** [Blu84, Boz86, For82a, PTN88]. **frameworks** [PL88]. **Free** [Lem83]. **freshman** [Cra87, Dea89, Har88a, Mag84, MCC89a]. **freshmen** [Bai86, Gat86]. **friendly** [FM84]. **full** [CS88]. **function** [WT81b, WT81a]. **Functional** [Cra87, Pag86]. **functions** [Fon83, HK86]. **funding** [BL84]. **future** [Atc81, Bar86a].

**game** [BTW87, bY89]. **gaps** [MS89]. **gateways** [Hug89]. **gender** [TM89]. **General** [Dil84, FL85, Mur82, WK89]. **generalized** [Pet83]. **generation** [AL88, CB85, CR87, Mye89, Pop83, Pop84, Tha84]. **generator** [RV82]. **generators** [New80]. **generic** [Dai85]. **generics** [KB89]. **geometric** [Par86]. **geometry** [De 88]. **Georgia** [Der88, Dea89]. **Getting** [Tha81]. **gifted** [DC84, Ger82, Kor83]. **Giving** [Tab88]. **GKS** [Mah89]. **GKS-like** [Mah89]. **glamour** [MCR<sup>+</sup>88]. **Go** [Hav80, Kor80]. **Go-to** [Hav80]. **Goal** [BBS<sup>+</sup>88]. **Goal-oriented** [BBS<sup>+</sup>88]. **Goals** [Pet87, Sha84]. **gone** [MCR<sup>+</sup>88]. **good** [Car82, Rot80]. **Gordian** [Kor80]. **GOTO** [Rem83]. **government** [Kha81a, Kha81b]. **grading** [Fer87, GW85, HHRT83, HG82, San88]. **graduate** [BU85, CCS85, MCC89a, MC82, Pop84, Sch89a, SB85, Vil82a, Vil82b, Yav88]. **graduates** [Arc83, Bro82, Coo86]. **grammar** [Bur84]. **Graphic** [AL86, AL88, Cañ87, Sto89]. **graphic-simulator** [Ber86]. **Graphical** [MTT80, BMvD83, Ram85, Sca87, Sca88]. **Graphics** [FFM82, Mag82, McB83, McG86b, Ohl86, Rag86, RHA82, CBO85, CBBO88, Doo86, Hay88, LM87a, LM87b, Mah86, Mah89, ME87, Mie85, Owe86, Owe89a, PML86, Sew89]. **Graphos** [Cañ87]. **grounded** [Bur84]. **Group** [Par82, CB87, DMW89, Far88, Gor82b, Paq84a, Par80a, Par80b, Pig87, RW87, SV85, VS89]. **group-oriented** [Pig87]. **guideline** [DMS85]. **Guidelines** [GSK80, MP81].

**H.** [Rem83]. **Handling** [Mag84, BCL<sup>+</sup>85]. **hands** [Lan81, Ryd84]. **hands-on** [Lan81, Ryd84]. **HARD** [Tom81]. **Hardware** [CW83a, Mah86, BDW<sup>+</sup>80, Coo81, PS87b, PW87, Tom81]. **hardwired** [Eck88]. **hash** [HK86]. **having** [Fra87]. **held** [Fol82a]. **helpful** [Cun86b]. **helping** [Wil87b]. **hero** [Gip86]. **hiding** [LM89b]. **High** [Car87a, AHM80, BM81, DC84, EASP87, FGU83, Fra87, Ger82, Gor82b, Hof83, Jon82, KRT89, MN86, TM89, Whi86]. **higher** [NCKMM88]. **Highly** [Zie87]. **historical** [Shi87, Smi81a]. **holistic** [Ols88]. **home** [Poo88]. **homework** [San88]. **honesty** [AL85]. **honor** [Hig85]. **house** [UL84]. **human** [Bad82, Ent83, Fol82a]. **human-computer** [Bad82, Ent83]. **Hypertext** [WI81]. **hypothesis** [Our85]. **hypothetical** [SM88, Smi85].

**IBM** [Abs81a, AL86, Ber86, CS88, GBO87]. **ideal** [Che89]. **Identifying** [MS89, Whi84]. **if** [BB85, Bur84]. **II** [Tea81, BM81, Coo86]. **illustrate** [Coo85]. **illustrating** [LM89b]. **impact** [Fra87, Gol89, SB88, Tha84]. **implement** [KP87]. **Implementation** [Gar86, LLH87, Bab88, Bag89a, Bro88, For84, HC87b, LM87b, MN86, SC80]. **implementation-independent** [For84]. **implementations** [Hit87]. **Implementing** [BT86, Bul85, EP85, Mah89, Ric87, Den85, Ger85, MFM88]. **implications** [Bar86a]. **importance** [ASNN89, Mer80, Mil83a]. **improve** [FL84, Has82, New80]. **improved** [BST86, Hum89]. **in-house** [UL84]. **in-service** [FM85]. **incentive** [Maz81]. **incoming** [Har88a, Mag84]. **incorporate** [CB85]. **Increasing** [Coo85, Coo86, TG82, BCF<sup>+</sup>88, Bag88a]. **independent** [BS86, For84, LN86, Mah86, Shu81]. **individual** [Col85]. **industrial** [Bal87, Kus84]. **industry** [Arc83, ASNN89, Che84, HFG<sup>+</sup>80, LCD<sup>+</sup>88, NBLD81]. **industry/academic** [LCD<sup>+</sup>88]. **inexpensive** [Fos89, PTKG83]. **Inference** [Per87, NW89]. **Inferring** [Rog84b]. **influence** [MPW87, Ram86a]. **informal** [Sha80]. **Information** [Ahm82, Sum84, AL82, Bal81, Blu84, CGHM88, Cas83, Din82, The87, GSK80, GHM87, LS85, LS86, LS87, Lis80, LM89b, LL80, MU80, MW81, PS81, RG83, RR83, SS84, Uck86, Wag89a, Wil85, Wil86, Yav88, Bar82]. **INGRES** [Haa88]. **innovation** [Paq84b]. **innovative** [GK85]. **input** [NI83]. **Inservice** [KRT89]. **Insights** [MHGA81, WCC83]. **Installation** [Hon83]. **instantiation** [Bec84]. **institute** [WS87, CB80]. **institutions** [Dun85, Kus84]. **instruction** [BRM83, BBP<sup>+</sup>84, CSH86, Dei82, Hor83, MP82, OB87, SS84, SCH85b, Sto87a]. **Instructional** [FFM82, BS84, CR84, CR87, DO82, Den87, FM86, PB84, RS80, Ull80]. **instructive** [Pan81]. **instrument** [AL85, MS80]. **instrumentation** [MR87]. **integrates** [Yav88]. **Integrating** [Ber84, Jor89, Wer88, WGT89]. **Integration** [BC84, Gab82, KA88, Lys85, Par80a, Par80b]. **integrity** [Coo85]. **intelligence** [Den85, D'h83, Doo88, LCD<sup>+</sup>88, Our85, SS89, Whi88, bY89]. **intelligent**

[BH88]. **intensive** [Nor89, Qui88, SS84]. **interaction** [Ent83, Paq84b]. **interactions** [VS89]. **Interactive** [Hay88, Rei86, Ber86, CS88, Chr80b, Doo86, Fis87, Hit87, NI83, WMH81, Chr80c]. **interdisciplinary** [SL85, Wal81]. **interests** [Dal80]. **interface** [Bad82]. **interfaces** [Fol82b]. **interfacing** [Hen87b]. **intermediate** [Wer88]. **international** [Bel84, Dei84]. **internship** [MFM88, Zie87]. **interpolation** [Arc87]. **Interpreter** [McM87, Ber86, Bru85, Mar87b]. **interpreter/graphic** [Ber86]. **interpreter/graphic-simulator** [Ber86]. **intervals** [Wee89]. **interview** [SV86]. **introduce** [MM82a, Mil83b]. **introduces** [LM87c]. **Introducing** [BEW88, Hea88, Kan88, MTT80, Maz83, PLT87, DC84, Lei86, LM87a, MH85b, SP89]. **Introduction** [Che86, Ric82c, BST86, DBM<sup>+</sup>85, For81, Mea87, Mea88b, RWW89, Sch86a, Whi88]. **Introductory** [BW82, FM85, Lee85, McG86b, War88, AL82, AG83, Bai87b, BU83, BS81, Blu83, BMW87, Car85a, Cze85, Den81, Den85, Der81, DM86, Don88, Doo86, Ent83, Eze85, For83, Fri83, GF82, Gol89, HM81, Hen86, Hen87a, Hos83, Kur80, KA88, Maz83, MPW87, ML85, McM82, Ols83, Owe89a, PS87b, Plu89, RMS88, Ric82b, Ril81, Sch86b, ST89, Sha86a, Shu82, SL81, SCH85b, VD83, Van85, Wai80, Wal81, bY89]. **invariants** [Col88]. **Investigating** [Kur80]. **investigation** [UC89, WT81b, WT81a]. **Invitation** [D'h83]. **Invitational** [Car87a]. **IPEX1** [ML85]. **IPRL** [Chr80b, Chr80c]. **IS1** [Wag89a]. **issue** [RJS89, Ris86]. **issues** [Bag89a, BHM<sup>+</sup>82, RCN<sup>+</sup>81, SEF<sup>+</sup>88]. **Issuing** [Mei87a]. **Item** [Blu83].

**Jackson** [Mol81, San83]. **Jacksonville** [HHRT83]. **Japan** [Fol86]. **jargon** [Van88]. **job** [BD80]. **Johnson** [Bul85]. **joint** [Bul85]. **Josef** [Tom82].

**kamp** [BRL83]. **Kansas** [WB80, Bul85]. **Karnaugh** [Tho87]. **Kentucky** [BM89]. **kernel** [KP87]. **key** [Add80a, Add80b]. **Keys** [Ram86b]. **Kicking** [Eck87]. **kit** [Gra87]. **knot** [Kor80]. **know** [Etl85]. **knowledge** [Kan88, Kha82]. **knowledge-based** [Kan88]. **KWIC** [Ker83, Ker84, Ker85].

**lab** [Hof83, McC89b, McG86a, New80, Ols83, PM85, PW87, Van85].

**Laboratories** [GP87]. **Laboratory**

[Chr80c, AHL88, BBS<sup>+</sup>88, BOW80, BS84, Chr80b, FO84, FL87, Hay83, Lan81, Lee80, Lem87, Nev88, Sza80a, Wea81, Wei89, Wu85]. **lack** [Sch85a].

**LameDuck** [Gib85]. **Language** [Fos81, McM87, Ogb85, Ber86, BB85, BBP<sup>+</sup>84, Coo82, Cro83, Dec85, Dec87, DM86, Don88, Eck87, EP85, FGU83, Gou81, Heu84, Lam89a, Lam89b, LR86, LN86, Lem87, LS88, Luk89, Mal85b, MP80, MM82a, Mil83b, Mol84, Mye86, Pag86, RZP<sup>+</sup>88, Ree85, SM88, Seb83, SL83, SB88, Ten80, Tha82, Tre87, Van88, Wei89, Car82]. **language-only** [Lam89a]. **languages** [Bar86a, Cas83, CR85, Dob87, Gum89, Lee86a, Les89, Mal85a, Mav81, Mil87, Sch87, SS86, Tha84]. **large** [BJ83, CG87, Che86, Den81, Dod82, RMS88, Wer89]. **large-enrollment** [Dod82]. **Latin** [Vil82a, Vil82b]. **law** [Cro89, Rot81]. **Laying** [Lar89].

**Leadership** [Ten87]. **leading** [PLN<sup>+</sup>85]. **learn** [Bai86, Bar84, Coo86, Har89, Sca87]. **learner** [Cur82, Mar87a, SB88]. **learners** [Kne86]. **Learning** [Wie88, Cor86, Gia87, KN81, Par80a, Par80b, Par82, RB84, Sha86b, Ull80]. **lecture** [BK87, Boz89]. **lecturing** [Pio88]. **legal** [Rig87, RCN<sup>+</sup>81]. **less** [Cit84, Kha81a, Kha81b, Kha82]. **lessons** [Pet87]. **Let** [Tha87]. **letter** [Tra85]. **level** [BM81, BEW88, CW83a, CW83b, Cor82, FGU83, Fra87, KA88, Phi80, Ric89, Rog84a, SBLL82, Sil89, SB88, Tem86, Yav88]. **liberal** [BCA89, Bei84, Cun83, Cun86a, D'h82, Dil84, Doo88, Ell80, GBC<sup>+</sup>85, Hag87, Our86, Rot80, Scr87, SH85, Smi88, WJ88]. **library** [Bri89b, ML85]. **light** [Cro89]. **like** [Mah89, Ree85]. **limit** [Ker88]. **Line** [FFM82, Coe87]. **linear** [Fon83]. **linked** [Ram85]. **LISP** [Lam89a, Lou89, McM87, Ogb85]. **list** [Bru85, Ker83, Ker84, Ker85]. **listening** [Cit84]. **literacy** [BT86, Bar84, CA88, Doy86, DBF87, Fis84, Mar87a, MM86, MM88b, Mye89, Pet87, Pri88, Ryd84, Sel88, SH85, Spr85, TG82, WT81b, WT81a, Woo82]. **literature** [Hov88]. **Little** [Gou81]. **living** [Mei87a]. **load** [San89]. **local** [MFAN81]. **Logic** [CR83, BTW87, CF82, Gra84, LLH87]. **Logo** [Lou89, DC84, Den85, Sha86a]. **look** [Ent86, FL85, MR87, Ram86b]. **looking** [Har88a]. **loop** [Col88]. **Louis** [RS87, WMD81]. **Louisiana** [Tay85]. **Louisville** [BM89]. **Low** [Hug89]. **Low-cost** [Hug89].

**MacApp** [PL88]. **Machine** [Ben85, Dec87, Don87b, Eck87, FHW84, Lan81, SM88, Shu81]. **Machines** [Pio89, Cro88, Jag88, Wol87]. **Macintosh** [BST86]. **MACRO** [LR86]. **made** [Sal86]. **magnet** [Mon87]. **mainframe** [GBO87]. **maintenance** [Col89, Her85, HC84]. **major** [Hag87, MU80, Sha88, WJ88]. **majors** [Bai87a, BDL85, Cam84, Cas83, Che86, Cra87, Doy86, EH84, Gat86, GWD<sup>+</sup>81, Gil80, Hen87b, Heu84, Lee86a, Mar89, PS81, Sid86, Wai80]. **majors-where** [Mar89]. **make** [Kem86, Shu82]. **Making** [Dec87, Yav85]. **male** [Ogo89]. **Management** [Sha82, Ada86, CG87, CR84, CR87, DE80a, DE80b, DAH86, Din83a, EH84, GG81, Hon83, Mei84, Pig87, Sto87b, Sum84, UM87]. **Managing** [Paq84a, San84]. **Maniac** [FHW84]. **many** [CC82, GWD<sup>+</sup>81]. **maps** [Tho87]. **March** [Tay85]. **marking** [Ben85]. **Master** [Hee83, Tra85, WJ82]. **Masters** [Sca85]. **mastery** [Car85a, EGP81]. **mastery-based** [EGP81]. **material** [AP89, Mei82]. **materials** [Rig87]. **mathematical** [Wal88]. **Mathematics** [Gre89, Ogb85, Sig87, App86, ARC<sup>+</sup>81, BS89, Bra88, CR83, DM86, Hag87, Hin80, Mar89, Sch85a, Sha86b, Shi84, Sid86, WSK84]. **may** [Sca87]. **maycallit** [MHGA81]. **measure** [HH83, Hig85, UC89]. **Measuring** [BK80]. **medical** [Blu84]. **medium** [Arc85]. **medium-sized** [Arc85]. **meets** [CC82]. **Mellon** [Car85a]. **member** [DMW89]. **members** [Col85]. **memory** [Law80]. **menu** [Van85]. **menu-driven** [Van85]. **menus** [SB88]. **message** [Gib85]. **metaphoric** [Van88]. **metaphors** [Wag89b]. **method** [Bur84, HG82, MP80, MH85b, Smi81b]. **methodology**

[BS86, BC84, Gab82, Med84, PW82, Pot85, Wu83]. **Methods**  
 [BKS83, McB83, Jon87, Ols88, Ric82b, Sca87, Sca88, TGHM83, Ull80, Yav88].  
**MicMac** [Don87a]. **Micro** [BPHN82, McB83, Del89, Owe89a].  
**micro-computers** [Owe89a]. **microcoding** [Moo83]. **microcomputer**  
 [CA88, HLG86, Lee86b, Mah89, MS80, Owe86, PML86, TG82, Wea81, Wu85].  
**microcomputer-based** [MS80]. **Microcomputers**  
 [Lop80, Sza82, TB81, CM84, Din83a, GBO87, Hor83, LW87, Owe87, Whi83].  
**Microprocessor** [Mat88, Cuh83, FL87, Gra87]. **microprogram** [Don87a].  
**microprogrammable** [DU89]. **Microprogrammed** [Eck88].  
**Microprogramming** [vK88, Car87b, Har88b, PB84, SM88]. **micros**  
 [Mau80]. **mind** [Luk89, Rin80]. **minicomputer** [GW81b]. **minicomputers**  
 [Lev80a]. **miniframes** [Van85]. **miniLISP** [Mar87b]. **minimal** [HK86].  
**minimum** [GSK80]. **Minix** [Hay89]. **minor** [Hin80]. **Miranda** [Pio89]. **MIS**  
 [LN86, UHC87, Yav87]. **misconceptions** [Chr88]. **misrepresentations**  
 [Chr88]. **mission** [Wil85]. **Mississippi** [PM85]. **Missouri**  
 [RS87, WB80, WMD81]. **ML** [HR89]. **model**  
 [BTW87, BU85, Den87, Eze86, GM83, GF82, Hof83, KN81, McC88, MW81,  
 Nor89, Pan81, San88, Van86, Wag85a, Whi88, vVBK89]. **Modeling**  
 [Naj88, Cri80, HC87b]. **modelling** [Kin88, Lee86b]. **models**  
 [CB86, Fis84, RR83]. **moderate** [Spr85]. **Modern**  
 [Hen87a, ACZ82, Dec85, Mil83b, Mof86, Noo86]. **Modifying** [MCC89a].  
**modual** [Git86]. **Modula**  
 [Bru86, Bru87, Fel86, GAK86, Kof88, Lee85, Moh89, Sch88, Sch89b, MFMN89].  
**Modula-2**  
 [Bru86, Bru87, Fel86, GAK86, Kof88, Lee85, Moh89, MFMN89, Sch88, Sch89b].  
**Modular** [Mol84, Der81, Sto87a]. **modularity** [LM89b]. **modules** [KB89].  
**monitor** [SC80]. **Monitoring** [Col85, Pig87]. **Monte** [Arc87]. **motivate**  
 [Fla88, Tha87]. **MPX** [LkG89]. **MPX-PC** [LkG89]. **multi** [Lem87].  
**multi-purpose** [Lem87]. **multilevel** [NW89, Tam85]. **Multiple**  
 [Mau80, Fel86, WK89]. **multiuser** [Mea88a]. **multivalued** [Per87]. **Music**  
 [Fos89, Lys86]. **mutual** [Par86]. **MVS** [McC80]. **My** [Bai86].

**naming** [Smo87]. **National** [BL84, DBM<sup>+</sup>85]. **Natural** [Fos81]. **nature**  
 [Our86]. **need** [Bal85]. **needed** [Abs86, AH85]. **needs** [CC82]. **net**  
 [Blu83, Ris86]. **nets** [SP89]. **network** [MFAN81]. **Networking**  
 [Cas87, Ree89b, Van85]. **Networks**  
 [Bri85, BMvD83, GP87, Hug89, Qui88, SP89, SS89]. **Neural** [SP89, SS89].  
**Never** [Luk89]. **Newell** [Our85]. **nodes** [Khu86]. **Non**  
 [SBK<sup>+</sup>85, Bai87a, Che86, Lem81, Mei82, Sch86a, TB81, Wai80].  
**non-business** [Lem81]. **non-computer** [Bai87a, Che86]. **non-majors**  
 [Wai80]. **non-professionals** [TB81]. **non-technical** [Mei82].  
**Non-traditional** [SBK<sup>+</sup>85]. **non-trivial** [Sch86a]. **nonprocedural** [CR85].  
**normal** [BH88, Sal86]. **North** [Dei82]. **notation** [Wei81]. **Note**  
 [Ric82a, Kor80]. **novel** [Gan89, Hay88]. **Novice** [Chr88, Wil87b]. **NSF**

[EB82, FS88, MR87]. **numbers** [Dan89]. **Numerical** [McB83, Tem87].

**object** [PLT87]. **object-oriented** [PLT87]. **objective** [MM82b]. **Objects** [MTT80]. **observations** [EASP87]. **Off** [Oli85, Eck87]. **offering** [GSK80]. **office** [Jue82]. **offs** [BDW<sup>+</sup>80]. **Ohio** [KZ84, LC86]. **OK** [BB85]. **old** [Ram86b]. **older** [Mar87a]. **OMEGA** [DAH86]. **On-campus** [WSC87]. **One** [Col87, BS81, Sei87]. **One-Semester** [Col87]. **one-year** [BS81]. **ongoing** [GF85]. **only** [GW81a, Lam89a]. **oomph** [Tha81]. **op** [MHH<sup>+</sup>81]. **Open** [PM85, Tra85]. **Operating** [Hay89, Wad80, Wol87, Bru86, Cañ87, Don87b, FGU83, Gri88, Hay83, Kun87, KP87, LOP81, Lan81, LkG89, Lys86, Mea88a, PW82, SDE<sup>+</sup>84, Sha86c, Shu83, Sil89, SC80, Wil82, YL89, Shu87]. **operation** [Fel86]. **operation-systems** [Fel86]. **Operations** [Wee89, Mar84a]. **option** [Rod87]. **oral** [Cot87, Mei87b]. **Organization** [Cas83, Dec85, Don87a, Eck87, MM82a, Mil83b, Smi85, Wag85a, vK88]. **organizer** [MM88a]. **oriented** [BBS<sup>+</sup>88, Bic85, CA88, Fis87, Gil80, Hen83, PB80, Pet85, Pig87, PAA85, PLT87, Sat84, Tea81, WH84]. **Orlando** [LJ83, Lan83]. **Orleans** [Tay85]. **orphan** [Poo88]. **outline** [Con83, MT86]. **overview** [Dal80, Mil87].

**PA** [CL84]. **paced** [Aik81, EGP81]. **package** [LM87b, Mah89]. **Packages** [FFM82, Rag86, BF88, Fel84]. **paged** [SDE<sup>+</sup>84]. **pairs** [Law80]. **Panel** [ARC<sup>+</sup>81, BKS83, BPHN82, BCA83, BFW82, BHM<sup>+</sup>82, BDW<sup>+</sup>80, DBM<sup>+</sup>80, DFM<sup>+</sup>82, DMC<sup>+</sup>83, GRW83, GWD<sup>+</sup>81, GB82, HFG<sup>+</sup>80, HCF<sup>+</sup>82, Kha82, LWB<sup>+</sup>80, MDL<sup>+</sup>81, MST<sup>+</sup>81, MHH<sup>+</sup>81, MBM<sup>+</sup>83, NBLD81, PDHS83, RHA82, RCN<sup>+</sup>81, SBLL82, SKR80, TGHM83, WHL<sup>+</sup>80, BCLO85, BCL<sup>+</sup>85, CBO85, DBM<sup>+</sup>85, DMS85, GBC<sup>+</sup>85, KSW85, MMMM85, PAA85, PLN<sup>+</sup>85, RHL85, SBK<sup>+</sup>85, WBJ<sup>+</sup>85]. **Paperless** [GW85]. **Papers** [LC86, CL84, Lan83, Tay85, WB80, WMD81]. **paradigm** [Luk89, WK89, Zah88]. **paradigms** [De 88, WK89]. **paragraphs** [Ric84]. **parallel** [BEW88, Hyd89, Nev88, Whi88]. **parallelism** [BS82]. **parser** [Ree85, RV82]. **Parsing** [Lam89b]. **Part** [Ogb85, Shu86]. **Partial** [Pag89]. **Participatory** [Jon87]. **parting** [Gib85]. **partnership** [LCD<sup>+</sup>88]. **PASCAL** [JBT83, Mer80, AR81, Aus87, BST86, Cor83, Fon83, FM84, GAK86, GBO87, Gri81, Lam88, LLH87, MPW87, MM82b, Pat87, RR86, Ris87]. **past** [Atc81]. **Pattern** [Chr80c, Chr80b]. **PC** [AL86, GBO87, Hum89, Lam89a, LkG89, McG86a]. **PC-Xinu** [Hum89]. **PDP** [GBO87]. **PDP-11** [GBO87]. **PDP-11/40** [GBO87]. **pedagogical** [GM83]. **pegs** [Lew88]. **perceived** [DM86]. **perception** [MCC89a]. **perceptions** [Mar84b]. **perfect** [HK86]. **Performance** [Shu89, Cam84, DM86, Jor87, Kur80, MPW87, Shu86, Sid86, Wer86]. **performances** [Mar84b]. **permuted** [Ker83, Ker84, Ker85]. **Personal** [BMvD83, KH82, Rin80, SKR80, Wag85b, GW81a, GW81b, Mei87a, Paq84b, Sol80, Tri87, WR80]. **personality** [Cor86]. **Perspective** [BBP<sup>+</sup>84, Cun86a, Mit86, Shi87, Sig87]. **PH.D** [Tau86]. **phased** [Zah88].

**phenomena** [Dec87]. **Philadelphia** [CL84]. **physical** [Our85]. **pictorial** [Col83]. **pioneer** [Lis80, LL80]. **PL** [DC84, HLG86]. **PL/1** [DC84]. **PL/I** [HLG86]. **placement** [CS84, GRW83, WS87, Zie84, BCL<sup>+</sup>85].  
**placement-plus** [WS87]. **Plagiarism** [MDL<sup>+</sup>81, DLS81, Gri81, HCF<sup>+</sup>82, HG82, SEF<sup>+</sup>88]. **plan** [Bec84]. **Planning** [MFM88, UL84, Car87a, Con83, Reh87]. **plans** [SW80]. **plotting** [McI83].  
**plus** [WS87]. **point** [Smi81a]. **Policy** [SJK<sup>+</sup>80, Cro89]. **Poly** [MW81]. **Poly/DPMA** [MW81]. **popular** [San88]. **populations** [WB85]. **Position** [Ohl86, Phi80]. **positive** [Tab88]. **potential** [BBP<sup>+</sup>84]. **Potsdam** [Ten80].  
**Practical** [CF82, Pag89, Col89, For81, Wu83]. **practice** [BMvD83, WGT89]. **practices** [San88]. **practicing** [Fel80]. **practicum** [How88]. **practicums** [Oma86]. **pragmatic** [Chr80a, Fri87]. **Pre** [Fol86, BRM83, Kor83, PTN88, RB84, TN88]. **Pre-college** [Fol86, BRM83, Kor83, PTN88, RB84, TN88]. **precollege** [Cor82]. **predict** [Blu83]. **Predicting** [Hos83, LS82, Wer86, Cor86, GF82]. **predictor** [BU83].  
**Predictors** [Aus87, Whi84]. **prefer** [Sca87]. **preliminary** [Cam84, DCG<sup>+</sup>88, FHW84]. **prelude** [Lou89]. **preparation** [DM86].  
**preparatory** [SP80]. **Preparing** [Wer89, SBK<sup>+</sup>85]. **preprocessor** [AL88, Ger85]. **present** [Atc81, Cro88]. **presentation** [FG83, Rig87, WI81].  
**presented** [Smi81a]. **presenting** [Mei82]. **press** [LWF84]. **Preventing** [HCF<sup>+</sup>82, HG82]. **primary** [BBP<sup>+</sup>84, EP85]. **primer** [ML89]. **Primos** [UM87]. **principles** [Cze85, FGU83, Fos89, Mar84b, Moo83, Yav88]. **Printer** [FFM82]. **printers** [McG86a]. **prior** [DM86]. **problem** [Bro83a, Bro83b, Cam84, Coo83, DG87, Dor89, HR89, HC87b, LD86, Lys85, Ram86b, Ric81, Ric82a, Ril81]. **problem-solving** [HR89]. **Problems** [Dei88, PS87a, SW80, Uck86, Wil86, Bag88b, BBP<sup>+</sup>84, Dun89, Hay88, RD85, Ull80, Wil87a]. **procedural** [CR85, LM87c]. **procedure** [Ent84, Ent86, FR85, UC89, vVBK89]. **Procedures** [Ten85, Car87a, Fon83, Sch89b]. **proceed** [Mar89]. **Proceedings** [BM89, Der88, RS87]. **process** [BPHN82, Boz86, Col84, Gan89, McC88].  
**processes** [Bag89b, Col83, MTT83, NI83, WBJ<sup>+</sup>85]. **processing** [Ber83, Blu83, BEW88, Doy86, Gou81, HH86, Hyd89, Lem87, MB87, Mol81, Nev88, Pli88, Whi88, Fos81]. **processor** [GM83, Law80].  
**processor-memory** [Law80]. **processors** [Org85]. **procurement** [BPHN82]. **producing** [Bro83a, Bro83b]. **product** [CG87]. **production** [Tau86].  
**Productivity** [SBLL82, New80]. **Professional** [SN88, Den88, Mil89, SL85]. **professionalism** [Ris86]. **professionals** [Abs81b, GK85, TB81]. **Profile** [ML87, MM86, MM88b]. **Program** [CR85, FH88, Fol83, GF85, Hir84, SEF<sup>+</sup>88, ZPS88, AP89, BS81, BS89, Ben81, BB85, BK80, Bul85, BU85, Che89, Col84, DBM<sup>+</sup>85, Dei85, Doo88, Ent84, Eze86, FR85, GRW83, GG81, GW81a, GW81b, GK85, GSK80, Gum89, HH83, HHRT83, Har82, KDP83, Kor80, Lam88, LN86, Lis80, LL80, Mah87, MR87, Mil83a, MFM88, Mon87, New80, PJJ87, Ram86a, Ric84, Ric89, Rot80, SB82, SB85, Sto87a, TGHM83, UC89, Van86, Vil82a, Vil82b, Whi83, Zie87].



**programmer** [Fel80, Phi80, Ten87]. **programmers** [SG84, Wil87b].

**Programming**

[BRM83, Car87a, CWR83, Cze85, Gan89, MTT80, McM87, Ogb85, PM85, Sha86b, Tea81, ZPS88, Adi86, Aus87, Bag88b, Bai87a, BU83, BOW80, Bel84, BS87, Ben85, Ber84, BB85, Bri89a, Bri89b, Bro87, Bru87, BTW87, Cam84, Car82, Cas83, CS88, Chr88, Coo80, Coo82, Coo85, Cor86, Cra87, Dec85, Dec87, Dei84, Dei88, DC84, DLM84, Eck87, Ell80, EN81, EP85, FO84, FJ87, Fig87, Fis87, Fla88, FGU83, Fos89, FM86, Gab82, Gia87, Gum89, HM81, Hay83, Hay88, Hir84, Hos83, HCF<sup>+</sup>82, HG82, Jor87, Kur80, Lam89b, Lee86a, LS82, Lee80, Lee85, LN86, Lev80b, LM87a, LM87c, Lor81, MM88a, Mah86, Mal85a, Mar84b, Mas80, Mat80, Mav81, ME87, ML85, Mea88b, Met83, MP80, MM82a, MP82, Mil83b, Mil87, Mit89, Mol84, MFMN89].

**programming** [MN86, OB87, Ols83, Pag86, Paq84a, Plu89, Pra88, PLT87, RZP<sup>+</sup>88, Ric82b, Rot80, RD85, SN88, Sch86a, SBLL82, ST89, SP80, Sha80, SL83, Sil89, Smi81b, Ste85, SCH85b, Tha81, Tha82, Tha84, Tom82, TR85, Tre87, Ull80, VD83, Van85, Wag89b, Wal81, WK89, WBJ<sup>+</sup>85, Wer88, Wer89, Whi84, Wie88, Zah88]. **programming-in-the-large** [Wer89]. **programs**

[BAC84, CGHM88, DBM<sup>+</sup>80, DP88, Ent86, Etl85, Fer87, GHM87, Gri81, IS89, Kem86, LLH87, MP80, MH85a, Ols88, Pet83, PLN<sup>+</sup>85, PTN88, Pop87, RG83, Ree89a, RS80, Rog84b, SH87, Sch89a, SW80, Uck86, Wil85, Wil87b].

**Progress** [BS84, KDP83, Ahm81a, Ahm81b]. **Progressive** [Lee89]. **Project** [McM87, And87, Bal81, Bic85, BCH<sup>+</sup>88, Car85b, CW82, Den85, Dob87, DMW89, The87, Gil80, Gri88, Har88b, Hen83, Joy88, Kun87, KP87, LOP81, LkG89, Lea88, Lee89, LM87c, Mea88a, MT86, Nor89, PJJ87, PB80, Pet85, Pig87, PW87, Ree85, RV82, RW87, San84, Sat84, Sat86, SDE<sup>+</sup>84, Sha86c, Shu83, Tea81, Tre87, WH84, WCC83, Wu85]. **project-based**

[Car85b, Sat86]. **project-intensive** [Nor89]. **project-oriented**

[PB80, Pet85, Sat84, Tea81]. **project-unified** [CW82]. **projector** [FM86].

**projects** [Bal88, CB87, Far88, Fel86, Joe87, Jor87, Kan88, Mei87b, PDHS83, PW87, SH88, Shn82, SV85, VS89, Wad80, Wol87]. **Prolog**

[Cro88, EO88, Koc87, Lam88, Naj88]. **promotes** [Car82]. **Proofs** [Gre89].

**Proportional** [Met83]. **proposal** [FJ87, HH83, Sca85, Uck86, WK89].

**proposals** [PS87a]. **Proposed** [CGHM88, GHM87, PLN<sup>+</sup>85, Abs81b, FG83, Pop84, Sch86b, TP84, TA83a, TA83b]. **prospective** [OB87]. **prospects**

[BBP<sup>+</sup>84]. **prospectus** [Wag85b]. **Providing** [HC87a]. **PS** [FR85]. **Pseudo** [Dan89, Wei81]. **pseudo-code** [Wei81]. **Pseudo-random** [Dan89].

**pseudocode** [WK89]. **PSI** [Ric82c]. **Psychological** [WB85]. **psychology**

[MC82, Shn82]. **publishers** [MST<sup>+</sup>81]. **publishing** [Jor89]. **purpose**

[FL85, Lem87]. **puzzle** [Lew88].

**quality** [SH87, San89, Van86]. **quantitative** [Her85, Sch89a].

**quantitatively** [SH88]. **Query** [CR84, CR87]. **question** [Bar84]. **queues**

[Ger85]. **queuing** [RR83].

**racing** [Fel86]. **railroad** [McC88]. **random** [Dan89]. **rating** [Ols88].  
**Rationale** [BMvD83, Bro88, Chr80a]. **reaction** [Rem83]. **readability**  
 [Ram86a]. **reader** [BD80]. **reading** [Dei85, Ent84, KDP83]. **readings**  
 [Hod85]. **Real** [Ram85, Fig87, Haa88, KP87, Mal85b, Wu85]. **Real-time**  
 [Ram85, KP87, Wu85]. **Realism** [Arn81]. **Realistic**  
 [Joe87, Arc85, BJ83, PDHS83, SG84, Yav87]. **really** [Eck88, Rem83].  
**reasoning** [BU83, Kur80]. **Recognition** [Chr80c, Chr80b].  
**Recommendations** [Car87c, KMW84, BCA83]. **record** [Wir87].  
**Recruiting** [GB82, MCR+88]. **recursion** [Bai86, CJ87, ES85, EO88, For82a,  
 For84, HR89, Kru82, KJ85, LM87a, LM88, Wie88]. **recursive** [Cox87, LW86].  
**redesign** [Sch86b]. **Reflections** [Aik83a, Aik83b, Aik84, Zah87]. **regional**  
 [Met83]. **regular** [Boz89]. **regulations** [Coo87]. **relational** [Os82, Pra85].  
**relationship** [CB86, Kur80, Wil87a, Chr82]. **relationships** [Law80].  
**relatively** [Sca88]. **reliability** [Ols88]. **Remote** [WHL+80, BD80].  
**Removing** [Ris89]. **replications** [Sca88]. **Report**  
 [FS88, KSW85, Bag89b, BAC84, BS84, DCG+88, KDP83, MH85a].  
**representation** [Ram85]. **required** [Doy86]. **Requirement** [Yav88].  
**Requirements** [Wu85, Bro88, Hin80, Wag85b]. **Requiring** [Bro88].  
**Research** [Dal80, Ahm81a, Ahm81b, Mar84a, RJS89]. **resource**  
 [GW81a, Wag85a]. **resources** [SBD+88]. **Response** [Nem85, Mar87a].  
**responsibility** [Tab88]. **results**  
 [Bal88, DMW89, Fri83, Gol89, Lou89, Mur82, ML87, Sha80, SL81]. **retention**  
 [GB82]. **Retraining** [EASP87, MBM+83, Mit83, Mit86, Sca85, SB85, TN88,  
 App86, Bal85, GB82, KZ84, MH85a, PTN88, Sch85a]. **return** [LWF84].  
**review** [Fis84]. **Reviews** [Col87]. **revising** [Mah87]. **revision** [LS87].  
**revisited** [SEF+88]. **revitalization** [Mat88]. **right** [Tha82]. **rings**  
 [RWW89, Rud88, ES85]. **robot** [Fig87]. **robotics** [Gip86]. **Robots**  
 [AHL88, Gip86]. **robust** [EH84]. **Role**  
 [Ohl86, BCF+88, Bag88a, Bra88, Mar84a, NCKMM88, RR83, WSK84].  
**rotation** [Mil89]. **routines** [PML86]. **RSTS** [Paq84a]. **RSTS/E** [Paq84a].  
**rule** [Sch87]. **rule-based** [Sch87]. **rules** [Per87].

**S** [Ber86]. **S/370** [Ber86]. **sales** [Maz81]. **sanctions** [Coo87]. **satisfying**  
 [HFG+80]. **scale** [BJ83, HHRT83]. **Scheduling** [Sch89b, HC87b]. **schema**  
 [Sco82]. **schemas** [MH85b]. **Schemata** [SL83]. **scheme** [MP81, Lam89a].  
**scholastic** [Bel84, Dei84, RD85]. **School** [Car87a, AHM80, BM81, Bro83a,  
 Bro83b, DC84, EASP87, Fra87, Fri84, Ger82, Gor82b, Hee83, Hof83, HKW81,  
 Jon82, KRT89, Mon87, MN86, Rog84a, Shi84, TP84, TM89, Whi86]. **schools**  
 [RHL85]. **Science** [Ahm81a, Ahm81b, BM89, CL84, CB80, CC82, Der88,  
 LJ83, Lan83, Ogb85, Ohl86, RS87, SJK+80, Tay85, WB80, WMD81, Abs81a,  
 Abs81b, Abs86, AHM80, AAF+88, Aik81, App86, Arc83, ARC+81, AG83,  
 Bag88b, Bag89b, BC80, Bai87a, Bal85, Bal86, Bal87, Bal81, BL84, BHH+86,  
 BCA89, BS81, Beh84, BS89, BCA83, Ben81, Ber83, Blu84, Bra88, BCL+85,  
 Bro85, BW82, Cam84, Car85a, Che89, Che86, CW83a, CW83b, CF82, Coe87,

CS84, Cor82, Cot87, Cra87, Cri80, CR83, Cun83, CBO85, CBBO88, Cze85, Dal80, DO82, DFM<sup>+</sup>82, DBM<sup>+</sup>85, DMS85, Dei82, Den87, DP88, DCG<sup>+</sup>88, Der81, DM86, D'h82, EB82, ECD<sup>+</sup>84, EASP87, FW87, FS88, For82b, Fos89, Fra87, FM85, Fri83, FLK<sup>+</sup>88, Ful85, Gab82, GRW83, Gat86, GWD<sup>+</sup>81, GBC<sup>+</sup>85, Gil80, GW81a, GW81b]. **science** [Gol89, GK85, GF85, HW89, Hag87, Hen86, Hen87a, Hen87b, Heu84, Hin80, Hor83, How88, Jon87, KZ84, KRT89, KMW84, Kor83, KSG82, KA88, Lar89, Lea88, Lee86a, LWB<sup>+</sup>80, LC86, Mag84, Mag85, Mah87, MB87, MMMM85, Mar89, Mar84a, MCR<sup>+</sup>88, MPW87, MR87, McI83, Mea87, Med84, Mei82, MP80, MP81, MFM88, MHH<sup>+</sup>81, MBM<sup>+</sup>83, Mon87, ML89, NBLD81, Ogo89, Org85, Our86, PS87a, Pet83, PLN<sup>+</sup>85, PTN88, Pot85, PLT87, Ram86b, Ric89, Rig87, Ril81, Rog84a, RHL85, RB84, Rot80, RCN<sup>+</sup>81, RW87, San88, Sca85, Sch85a, Sch86b, Sch89a, Scr87, Sha86a, Sha88, Sha86b, SB82, SB85, Sha84, Shi84, SBK<sup>+</sup>85, SK86, Shu80, Sid86, Sim86, Smi81a, Sto87a, Taf86, TE87, Tau86, TM89, TA83a, TA83b, VS89, Van85, Wai80, WS87, Wal88, War88, Wea81]. **science** [Wei89, WSK84, Wer86, Whi83, Whi86, WD84, WGT89, Zie84, Zie87, vH87, DG81]. **science-observations** [EASP87]. **science-too** [GWD<sup>+</sup>81]. **science/mathematics** [Hag87]. **sciences** [BCA89, Cri80, DMC<sup>+</sup>83, HFG<sup>+</sup>80, MDL<sup>+</sup>81]. **scientist** [Dan81, HKW81, Tra85]. **scientists** [Sza80b]. **scope** [Fis84]. **scores** [Lem81]. **Scraggs** [RJS89]. **screen** [CS88]. **Screening** [Gat86]. **search** [Arc87]. **searching** [Pat88]. **Second** [Mye86, Ada86, Gil80]. **secondary** [FM85, Fri84, HKW81, Mon87, Rog84a, RHL85, TP84, TA83a, TA83b]. **sections** [Ric84]. **security** [Coo85, Coo86, NW89]. **seed** [Kin83]. **selected** [ASNN89]. **Selecting** [Tha82]. **self** [Aik81, EGP81]. **self-paced** [Aik81, EGP81]. **semantic** [Koc87]. **semantics** [Gum89]. **Semester** [Col87, Sei87]. **seminar** [Boz89, The87, Lei81b, Lei81a, MC82]. **senior** [And87, Bal86, Bal81, The87, Oma86]. **sequence** [Bar82, BJ83, CW82, Ell80, Fis84, Gor82a, Mat88, Oma86, PB80]. **sequences** [Cox87]. **service** [BCLO85, Den85, FM85, PS87a, Sch86b, Shu82, Smi81a]. **Session** [BRM83, BKS83, BCA83, DMC<sup>+</sup>83, GRW83, Hof83, LJ83, MBM<sup>+</sup>83, PDHS83, TGHM83, BCLO85, BCL<sup>+</sup>85, CBO85, DBM<sup>+</sup>85, DMS85, Fol82a, GBC<sup>+</sup>85, KSW85, MMMM85, PAA85, PLN<sup>+</sup>85, RHL85, SBK<sup>+</sup>85, WBJ<sup>+</sup>85]. **Sessions** [Par82]. **set** [Whi86]. **sets** [Wee89]. **Seventeenth** [LC86]. **Shapiro** [Rem83]. **Sharing** [McG86a, DG81, Dei82]. **shell** [Dea89, FM84, KF88]. **shock** [Den88]. **short** [Kor80, Sca88]. **shortage** [Mit83]. **shot** [Gib85]. **Should** [Bag88b, BF88, Bar84, Doy86, Rem83, Sca88, Wil85]. **SIG** [Gib85]. **SIGCS** [Ker83]. **SIGCSE** [BM89, CL84, Der88, Lan83, LC86, RS87, Tay85, WB80, WMD81, Kar83, Ker84, Ker85]. **Simon** [Our85]. **Simple** [EN81, Fla88, LM87b, MM82a, Mil83b]. **simplified** [Din83b]. **simulate** [SM88]. **Simulated** [Car87b, DU89, Wol87]. **simulation** [CW88, Dor89, How87, Jag88, KJ85, MFAN81, NI83, Rei86, RR83, Sha86c, Shu80, Tom81]. **simulations** [BK87]. **simulator** [AM85, Ber86, Don87a, FR85, GBO87, KW80, PB84]. **six** [Mea87, Sca88].

**Sixteenth** [Tay85]. **sized** [Arc85]. **Sizing** [HW89]. **skeleton** [Pop87]. **skill** [Whi84]. **skills** [Abs86, Col89, Del89, Ful85, HH86, Pra88, SN88, SB88]. **SLR** [MK85]. **Small** [LJ83, McM87, Arc85, BCA83, BAC84, Fos82, Lei81b, Lei81a, New80, Pio88, Ree85, Rod87, SBD<sup>+</sup>88, Sig87, Smi88, WJ88]. **small-computer** [New80]. **snowplow** [LD86]. **social** [Cri80, Tab88]. **society** [Cun86a, FL85]. **Socratic** [Wil87b]. **Software** [Adi86, BM81, Car84, Col87, CCS85, DMW89, Her85, HC84, LWB<sup>+</sup>80, Moo88, Oma86, PF84, Ric89, SL85, SV86, vH87, AW88, AH85, BF88, Bay87, Bic85, BJ83, BCH<sup>+</sup>88, Cal87, Car87c, CW82, Col85, Col89, Co081, Cro89, Dun85, Eze85, For82b, For81, HW89, Hen83, Jac81, Jor87, LL86, Lei86, Maz81, Mei87b, Mil89, ML87, Nor89, Owe89b, PRLJ88, PB80, PS87b, Pop83, Pop84, Ree85, Ris89, Sat84, Shn82, Sho83, SV85, Tam85, UL84, VS85, WH84, Wer88, WGT89, Wu83, Yav88]. **SOLO** [Den85]. **Solution** [Col84, LD86]. **solutions** [Hay88]. **solving** [Cam84, Co083, HR89, Ril81]. **somber** [Mit80]. **Some** [DLM84, Mah87, Sch85a, WCC83, DMS85, DMW89, Lou89, VS89, Whi88, Wil87a]. **sort** [KF88]. **Sorting** [Mar85, Mer81, Sto89]. **sorts** [Fel86]. **sound** [PTKG83]. **South** [CB80]. **Special** [BRM83, Hof83]. **specialists** [Din82]. **specifications** [Bro88]. **spectrograph** [PTKG83]. **speech** [Kar83]. **Spin** [Rud88]. **Spin-out** [Rud88]. **Spreadsheets** [Bai87a, SK86]. **sprouts** [BTW87]. **St** [RS87, WMD81]. **stacks** [Ger85]. **staff** [RMS88]. **stand** [Wil82]. **standard** [FG83, HR89]. **standards** [Coo86]. **State** [Dei82, Fol83, PM85, Jag88, TN88]. **statements** [Per89]. **States** [Sch89a]. **statistical** [RR83, Sid86]. **Statistics** [Sza80b]. **status** [DBM<sup>+</sup>85]. **still** [App86]. **strategies** [CSH86, Den81, Lin82]. **strategy** [DC84]. **structural** [Wag85a]. **structure** [HL82, Kem86, Maz83, Ric84]. **Structured** [Coo80, Co082, LR86, Med84, DC84, Fla88, FGU83, Gol89, P JL87, PW82, Sha80, SL83, TR85, Zie87]. **structures** [AL86, AL88, BK87, Bec84, Bro87, Cun86b, Fel84, Fon83, HC87a, Har89, Ker86, Mar84a, Mof86, Owe86, Ram85, San83, Sca87, Wee89]. **stuctures** [Lei86]. **Student** [Fis87, Mar84b, Rod87, UM87, Co085, Co087, Cor86, Del89, Dun85, FL84, GW85, Hir88, Hos83, IS89, Joe87, Kem86, Lem81, MM86, Mei87a, MP80, MP82, New80, Ogo89, Ols88, PDHS83, PAA85, Ree85, Ree89a, RS80, Rog84b, SH88, Ten87, Ull80, Wag85b, Wer86, WB85]. **Student-oriented** [Fis87]. **Students** [Hig84, Ogb85, AHM80, Aus87, BB85, Blu83, Bri89a, Bro88, CB87, CF82, Coe87, Co086, DO82, DC84, Etl85, Ger85, Ger82, GWD<sup>+</sup>81, HC87a, Hay88, Hig85, Kor83, LN86, Mag84, MM88b, MCR<sup>+</sup>88, Mei82, MFM88, MN86, Ram86b, Rig87, San84, Sca87, SP89, Shu80, Wer89, Wit87]. **students-what** [MCR<sup>+</sup>88]. **studies** [BS86, DE80a, DE80b, Hee83]. **study** [Bab88, Bal87, BS82, Bro87, Bro88, Fel80, KDP83, MM88a, Oma86, Sha80, WR80]. **style** [Cor86, Ris87, Rot80, Ten87]. **submission** [GW85]. **subprocedures** [Coo85]. **Subprograms** [Sch86a, Maz83]. **subsets** [AR81]. **Success** [Nor89, BU83, Blu83, Cor86, Hos83, LS82, Ram86b, TM89, Ten87]. **successful** [Add80a, Add80b, Pri88]. **suggested** [HM81, Lea88].

**suggestions** [Bro88]. **suitability** [Seb83]. **summaries** [Tau86]. **summary** [EB82, Fol82a]. **Summer** [Jon82, MH85a, CS84, Ger82, WS87]. **supercomputers** [NCKMM88]. **supplement** [Lys86]. **support** [BDW<sup>+</sup>80, Dod82, Hor83, RJS89, Sig87, Tem87, WMH81, vH87]. **surprising** [Lou89]. **survey** [AL85, Bro82, Dan81, EB82, Fri83, ML87, PF84, Phi80, Shr84, TN88, Ull80, WMH81]. **Survival** [And87]. **syllabus** [Kor83]. **symbol** [Our85]. **Symposium** [BM89, CL84, Der88, Lan83, RS87, Tay85, WB80, WMD81, LC86]. **Synchronization** [Dun89]. **syntax** [FL84]. **synthesis** [Hir84]. **System** [Dun89, Mat80, Boz86, Bro83a, Bro83b, Cañ87, CSH86, CR84, CR87, DAH86, Dei82, Din82, Din83a, DLS81, Eze85, GF85, Gri88, Hir88, Hit87, Hon83, KN81, Kem86, KP87, LOP81, LkG89, LW87, Lys86, MS80, Mea88a, NI83, Our85, Par86, Pig87, Pio88, Ree89a, SDE<sup>+</sup>84, Shu82, SC80, SCH85b, Wad80, Wag85a, Wag89a, Wol87]. **systematic** [Cor83]. **Systems** [Hay89, How88, Poo88, Shu87, Sto87b, AL82, Add80a, Add80b, Ahm82, Arc85, ASNN89, BKS83, BC84, Bru86, BU85, CGHM88, Cas83, CG87, CB85, CB87, Dil84, Din81, Din83b, Don87b, The87, EH84, Far88, Fel86, Fol82a, FGU83, Fri87, GG81, Gol82, GSK80, GHM87, Gor82a, Har88b, Hay83, Hoc87, Hod85, Jor89, Kan88, Kun87, Lan81, LS85, LS87, Lee80, Lev80a, Lis80, LL80, MU80, Mei84, Mil87, MW81, MC82, OB87, PS81, PW82, RG83, Ree89b, Reh87, RR83, Sat84, SS84, Sha86c, Shu83, Sil89, SG84, SC80, Sum84, Uck86, Wil82, Wil85, Wil86, Wit87, Yav88, YL89, Bar82, Sha82].

**tables** [FG83]. **Tailoring** [Bai87b, Dei82]. **taking** [BM81]. **tale** [And87]. **talking** [TG82]. **task** [DCG<sup>+</sup>88, Gor82b]. **taught** [Sca88]. **teach** [Abs86, App86, Bal85, Don88, EASP87, FW87, Fos89, KJ85, McC88, Moh89, MFMN89, P JL87, Rem83, SK86]. **teacher** [BMW87, Che89, Cur82, PLN<sup>+</sup>85]. **teacher/learner** [Cur82]. **teachers** [Bro83a, Bro83b, EASP87, FM85, HKW81, KRT89, Mil89, Sca85, Shi84, TP84, TN88, Whi86]. **Teaching** [AR81, BS82, BFW82, Bri89a, Bru86, Chr82, Cit84, Col87, Col89, Cot87, Cuh83, Dai85, Don87b, EO88, Ent83, Fel80, FJ87, Fol82b, Fol82a, Haa88, HLG86, HR89, Hig85, Jac81, Ker86, Kin83, Lan81, LM89a, Lee86b, Mal85b, ME87, Mof86, Moo83, Osb82, Owe86, Owe89a, Plu89, Pra88, PW87, Qui88, Rag86, RR86, Ril81, Ris87, San89, Sea88, Sei87, Shn82, Taf86, TR85, Tri87, TGHM83, Uck86, Ull80, Wei89, WK89, AW88, Aik83a, Aik83b, Aik84, Arc85, AG83, Bag89b, BKS83, BC84, BB85, Bru85, CG87, Coo85, Cor83, Cro83, CR85, Dec85, Dod82, DU89, DLM84, Fel84, Fon83, For82a, For84, FGU83, Gan89, Heu84, Hir84, How87, Hug89, Jon87, KW80, Kor80, Kru82, Lea84, Lys86, MM88a, Mat80, Mav81, McI83, Mer80, MK85, Mil83a]. **teaching** [NI83, Pag86, PML86, Pet83, Pop87, Ric82b, Rot80, Sch85a, ST89, SK80, Sha80, Shi87, Sho83, SL83, Smi81b, Smi85, TE87, Wag85a, Wag89b, WHL<sup>+</sup>80, Wea81, Whi88, Wil86, WCC83, YL89]. **team** [Arn81, Bal88, Col85, DMW89, Jor87, MP82, Shn82, WCC83]. **teams** [Ten87]. **Tech** [Dea89]. **Technical** [BM89, CL84, Col87, Der88, Lan83, RS87,

Tay85, WB80, WMD81, LC86, Mei82, RD84, Ric89]. **technique**  
 [Din83b, Fla88, MM88a, Maz81, Wie88]. **Techniques**  
 [Ogb85, ASNN89, Bar83, Car85b, Mol81, Par82, VD83]. **technocracy**  
 [Mag85]. **technography** [Mag85]. **technological** [Ahm81a, Ahm81b].  
**technologies** [BFW82]. **Technology**  
 [WHL<sup>+</sup>80, BDL85, Dew80a, Dew80b, Fos89, Mag85, MS80]. **tell** [BB85]. **ten**  
 [Mea88b]. **term** [Lea88]. **terminals** [BD80]. **tertiary** [Dun85]. **Test**  
 [Den81, Lem81]. **Testing** [Del89, Van86, Car85a, Ree89a, vVBK89]. **tests**  
 [Lor81]. **text** [FM84]. **Textbook** [Pat88, Cze85]. **textbooks**  
 [Mea87, Mea88b]. **texts** [MM82b]. **textual** [AP89]. **their** [CR85]. **theology**  
 [Mag85]. **theorem** [Ker88]. **theory** [Ash87, BCF<sup>+</sup>88, Bag88a, Bag89a, Ber83,  
 Boz89, CW88, Mal85b, WGT89, Yav88]. **thereof** [Sch85a]. **think** [Org85].  
**Third** [Sal86, Dew80a, Dew80b]. **Thoughts**  
 [Sto84, Bal85, DLM84, Mah87, Sch85a]. **Three**  
 [McC89b, Bag89b, FM86, Mei87a]. **three-color** [FM86]. **tide** [Che84]. **Tiling**  
 [CJ87]. **time** [DG81, Dei82, Fig87, KP87, Ram85, Wu85]. **time-sharing**  
 [DG81]. **timely** [Dor89]. **tinyada** [Lam89b]. **today** [Arc83, MM88b].  
**today's** [MM86]. **too** [GWD<sup>+</sup>81, Lem83]. **tool**  
 [Bru85, CB86, Den87, Ger85, Gia87, Gri81, HHRT83, HL82, Hay88, HR89,  
 Hir84, How87, Mat80, MFMN89, ST89, Sco82, SK80, SH88]. **tools**  
 [ASNN89, BC84, CB85, CW88, MK85, Noo86, Ull80, vK88]. **top**  
 [CRP89, Mer81]. **top-down** [CRP89]. **topic** [SH87]. **toy** [Fig87]. **TOYCOM**  
 [SK80]. **traces** [Sto89]. **trade** [BDW<sup>+</sup>80]. **trade-offs** [BDW<sup>+</sup>80].  
**traditional** [Cam84, DBF87, MB81, RW87, SBK<sup>+</sup>85]. **trainers** [Kus84].  
**Training** [Add80a, Add80b, Kus84, Bro85, MS89, Wu83]. **transfer**  
 [Mag84, MS80]. **transferring** [Den88]. **Transform** [Ker86]. **transformation**  
 [CR84, Eze86]. **transformation-access** [Eze86]. **transformations** [CR85].  
**Transition** [DBM<sup>+</sup>80, Che84, Gor82b, KF88, LS88]. **Transmission** [Coe87].  
**traversals** [KJ85]. **tree** [CRP89, KJ85, Lew88, Owe86]. **trees**  
 [Col84, Khu86, LM87c]. **Trends** [BCLO85, PS87b, Har88a, Pli86, Smi88].  
**trilogy** [Mei85]. **trivial** [Sch86a]. **trouble** [Col88]. **TRY** [Ree89a]. **Tulsa**  
 [WS87]. **turnkey** [MS80]. **turtle** [LM87a, LM87b]. **tutor** [BH88]. **Tutorial**  
 [AM85, HL82, Par82, FH88, Von87]. **twelfth** [WMD81]. **Twelve**  
 [Has82, Mas80]. **Two**  
 [Ash87, BM81, BJ83, Bul85, DBM<sup>+</sup>80, Fis84, GK85, Hov88, Wol87].  
**two-course** [BJ83]. **two-week** [GK85]. **type** [Cor86, LM89a, LM87c, Pag86].  
**types** [Bro87, Fel84, Hit87, Wir87]. **typing** [Mil87].

**U.S** [Tau86]. **U.S.** [Fol86]. **UMAC** [DU89]. **un-teaching** [Kor80].  
**uncontrolled** [Sto87b]. **Undergraduate**  
 [AH85, CW88, Hin80, App86, ARC<sup>+</sup>81, Ash87, BCF<sup>+</sup>88, Bag88a, Bal85,  
 BS81, BS89, Blu83, Bru89, BEW88, Chr80a, DP88, FS88, For81, Fos81,  
 FLK<sup>+</sup>88, GAK86, GP87, KH82, LBFS88, Lee80, Lis80, LL80, MB87, Mei87a,  
 MP80, MFM88, ML87, Nev88, Nor89, Owe87, PML86, PB80, Pot85, Ree89b,

Rot81, SPB89, Tam85, TE87, Wil85, WGT89]. **undergraduates** [Car84, Hyd89, RMS88, Tem86, Wad80, Wil86]. **Understanding** [ZPS88, Boz86, HH83, UC89]. **unethical** [Coo87]. **unified** [CW82, NW89, War88]. **unifying** [Joy88]. **United** [Sch89a]. **units** [Eck88]. **universal** [Din83b, MHGA81]. **universities** [BCL<sup>+</sup>85, GSK80, WMH81]. **University** [HHRT83, ASNN89, BRL83, Bro85, BS84, Fos82, Fri84, Gar86, HFG<sup>+</sup>80, Hon83, Osb82, Sto84, WB85, Bro82, Bul85, Car85a, CB80, Dei82, Fol83, Mol83, PM85, WS87]. **UNIX** [Bai87b, Dun89, Gra87, AW88]. **update** [MM88b, Ric81, Ric82a]. **updated** [LS85, LS87]. **Updating** [CB85]. **Upgrading** [RG83]. **upon** [BU83]. **upper** [CW83a, CW83b, Sil89, Tem86]. **upper-level** [Tem86]. **USA** [BM89, Der88, RS87]. **usage** [Cro89, PS87b]. **Use** [FL84, Ger85, New80, vVBK89, BS82, Che86, CF82, Coo85, DAH86, Del89, Fol86, Hor83, LL86, Law80, Lev80a, Lys86, McI83, PB84, PJL87, PRLJ88, Pop87, RMS88, Sha86a, Smi85, Smo87, Whi83]. **Used** [FFM82, BF88, SH88]. **user** [Fol82b, FM84, Ric87, SV86]. **user-computer** [Fol82b]. **user-friendly** [FM84]. **user/computer** [Ric87]. **uses** [Dei85]. **Using** [BD80, CM84, Cro88, Dea89, Don88, Ent84, Ent86, Hay89, Hov88, HG82, KB89, KJ85, KA88, Maz81, McC88, Moh89, OB87, Owe87, Pet83, San83, SK86, Sto89, Van85, bY89, AW88, Bag89b, BST86, CG87, CW88, Coo80, Coo85, Coo87, EO88, FGU83, Fos89, FM86, Gip86, Gri88, Haa88, HLG86, HR89, LM87c, LM89b, MPW87, Noo86, Owe86, Owe89a, PW82, PW87, RW87, Sca87, Sca88, Sch89b, WI81, Wil82]. **UW** [GG81]. **UW-Whitewater** [GG81].

**V** [Dun89]. **Validation** [GF82, Blu83]. **Varieties** [CBBO88]. **VAX** [FM84, LR86, Seb83, FM86]. **VAX-11** [LR86]. **vehicles** [OB87]. **Verbal** [Ful85, Sca88]. **Verification** [Per89, Coo85, Gum89, Mil83a, TGHM83]. **Verifying** [Mur82]. **versus** [AP89, BD80, Bro85, CR83, Eck88, Fol86, GW81b]. **Vertical** [Par80a, Par80b]. **via** [Ker86, Ric82c]. **viable** [Rod87]. **video** [vH87]. **view** [McM82, Mit80, Our86, Par86, Smi81a, Tab88, War88]. **Virtual** [RWW89, Don87b]. **visible** [Eze85, Kem86]. **Visual** [BK87, Jag88, Wag89b, CRP89, Dec87]. **visualization** [Eze86, FR85, Sto87a, Sto89]. **Visualizing** [MTT83]. **vocational** [Ric89]. **vocational/technical** [Ric89]. **vs** [Kus84, PM85, Ric84, Ten85, Ten87].

**war** [SS86]. **watch** [vK88]. **Watcom** [Tri87]. **way** [FW87]. **ways** [Has82, SBK<sup>+</sup>85]. **week** [GK85]. **Weighting** [Blu83]. **weights** [Blu83]. **Western** [Car87a, DG81]. **whatcha** [MHGA81]. **whatcha-maycallit** [MHGA81]. **where** [Mar89]. **which** [LM87c]. **Whitewater** [GG81]. **Wichita** [Fol83]. **wide** [Gar86]. **windows** [Fel86]. **Winter** [Car87a]. **within** [Bro83a, Bro83b, RW87]. **without** [CS88]. **Women** [WD84]. **words** [Bar86b]. **work** [Den88, Eck88, TM89]. **workbench** [WH84, Wag89a]. **working** [Dan81]. **workshop** [CS84, FS88, Jon82]. **workshops** [Whi86].

**workstations** [Wag85b]. **workstyle** [MCC89a]. **world** [Dew80a, Dew80b].  
**worth** [Bar86b]. **write** [Bro88]. **Writing**  
 [Har89, FW87, Pet85, Qui88, SL85, Taf86]. **written** [Mei87b, MP80]. **wrong**  
 [BB85]. **WU** [Hum89].

**Xinu** [Hum89]. **Xinu/WU** [Hum89].

**year** [BT86, BS81, DBM<sup>+</sup>80, DLM84, FJ87, For82b, PRLJ88, Wil85]. **years**  
 [Mei87a]. **young** [Tra85].

## References

### Aiken:1988:CSE

- [AAF<sup>+</sup>88] Robert Aiken, Elizabeth Adams, Susan Foster, Richard Little, William Marion, Judith Wilson, and Gayle Yaverbaum. Computer science education in China. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):89, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

### Abshire:1981:CSC

- [Abs81a] Gary M. Abshire. A computer science curriculum at IBM Boulder. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(2):23–26, June 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

### Abshire:1981:PCS

- [Abs81b] Gary M. Abshire. A proposed computer-science curriculum for computer professionals. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(3):26–30, September 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

### Abshire:1986:SNT

- [Abs86] Gary M. Abshire. The skills needed to teach computer-science courses. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(2):75–81, June 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

### Aiken:1988:CEA

- [ACH<sup>+</sup>88] Robert M. Aiken, Neal S. Coulter, Julia E. Hodges, Joyce C. Little, Helen C. Takacs, and A. Joe Turner. Continuing education



activities of the ACM. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):268, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Aiken:1982:MCA**

- [ACZ82] Robert M. Aiken, Chien F. Chao, and Yi Fen Zhu. A modern Curriculum for an ancient culture. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):237–241, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Adams:1986:SCD**

- [Ada86] Evans J. Adams. A second course in database management. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(1):15–23, February 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 17th SIGCSE Symposium on Computer Science Education.

**Adderley:1980:TKSa**

- [Add80a] J. Adderley. Training — the key to successful systems in developing countries. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(1):6, February 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 11th SIGCSE Symposium on Computer Science Education.

**Adderley:1980:TKSb**

- [Add80b] J. Adderley. Training: the key to successful systems in developing countries. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(2):37–39, July 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Adigum:1986:SEC**

- [Adi86] M. O. Adigum. Software engineering in commercial programming courses. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(4):38–40, December 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Ayen:1983:NET**

- [AG83] William E. Ayen and Sam Grier. A new environment for teaching introductory computer science. *SIGCSE Bulletin (ACM Spe-*

*cial Interest Group on Computer Science Education*), 15(1):258–264, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Agrawal:1985:UCN**

- [AH85] Jagdish C. Agrawal and Alka R. Harriger. Undergraduate courses needed in Ada and software engineering. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):266–281, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Atkins:1988:RL**

- [AHL88] Stella Atkins, Lou Hafer, and Patrick Leung. Robots in the laboratory. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):36–40, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Aiken:1980:CSC**

- [AHM80] R. M. Aiken, C. E. Hughes, and J. M. Moshell. Computer science curriculum for high school students. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(1):172–177, February 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 11th SIGCSE Symposium on Computer Science Education.

**Ahmad:1981:SERa**

- [Ahm81a] S. Imtiaz Ahmad. Science education and research for technological progress. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(1):3, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Ahmad:1981:SERb**

- [Ahm81b] S. Imtiaz Ahmad. Science education and research for technological progress. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(3):15–19, September 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Ahmad:1982:ISD**

- [Ahm82] S. Imtiaz Ahmad. Information systems: a disciplined approach to design. *SIGCSE Bulletin (ACM Special Interest Group on Com-*

*puter Science Education*), 14(1):258–258G, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Aikin:1981:SPF**

- [Aik81] John O. Aikin. A self-paced first course in computer science. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(1):78–85, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Aiken:1983:RTCa**

- [Aik83a] Robert M. Aiken. Reflections on teaching computer ethics. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):85, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Aiken:1983:RTCb**

- [Aik83b] Robert M. Aiken. Reflections on teaching computer ethics. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(3):8–12, September 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Aiken:1984:ART**

- [Aik84] Robert M. Aiken. Appendices for “reflections on teaching computer ethics”. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(2):56, June 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Adams:1982:SAI**

- [AL82] David R. Adams and William Leigh. A systems approach to the introductory course in information systems. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):107–109, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Adair:1985:CEA**

- [AL85] James H. Adair and James L. Linderman. Computer ethics and academic honesty: developing a survey instrument. *SIGCSE Bul-*

*letin (ACM Special Interest Group on Computer Science Education)*, 17(1):93–98, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Augenstein:1986:GDD**

- [AL86] Moshe Augenstein and Yedidyah Langsam. Graphic displays of data structures on the IBM PC. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(1):73–81, February 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 17th SIGCSE Symposium on Computer Science Education.

**Augenstein:1988:AGG**

- [AL88] Moshe Augenstein and Yedidyah Langsam. Automatic generation of graphic displays of data structures through a preprocessor. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):148–149, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Abele:1985:TCS**

- [AM85] James R. Abele and Leland R. Miller. Tutorial circuit simulator. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):68–71, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Anderson:1987:STS**

- [And87] Elaine Anderson. Survival: a tale of a senior project. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(3):22–24, September 1, 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Ackermann:1989:CAP**

- [AP89] Ernest C. Ackermann and William R. Pope. Computer aided program design experiments: diagrammatic versus textual material. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):117–121, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Appleby:1986:SMR**

- [App86] Doris C. Appleby. And still more on retraining mathematics faculty to teach undergraduate computer science. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Educa-*

tion), 18(2):17–18, June 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Atwood:1981:TSP**

- [AR81] J. W. Atwood and E. Regener. Teaching subsets of Pascal. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(1):96–103, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Archibald:1981:MCU**

- [ARC<sup>+</sup>81] Julius A. Archibald, Jr., Anthony Ralston, Carol Chrisman, Lawrence A. Jehn, Charles P. Poirier, and Donald J. Del Vecchio. The mathematics component of the undergraduate curriculum in computer science (panel discussion). *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(1):104–108, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Archer:1983:WDB**

- [Arc83] Clark B. Archer. What does business and industry expect from computer science graduates today? *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):82–84, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Archer:1985:RAT**

- [Arc85] Clark B. Archer. A realistic approach to teaching systems analysis at the small or medium-sized college. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):105–108, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Archer:1987:MCC**

- [Arc87] Clark B. Archer. A Monte Carlo comparison of the binary and interpolation search algorithms. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):513–515, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Arnow:1981:RCT**

- [Arn81] Barry J. Arnow. Realism in the classroom: a team approach. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(2):5–11, June 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Ashbacher:1987:TUC**

- [Ash87] Charles D. Ashbacher. Two undergraduate courses in the theory of computation. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(4):25–26, December 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Aukerman:1989:ISS**

- [ASNN89] R. Aukerman, R. Schooley, D. Nord, and J. Nord. The importance of selected systems analysis and design tools and techniques as determined by industry systems analysts and university educators. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(3):30–34, September 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Atchison:1981:CEP**

- [Atc81] William F. Atchison. Computer education, past, present, and future. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(4):2–6, December 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Austin:1987:PPP**

- [Aus87] Henry S. Austin. Predictors of Pascal programming achievement for community college students. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):161–164, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Abdel-Wahab:1988:ETC**

- [AW88] Hussein M. Abdel-Wahab. Experience in teaching communication software using Berkeley Unix. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(4):32–37, December 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Babb:1988:CSA**

- [Bab88] Vivie G. Babb. Case study: the analysis, design & implementation of a database conversion. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(2):60–64, June 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Beidler:1984:ACC**

- [BAC84] John Beidler, Richard H. Austing, and Lillian N. Cassel. ACM curriculum committee report computing programs in small colleges. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(1):236, February 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 15th SIGCSE Technical Symposium on Computer Science Education.

**Badre:1982:DHC**

- [Bad82] Albert N. Badre. Designing the human-computer interface. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(3):41–44, September 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Bagert:1988:IRCb**

- [Bag88a] Donald J. Bagert. The increasing role of computer theory in undergraduate curricula. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(4):50–57, December 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Bagert:1988:SCS**

- [Bag88b] Donald J. Bagert, Jr. Should computer science examinations contain “programming” problems? *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):288–292, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Bagert:1989:CCC**

- [Bag89a] D. J. Bagert, Jr. A core course in computer theory: design and implementation issues. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):161–164, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Bagert:1989:TCS**

- [Bag89b] D. J. Bagert, Jr. On teaching computer science using the three basic processes from the denning report. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(4): 13–14, December 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Baird:1986:MFL**

- [Bai86] Gus W. Baird. My freshmen learn recursion. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(2):25–28, June 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Bailey:1987:SDA**

- [Bai87a] M. Gene Bailey. Spreadsheets and databases — alternatives to programming for non-computer science majors. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):499–503, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Baird:1987:TUI**

- [Bai87b] W. Gus Baird. Tailoring UNIX for introductory CS courses. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(2):24–28, June 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Baltrush:1981:SPC**

- [Bal81] Michael A. Baltrush. A senior project course in a computer and information science department. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(1):224–226, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Ballew:1985:MTN**

- [Bal85] David Ballew. More thoughts on the need for retraining to teach undergraduate computer science. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(4):30–31, December 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).



**Ballew:1986:SDC**

- [Bal86] David Ballew. A senior design course for computer science. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(1):131–133, February 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 17th SIGCSE Symposium on Computer Science Education.

**Ballew:1987:IAC**

- [Bal87] David Ballew. An industrial advisory council for a computer science department: a case study. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):469–472, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Ballew:1988:WRT**

- [Bal88] David Ballew. Why are the results of team projects so different? *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(4):41–42, December 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Barrett:1982:FCS**

- [Bar82] Robert A. Barrett. A five course sequence for Information Systems. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):114–122, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Barnes:1983:EFA**

- [Bar83] G. Michael Barnes. Experiments with file accessing techniques. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(4):3–7, December 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Baron:1984:SEL**

- [Bar84] Naomi S. Baron. Should everyone learn anything?: The question of computer literacy. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(1):108–114, February 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 15th SIGCSE Technical Symposium on Computer Science Education.

**Baron:1986:FCL**

- [Bar86a] Naomi S. Baron. The future of computer languages: implications for education. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(1):44–49, February 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 17th SIGCSE Symposium on Computer Science Education.

**Baruch:1986:EWW**

- [Bar86b] Marjory Baruch. An experience is worth 1K words. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(1):238–245, February 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 17th SIGCSE Symposium on Computer Science Education.

**Bayard:1987:BCE**

- [Bay87] Judith Bayard. “the business of computers”: education for software engineering. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):120–126, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Blaisdell:1985:HTI**

- [BB85] James H. Blaisdell and Ann Burroughs. How to tell if a programming language is OK: what’s wrong with basic for teaching business students how to program? *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(3):5–8, September 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Booker:1984:EAP**

- [BBP<sup>+</sup>84] Don M. M. Booker, Barry Burd, Jerry Przybylski, Kevin Cogan, George Corliss, Carl Brandon, Don Yee, and Phil Goldstein. Experiences in ADA: Perspective problems and prospects for a potential primary language of instruction. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(1):182, February 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 15th SIGCSE Technical Symposium on Computer Science Education.

**Barker:1988:GOL**

- [BBS<sup>+</sup>88] Keith Barker, A. Wayne Bennett, Gordon E. Stokes, Mike Lucas, and Maarten van Swaay. Goal-oriented laboratory development

in CS/EE. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):267, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Bailes:1980:CS**

- [BC80] Gordon Bailes and Terry A. Counterline. Computer science (1979). *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(1):193–197, February 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 11th SIGCSE Symposium on Computer Science Education.

**Beccue:1984:IMT**

- [BC84] Barbara Beccue and Carol Chrisman. Integration of methodology and tools: an approach to teaching systems development. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(1):10–14, February 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 15th SIGCSE Technical Symposium on Computer Science Education.

**Beidler:1983:CSC**

- [BCA83] John Beidler, Lillian Cassel, and Richard Austing. Computer science curriculum recommendations for small colleges (panel session). *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):88, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Beck:1989:CSC**

- [BCA89] Robert E. Beck, Lillian N. Cassel, and Richard H. Austing. Computer science: a core discipline of liberal arts and sciences. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):56–60, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Bagert:1988:IRCa**

- [BCF<sup>+</sup>88] Donald J. Bagert, Jr., Daniel I. A. Cohen, Gary Ford, Donald K. Friesen, Daniel D. McCracken, and Derick Wood. The increasing role of computer theory in undergraduate curricula. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):223, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Bullard:1988:ASE**

- [BCH<sup>+</sup>88] Catherine L. Bullard, Inez Caldwell, James Harrell, Cis Hinkle, and A. Jefferson Offutt. Anatomy of a software engineering project. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):129–133, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Brennan:1985:APC**

- [BCL<sup>+</sup>85] Joyce Brennan, Jacobo Carrasquel, Joyce Currie Little, Allen Tucker, and James Collofello. Advanced Placement computer science exam (panel session): how universities are handling credit. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):238, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Beidler:1985:TSC**

- [BCLO85] John Beidler, Lillian Cassel, Doris Lidtke, and Barbara Owens. Trends in service courses (panel session). *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):318, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Bailey:1980:UTV**

- [BD80] M. Gene Bailey and Lloyd Davis. Using terminals versus card reader in remote job entry. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(1):181–183, February 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 11th SIGCSE Symposium on Computer Science Education.

**Barrett:1985:DCC**

- [BDL85] Robert A. Barrett, Bruce C. Davis, and Robert Leeper. A developmental computing course for computer technology majors. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):152–154, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Bulgren:1980:CTO**

- [BDW<sup>+</sup>80] William G. Bulgren, Nelle Dale, Victor Wallace, Clair Maple, and Larry Loos. Cost trade-offs in hardware support (panel discussion). *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(1):212, February 1980. CODEN

SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 11th SIGCSE Symposium on Computer Science Education.

**Becker:1984:DST**

- [Bec84] Lee A. Becker. Data structures through plan instantiation. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(1):190–195, February 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 15th SIGCSE Technical Symposium on Computer Science Education.

**Behforooz:1984:FCC**

- [Beh84] Ali Behforooz. A foundation course in computer science. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(1):159–163, February 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 15th SIGCSE Technical Symposium on Computer Science Education.

**Beidler:1984:CLA**

- [Bei84] John Beidler. Computing in liberal arts colleges. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(1):42, February 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 15th SIGCSE Technical Symposium on Computer Science Education.

**Bell:1984:ADD**

- [Bel84] Gwen Bell. ACM doctoral dissertation award: ACM international scholastic programming contest awards. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(1):43, February 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 15th SIGCSE Technical Symposium on Computer Science Education.

**Benard:1981:FCD**

- [Ben81] Mark Benard. A foundations course for a developing computer science program. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(1):188–191, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Benson:1985:MAM**

- [Ben85] M. Benson. Machine assisted marking of programming assignments. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(3):24–25, September 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Bertziss:1983:DPC**

- [Ber83] A. T. Bertziss. Data processing and computer science theory. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):72–76, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Berkowitz:1984:IDP**

- [Ber84] Murray R. Berkowitz. Integrating databases with programming environments. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(1):212, February 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 15th SIGCSE Technical Symposium on Computer Science Education.

**Bernat:1986:IIG**

- [Ber86] Andrew P. Bernat. An interactive interpreter/graphic-simulator for IBM S/370 architecture assembly language. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(2):13–16, June 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Butler:1988:IPP**

- [BEW88] Ralph M. Butler, Roger E. Eggen, and Susan R. Wallace. Introducing parallel processing at the undergraduate level. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):63–67, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Baram:1988:SCS**

- [BF88] Giora Baram and Frank F. Friedman. Should commercial software packages be used in the classroom? *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(3):32–33, September 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Bialac:1982:TNT**

- [BFW82] Richard Bialac, Ronald Frank, and Allan Waren. Teaching new technologies (panel discussion). *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):268, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Becker:1988:ITN**

- [BH88] Lee A. Becker and Xiaoyi Huang. An intelligent tutor for normal form determination. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):205–209, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Barnes:1986:CSC**

- [BHH<sup>+</sup>86] Michael J. Barnes, R. Hsu, N. Hsu, T. Sun, T. Nguyen, G. Haus, and P. D. Smith. A computer science courseware factory. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(1):318–328, February 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 17th SIGCSE Symposium on Computer Science Education.

**Booch:1982:EIC**

- [BHM<sup>+</sup>82] Grady Booch, Hal Hart, Vance Mall, Phil Miller, and Peter Wegner. The educational issues confronting Ada (panel discussion). *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):261, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Bickerstaff:1985:EPO**

- [Bic85] Douglas D. Bickerstaff, Jr. The evolution of a project oriented course in software development. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):13–22, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Bolz:1983:RTC**

- [BJ83] Richard E. Bolz and Lawrence G. Jones. A realistic, two-course sequence in large scale software engineering. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*,

15(1):21–24, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Boysen:1980:MCP**

- [BK80] John P. Boysen and Roy F. Keller. Measuring computer program comprehension. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(1):92–102, February 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 11th SIGCSE Symposium on Computer Science Education.

**Barnes:1987:VSD**

- [BK87] G. Michael Barnes and Gary A. Kind. Visual simulations of data structures during lecture. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):267–276, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Barrett:1983:MAT**

- [BKS83] Robert A. Barrett, Ernest A. Kallman, and John F. Schrage. Methods and approaches for teaching systems analysis (panel session). *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):86–87, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Barnes:1984:NSF**

- [BL84] Bruce H. Barnes and Doris K. Lidtke. National science foundation funding. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(1):83, February 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 15th SIGCSE Technical Symposium on Computer Science Education.

**Blumenfeld:1983:WBP**

- [Blu83] Warren S. Blumenfeld. Weighting biodata to predict success of undergraduate business administration students in introductory data processing: Item analysis and cross-validation of net weights. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):232, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of



the 14th SIGCSE Technical Symposium on Computer Science Education.

**Blum:1984:FMI**

- [Blu84] Bruce Blum. A framework for medical information science. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(1):207–210, February 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 15th SIGCSE Technical Symposium on Computer Science Education.

**Beidler:1981:SEH**

- [BM81] John A. Beidler and John G. Meinke. Software engineering at the high school level or taking a byte or two from an Apple II. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(1):12–14, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Barrett:1989:PST**

- [BM89] Robert A. Barrett and Maynard J. Mansfield, editors. *Proceedings of the 20th SIGCSE Technical Symposium on Computer Science Education, 1989, Louisville, Kentucky, USA, February 23–24, 1989*, SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education). ACM Press, New York, NY 10036, USA, 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Brown:1983:PCN**

- [BMvD83] Marc Brown, Norman Meyrowitz, and Andries van Dam. Personal computer networks and graphical animation: Rationale and practice for education. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):296–307, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). URL <ftp://ftp.math.utah.edu/pub/mirrors/ftp.ira.uka.de/bibliography/Graphics/imager/1983.bib>. Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Bulgren:1987:IAT**

- [BMW87] William G. Bulgren, Rose M. Marra, and Gregory F. Wetzel. An introductory algorithm teacher. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):292–296,

February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Bauer:1980:LCP**

- [BOW80] Henry R. Bauer, Richard L. Oliver, and David E. Winkel. A laboratory for a computers and programming course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(1):55–57, February 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 11th SIGCSE Symposium on Computer Science Education.

**Bozonie:1986:FUC**

- [Boz86] Mike Bozonie. A framework for understanding the computer applications system development process. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(3):53–57, September 1, 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Bozonie:1989:ARL**

- [Boz89] Michael Bozonie. An alternative to regular lecture classes: a theory seminar in computer algorithms. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(3):58–59, September 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Bateman:1982:MCP**

- [BPHN82] Barry L. Bateman, Gerald N. Pitts, James S. Harvison, and J. Richard Newman. Micro computers — the procurement process (panel discussion). *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):270, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Bradley:1988:RMC**

- [Bra88] James Bradley. The role of mathematics in the computer science curriculum. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):100–103, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Brinn:1985:CN**

- [Bri85] L. W. Brinn. Computer networks. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):135–139,

March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Briggs:1989:TPC**

- [Bri89a] J. S. Briggs. Teaching programming to conversion course students. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(4):43–51, December 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Britt:1989:ALD**

- [Bri89b] Michael Britt. APEX1, a library of dynamic programming examples. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):98–102, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Bowyer:1983:DUC**

- [BRL83] Kevin Bowyer, Mel Ray, and Cary Laxer. Duke university computer kamp 1982. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):233–236, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Baird:1983:PEP**

- [BRM83] William E. Baird, Charles E. Rughes, and J. Michael Moshell. Programming environments for pre-college instruction (special session). *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):247, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Brownsmith:1982:SCG**

- [Bro82] Joseph D. Brownsmith. A survey of CIS graduates from the University of Florida, College of Engineering. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(4):26–32, December 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Brooking:1983:PPTa**

- [Bro83a] Annie G. Brooking. The problem of producing teachers with computing expertise within the school system. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*,

15(1):105, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Brooking:1983:PPTb**

- [Bro83b] Annie G. Brooking. The problem of producing teachers with computing expertise within the school system. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(3):13–19, September 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Brookshear:1985:UCS**

- [Bro85] J. Glenn Brookshear. The university computer science curriculum: education versus training. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):23–30, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Brown:1987:CSP**

- [Bro87] Walter E. Brown. A case study of programming with abstract data types in a data structures course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):277–291, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Brown:1988:RCS**

- [Bro88] Dale A. Brown. Requiring CS1 students to write requirements specifications: a rationale, implementation suggestions, and a case study. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):13–16, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Brumfield:1985:LEI**

- [Bru85] Jeffrey A. Brumfield. A list expression interpreter as a teaching tool. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):348–357, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Brumfield:1986:TOS**

- [Bru86] Jeffrey A. Brumfield. Teaching operating systems with Modula-2. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(1):273–282, February 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

Proceedings of the 17th SIGCSE Symposium on Computer Science Education.

**Brumfield:1987:CPM**

- [Bru87] Jeffrey Brumfield. Concurrent programming in Modula-2. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):191–200, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Brumbaugh:1989:UCA**

- [Bru89] Larry J. Brumbaugh. An undergraduate course in applied data communications. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):1–5, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Behforooz:1981:OYI**

- [BS81] Ali Behforooz and Onkar P. Sharma. A one-year introductory course for computer science undergraduate program. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(1):46–49, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Bell:1982:TPU**

- [BS82] D. H. Bell and D. Simpson. Teaching parallelism: the use of a case study. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(2):26–31, June 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Brown:1984:PRB**

- [BS84] Marc H. Brown and Robert Sedgewick. Progress report: Brown university instructional computing laboratory. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(1):91–101, February 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). URL <ftp://ftp.math.utah.edu/pub/mirrors/ftp.ira.uka.de/bibliography/Graphics/imager/1984.bib>; <ftp://ftp.math.utah.edu/pub/mirrors/ftp.ira.uka.de/bibliography/Graphics/siggraph/1984.bib>. Proceedings of the 15th SIGCSE Technical Symposium on Computer Science Education.

**Bailes:1986:DIS**

- [BS86] Gordon Bailes and Jerry Sayer. Dealing with independent studies courses — an effective methodology. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(4):90–95, December 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Bell:1987:FCP**

- [BS87] Doug Bell and Peter Scott. A first course in programming. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(2):48–50, June 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Behforooz:1989:CMC**

- [BS89] A. Behforooz and O. P. Sharma. A comprehensive mathematics curriculum for the computer science undergraduate program. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(3):54–57, September 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Bulgren:1986:IIC**

- [BST86] William G. Bulgren, Earl J. Schweppe, and Tim Thurman. An improved introduction to computing emphasizing the development of algorithms and using the Apple Macintosh Pascal. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(1):253–256, February 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 17th SIGCSE Symposium on Computer Science Education.

**Bailey:1986:ICL**

- [BT86] M. Gene Bailey and Rebekah L. Tidwell. Implementing computer literacy: the year after. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(1):24–26, February 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 17th SIGCSE Symposium on Computer Science Education.

**Butler:1987:LPM**

- [BTW87] Ralph M. Butler, Selden Y. Trimble, and Ralph W. Wilkerson. A logic programming model of the game of sprouts. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):319–323, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Barker:1983:PSI**

- [BU83] Ricky J. Barker and E. A. Unger. A predictor for success in an introductory programming class based upon abstract reasoning development. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):154–158, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Byrkett:1985:CMG**

- [BU85] Donald L. Byrkett and Yuksel Ucan. A curriculum model for a graduate degree program in systems analysis. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(4):45–53, December 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Bulgren:1985:IJP**

- [Bul85] William G. Bulgren. Implementing a joint program between two campuses: University of Kansas and Johnson County Community College. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):302–305, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Burris:1984:FMD**

- [Bur84] David S. Burris. A formal method for determining if a grammar is connected and grounded. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(3):21–22, September 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Bulgren:1982:ICS**

- [BW82] William G. Bulgren and Gregory F. Wetzel. Introductory computer science courses. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):133–139, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Yue:1989:UGC**

- [bY89] Kwok bun Yue. Using the game cube-4 as an example in an introductory artificial intelligence course. *SIGCSE Bulletin (ACM*

*Special Interest Group on Computer Science Education*), 21(3):8–10, September 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Clarke:1988:MOC**

- [CA88] Alice L. Clarke and Gerald W. Adkins. A microcomputer oriented computer literacy course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):225–229, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Calhoun:1987:DSE**

- [Cal87] James Calhoun. Distribution of software engineering concepts beyond the software engineering course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):233–237, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Campbell:1984:EPP**

- [Cam84] Patricia F. Campbell. The effect of a preliminary programming and problem solving course on performance in a traditional programming course for computer science majors. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(1):56–64, February 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 15th SIGCSE Technical Symposium on Computer Science Education.

**Canas:1987:GGO**

- [Cañ87] Daniel A. Cañas. Graphos: a graphic operating system. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):201–205, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Carmony:1982:EEL**

- [Car82] Lowell A. Carmony. ELAN: an Elementary Language that promotes good programming. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):163–166, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.



**Carver:1984:SEU**

- [Car84] Doris L. Carver. Software engineering for undergraduates. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(3):23–25, September 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Carrasquel:1985:CTI**

- [Car85a] Jacobo Carrasquel. Competency testing in introductory computer science: the mastery examination at Carnegie-Mellon University. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):240, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Carver:1985:CTP**

- [Car85b] Doris L. Carver. Comparison of techniques in project-based courses. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):9–12, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Carabetta:1987:PPA**

- [Car87a] James R. Carabetta. The planning and procedures associated with the Western New England College Winter Invitational High School Programming Contest. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(2):29–35, June 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Carlson:1987:SMC**

- [Car87b] David Carlson. Simulated microprogramming in the classroom. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(4):60–63, December 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Carver:1987:RSE**

- [Car87c] Doris L. Carver. Recommendations for software engineering education. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):228–232, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Cassel:1983:OPL**

- [Cas83] Lillian N. Cassel. Organization of programming languages for business information systems majors. *SIGCSE Bulletin (ACM*

*Special Interest Group on Computer Science Education*), 15(1): 228–231, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Cassel:1987:NEF**

- [Cas87] Lillian N. Cassel. Networking elements in a files course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):343–345, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Codespoti:1980:USC**

- [CB80] D. J. Codespoti and J. C. Bays. The University of South Carolina Computer Science Institute. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(1):208–211, February 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 11th SIGCSE Symposium on Computer Science Education.

**Chrisman:1985:USD**

- [CB85] Carol Chrisman and Barbara Beccue. Updating systems development courses to incorporate fourth generation tools. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):109–113, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Chrisman:1986:ERM**

- [CB86] Carol Chrisman and Barbara Beccue. Entity relationship models as a tool for data analysis and design. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(1): 8–14, February 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 17th SIGCSE Symposium on Computer Science Education.

**Chrisman:1987:ESS**

- [CB87] Carol Chrisman and Barbara Beccue. Evaluating students in systems development group projects. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):366–373, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Cunningham:1988:VCG**

- [CBBO88] Steve Cunningham, Judith R. Brown, Robert P. Burton, and Mark Ohlson. Varieties of computer graphics courses in computer science. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):313, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Cunningham:1985:CGC**

- [CBO85] Steve Cunningham, R. Daniel Bergeron, and Mark Ohlson. Computer graphics in the computer science curriculum (panel session). *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):319, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Crosland:1982:NCS**

- [CC82] A. Crosland and D. Codespoti. The new computer science: It meets many needs. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):184–187, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Comer:1985:SDD**

- [CCS85] James R. Comer, Herb C. Conn, and Kurt A. Schember. Software design and development: a graduate curriculum in software engineering. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):335–341, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Coey:1982:PCL**

- [CF82] W. A. Coey and D. Q. M. Fay. Practical computer logic classes for computer science students: the use of logic analysers. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(3):15–21, September 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Cheng:1987:TDM**

- [CG87] Huey-Chen Cheng and Angela Goh. The teaching of database management systems courses using a large commercial product. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(4):27–29, December 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Cannon:1988:PCA**

- [CGHM88] Robert Cannon, John Gorgone, Tom Ho, and John D. McGregor. Proposed criteria for accreditation of computer information systems programs. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):88, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Chand:1983:CCE**

- [Cha83] Donald Chand. Crisis in computer education. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):104, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Chew:1984:BT**

- [Che84] Robert L. Chew. Bucking the tide: a transition from industry to academe. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(1):5–9, February 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 15th SIGCSE Technical Symposium on Computer Science Education.

**Cherry:1986:ICU**

- [Che86] Joan M. Cherry. Introduction to computer use: a course non-computer science majors at a large. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(3):40–43, September 1, 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Chen:1989:TIC**

- [Che89] J. Wey Chen. Toward an ideal competency-based computer science teacher certification program: the Delphi approach. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):257–261, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Chrisman:1980:PUC**

- [Chr80a] Carol Chrisman. A pragmatic undergraduate curriculum: description and rationale. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(3):20–26, September 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Christodoulakis:1980:IPRa**

- [Chr80b] Starvos Christodoulakis. An interactive pattern recognition laboratory (IPRL). *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(1):184, February 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 11th SIGCSE Symposium on Computer Science Education.

**Christodoulakis:1980:IPRb**

- [Chr80c] Starvos Christodoulakis. An Interactive Pattern Recognition Laboratory (IPRL). *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(2):27–33, July 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Chrisman:1982:TDD**

- [Chr82] C. Chrisman. Teaching Database design through an Entity-Relationship approach. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):4–7, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Christiaen:1988:NPE**

- [Chr88] H. Christiaen. Novice programming errors: misconceptions or misrepresentations? *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(3):5–7, September 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Citron:1984:TCL**

- [Cit84] Judith Citron. Teaching Cobol: less listening, more doing. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(2):42–47, June 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Chu:1987:TR**

- [CJ87] I-Ping Chu and Richard Johnsonbaugh. Tiling and recursion. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):261–263, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Cassel:1984:PFS**

- [CL84] Lillian N. Cassel and Joyce Currie Little, editors. *The papers of the Fifteenth SIGCSE Technical Symposium on Computer Science Education, Philadelphia, PA*, volume 16(1) of *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*. ACM Press, New York, NY 10036, USA, 1984. CODEN SIGSD3. ISBN 0-89791-126-1 (paperback). ISSN 0097-8418 (print), 2331-3927 (electronic). LCCN QA76.27 .A79a vol. 16, no. 1.

**Chua:1984:UMC**

- [CM84] T. S. Chua and J. C. McCallum. Using microcomputers in computer education. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(4):25–33, December 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Coey:1987:TLE**

- [Coe87] William Coey. Transmission line experiments for computer science students. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(2):55–57, June 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Colville:1983:PDC**

- [Col83] John Colville. A pictorial demonstration of concurrent processes. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(4):8–14, December 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Collins:1984:STP**

- [Col84] William J. Collins. Solution trees in the program design process. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(2):51–55, June 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Collofello:1985:MEI**

- [Col85] James S. Collofello. Monitoring and evaluating individual team members in a software engineering course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):6–8, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Collofello:1987:TTR**

- [Col87] James S. Collofello. Teaching technical reviews in a one-semester software engineering course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):222–227, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). URL <ftp://ftp.math.utah.edu/pub/mirrors/ftp.ira.uka.de/bibliography/Misc/DBLP/1987.bib>; <ftp://ftp.math.utah.edu/pub/mirrors/ftp.ira.uka.de/bibliography/SE/ftr.bib>.

**Collins:1988:TLI**

- [Col88] William J. Collins. The trouble with for-loop invariants. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):1–4, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Collofello:1989:TPS**

- [Col89] J. S. Collofello. Teaching practical software maintenance skills in a software engineering course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):182–184, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Conner:1983:OCP**

- [Con83] William M. Conner. An outline of a capacity planning course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(2):18–23, June 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Cook:1980:SPU**

- [Coo80] Robert N. Cook. Structured programming using BASIC. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(1):40–49, February 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 11th SIGCSE Symposium on Computer Science Education.

**Cook:1981:HCS**

- [Coo81] Robert N. Cook. A hardware course for a software curriculum. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(2):17–22, June 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Cook:1982:SAL**

- [Coo82] Robert N. Cook. Structured assembly language programming. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):193–200, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Cook:1983:APS**

- [Coo83] Robert N. Cook. Advanced problem solving and algorithm development. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):193–195, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Cook:1985:ISS**

- [Coo85] Janet M. Cook. Increasing students' security awareness: article I teaching integrity features using data verification to illustrate the use of subprocedures in elementary programming classes. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):155–165, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Cook:1986:ISS**

- [Coo86] Janet M. Cook. Increasing students security awareness: article II. What C.S. graduates don't learn about security concepts and ethical standards. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(1):89–96, February 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 17th SIGCSE Symposium on Computer Science Education.

**Cook:1987:DEU**

- [Coo87] Janet M. Cook. Defining ethical and unethical student behaviors using departmental regulations and sanctions. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):462–468, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Cornwell:1982:CCS**

- [Cor82] Larry W. Cornwell. Crisis in computer science education at the precollege level. *SIGCSE Bulletin (ACM Special Interest Group*



on *Computer Science Education*), 14(1):28–30, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Cornelius:1983:SAT**

- [Cor83] Barry Cornelius. A systematic approach to teaching Pascal: 58. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(4):21–23, December 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Corman:1986:CSP**

- [Cor86] Larry S. Corman. Cognitive style, personality type, and learning ability as factors in predicting the success of the beginning programming student. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(4):80–89, December 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Cote:1987:TOC**

- [Cot87] Vianney Coté. Teaching oral communication in computer science. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(2):58–60, June 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Cox:1987:AAR**

- [Cox87] Michael Cox. An alternative approach to recursive Fibonacci sequences. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(3):38–40, September 1, 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Culik:1983:LVM**

- [CR83] K. Culik and M. M. Rizki. Logic versus mathematics in computer science education. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):14–20, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Czejdo:1984:QTI**

- [CR84] Bogdan Czejdo and Marek Rusinkiewicz. Query transformation in an instructional database management system. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*,

16(1):217–223, February 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 15th SIGCSE Technical Symposium on Computer Science Education.

**Czejdo:1985:PTT**

- [CR85] Bogdan Czejdo and Marek Rusinkiewicz. Program transformations and their applications in teaching procedural and nonprocedural languages. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):202–210, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Czejdo:1987:QGI**

- [CR87] Bogdan Czejdo and Marek Rusinkiewicz. Query generation in an instructional database management system. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):19–25, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Crawford:1987:FPF**

- [Cra87] Albert L. Crawford. Functional programming for freshman computer science majors. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):165–169, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Crissey:1980:CMS**

- [Cri80] Brian L. Crissey. Computer modeling in the social sciences: experience with a new computer science course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(3):31–34, September 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Crookes:1983:ETA**

- [Cro83] D. Crookes. Experience with teaching assembly language. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(3):50–52, September 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Crookes:1988:UPP**

- [Cro88] D. Crookes. Using Prolog to present abstract machines. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(3):8–12, September 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Crow:1989:DEP**

- [Cro89] Galen B. Crow. Defining educational policy on software usage in the light of copyright law. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):47–51, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Carrasquel:1989:DTV**

- [CRP89] Jacobo Carrasquel, Jim Roberts, and John Pane. The design tree: a visual approach to top-down design and data flow. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):17–21, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Comer:1984:APC**

- [CS84] James R. Comer and Kurt A. Schember. Advanced placement in computer science: a summer workshop. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(1):119–123, February 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 15th SIGCSE Technical Symposium on Computer Science Education.

**Chen:1988:IFS**

- [CS88] Hilton Chen and Wayne Summers. IBM 3270 full screen interactive programming without CICS. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):219–222, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Christensen:1986:DSC**

- [CSH86] Larry C. Christensen, Gordon Stokes, and Bill Hays. Design strategies for a computer-based instruction system. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(1):329–333, February 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 17th SIGCSE Symposium on Computer Science Education.

**Cuha:1983:TMA**

- [Cuh83] Ratan K. Cuha. Teaching microprocessor architectures. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):120–123, February 1983. CODEN SIGSD3. ISSN

0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Cunningham:1983:CCS**

- [Cun83] R. S. Cunningham. Computing and computer science in the liberal arts college. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(2):24–25, June 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Cunningham:1986:CSL**

- [Cun86a] Ellen Cunningham. Computers and society: a liberal arts perspective. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(1):249–252, February 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 17th SIGCSE Symposium on Computer Science Education.

**Cunningham:1986:FCS**

- [Cun86b] Ellen Cunningham. Fewer control structures considered helpful. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(2):33–34, June 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Curran:1982:TL**

- [Cur82] William S. Curran. A teacher/learner. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):229–231, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Collofello:1982:PUS**

- [CW82] James S. Collofello and Scott N. Woodfield. A project-unified software engineering course sequence. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):13–19, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Chua:1983:HCU**

- [CW83a] Y. S. Chua and C. N. Winton. Hardware component of an upper level computer science curriculum. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):36–40, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print),

2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Chua:1983:ULC**

- [CW83b] Y. S. Chua and C. N. Winton. An upper level computer science curriculum. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):77–81, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Chua:1988:UTC**

- [CW88] Y. S. Chua and C. N. Winton. Undergraduate theory of computation: an approach using simulation tools. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):78–82, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Comer:1983:PC**

- [CWR83] James R. Comer, Robert R. Wier, and J. Richard Rinewalt. Programming contests. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):241–244, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Czerwinski:1985:PCP**

- [Cze85] Ralph Czerwinski. Programming concepts and principles in the introductory computer science textbook. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(4):65–68, December 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Deegan:1986:ODM**

- [DAH86] Colleen Deegan, John Atkins, and Mike Henry. OMEGA: a database management system for academic use. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(4):11–14, December 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Daigle:1985:TCG**

- [Dai85] R. J. Daigle. Teaching COBOL with generic design. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Ed-*

ucation), 17(3):12–16, September 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Dale:1980:OCS**

- [Dal80] N. B. Dale. An overview of computer science in China: Research interests and educational directions. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(1):186–190, February 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 11th SIGCSE Symposium on Computer Science Education.

**Danielson:1981:EWC**

- [Dan81] Ronald L. Danielson. Educating the working computer scientist (a survey and analysis). *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(1):109–113, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Danilowicz:1989:DDP**

- [Dan89] Ronald L. Danilowicz. Demonstrating the dangers of pseudo-random numbers. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(2):46–48, June 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Dyck:1987:BTC**

- [DBF87] V. Arnie Dyck, James P. Black, and Shirley L. Fenton. Beyond traditional computer literacy. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):508–512, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Dalphin:1980:TTY**

- [DBM<sup>+</sup>80] John F. Dalphin, Donald E. Burlingame, Wiley McKinzie, Joyce Little, and Spotswood Stoddard. Transition from two year to four year programs (panel discussion). *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(1):1, February 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 11th SIGCSE Symposium on Computer Science Education.

**Dalphin:1985:CSAa**

- [DBM<sup>+</sup>85] John F. Dalphin, Taylor Booth, Raymond E. Miller, John R. White, Robert Aiken, J. T. Cain, Edward W. Ernst, Michael C. Mulder, and Kathleen Hennessey. Computer science accreditation (panel session): an introduction and status of the national program. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):89, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Drew:1984:BLS**

- [DC84] Mark S. Drew and Shane D. Caplin. Batch logo: a strategy for introducing PL/1 and structured programming to gifted high school students. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(2):13–23, June 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Denning:1988:CDP**

- [DCG<sup>+</sup>88] Peter Denning, Douglas E. Comer, David Gries, Michael C. Mulder, Allen B. Tucker, A. Joe Turner, and Paul R. Young. Computing as a discipline: preliminary report of the ACM task force on the core of computer science. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):41, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**DePano:1988:APE**

- [De 88] N. Adlai A. De Pano. Algorithmic paradigms: examples in computational geometry. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):83–87, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Davies:1980:CMSa**

- [DE80a] Gordon Davies and Charles D. Eastel. Computer management studies for developing countries. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(1):191, February 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 11th SIGCSE Symposium on Computer Science Education.

**Davies:1980:CMSb**

- [DE80b] Gordon Davies and Charles D. Eastal. Computer management studies for developing countries. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(3):9–15, September 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Dean:1989:UGT**

- [Dea89] S. T. Dean. Using the Georgia Tech “freshman shell”. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(3):51–53, September 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Decker:1985:MAT**

- [Dec85] William F. Decker. A modern approach to teaching computer organization and assembly language programming. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(4):38–44, December 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Decker:1987:MCP**

- [Dec87] William F. Decker. Making concepts and phenomena visual in machine and assembly language programming. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):432–441, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Deimel:1982:CNC**

- [Dei82] Lionel E. Deimel, Jr. CMS at North Carolina State University: Tailoring a time sharing system for computer science instruction. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):43–49, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Deimel:1984:AIS**

- [Dei84] Lionel Deimel. 1984 ACM international scholastic programming contest. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(3):7–12, September 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).



**Deimel:1985:UPR**

- [Dei85] Lionel E. Deimel, Jr. The uses of program reading. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(2):5–14, June 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Deimel:1988:PAA**

- [Dei88] Lionel E. Deimel. Problems from the 12th annual ACM programming contest. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(4):19–28, December 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Delaney:1989:TSM**

- [Del89] Michael M. Delaney. Testing student micro computer skills through direct computer use. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):103–107, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Denenberg:1981:TCA**

- [Den81] Stewart A. Denenberg. Test construction and administration strategies for large introductory courses. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(1):235–243, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Denenberg:1985:SPI**

- [Den85] Stewart A. Denenberg. A service project for an introductory artificial intelligence course: implementing SOLO in LOGO. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(4):8–20, December 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Deneen:1987:CMI**

- [Den87] Linda L. Deneen. The contour model as an instructional tool in elementary computer science courses. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):170–178, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Denton:1988:CST**

- [Den88] Connie E. Denton. Culture shock: transferring into the professional work force. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(2):3–4, June 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Dershem:1981:MIC**

- [Der81] Herbert L. Dershem. A modular introductory computer science course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(1):177–181, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Dershem:1988:PST**

- [Der88] Herbert L. Dershem, editor. *Proceedings of the 19th SIGCSE Technical Symposium on Computer Science Education, 1988, Atlanta, Georgia, USA, February 25–26, 1988*, SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education). ACM Press, New York, NY 10036, USA, 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Dewachi:1980:CTTa**

- [Dew80a] A. Dewachi. Computing technology and the third world. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(1):7, February 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 11th SIGCSE Symposium on Computer Science Education.

**Dewachi:1980:CTTb**

- [Dew80b] A. Dewachi. Computing technology and the Third World. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(2):20–26, July 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Dalphin:1982:CSA**

- [DFM<sup>+</sup>82] John F. Dalphin, Terry J. Frederick, William J. MacLeod, David R. Kniefel, and Gordon E. Stokes. Computer science approval/accreditation (panel discussion). *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):266–267, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Davies:1981:CSW**

- [DG81] D. J. M. Davies and I. Gargantini. Computer Science at Western experience with Curriculum '78 in a time-sharing environment. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(1):227–234, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Distad:1987:PCD**

- [DG87] Jack Distad and Ronald W. Gatterdam. A problem in counting digits. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(2):46–47, June 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Dheedene:1982:CSL**

- [D'h82] Robert N. D'heedene. Computer science in a liberal arts environment. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):232–236, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Dheedene:1983:IAI**

- [D'h83] Robert N. D'heedene. Invitation to artificial intelligence. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):196–199, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Dillman:1984:GSA**

- [Dil84] Richard W. Dillman. General systems analysis in the liberal arts curriculum. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(1):196–206, February 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 15th SIGCSE Technical Symposium on Computer Science Education.

**Dinerstein:1981:ESA**

- [Din81] Nelson T. Dinerstein. On the education of systems analysts. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(4):25–28, December 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Dinerstein:1982:EIS**

- [Din82] Nelson T. Dinerstein. On the education of information system specialists. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(2):21–25, June 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Dinerstein:1983:DMS**

- [Din83a] N. T. Dinerstein. A database management system class on microcomputers. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(3):20–21, September 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Dinerstein:1983:SUT**

- [Din83b] N. T. Dinerstein. A simplified, universal technique for systems analysis and design. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(2):10–13, June 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Dupras:1984:STT**

- [DLM84] Marcel Dupras, Fernand LeMay, and Ali Mili. Some thoughts on teaching first year programming. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(1):148–153, February 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 15th SIGCSE Technical Symposium on Computer Science Education.

**Donaldson:1981:PDS**

- [DLS81] John L. Donaldson, Ann-Marie Lancaster, and Paula H. Sposato. A plagiarism detection system. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(1):21–25, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Dey:1986:EMP**

- [DM86] Sukhen Dey and Lawrence R. Mand. Effects of mathematics preparation and prior language exposure on perceived performance in introductory computer science courses. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(1):144–148, February 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 17th SIGCSE Symposium on Computer Science Education.

**Dalphin:1983:ACS**

- [DMC<sup>+</sup>83] John F. Dalphin, Michael C. Mulder, Tom Cain, George Davida, Gerald L. Engel, Terry J. Frederick, and Norman E. Gibbs. Accreditation in the computing sciences (panel session). *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):1, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Dalphin:1985:CSAb**

- [DMS85] John F. Dalphin, Bruce McCormick, and Gordon Stokes. Computer science accreditation (panel session): guideline application to some existing curricula. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):180, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Dunsmore:1989:SET**

- [DMW89] Hubert E. Dunsmore, David P. Moffet, and Steven T. Ward. Software engineering team project group member evaluations: some empirical results. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(2):40–45, June 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Dale:1982:NIE**

- [DO82] Nell Dale and David Orshalick. A new instructional environment for beginning computer science students. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):34–38, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Dobbs:1987:CCL**

- [Dob87] Verlynda Dobbs. A comparison of concurrent languages: a class project. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):62–66, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Dodrill:1982:CST**

- [Dod82] William H. Dodrill. Computer support for teaching large-enrollment courses. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):31–33, February

1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Donaldson:1987:MMS**

- [Don87a] John L. Donaldson. MicMac: a microprogram simulator for courses in computer organization. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):428–431, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Donaldson:1987:TOS**

- [Don87b] John L. Donaldson. Teaching operating systems in a virtual machine environment. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):206–211, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Donahue:1988:UAL**

- [Don88] Barry Donahue. Using assembly language to teach concepts in the introductory course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):158–162, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Dooijes:1986:ICI**

- [Doo86] E. H. Dooijes. An introductory course in interactive computer graphics. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(3):49–52, September 1, 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Dooley:1988:AIC**

- [Doo88] John F. Dooley. An artificial intelligence course in a liberal arts program. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(2):36–39, June 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Dorin:1989:DES**

- [Dor89] P. M. Dorin. Discrete-event simulation — a timely problem. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(3):48–50, September 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Doyle:1986:SCL**

- [Doy86] Barbara Doyle. Should a computer literacy class be the first required course for data processing majors. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(2): 10–12, June 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Deneen:1988:DDC**

- [DP88] Linda L. Deneen and Keith R. Pierce. Development and documentation of computer programs in undergraduate computer science programs. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):17–21, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Dunworth:1989:USM**

- [DU89] A. Dunworth and V. Upatising. UMAC: a simulated microprogrammable teaching aid. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(3):39–43, September 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Dunstan:1985:CSS**

- [Dun85] Neil Dunstan. Continuity of student software development in tertiary institutions. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(4):92–93, December 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Dunstan:1989:SPU**

- [Dun89] N. Dunstan. Synchronization problems and UNIX System V. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(4):15–19, December 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Epstein:1987:RHS**

- [EASP87] Richard G. Epstein, Robert M. Aiken, Glenn Snelbecker, and Jane Potosky. Retraining high school teachers to teach computer science-observations on the first course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):136–140, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Engel:1982:EDC**

- [EB82] Gerald L. Engel and Bruce H. Barnes. Employment decisions by computer science faculty: a summary of the 1980–81 NSF survey. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):167–169, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Engel:1984:ACS**

- [ECD<sup>+</sup>84] Gerald L. Engel, Tom Cain, John F. Dalphin, George Davida, Terry J. Frederick, Norman E. Gibbs, Doris K. Lidtke, and Michael C. Mulder. Accreditation in computer science. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(1):146, February 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 15th SIGCSE Technical Symposium on Computer Science Education.

**Eckert:1987:KCC**

- [Eck87] Richard R. Eckert. Kicking off a course in computer organization and assembly/machine language programming. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(4):2–9, December 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Eckert:1988:MVH**

- [Eck88] Richard R. Eckert. Microprogrammed versus hardwired control units: how computers really work. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(3):13–22, September 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Etlinger:1981:FSP**

- [EGP81] Henry A. Etlinger, Gordon I. Goodman, and Charles Plummer. FORTRAN: a self-paced, mastery-based course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(1):62–73, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Eliot:1984:RCD**

- [EH84] Lance B. Eliot and Floyd Holliday. A robust course on data base management systems for business and computer majors. *SIGCSE*



*Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(4):9–11, December 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Ellison:1980:PSL**

- [Ell80] Robert J. Ellison. A programming sequence for the liberal arts college. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(1):161–164, February 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 11th SIGCSE Symposium on Computer Science Education.

**Embley:1981:SPE**

- [EN81] David W. Embley and George Nagy. Simple: a programming environment for beginners. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(4):7–12, December 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Entin:1983:THC**

- [Ent83] Eileen B. Entin. Teaching human-computer interaction in introductory courses. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):51–56, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Entin:1984:UCP**

- [Ent84] Eileen B. Entin. Using the cloze procedure to assess program reading comprehension. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(1):44–50, February 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 15th SIGCSE Technical Symposium on Computer Science Education.

**Entin:1986:UCP**

- [Ent86] Eileen B. Entin. Using the cloze procedure with computer programs: a deeper look. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(1):153–162, February 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 17th SIGCSE Symposium on Computer Science Education.

**Elenbogen:1988:TRU**

- [EO88] Bruce S. Elenbogen and Martha R. O'Kennon. Teaching recursion using fractals in Prolog. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):263–266, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Evans:1985:IAP**

- [EP85] Howard Evans and Wayne Patterson. Implementing Ada as the primary programming language. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):255–265, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Early:1985:CRR**

- [ES85] Grady G. Early and Donald F. Stanat. Chinese Rings and recursion. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(4):69–82, December 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Etlinger:1985:APC**

- [Etl85] Henry A. Etlinger. All programs are not created equal-but, do students know that? *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):34–35, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Ezell:1985:VAC**

- [Eze85] Cloyd Ezell. A visible assembler for a course in introductory system software. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(4):26–29, December 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Ezell:1986:TAM**

- [Eze86] Cloyd L. Ezell, Jr. A transformation-access model for program visualization action-on-data displays. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(4):72–79, December 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Farkas:1988:CGP**

- [Far88] Daniel Farkas. Choosing group projects for advanced systems courses. *SIGCSE Bulletin (ACM Special Interest Group on Com-*

*puter Science Education*), 20(1):109–115, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Feldman:1980:TDA**

- [Fel80] Michael B. Feldman. Teaching data abstraction to the practicing programmer: a case study. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(1):9–15, February 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 11th SIGCSE Symposium on Computer Science Education.

**Feldman:1984:ATA**

- [Fel84] Michael B. Feldman. Abstract types, ADA packages, and the teaching of data structures. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(1):183–189, February 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 15th SIGCSE Technical Symposium on Computer Science Education.

**Feldman:1986:MPO**

- [Fel86] Michael B. Feldman. Modula-2 projects for an operation-systems course: racing sorts and multiple windows. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(1):283–288, February 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 17th SIGCSE Symposium on Computer Science Education.

**Ferguson:1987:CGC**

- [Fer87] Ernest Ferguson. Conference grading of computer programs. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):361–365, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Furtado:1982:IGP**

- [FFM82] A. L. Furtado, A. A. B. Furtado, and F. A. Messeder. Instructional graphics packages to be used with a line printer. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(4):12–15, December 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). URL <ftp://ftp.math.utah.edu/pub/mirrors/ftp.ira.uka.de/bibliography/Graphics/imager/1982.bib>; <ftp://ftp.math.utah.edu/pub/mirrors/ftp.ira.uka.de/bibliography/Graphics/siggraph/1982.bib>.

**Fowler:1983:CTP**

- [FG83] George C. Fowler and Louis W. Glorfeld. COBOL tables: a proposed standard of presentation. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):200–203, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Fornaro:1983:SAT**

- [FGU83] R. J. Fornaro, K. P. Garrard, and E. M. Uzzle. A structured approach to teaching operating systems principles using a high level concurrent programming language. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):41–49, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Finkel:1988:PCT**

- [FH88] David Finkel and Gary Haggard. Program complexity: a tutorial. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):73–77, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Fletcher:1984:MPM**

- [FHW84] G. Yates Fletcher, Larry F. Hodges, and Stephen G. Worth III. Maniac: a preliminary machine approach to the ACM CS 3 course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(1):26–33, February 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 15th SIGCSE Technical Symposium on Computer Science Education.

**Figuroa:1987:CTR**

- [Fig87] Mario A. Figuroa. The control of a toy robot ARM: a real time programming experience. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):382–385, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Fischer:1984:CLS**

- [Fis84] Herman Fischer. Computer literacy scope and sequence models a critical review of two approaches. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(2):17–23,

June 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Fisher:1987:SOF**

- [Fis87] Gene Fisher. Student-oriented features of an interactive programming environment. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):532–537, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Ferchichi:1987:TFY**

- [FJ87] Ahmed Ferchichi and Ali Jaoua. Teaching first year programming: a proposal. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(3):48–52, September 1, 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Fox:1984:USC**

- [FL84] Christopher Fox and Ronald L. Lancaster. Use of a syntax checker to improve student access to computing. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(1):65–68, February 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 15th SIGCSE Technical Symposium on Computer Science Education.

**Feinstein:1985:CSA**

- [FL85] David Feinstein and David Langan. Computers and society — another look at that general purpose course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(3):32–33, September 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Feil:1987:LBM**

- [FL87] Todd Feil and Lee Larson. A laboratory based microprocessor course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(3):2–3, September 1, 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Flaherty:1988:STM**

- [Fla88] Terry Flaherty. A simple technique to motivate structured programming. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):153–155, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Fuelling:1988:CSU**

- [FLK<sup>+</sup>88] Clinton P. Fuelling, Anne-Marie Lancaster, Mark C. Kertstetter, R. Waldo Roth, William A. Brown, Richard K. Reidenbach, and Ekawan Wongsawatgul. Computer science undergraduate capstone course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):135, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Frederick:1984:UFS**

- [FM84] William G. Frederick and Maynard J. Mansfield. A user-friendly shell and text editor for Pascal on the DEC VAX 11. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(1):77–83, February 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 15th SIGCSE Technical Symposium on Computer Science Education.

**Frederick:1985:ICS**

- [FM85] William G. Frederick and Maynard J. Mansfield. Introductory computer science courses for in-service elementary and secondary teachers. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):211–214, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Frederick:1986:IEP**

- [FM86] William G. Frederick and Maynard J. Mansfield. An instructional environment for programming using the Vax 11 with a three-color projector. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(2):29–30, June 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Fajuyigbe:1984:EPL**

- [FO84] O. Fajuyigbe and D. L. Ogbokor. Experiment in programming laboratory. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(4):34–35, December 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Foley:1982:THF**

- [Fol82a] James D. Foley. Teaching human factors in computer systems: a summary of a session held at the human factors in computer systems conference. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(3):30, September 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Foley:1982:TDE**

- [Fol82b] James D. Foley. Teaching the design and evaluation of user-computer interfaces. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(3):31–33, September 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Foley:1983:PDW**

- [Fol83] David M. Foley. Program documentation at Wichita State University. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):133–136, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Folse:1986:PCC**

- [Fol86] Raymond O. Folse. Pre-college computer use: U.S. versus Japan. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(2):51–52, June 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Fontana:1983:PPF**

- [Fon83] Joseph M. Fontana. Pascal procedures and functions for teaching linear data structures. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):178–186, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Foreman:1981:PUI**

- [For81] John Foreman. A practical undergraduate introduction to software engineering. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(4):13–15, December 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Ford:1982:FTR**

- [For82a] Gary Ford. A framework for teaching recursion. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(2):32–39, June 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Ford:1982:SEA**

- [For82b] Gary Ford. A software engineering approach to first year computer science courses. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):8–12, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Ford:1983:EDF**

- [For83] Gary A. Ford. An experiment with design formalism in introductory courses. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):177, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Ford:1984:IIA**

- [For84] Gary Ford. An implementation-independent approach to teaching recursion. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(1):213–216, February 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 15th SIGCSE Technical Symposium on Computer Science Education.

**Fosberg:1981:NLP**

- [Fos81] Mary Dee Harris Fosberg. Natural Language Processing in the undergraduate curriculum. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(1):196–203, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Fosberg:1982:ACS**

- [Fos82] Mary Dee Harris Fosberg. Adapting Curriculum 78 to a small university environment. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):179–183, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Foss:1989:MCS**

- [Fos89] R. Foss. Music in computer science courses using inexpensive, exciting technology to teach programming principles. *SIGCSE*



*Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(4):57–59, December 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Folk:1985:PPS**

- [FR85] Mike Folk and James S. Ramlet. PS: a procedure simulator for dynamic program visualization. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):36–40, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Franklin:1987:WAI**

- [Fra87] Roger E. Franklin, Jr. What academic impact are high school computing courses having on the entry-level college computer science curriculum? *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):253–256, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Fritz:1983:EIC**

- [Fri83] Jane M. Fritz. Experiences with introductory computer science courses survey results. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(4):31–33, December 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Fritz:1984:ADS**

- [Fri84] Jane M. Fritz. Accommodating disparities in secondary school backgrounds in the university environment. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(1):230–235, February 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 15th SIGCSE Technical Symposium on Computer Science Education.

**Fritz:1987:PAS**

- [Fri87] Jane M. Fritz. A pragmatic approach to systems analysis and design. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):127–131, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Foley:1988:RNU**

- [FS88] James Foley and Thomas Standish. Report of the NSF undergraduate computer science education workshop. *SIGCSE Bulletin*

(*ACM Special Interest Group on Computer Science Education*), 20(3):57–64, September 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Fulda:1985:VSC**

- [Ful85] Joseph S. Fulda. Verbal skills in computer science education. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(3):30–31, September 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Flaningam:1987:AWT**

- [FW87] Dona Lee Flaningam and Sandra Warriner. Another way to teach computer science through writing. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(3):15–17, September 1, 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Gabrini:1982:IDP**

- [Gab82] Philippe Gabrini. Integration of design and programming methodology into beginning computer science courses. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):85–87, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Gabrini:1986:CPM**

- [GAK86] Philippe J. Gabrini, J. Mack Adams, and Barry L. Kurtz. Converting from Pascal to Modula-2 in the undergraduate curriculum. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(1):50–52, February 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 17th SIGCSE Symposium on Computer Science Education.

**Gantenbein:1989:PPN**

- [Gan89] Rex E. Gantenbein. Programming as process: a “novel” approach to teaching programming. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):22–26, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Garraway:1986:IUW**

- [Gar86] Hugh Garraway. Implementation of a university wide computer-augmented-curriculum. *SIGCSE Bulletin (ACM Special Interest*

*Group on Computer Science Education*), 18(1):246–248, February 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 17th SIGCSE Symposium on Computer Science Education.

**Gathers:1986:SFC**

- [Gat86] Emery Gathers. Screening freshmen computer science majors. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(3):44–48, September 1, 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Gorgone:1982:FPD**

- [GB82] John T. Gorgone and John Beidler. Faculty (panel discussion): Recruiting, retraining and retention. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):259, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Gibbs:1985:CSC**

- [GBC<sup>+</sup>85] Norman E. Gibbs, Kim Bruce, Robert Cupper, Stuart Hirshfield, Ted Sjoerdsma, and Allen Tucker. A computer science curriculum for liberal arts colleges (panel session). *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):115, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Gayer:1987:CPA**

- [GBO87] Richard Gayer, Catherine M. Beise, and G. Scott Owen. Conversion of a PDP-11/40 assembler and simulator from mainframe Pascal to Ada on IBM PC microcomputers. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):378–381, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Gersting:1982:SCG**

- [Ger82] Judith L. Gersting. A summer course for gifted high school students. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):20–22, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Gerasch:1985:UPT**

- [Ger85] Thomas E. Gerasch. Use of preprocessor as a tool to assist students in implementing stacks and queues. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):342–347, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Glorfeld:1982:VMP**

- [GF82] Louis W. Glorfeld and George C. Fowler. Validation of a model for predicting aptitude for introductory computing. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):140–143, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Grimes-Farrow:1985:PCS**

- [GF85] D. Grimes-Farrow. Program in computer science and engineering: ongoing education for computer system designers. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):306–311, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Gerlach:1981:UWM**

- [GG81] Jacob Gerlach and Iza Goroff. The UW-Whitewater management computer systems program. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(1):171–176, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Gorgone:1987:PEC**

- [GHM87] John T. Gorgone, Thomas I. M. Ho, and John D. McGregor. Proposed evaluation criteria for information systems programs accreditation. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(4):36–39, December 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Giannotti:1987:AAT**

- [Gia87] Elena Giannotti. Algorithm animator: a tool for programming learning. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):308–314, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Gibbs:1985:LSC**

- [Gib85] Norman E. Gibbs. The LameDuck SIG chairman's message: a parting shot at accreditation. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(3):1–2, September 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Gillett:1980:APO**

- [Gil80] Will Gillett. The anatomy of a project oriented second course for computer science majors. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(1):25–31, February 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 11th SIGCSE Symposium on Computer Science Education.

**Gips:1986:RCU**

- [Gip86] James Gips. A robotics course using hero I robots. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(4):65–68, December 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Gittleman:1986:AMD**

- [Git86] Arthur Gittleman. Abstraction & modular decomposition — an example. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(4):6–10, December 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Goodin:1985:ITW**

- [GK85] William R. Goodin and Walter J. Karplus. An innovative two-week computer science program for employed professionals. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):312–317, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Gillett:1983:PPM**

- [GM83] Will D. Gillett and Eric B. Muehrcke. A pedagogical processor model. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):159–164, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Golden:1982:DSA**

- [Gol82] Donald G. Golden. Development of a systems analysis and design course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):110–113, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Goldenson:1989:ISE**

- [Gol89] D. R. Goldenson. The impact of structured editing on introductory computer science education: the results so far. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(3):26–29, September 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Goroff:1982:SAD**

- [Gor82a] Iza Goroff. A systems analysis & design course sequence. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):123–127, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Gorsline:1982:AEH**

- [Gor82b] G. W. Gorsline. Articulation: easing the high school to college transition ES3 — task group 5. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(3):24–29, September 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Gough:1981:LLP**

- [Gou81] K. J. Gough. Little language processing, an alternative to courses on compiler construction. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(3):31–34, September 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Greenfield:1987:LUC**

- [GP87] Robert H. Greenfield and John H. Parr. Laboratories for an undergraduate course in data communications and networks. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):451–454, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Grant:1984:CAL**

- [Gra84] John Grant. A course in applied logic. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(3): 26–28, September 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Gray:1987:MDE**

- [Gra87] David F. Gray. A microprocessor development environment based on the Amsterdam compiler kit, EMACS and UNIX. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(4):30–35, December 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Greenleaf:1989:APM**

- [Gre89] Newcomb Greenleaf. Algorithms and proofs: Mathematics in the computing curriculum. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1): 268–272, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). URL <ftp://ftp.math.utah.edu/pub/mirrors/ftp.ira.uka.de/bibliography/Misc/DBLP/1989.bib>; <ftp://ftp.math.utah.edu/pub/mirrors/ftp.ira.uka.de/bibliography/Misc/Pape.bib>.

**Grier:1981:TDP**

- [Gri81] Sam Grier. A tool that detects plagiarism in Pascal programs. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(1):15–20, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Grit:1988:OSP**

- [Gri88] Dale H. Grit. An operating system project using concurrent Euclid. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(2):50–53, June 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Garland:1983:APP**

- [GRW83] Steven J. Garland, David C. Rine, and J. R. Jefferson Wadkins. Advanced placement program in computer science (panel session). *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):204, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of

the 14th SIGCSE Technical Symposium on Computer Science Education.

**Gorgone:1980:GMP**

- [GSK80] John T. Gorgone, Norman E. Sondak, and Benn Konsynski. Guidelines for a minimum program for colleges and universities offering Bachelors degrees in information systems. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(1):223–226, February 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 11th SIGCSE Symposium on Computer Science Education.

**Gumb:1989:FCP**

- [Gum89] Raymond D. Gumb. A first course in program verification and the semantics of programming languages. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):146–150, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Goldbogen:1981:FPCa**

- [GW81a] Geof Goldbogen and G. H. Williams. The feasibility of personal computers as an only computer resource for a computer science program. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(1):125, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Goldbogen:1981:FPCb**

- [GW81b] Geof Goldbogen and G. H. Williams. The feasibility of personal computers versus a minicomputer for a computer science program. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(3):2–4, September 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Gross:1985:PSG**

- [GW85] John A. Gross and James L. Wolfe. Paperless submission and grading of student assignments. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):31–33, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).



**Gibbs:1981:CST**

- [GWD<sup>+</sup>81] Norman Gibbs, Kenneth L. Williams, Kenneth Danhoff, Robert Korfhage, and Jack Alanen. Computer science-too many students, too many majors (panel discussion). *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(1):143, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Haas:1988:TDU**

- [Haa88] David F. Haas. Teaching database using a real DBMS: experience with INGRES. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):195–199, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Hagelhans:1987:CSM**

- [Hag87] Nancy L. Hagelhans. A computer science/mathematics major for liberal arts colleges. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):400–402, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Harrow:1982:FDP**

- [Har82] Keith Harrow. A faculty development program. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):170–173, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Harrington:1988:CBI**

- [Har88a] Jan L. Harrington. The computer background of incoming freshman: looking for emerging trends. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):210–214, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Harris:1988:MPC**

- [Har88b] J. Archer Harris. A microprogramming project for a course in computer systems. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(2):43–49, June 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Hartman:1989:WLC**

- [Har89] Janet D. Hartman. Writing to learn and communicate in a data structures course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):32–36, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Hassler:1982:TWI**

- [Has82] Ardoth A. Hassler. Twelve ways to improve cooperation with the Computer Center. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):39–42, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Haverly:1980:GEC**

- [Hav80] C. A. Haverly. Go-to example comment. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(3):8, September 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Hayashi:1983:OSP**

- [Hay83] Tsunetoshi Hayashi. An operating systems programming laboratory course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):31–35, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Hays:1988:IGT**

- [Hay88] Helen Duerr Hays. Interactive graphics: a tool for beginning programming students in discovering solutions to novel problems. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):137–141, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Hays:1989:OSC**

- [Hay89] James H. Hays. An operating systems course using Minix. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(4):11–12, December 1, 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Hocking:1984:SMB**

- [HC84] Dan Hocking and Joe Celko. Software maintenance: a budgeting dilemma. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(1):125–129, February 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 15th SIGCSE Technical Symposium on Computer Science Education.

**Hartman:1987:PAS**

- [HC87a] Janet Hartman and Carol Chrisman. Providing activities for students to apply data structures concepts. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):336–342, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Holliday:1987:SPM**

- [HC87b] Robert L. Holliday and Lowell A. Carmony. A scheduling problem: modeling, approximate algorithms, and implementation. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):473–480, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Hwang:1982:PPP**

- [HCF<sup>+</sup>82] C. J. Hwang, Darrell E. Criss, Clinton P. Fuelling, Darryl E. Gibson, Jerry P. Harshany, Betty W. Hwang, and Tseng-Yuh Lee. Preventing the plagiarism of programming assignments (panel discussion). *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):262–264, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Headington:1988:IFA**

- [Hea88] Mark R. Headington. Introducing finite automata in the first course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):163–167, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Heeler:1983:MDS**

- [Hee83] Phillip J. Heeler. A Master's degree in school computer studies. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):99–103, February 1983. CODEN SIGSD3.

ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Henry:1983:POC**

- [Hen83] Sallie Henry. A project oriented course on software engineering. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):57–61, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Henderson:1986:AIC**

- [Hen86] Peter B. Henderson. Anatomy of an introductory computer science course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(1):257–264, February 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 17th SIGCSE Symposium on Computer Science Education.

**Henderson:1987:MIC**

- [Hen87a] Peter Henderson. Modern introductory computer science. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):183–190, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Henry:1987:IEC**

- [Hen87b] Michael Henry. An interfacing and electronics course for computer science majors. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(2):12–14, June 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Herrin:1985:SMC**

- [Her85] William R. Herrin. Software maintenance costs: a quantitative evaluation. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):233–237, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Heuring:1984:TAL**

- [Heu84] Vincent P. Heuring. The teaching of assembly language to computer science and computer engineering majors. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(4):12–14, December 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Hamblen:1980:UCS**

- [HFG<sup>+</sup>80] John W. Hamblen, Barry B. Flachsbart, Leslie D. Gilliam, Bernie C. Patton, and Daniel C. Clair. Are the university computer sciences satisfying industry (panel discussion). *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(1):165, February 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 11th SIGCSE Symposium on Computer Science Education.

**Hwang:1982:UEG**

- [HG82] C. Jinshong Hwang and Darryl E. Gibson. Using an effective grading method for preventing plagiarism of programming assignments. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):50–59, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Haas:1983:PMP**

- [HH83] Mark Haas and Johnette Hassell. A proposal for a measure of program understanding. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):7–13, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Harriger:1986:DPC**

- [HH86] Alka Rani Harriger and Thomas I. Ho. A data processing communication skills course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(1):97–102, February 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 17th SIGCSE Symposium on Computer Science Education.

**Hamm:1983:TPG**

- [HHRT83] R. Wayne Hamm, Kenneth D. Henderson, Jr., Marilyn L. Repsher, and Kathleen M. Timmer. A tool for program grading: The Jacksonville University Scale. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):248–252, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Higginbotham:1984:SAS**

- [Hig84] T. F. Higginbotham. Students aiding students. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(2):24–25, June 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Hightower:1985:THS**

- [Hig85] Vicki M. Hightower. Teaching honor students: how do they measure up. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(2):15–20, June 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Hintz:1980:UCS**

- [Hin80] Joseph C. Hintz. Undergraduate computer science education: alternatives to the mathematics core requirements and effects on a minor in computer science. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(2):45–47, July 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Hirshfield:1984:PST**

- [Hir84] Stuart H. Hirshfield. Program synthesis as a tool for teaching programming. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(2):4–6, June 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Hirmanpour:1988:SSD**

- [Hir88] Iraj Hirmanpour. A student system development diagrammer. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):104–108, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Hitz:1987:IDS**

- [Hit87] Martin Hitz. An interactive demonstration system for implementations of abstract data types. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(4):19–21, December 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Haggard:1986:FMP**

- [HK86] Gary Haggard and Kevin Karplus. Finding minimal perfect hash functions. *SIGCSE Bulletin (ACM Special Interest Group*

on *Computer Science Education*), 18(1):191–193, February 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 17th SIGCSE Symposium on Computer Science Education.

**Hwang:1981:CES**

- [HKW81] C. Jinshong Hwang, Gerald Kulm, and Grayson H. Wheatley. Computing education for secondary school teachers: a cooperative effort between computer scientist and educators. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(1):257–261, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Hassell:1982:TSC**

- [HL82] Johnette Hassell and Victor J. Law. Tutorial on structure charts as an algorithm design tool. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):211–223, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Harrow:1986:TPU**

- [HLG86] Keith Harrow, Yedidyah Langsam, and David E. Goldberg. Teaching PL/I using a microcomputer. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(3):19–25, September 1, 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Harrison:1981:SCI**

- [HM81] Warren A. Harrison and Kenneth I. Magel. A suggested course in introductory computer programming. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(1):50–56, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Hockensmith:1987:CSD**

- [Hoc87] Dale K. Hockensmith. Coordination of systems development courses. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):529–531, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Hodges:1985:ARC**

- [Hod85] Julia E. Hodges. An advanced readings course in database systems. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(3):17–18, September 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Hoffman:1983:MHS**

- [Hof83] Irwin J. Hoffman. A model high school computer lab (special session). *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):127, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Honkanen:1983:ICD**

- [Hon83] Pentti A. Honkanen. Installation of a commercial database management system in a university environment. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):211–219, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Horn:1983:AUM**

- [Hor83] Lister W. Horn. An assessment of the use of microcomputers to support computer science instruction. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(4):28–30, December 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Hostetler:1983:PSS**

- [Hos83] Terry R. Hostetler. Predicting student success in an introductory programming course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(3):40–43, September 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Hovis:1988:UCL**

- [Hov88] Robert A. Hovis. Using current literature in two courses. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(4):62–64, December 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).



**Howard:1987:STT**

- [How87] Geoffrey S. Howard. A simulation tool for teaching disk-based file design concepts. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(4):54–57, December 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Howerton:1988:CSC**

- [How88] Charles P. Howerton. “Cactus Systems”: a computer science practicum that is more than a capstone. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):176–180, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Henderson:1989:TRP**

- [HR89] Peter B. Henderson and Francisco J. Romero. Teaching recursion as a problem-solving tool using standard ML. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):27–31, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Hughes:1989:LCN**

- [Hug89] Larry Hughes. Low-cost networks and gateways for teaching data communications. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):6–11, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Hummel:1989:XWI**

- [Hum89] J. Hummel. Xinu/WU: an improved PC-Xinu clone? *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):226–230, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Haas:1989:SAC**

- [HW89] David F. Haas and Leslie J. Waguespack, Jr. Sizing assignments: a contribution from software engineering to computer science education. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):190–194, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Hyde:1989:PPC**

- [Hyd89] D. G. Hyde. A parallel processing course for undergraduates. *SIGCSE Bulletin (ACM Special Interest Group on Computer*

*Science Education*), 21(1):170–173, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Isaacson:1989:AES**

- [IS89] Peter C. Isaacson and Terry A. Scott. Automating the execution of student programs. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(2):15–22, June 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Jacobs:1981:TSE**

- [Jac81] Steven M. Jacobs. Teaching software engineering in the adult education environment. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(1):120–124, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Jagielski:1988:VSF**

- [Jag88] Romauld Jagielski. Visual simulation of finite state machines. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(4):38–40, December 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Jost:1983:APA**

- [JBT83] A. C. Jost, R. Bolz, and G. Topping. Adventures in PASCAL — the academy approach. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):143–147, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Joel:1987:RSP**

- [Joe87] William J. Joel. Realistic student projects. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):244–247, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Jones:1982:SHS**

- [Jon82] Gerald A. Jones. Summer high school computer workshop. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):23–27, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Jones:1987:PTM**

- [Jon87] James S. Jones. Participatory teaching methods in computer science. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):155–160, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Jordan:1987:CPT**

- [Jor87] Donald L. Jordan. A comparison of programming team performance on software development projects. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(3):45–47, September 1, 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Jordan:1989:IDP**

- [Jor89] Donald L. Jordan. Integrating desktop publishing into a systems analysis and design course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):74–77, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Joyce:1988:UPC**

- [Joy88] Daniel Joyce. A unifying project for CSI. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(3):49–52, September 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Juell:1982:OAC**

- [Jue82] Paul L. Juell. An office automation course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(3):22–23, September 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Kurtz:1988:UCE**

- [KA88] Barry L. Kurtz and J. Mack Adams. Using concept expansion and level integration in an introductory computer science course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):244–248, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Kanabar:1988:IKB**

- [Kan88] Vijay Kanabar. Introducing knowledge-based projects in a systems development course. *SIGCSE Bulletin (ACM Special In-*

terest Group on Computer Science Education), 20(1):114–118, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Karlstrom:1983:ASA**

- [Kar83] Karl V. Karlstrom. ACM — SIGCSE award speech. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(3):3–7, September 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Kumar:1989:UGM**

- [KB89] Ashok Kumar and John Beidler. Using generics modules to enhance the CS2 course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):61–65, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Koltun:1983:PRS**

- [KDP83] Philip Koltun, Lionel E. Deimel, Jr., and Jo Perry. Progress report on the study of program reading. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):168–176, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Kempton:1986:SMV**

- [Kem86] Willett Kempton. A system to make visible the structure and execution of student programs. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(1):313–317, February 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 17th SIGCSE Symposium on Computer Science Education.

**Kerstetter:1983:KPL**

- [Ker83] Mark C. Kerstetter. A KWIC permuted list of articles appearing in the SIGCS bulletin. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(4):39–62, December 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Kerstetter:1984:KPL**

- [Ker84] Mark C. Kerstetter. A KWIC permuted list of articles in the SIGCSE Bulletin 1983. *SIGCSE Bulletin (ACM Special Interest*

*Group on Computer Science Education*), 16(3):34–43, September 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Kerstetter:1985:KPL**

- [Ker85] Mark C. Kerstetter. A KWIC permuted list of articles in the SIGCSE Bulletin 1984. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(2):36–43, June 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Kerley:1986:TCD**

- [Ker86] Lyndell M. Kerley. Teaching concepts of data structures via the Fast Fourier Transform. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(3):26–30, September 1, 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Kerley:1988:CCL**

- [Ker88] Lyndell M. Kerley. Comprehending the central limit theorem. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(2):20–25, June 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Klerlein:1988:TBS**

- [KF88] Joseph B. Klerlein and Curtis Fullbright. A transition from bubble to shell sort. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):183–184, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Kelsh:1982:PCU**

- [KH82] James P. Kelsh and John C. Hansen. Personal computers in the undergraduate curriculum: an example. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(3):11–14, September 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Khailany:1981:CGCa**

- [Kha81a] Asad Khailany. Central government computing agency in less developed countries. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(1):1, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Khailany:1981:CGCb**

- [Kha81b] Asad Khailany. Central government computing agency in less developed countries. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(3):13–14, September 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Khailany:1982:ECK**

- [Kha82] Asad Khailany. Enhancing computer knowledge in Less Developed Countries (panel discussion). *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):260, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Khuri:1986:CNB**

- [Khu86] Sami Khuri. Counting nodes in binary trees. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(1):182–185, February 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 17th SIGCSE Symposium on Computer Science Education.

**King:1983:TDC**

- [Kin83] Ronald S. King. Teaching database concepts with seed. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):220–227, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**King:1988:CDM**

- [Kin88] Ronald S. King. A “course” for data modelling. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):200–204, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Kurtz:1985:UST**

- [KJ85] Barry L. Kurtz and Dennis Johnson. Using simulation to teach recursion and binary tree traversals. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):49–54, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Koffman:1984:RFC**

- [KMW84] Elliot Koffman, Philip Muller, and Caroline Wardle. Recommendations for the first course computer science. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(1):211, February 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 15th SIGCSE Technical Symposium on Computer Science Education.

**Kalmey:1981:MCL**

- [KN81] Donald L. Kalmey and Marino J. Niccolai. A model for a CAI learning system. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(1):74–77, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**King:1985:CEC**

- [KN85] Ronald S. King and James H. Nolen. A computer ethics course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):99–104, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Kneller:1986:ALC**

- [Kne86] George R. Kneller. Adult learners: away with computerphobia. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(1):34–37, February 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 17th SIGCSE Symposium on Computer Science Education.

**Koch:1987:PAS**

- [Koc87] Gregers Koch. Prolog in the automation of the semantic component. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):324–329, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Koffman:1988:CMC**

- [Kof88] Elliot B. Koffman. The case for Modula-2 in CS1 and CS2. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):49–53, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Korfhage:1980:GKP**

- [Kor80] Robert R. Korfhage. The Gordian knot program: a short note on un-teaching “go to”. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(2):16, July 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Korf:1983:CSS**

- [Kor83] Richard E. Korf. A computer science syllabus for gifted pre-college students. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):237–240, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Kurtz:1987:CPD**

- [KP87] Barry L. Kurtz and Joseph J. Pfeiffer, Jr. A course project to design and implement the kernel of a real-time operating system. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):115–119, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Kiper:1989:IEH**

- [KRT89] J. Kiper, B. Rouse, and D. Troy. Inservice education of high school computer science teachers. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):199–203, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Kruse:1982:TR**

- [Kru82] Robert L. Kruse. On teaching recursion. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):92–96, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Krause:1982:CSA**

- [KSG82] Kenneth L. Krause, Robert E. Sampsell, and Samuel L. Grier. Computer science in the Air Force Academy core curriculum. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):144–146, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.



**Koffman:1985:RCA**

- [KSW85] Elliot B. Koffman, David Stemple, and Caroline E. Wardle. Report on CS2 from ACM CS2 Committee (panel session). *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):178, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Kung:1987:OSC**

- [Kun87] Mou-Liang Kung. An operating systems course project. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(2):10–11, June 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Kurtz:1980:IRB**

- [Kur80] Barry L. Kurtz. Investigating the relationship between the development of abstract reasoning and performance in an introductory programming class. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(1):110–117, February 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 11th SIGCSE Symposium on Computer Science Education.

**Kushner:1984:TTI**

- [Kus84] Jeffrey Kushner. Training the trainers: industrial vs. educational institutions. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(3):5–6, September 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Kerridge:1980:STC**

- [KW80] J. M. Kerridge and N. Willis. A simulator for teaching computer architecture. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(2):65–71, July 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Karian:1984:COC**

- [KZ84] Zaven Karian and Stuart H. Zweben. A Central Ohio Consortium for retraining in computer science. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(1):2–4, February 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 15th SIGCSE Technical Symposium on Computer Science Education.

**Lambert:1988:PEP**

- [Lam88] Howard Lambert. Pascal's emulation of a Prolog program. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):254–258, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Lambert:1989:LOC**

- [Lam89a] K. A. Lambert. A language-only course in LISP with PC Scheme. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):236–240, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Lambert:1989:PTP**

- [Lam89b] Kenneth A. Lambert. Parsing `tinyada` in a programming language design course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(2):29–33, June 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Lane:1981:TOS**

- [Lan81] Malcolm G. Lane. Teaching operating systems and machine architecture—more on the hands-on laboratory approach. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(1):28–36, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Lang:1983:PFS**

- [Lan83] Sheau-Dong Lang, editor. *The papers of the Fourteenth SIGCSE Technical Symposium on Computer Science Education, Orlando, Florida, February 17–18, 1983*, volume 15(1) of *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*. ACM Press, New York, NY 10036, USA, 1983. CODEN SIGSD3. ISBN 0-89791-091-5 (paperback). ISSN 0097-8418 (print), 2331-3927 (electronic). LCCN QA76.27 .A79a vol. 15, no. 1.

**Larsen:1989:LFC**

- [Lar89] L. A. Larsen. Laying the foundations for computer science. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):204–208, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Lawson:1980:UPM**

- [Law80] Harold W. Lawson. The use of processor-memory pairs for explaining basic architectural relationships. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(4): 46–49, December 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Leach:1988:CUC**

- [LBFS88] Ronald J. Leach, Jeffrey A. Brumfield, Michael B. Feldman, and Charles M. Shub. Concurrency in the undergraduate curriculum. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):42, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Little:1986:CSE**

- [LC86] Joyce C. Little and Lillian N. Cassel, editors. *Computer science education: Papers of the Seventeenth SIGCSE technical symposium (Cincinnati, Ohio, February 6–7, 1986)*, SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education). ACM Press, New York, NY 10036, USA, 1986. CODEN SIGSD3. ISBN 0-89791-178-4. ISSN 0097-8418 (print), 2331-3927 (electronic). LCCN QA76.27.A79 v.18 no.1. US\$28. ACM Order No 457860. Published as ACM SIGCSE Bull. 18, Feb. 6–7, 1986.

**Little:1988:IAP**

- [LCD<sup>+</sup>88] Joyce Currie Little, Laurence J. Cooper, Barry C. Davis, John Alexander, Peter Joyce, and Charles J. Schmitt. An industry/academic partnership experiment: a course in artificial intelligence. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):171–175, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Lewis:1986:CSS**

- [LD86] Jerome L. Lewis and Dr. A computational solution to the snow-pow problem. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(3):9–12, September 1, 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Leap:1984:ACT**

- [Lea84] Thomas R. Leap. Animations of computers as teaching aids. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(1):84–90, February 1984. CODEN SIGSD3.

ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 15th SIGCSE Technical Symposium on Computer Science Education.

**Leach:1988:STP**

- [Lea88] Ronald J. Leach. A suggested term project for the first course in computer science. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(2):40–42, June 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Lees:1980:AUS**

- [Lee80] John Lees. All undergraduate systems programming laboratory. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(3):16–19, September 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Lees:1985:ICP**

- [Lee85] B. Lees. Introductory concurrent programming with Modula-2. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(3):34–41, September 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Lee:1986:CPL**

- [Lee86a] M. C. Lee. A course in programming languages for computer science majors. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(3):17–18, September 1, 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Lees:1986:TMC**

- [Lee86b] Brian Lees. Teaching microcomputer concepts through modelling. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(2):19–24, June 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Leeper:1989:PPA**

- [Lee89] Robert Leeper. Progressive project assignments in computer courses. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):88–92, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Leigh:1981:ECEb**

- [Lei81a] William E. Leigh. Experiences with a continuing education seminar: “computers for small business”. *SIGCSE Bulletin (ACM*

*Special Interest Group on Computer Science Education*), 13(3): 20–21, September 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Leigh:1981:ECEa**

- [Lei81b] William E. Leigh, Jr. Experiences with a continuing education seminar: “computers for small business”. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(1): 114, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Leibowitz:1986:EIS**

- [Lei86] Anita Zoe Leibowitz. Exercises for introducing software engineering concepts in a data structures course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(4):69–71, December 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Lemos:1981:CNB**

- [Lem81] Ronald S. Lemos. A comparison of non-business and business student test scores in basic. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(1):86–90, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Lemos:1983:FCT**

- [Lem83] Ronald S. Lemos. “free” computer too expensive. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):246, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Lemone:1987:MPL**

- [Lem87] Karen A. Lemone. A multi-purpose language processing laboratory. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):446–450, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Lessman:1989:CEC**

- [Les89] Roger E. Lessman. Changes and extensions in the C family of languages. *SIGCSE Bulletin (ACM Special Interest Group on*

*Computer Science Education*), 21(2):34–39, June 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Levison:1980:UMF**

- [Lev80a] Michael Levison. The use of minicomputers in a first computer systems course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(1):51–54, February 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 11th SIGCSE Symposium on Computer Science Education.

**Levy:1980:DEP**

- [Lev80b] Philip Levy. Disposable and enduring programming. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(1):83–87, February 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 11th SIGCSE Symposium on Computer Science Education.

**Lewis:1988:PPC**

- [Lew88] Jerome L. Lewis. The 15-pegs puzzle and the conceptual tree. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(4):15–18, December 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Linderman:1982:DCS**

- [Lin82] James Landon Linderman. Defensive COBOL strategies. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):205–210, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Lisboa:1980:BPU**

- [Lis80] Maria Lúcia Blanck Lisbôa. Brazil's pioneer undergraduate program in information systems. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(1):185, February 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 11th SIGCSE Symposium on Computer Science Education.

**Lang:1983:BFS**

- [LJ83] Joseph E. Lang and Betty L. Jehn. Birds-of-a-feather Small College Session Computer Science Conference, Orlando, Florida, February 17, 1983. *SIGCSE Bulletin (ACM Special Interest Group*

on *Computer Science Education*), 15(4):24–27, December 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Lane:1989:MPO**

- [LkG89] M. G. Lane and A. k. Ghosal. MPX-PC: an operating system project for the PC. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):231–235, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Lucia:1980:BPU**

- [LL80] Maria Lúcia and Blanck Lisbôa. Brazil's pioneer undergraduate program in information systems. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(2):34–36, July 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Lapalme:1986:EUA**

- [LL86] Guy Lapalme and Jean-François Lamy. An experiment in the use of Ada in course in software engineering. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(1):124–126, February 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 17th SIGCSE Symposium on Computer Science Education.

**Lukey:1987:IDA**

- [LLH87] Trevor Lukey, Kenneth Loose, and David R. Hill. Implementation of a debugging aid for logic errors in Pascal programs. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):386–390, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Liss:1987:FTG**

- [LM87a] Ivan B. Liss and Thomas C. McMillan. Fractals with turtle graphics: a CS2 programming exercise for introducing recursion. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):141–147, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Liss:1987:IST**

- [LM87b] Ivan B. Liss and Thomas C. McMillan. The implementation of a simple turtle graphics package. *SIGCSE Bulletin (ACM Spe-*

*cial Interest Group on Computer Science Education*), 19(4):45–53, December 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Liss:1987:TCP**

- [LM87c] Ivan B. Liss and Thomas C. McMillan. Trees — a CS2 programming project which introduces a data type using procedural and data abstraction. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):346–352, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Liss:1988:AER**

- [LM88] Ivan B. Liss and Thomas C. McMillan. An amazing exercise in recursion for CS1 and CS2. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):270–274, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Lang:1989:TAD**

- [LM89a] Joseph E. Lang and Robert K. Maruyama. Teaching the abstract data type in CS2. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):71–73, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Liss:1989:EIM**

- [LM89b] Ivan B. Liss and Thomas C. McMillan. An example illustrating modularity, abstraction & information hiding using. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):93–97, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Lehman:1986:LIC**

- [LN86] John A. Lehman and Justus D. Naumann. A language independent course in program design and programming for MIS students. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(4):32–37, December 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Lopez:1980:ME**

- [Lop80] Antonio M. Lopez. Microcomputers in education. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Educa-*



tion), 12(2):43–44, July 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**LaGarde:1981:OSC**

- [LOP81] J. M. LaGarde, G. Olivier, and G. Padiou. An operating system course project. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(2):34–48, June 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Lorenzen:1981:CCP**

- [Lor81] Toby Lorenzen. The case for in class programming tests. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(3):35–37, September 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Louden:1989:LPL**

- [Lou89] K. Louden. Logo as a prelude to LISP: some surprising results. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(3):35–38, September 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Leeper:1986:SAL**

- [LR86] Robert R. Leeper and Karl O. Rehmer. Structured assembly language in VAX-11 MACRO. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(1):53–60, February 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 17th SIGCSE Symposium on Computer Science Education.

**Leeper:1982:PSF**

- [LS82] R. R. Leeper and J. L. Silver. Predicting success in a first programming course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):147–150, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Laurido-Santos:1985:UIS**

- [LS85] Osvaldo Laurido-Santos. An updated information systems curriculum. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):358–366, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Laurido-Santos:1986:CIE**

- [LS86] Osvaldo Laurido-Santos. A course on information engineering. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(1):194–202, February 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 17th SIGCSE Symposium on Computer Science Education.

**Laurido-Santos:1987:UIS**

- [LS87] Osvaldo Laurido-Santos. An updated information systems curriculum: first revision. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):495–498, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Little:1988:ALC**

- [LS88] R. Rainey Little and Mark K. Smotherman. Assembly language courses in transition. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):95–99, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Luker:1989:NML**

- [Luk89] P. A. Luker. Never mind the language, what about the paradigm? *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):252–256, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Leinbach:1986:CRA**

- [LW86] L. Carl Leinbach and Alex L. Wijesinha. On classifying recursive algorithms. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(1):186–190, February 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 17th SIGCSE Symposium on Computer Science Education.

**Lasudry-Warzee:1987:DAS**

- [LW87] N. Lasudry-Warzee. Design of an authoring system for microcomputers. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(4):58–59, December 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Lewis:1980:SEC**

- [LWB<sup>+</sup>80] Ted Lewis, Terry M. Walker, William Bregar, Gene Kerr, and Peter Christy. Software engineering and computer science (panel discussion). *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(1):50, February 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 11th SIGCSE Symposium on Computer Science Education.

**Levine:1984:DPR**

- [LWF84] Liz Levine, Beverly Woolf, and Rich Filoramo. “do I press return?”. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(1):154–158, February 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 15th SIGCSE Technical Symposium on Computer Science Education.

**Lyster:1985:PI**

- [Lys85] Norman C. Lyster. A problem of integration. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(4):21–29, December 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Lyster:1986:UMO**

- [Lys86] Norman C. Lyster. The use of the music operating system to supplement the teaching of Cobol. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(4):46–49, December 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Magel:1982:CGC**

- [Mag82] K. Magel. Computer graphics courses. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(2):17–20, June 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). URL <ftp://ftp.math.utah.edu/pub/mirrors/ftp.ira.uka.de/bibliography/Graphics/imager/1982.bib>; <ftp://ftp.math.utah.edu/pub/mirrors/ftp.ira.uka.de/bibliography/Graphics/siggraph/1982.bib>.

**Magel:1984:HIF**

- [Mag84] Kenneth Magel. Handling the incoming freshman and transfer students in computer science. *SIGCSE Bulletin (ACM Special*

*Interest Group on Computer Science Education*), 16(1):224–229, February 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 15th SIGCSE Technical Symposium on Computer Science Education.

**Magrass:1985:CSC**

- [Mag85] Yale Magrass. Computer science curriculum: technography, technocracy, technology, or theology? *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(4):59–64, December 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Mahoney:1986:HIP**

- [Mah86] Michael K. Mahoney. Hardware independent programming for a computer graphics course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(4):50–53, December 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Mahoney:1987:STR**

- [Mah87] Micheal K. Mahoney. Some thoughts on revising a computer science program. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(3):20–21, September 1, 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Mahoney:1989:IGL**

- [Mah89] Michael K. Mahoney. Implementing a GKS-like graphics package on a microcomputer. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):278–282, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Mallozzi:1985:CPL**

- [Mal85a] John S. Mallozzi. A course in programming languages for educational computing. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(2):29–31, June 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Mallozzi:1985:TCT**

- [Mal85b] John S. Mallozzi. Teaching computability theory with a “real” language. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):181–183, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Martin:1984:RDS**

- [Mar84a] Kenneth E. Martin. The role of discrete structures & operations research in a computer science curriculum. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(4):4–6, December 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Martin:1984:SPS**

- [Mar84b] Kenneth E. Martin. Student performances and student perceptions of “principles of computer programming”. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(3):29–33, September 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Maresh:1985:SBS**

- [Mar85] Richard J. Maresh. Sorting out basic sorting algorithms. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(4):54–64, December 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Maren:1987:CLO**

- [Mar87a] Jerry Maren. Computer literacy and the older learner: a computer department’s response. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(3):25–28, September 1, 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Martin:1987:MI**

- [Mar87b] Dennis S. Martin. A miniLISP interpreter. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):316–318, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Marion:1989:DMC**

- [Mar89] William Marion. Discrete mathematics for computer science majors—where are we? how do we proceed? *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):273–277, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Masat:1980:TDP**

- [Mas80] Francis E. Masat. A twelve day programming course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(4):3–8, December 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Mathiassen:1980:SDT**

- [Mat80] Lars Mathiassen. System description as a tool for teaching programming. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(4):33–42, December 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Mattis:1988:MSR**

- [Mat88] W. E. Mattis. Microprocessor sequence revitalization. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(2):18–19, June 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Maurer:1980:MME**

- [Mau80] W. D. Maurer. Multiple micros for education. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(1):178–180, February 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 11th SIGCSE Symposium on Computer Science Education.

**Mavaddat:1981:AET**

- [Mav81] Farhad Mavaddat. Another experiment with teaching of programming languages. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(2):49–56, June 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Mazlack:1981:USI**

- [Maz81] Lawrence J. Mazlack. Using a sales incentive technique in a first course in software engineering. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(1):37–40, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Mazlack:1983:ISF**

- [Maz83] Lawrence J. Mazlack. Introducing subprograms as the first control structure in an introductory course. *SIGCSE Bulletin (ACM Spe-*

*cial Interest Group on Computer Science Education*), 15(1):265–270, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Meinke:1981:ATF**

- [MB81] John G. Meinke and John A. Beidler. Alternatives to the traditional first course in computing. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(1):57–60, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Malmrose:1987:FPU**

- [MB87] Kirk L. Malmrose and Robert P. Burton. File processing and the undergraduate computer science curriculum. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):330–335, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Mitchell:1983:RCF**

- [MBM<sup>+</sup>83] William Mitchell, Carter Bays, Stephen Mitchell, Stanley Franklin, Ed Dubinsky, and Richard Austing. Retraining of college faculty for computer science (panel session). *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):125–126, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Moran:1982:ACP**

- [MC82] Thomas P. Moran and Stuart K. Card. Applying cognitive psychology to computer systems: a graduate seminar in psychology. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(3):34–37, September 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**McBride:1983:NMM**

- [McB83] William E. McBride. Numerical methods and the micro: Color graphics as an aid to comprehension. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):287–289, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

URL <ftp://ftp.math.utah.edu/pub/mirrors/ftp.ira.uka.de/bibliography/Graphics/imager/1983.bib>; <ftp://ftp.math.utah.edu/pub/mirrors/ftp.ira.uka.de/bibliography/Graphics/siggraph/1983.bib>. Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**McCharen:1980:MC**

- [McC80] Edith A. McCharen. MVS in the classroom. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(1):81–82, February 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 11th SIGCSE Symposium on Computer Science Education.

**McCormick:1988:UMR**

- [McC88] John W. McCormick. Using a model railroad to teach digital process control. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):304–308, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Mawhinney:1989:MFP**

- [MCC89a] Charles H. Mawhinney, David R. Callaghan, and Edward G. Cale, Jr. Modifying freshman perception of the CIS graduate's workstyle. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):78–82, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**McCracken:1989:TLA**

- [McC89b] Daniel D. McCracken. Three “lab assignments” for an algorithms course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(2):61–64, June 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**McGlinn:1986:SPP**

- [McG86a] Robert J. McGlinn. Sharing printers in a PC lab. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(3):13–16, September 1, 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**McGregor:1986:ICG**

- [McG86b] John D. McGregor. An introductory course in graphics. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(1):222–224, February 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).



URL <ftp://ftp.math.utah.edu/pub/mirrors/ftp.ira.uka.de/bibliography/Graphics/imager/1986.bib>; <ftp://ftp.math.utah.edu/pub/mirrors/ftp.ira.uka.de/bibliography/Graphics/siggraph/1986.bib>; <ftp://ftp.math.utah.edu/pub/mirrors/ftp.ira.uka.de/bibliography/Misc/DBLP/1986.bib>. Proceedings of the 17th SIGCSE Symposium on Computer Science Education.

**McIntyre:1983:UPT**

- [McI83] D. R. McIntyre. The use of plotting in teaching computer science. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):290–295, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**McMillan:1982:DIC**

- [McM82] William W. McMillan. Designing introductory computing assignments: The view from the computing center. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):82–84, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**McMillan:1987:SLI**

- [McM87] Thomas C. McMillan. A small LISP interpreter as a project in a programming language course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(3):10–14, September 1, 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). URL <ftp://ftp.math.utah.edu/pub/mirrors/ftp.ira.uka.de/bibliography/Compiler/lisp.bib>.

**McBride:1988:RMC**

- [MCR<sup>+</sup>88] William E. McBride, James Calhoun, James L. Richards, Harriet G. Taylor, and F. Garnet Walters. Recruiting more computer science students-what to do after the “glamour” has gone away? *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):181, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Miller:1981:PCS**

- [MDL<sup>+</sup>81] Philip L. Miller, William Dodrill, Doris K. Lidtke, Cynthia Brown, Michael Shamos, and Mary Dee Harris Fosberg. Pla-

giarism in computer sciences courses (panel discussion). *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(1):26–27, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Maxim:1987:TPA**

- [ME87] Bruce R. Maxim and Bruce S. Elenbogen. Teaching programming algorithms aided by computer graphics. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):297–301, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Means:1987:CAS**

- [Mea87] H. Willis Means. A content analysis of six introduction to computer science textbooks. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):403–413, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Mead:1988:MCO**

- [Mea88a] Jerud J. Mead. The multiuser calculator: an operating system project. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):32–35, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Means:1988:CAT**

- [Mea88b] H. Willis Means. A content analysis of ten introduction to programming textbooks. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):283–287, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Medsker:1984:SDM**

- [Med84] Larry R. Medsker. Structured design methodology for a course on computer science in engineering. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(2):7–9, June 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Mein:1982:SPT**

- [Mei82] Wm J. Mein. On students presenting technical material to non-technical audiences in a computer science curriculum. *SIGCSE*

*Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):97–101, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Mein:1984:CBM**

- [Mei84] Bill Mein. Computer-based management systems. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(1):164–167, February 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 15th SIGCSE Technical Symposium on Computer Science Education.

**Mein:1985:CCT**

- [Mei85] Bill Mein. The computerization of a campus: a trilogy. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):221–226, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Mein:1987:IEU**

- [Mei87a] Bill Mein. Issuing each undergraduate student a personal computer: living with it for three years. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):76–78, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Meinke:1987:ASE**

- [Mei87b] John G. Meinke. Augmenting a software engineering projects course with oral and written communication. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):238–243, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Merritt:1980:ITP**

- [Mer80] Susan M. Merritt. On the importance of teaching PASCAL in the IS curriculum. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(1):88–91, February 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 11th SIGCSE Symposium on Computer Science Education.

**Merritt:1981:TAS**

- [Mer81] Susan M. Merritt. A top down approach to sorting. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Ed-*

ucation), 13(1):192–195, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Metzner:1983:PAR**

- [Met83] John R. Metzner. Proportional advancement from regional programming contests. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(3):27–30, September 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**McCoy:1981:LCN**

- [MFAN81] John M. McCoy, Stewart L. French, Razmik Abnous, and M. J. Niccolai. A local computer network simulation. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(1):263–267, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Mims:1988:PII**

- [MFM88] Ted Mims, Raymond Folse, and Andrea Martin. Planning and implementing an internship program for undergraduate computer science students. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):168–170, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Morales-Fernandez:1989:CMM**

- [MFMN89] R. Morales-Fernandez and J. J. Moreno-Navarro. CC-modula: a Modula-2 tool to teach concurrent programming. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(3):19–25, September 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Mitchell:1985:SFR**

- [MH85a] William Mitchell and Janet Hartman. Summer faculty retraining in computing: a report on four programs. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):292–301, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Mugridge:1985:MIS**

- [MH85b] Warwick B. Mugridge and John G. Hosking. A method for introducing schemas. *SIGCSE Bulletin (ACM Special Interest Group*

on *Computer Science Education*), 17(4):76–82, December 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Moshell:1981:CWM**

- [MHGA81] J. M. Moshell, C. E. Hughes, C. R. Gregory, and R. M. Aiken. Computer whatcha-maycallit: Insights into universal computer education. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(1):8–11, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Mitchell:1981:WCO**

- [MHH<sup>+</sup>81] William Mitchell, H. R. Halladay, Rich Hendin, Roberta Weller, and T. C. Cunningham. Why co-op in computer science? (panel discussion). *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(1):144–145, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Mielke:1985:CCG**

- [Mie85] Bruce W. Mielke. A course in computer graphics. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(3):42–43, September 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Mili:1983:CTP**

- [Mil83a] Ali Mili. A case for teaching program verification: Its importance in the CS curriculum. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):2–6, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Miller:1983:CMS**

- [Mil83b] Donald S. Miller. Computer-1-a modern simple computer to introduce computer organization and assembler language programming. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):271–277, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Miller:1987:ODT**

- [Mil87] James C. Miller. An overview of data typing systems and data abstraction in programming languages. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(3):41–44, September 1, 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Miller:1989:SRP**

- [Mil89] Philip L. Miller. A software rotation for professional teachers. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):262–267, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Mitchell:1980:CES**

- [Mit80] William Mitchell. Computer education in the 1980s, a somber view. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(1):203–207, February 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 11th SIGCSE Symposium on Computer Science Education.

**Mitchell:1983:RIA**

- [Mit83] William Mitchell. Retraining: Is it the answer to the computer faculty shortage? *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):89–98, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Mitchell:1986:RCF**

- [Mit86] William Mitchell. Retraining computing faculty: a perspective. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(1):203–210, February 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 17th SIGCSE Symposium on Computer Science Education.

**Mitchell:1989:WBP**

- [Mit89] William Mitchell. What is to become of programming? *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):131–135, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Meyer:1985:STT**

- [MK85] R. Mark Meyer and Roy F. Keller. SLR tools for teaching compiler construction. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):120–129, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**McGlenn:1985:ILD**

- [ML85] Robert J. McGlenn and Linda Lewis. IPEX1, a library of dynamic introductory programming examples. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):72–77, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Mynatt:1987:PUS**

- [ML87] Barbee Mynatt and Laura Leventhal. Profile of undergraduate software engineering courses: results from a survey. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):523–528, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Mynatt:1989:CPC**

- [ML89] Barbee T. Mynatt and Laura Marie Leventhal. A CASE primer for computer science educators. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):122–126, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Miller:1982:BSC**

- [MM82a] Donald S. Miller and Bruce R. Millard. BASIC1 — a simple computer to introduce computer organization and assembler language programming. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):71–81, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Moffatt:1982:EPT**

- [MM82b] David V. Moffatt and Patricia B. Moffat. Eighteen Pascal texts: an objective comparison. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(2):2–10, June 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Martin:1986:PTC**

- [MM86] Jean Buddington Martin and Kenneth E. Martin. A profile of today's computer literacy student. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(1):27–33, February 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 17th SIGCSE Symposium on Computer Science Education.

**Macfarlane:1988:SAO**

- [MM88a] Katherine N. Macfarlane and Barbee T. Mynatt. A study of an advance organizer as a technique for teaching computer programming concepts. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):240–243, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Martin:1988:PTC**

- [MM88b] Jean Buddington Martin and Kenneth E. Martin. A profile of today's computer literacy students: an update. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):235–239, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Marion:1985:DCE**

- [MMMM85] Bill Marion, Sue Molnar, Marilyn Mays, and Jack Mosley. Dual careers and employment decisions in computer science (panel session). *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):179, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Myers:1986:DIP**

- [MN86] Doug Myers and Linda Null. Design and implementation of a programming contest for high school students. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(1):307–312, February 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 17th SIGCSE Symposium on Computer Science Education.

**Moffat:1986:TMD**

- [Mof86] David V. Moffat. Teaching a modern data structures course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(4):57–64, December 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).



**Mohr:1989:UMT**

- [Moh89] J. Mohr. Using Modula-2 to teach data abstraction. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(3):60–64, September 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Molluzzo:1981:JTE**

- [Mol81] John C. Molluzzo. Jackson techniques for elementary data processing. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(4):16–20, December 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Molluzzo:1983:CUC**

- [Mol83] John C. Molluzzo. A curriculum for a University course in advanced COBOL. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(3):44–49, September 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Molluzzo:1984:MAL**

- [Mol84] John C. Molluzzo. Modular assembler language programming. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(3):17–20, September 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Monahan:1987:CSF**

- [Mon87] Brian D. Monahan. Computer science as the focus of a secondary school magnet program. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):393–394, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Moore:1983:TMP**

- [Moo83] Freeman L. Moore. Teaching microcoding principles. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):112–115, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Moore:1988:SDC**

- [Moo88] Thomas K. Moore. Software development in C. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*,

20(2):5–7, June 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Miller:1980:MES**

- [MP80] Nancy E. Miller and Charles G. Peterson. A method for evaluating student written computer programs in an undergraduate computer science programming language course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(4):9–17, December 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Miller:1981:ESC**

- [MP81] Nancy E. Miller and Charles G. Petersen. An evaluation scheme for a comparison of computer science curricula with ACM's guidelines. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(1):216–223, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Miller:1982:ETP**

- [MP82] Nancy Ellen Miller and Charles Glenn Petersen. The effect of team programming on student achievement in COBOL instruction. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):156–162, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**McGee:1987:IBP**

- [MPW87] Linda McGee, Gerasimoula Polychronopoulos, and Carroll Wilson. The influence of BASIC on performance in introductory computer science courses using Pascal. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(3):29–34, September 1, 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**McGregor:1987:LNC**

- [MR87] John D. McGregor and John Rudzki. A look at NSF's college science instrumentation program. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(3):53–55, September 1, 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**McMillan:1980:MBT**

- [MS80] Claude McMillan and Wilfredo Salhauna. The microcomputer-based turnkey system as an instrument for technology transfer. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(1):2–5, February 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 11th SIGCSE Symposium on Computer Science Education.

**Moore:1989:IGB**

- [MS89] Freeman L. Moore and James T. Streib. Identifying the gaps between education and training. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):52–55, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Mitchell:1981:APA**

- [MST<sup>+</sup>81] Stephen Mitchell, Charles Stewart, Jon Thompson, Charles Murphy, and Barbara Friedman. All publishers are alike, aren't they? (panel discussion). *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(1):61, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Milito:1986:CCC**

- [MT86] Elaine R. Milito and Marsha L. Traub. Compiler construction: a course outline and project description. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(2):35–37, June 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Magenat-Thalman:1980:IPC**

- [MTT80] Nadia Magenat-Thalman and Daniel Thalman. Introducing programming concepts with graphical objects. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(1):105–109, February 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). URL <ftp://ftp.math.utah.edu/pub/mirrors/ftp.ira.uka.de/bibliography/Graphics/imager/1980.bib>; <ftp://ftp.math.utah.edu/pub/mirrors/ftp.ira.uka.de/bibliography/Graphics/siggraph/1980.bib>. Proceedings of the 11th SIGCSE Symposium on Computer Science Education.

**Mincy:1983:VAP**

- [MTT83] Jeffrey W. Mincy, Alan L. Tharp, and Kuo-Chung Tai. Visualizing algorithms and processes with the aid of a computer. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):106–111, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Maryanski:1980:MIS**

- [MU80] Fred J. Maryanski and Elizabeth A. Unger. A major in information systems. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(1):213–222, February 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 11th SIGCSE Symposium on Computer Science Education.

**Murtagh:1982:VER**

- [Mur82] F. Murtagh. Verifying examination results: a general approach. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(4):2–11, December 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Mitchell:1981:CEC**

- [MW81] William Mitchell and James Westfall. Critique and evaluation of the Cal Poly/DPMA model curriculum for computer information systems. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(1):153–170, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Myers:1986:SLC**

- [Mye86] William Myers. Second language courses are different beasts. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(2):48–50, June 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Myers:1989:NGC**

- [Mye89] J. Paul Myers, Jr. The new generation of computer literacy. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):177–181, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Najarian:1988:MP**

- [Naj88] John Najarian. Modeling in Prolog. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):259–262, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Nahouraii:1981:CSI**

- [NBLD81] Ez Nahouraii, Tom Bredt, Charles Lobb, and Nell B. Dale. Computer science in industry (panel discussion). *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(1):256, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Neal:1988:RSH**

- [NCKMM88] Larry Neal, John Connolly, Doyle D. Knight, and David Matthews-Morgan. The role of supercomputers in higher education. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):134, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Nemeth:1985:RAA**

- [Nem85] Edward H. Nemeth. Response to Archibald's article. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(2):2, June 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Nevison:1988:UPP**

- [Nev88] Chris Nevison. An undergraduate parallel processing laboratory. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):68–72, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Newcomer:1980:UPG**

- [New80] Larry Newcomer. Use of program generators to improve student productivity in a small-computer lab. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(2):40–42, July 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Nygaard:1983:IST**

- [NI83] Kendall E. Nygard and Ashok K. Iyengar. An interactive system for teaching input processes in simulation. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):116–119, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Noonan:1986:CCU**

- [Noo86] Robert E. Noonan. Compiler construction using modern tools. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(1):109–113, February 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 17th SIGCSE Symposium on Computer Science Education.

**Northrop:1989:SPI**

- [Nor89] Linda M. Northrop. Success with the project-intensive model for an undergraduate software engineering course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):151–155, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Null:1989:UAM**

- [NW89] Linda M. Null and Johnny Wong. A unified approach for multi-level database security based on inference engines. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):108–111, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Olagunju:1987:UEV**

- [OB87] Amos O. Olagunju and Elvis Borders. Using emulators as vehicles for instruction in systems programming: prospective consideration. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):132–135, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Ogbokor:1985:LLP**

- [Ogb85] D. L. Ogbokor. LISP language as a part of “Advanced Programming Techniques” for computer science, computer mathematics, and computer economics students. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(4):94–95, December 1985. CODEN SIGSD3. ISSN 0097-8418 (print),

2331-3927 (electronic). URL <ftp://ftp.math.utah.edu/pub/mirrors/ftp.ira.uka.de/bibliography/Compiler/lisp.bib>.

**Ogozalek:1989:CMF**

- [Ogo89] Virginia Z. Ogozalek. A comparison of male and female computer science students' attitudes toward computers. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(2):8–14, June 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Ohlson:1986:RPG**

- [Ohl86] Mark R. Ohlson. The role and position of graphics in computer science education. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(1):232–237, February 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). URL <ftp://ftp.math.utah.edu/pub/mirrors/ftp.ira.uka.de/bibliography/Graphics/imager/1986.bib>; <ftp://ftp.math.utah.edu/pub/mirrors/ftp.ira.uka.de/bibliography/Graphics/siggraph/1986.bib>; <ftp://ftp.math.utah.edu/pub/mirrors/ftp.ira.uka.de/bibliography/Misc/DBLP/1986.bib>. Proceedings of the 17th SIGCSE Symposium on Computer Science Education.

**Oliver:1985:CC**

- [Oli85] Dave Oliver. Off campus computing. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(2):21–26, June 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Olson:1983:LAI**

- [Ols83] Lynn J. Olson. A lab approach for introductory programming courses. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):165–167, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Olson:1988:RAH**

- [Ols88] David M. Olson. The reliability of analytic and holistic methods in rating students' computer programs. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):293–298, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Oman:1986:SEP**

- [Oma86] Paul W. Oman, Jr. Software engineering practicums: a case study of a senior capstone sequence. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(2):53–57, June 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Organick:1985:ACP**

- [Org85] Elliot I. Organick. Algorithms, concurrent processors, and computer science education: or, “think concurrently or capitulate?”. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):1–5, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Osborn:1982:TRD**

- [Osb82] Sylvia Osborn. Teaching relational database concepts in a university environment. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):1–3, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Ourusoff:1985:PSS**

- [Our85] Nicholas Ourusoff. The physical symbol system hypothesis of Newell and Simon: a classroom demonstration of artificial intelligence. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(3):19–23, September 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Ourusoff:1986:CVN**

- [Our86] Nicholas Ourusoff. The computational view of nature: a liberal arts course in computer science. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(4):54–56, December 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Owen:1986:TTD**

- [Owe86] G. Scott Owen. Teaching of tree data structures using microcomputer graphics. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(1):67–72, February 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 17th SIGCSE Symposium on Computer Science Education.



**Owen:1987:UAM**

- [Owe87] G. Scott Owen. Using Ada on microcomputers in the undergraduate curriculum. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):374–377, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Owen:1989:TIA**

- [Owe89a] G. S. Owen. Teaching introductory and advanced computer graphics using micro-computers. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):283–287, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Owen:1989:ABS**

- [Owe89b] G. Scott Owen. An Ada-based software engineering course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):213–216, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Plourde:1985:CES**

- [PAA85] Paul J. Plourde, James Adair, and Dennis M. Anderson. Creating an environment for student oriented computing (panel session). *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):239, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Pagan:1986:FTB**

- [Pag86] Frank G. Pagan. On the feasibility of teaching Backus-type functional programming (FP) as a first language. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(3):31–35, September 1, 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Pagan:1989:PCP**

- [Pag89] Frank G. Pagan. Partial computation as a practical aid in the compiler construction course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(2):2–7, June 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). URL <ftp://ftp.math.utah.edu/pub/mirrors/ftp.ira.uka.de/bibliography/Ai/pennbib.bib>; <ftp://ftp.math.utah.edu/pub/mirrors/ftp.ira.uka.de/bibliography/Compiler/partial-eval.bib>; <ftp://ftp.math.utah.edu/>

pub/mirrors/ftp.ira.uka.de/bibliography/Theory/CLiCS.  
bib.

**Pangratz:1981:CIM**

- [Pan81] Heinrich Pangratz. COMPI: an instructive model for elementary computer education. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(2):12–16, June 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Paquet:1984:MPA**

- [Paq84a] Brother Ernest Paquet. Managing programming assignments in a RSTS/E account group. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(2):26–33, June 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Paquet:1984:CIP**

- [Paq84b] Ernest Paquet. Computers, innovation and personal interaction. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(4):15–17, December 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Parslow:1980:VIGa**

- [Par80a] R. D. Parslow. Vertical integration in group learning. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(1):130, February 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 11th SIGCSE Symposium on Computer Science Education.

**Parslow:1980:VIGb**

- [Par80b] R. D. Parslow. Vertical integration in group learning. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(2):17–19, July 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Parslow:1982:GLT**

- [Par82] R. D. Parslow. Group learning techniques (tutorial sessions). *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):271, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Parhami:1986:GVM**

- [Par86] Behrooz Parhami. A geometric view of mutual exclusion and deadlock in computer system. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(4):2–5, December 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Pattis:1987:APD**

- [Pat87] Richard E. Pattis. Abstraction in Pascal: data and control. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):44–57, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Pattis:1988:TEB**

- [Pat88] Richard E. Pattis. Textbook errors in binary searching. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):190–194, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Perkins:1980:POU**

- [PB80] Thomas E. Perkins and Leland L. Beck. A project-oriented undergraduate course sequence in software engineering. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(1):32–39, February 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 11th SIGCSE Symposium on Computer Science Education.

**Parker:1984:MSI**

- [PB84] J. R. Parker and K. Becker. A microprogramming simulator for instructional use. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(1):69–76, February 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 15th SIGCSE Technical Symposium on Computer Science Education.

**Peck:1983:DCR**

- [PDHS83] John C. Peck, James R. Driscoll, Pentti A. Honkonen, and William Shay. Database courses with realistic student projects (panel session). *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):124, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Pervin:1987:IRM**

- [Per87] William J. Pervin. Inference rules for multivalued dependencies. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(3):4–7, September 1, 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Pervin:1989:VAS**

- [Per89] William J. Pervin. Verification of Ada 1/0 statements. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(2):57–60, June 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Peterson:1983:UGP**

- [Pet83] Gerald Peterson. Using generalized programs in the teaching of computer science. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):187–192, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Peterson:1985:EPO**

- [Pet85] Charles G. Peterson. The evolution of a project-oriented compiler writing course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):116–119, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Peterson:1987:GLC**

- [Pet87] John T. Peterson. Goals for and lessons from a computer literacy course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):504–507, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Petricig:1984:SEE**

- [PF84] Michael Petricig and Peter Freeman. Software engineering education: a survey. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(4):18–22, December 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Phillips:1980:ELP**

- [Phi80] James W. Phillips. Entry-level position of computer programmer survey. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(1):198–202, February 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 11th SIGCSE Symposium on Computer Science Education.

**Pigford:1987:MSM**

- [Pig87] D. V. Pigford. A management system for monitoring and assessing the group-oriented database project. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):9–18, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Piotrowski:1988:SCA**

- [Pio88] Jerzy A. Piotrowski. The small computer assisted lecturing system. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(2):8–12, June 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Piotrowski:1989:AMM**

- [Pio89] Jerzy A. Piotrowski. Abstract Machines in Miranda. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(3):44–47, September 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). URL <ftp://ftp.math.utah.edu/pub/mirrors/ftp.ira.uka.de/bibliography/Parallel/RISC.parlab.bib>.

**Peacock:1987:USP**

- [PJL87] D. Peacock, S. Jeffreys, and M. P. Lee. The use of a structured project to teach program development. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(4):10–18, December 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Pugh:1988:AFE**

- [PL88] John R. Pugh and Cafee Leung. Application frameworks: experience with MacApp. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):142–147, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Plishka:1986:CTC**

- [Pli86] Richard M. Plishka. Contemporary trends in computing. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(1):86–89, February 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 17th SIGCSE Symposium on Computer Science Education.

**Plishka:1988:FPC**

- [Pli88] Richard M. Plishka. File processing — a correctness approach. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):5–8, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). URL <ftp://ftp.math.utah.edu/pub/mirrors/ftp.ira.uka.de/bibliography/Misc/DBLP/1988.bib>; <ftp://ftp.math.utah.edu/pub/mirrors/ftp.ira.uka.de/bibliography/Parallel/pwrs.bib>.

**Poirot:1985:PCP**

- [PLN<sup>+</sup>85] James L. Poirot, Arthur Luehrmann, Cathleen Norris, Harriet Taylor, and Robert Taylor. Proposed curriculum for programs leading to teacher certification in computer science (panel session). *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):55, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Pugh:1987:IOO**

- [PLT87] John R. Pugh, Wilf R. LaLonde, and David A. Thomas. Introducing object-oriented programming into the computer science curriculum. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):98–102, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Plumlee:1989:TAC**

- [Plu89] Barbara Plumlee. Teaching about complexity in the introductory programming course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(2):49–50, June 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Peterson:1985:OLV**

- [PM85] Charles G. Peterson and Nancy E. Miller. Open lab vs. closed lab: Computer Programming I at Mississippi State University.

*SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):78–81, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Peacock:1986:NMG**

- [PML86] Derek Peacock, Paul Manning, and Martin Lee. New micro-computer graphics routines designed for undergraduate teaching. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(2):38–47, June 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Poole:1988:SAD**

- [Poo88] Bernard John Poole. Systems analysis and design: an orphan course about to find a home. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(2):54–57, June 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Pope:1983:ABA**

- [Pop83] Wendell L. Pope. Annotated bibliography for automatic software generation. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(4):15–20, December 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Pope:1984:PGC**

- [Pop84] Wendell L. Pope. A proposed graduate course in automatic software generation. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(2):29–33, June 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Pope:1987:USP**

- [Pop87] Wendell L. Pope. The use of skeleton programs in teaching COBOL. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(2):61–64, June 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Pothering:1985:MCA**

- [Pot85] George J. Pothering. A methodology for conducting advanced undergraduate computer science courses. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):130–134, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Pratt:1985:RAD**

- [Pra85] Philip J. Pratt. A relational approach to database design. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):184–201, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Pratt:1988:TPN**

- [Pra88] Terrence W. Pratt. Teaching programming: a new approach based on analysis skills. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):249–253, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Price:1988:SCA**

- [Pri88] Barbara A. Price. A successful computer approach to the computer literacy course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(2):13–17, June 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Peacock:1988:FYC**

- [PRLJ88] D. Peacock, V. K. Ralhan, M. P. Lee, and S. Jeffreys. A first year course in software design and use. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(4):2–8, December 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Perry:1981:DCC**

- [PS81] James T. Perry and Norman E. Sondak. A data communications course for information systems majors. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(1):146–152, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Parker:1987:PPS**

- [PS87a] J. D. Parker and G. M. Schneider. Problems with and proposals for service courses in computer science. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):423–427, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).



**Pierson:1987:THS**

- [PS87b] J. K. Pierson and Jack D. Shorter. Trends in hardware and software usage in introductory database courses. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):490–494, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Park:1983:AIC**

- [PTKG83] M. J. Park, W. Teoh, W. Klemme, and H. Gates. ABISS—an inexpensive computer-based sound spectrograph. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):281–286, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Poirot:1988:FDP**

- [PTN88] James L. Poirot, Harriet G. Taylor, and Cathleen A. Norris. A framework for developing pre-college computer science retraining programs. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(3):23–31, September 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Pokrass:1982:OSP**

- [PW82] David J. Pokrass and B. F. Wu. An operating systems project using structured methodology. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(3):7–10, September 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Prosser:1987:TDH**

- [PW87] Franklin Prosser and David Winkel. Teaching digital hardware by using complex lab projects. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):442–445, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Quirk:1988:TCN**

- [Qui88] James R. F. Quirk. Teaching computer networks as a writing intensive course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(2):30–35, June 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Rager:1986:GPT**

- [Rag86] John E. Rager. Graphics packages for teaching graphics. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(1):225–231, February 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). URL <ftp://ftp.math.utah.edu/pub/mirrors/ftp.ira.uka.de/bibliography/Graphics/imager/1986.bib>; <ftp://ftp.math.utah.edu/pub/mirrors/ftp.ira.uka.de/bibliography/Graphics/siggraph/1986.bib>; <ftp://ftp.math.utah.edu/pub/mirrors/ftp.ira.uka.de/bibliography/Misc/DBLP/1986.bib>. Proceedings of the 17th SIGCSE Symposium on Computer Science Education.

**Rambally:1985:RTG**

- [Ram85] Gerard K. Rambally. Real-time graphical representation of linked data structures. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):41–48, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Rambally:1986:ICP**

- [Ram86a] Gerard K. Rambally. The influence of color on program readability and comprehensibility. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(1):173–181, February 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 17th SIGCSE Symposium on Computer Science Education.

**Ramberg:1986:NLO**

- [Ram86b] Peter Ramberg. A new look at an old problem: Keys to success for computer science students. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(3):36–39, September 1, 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Rosso:1984:CSL**

- [RB84] Mark A. Rosso and Kevin W. Bowyer. Computer science learning at pre-college ages. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(1):124, February 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 15th SIGCSE Technical Symposium on Computer Science Education.

**Roth:1981:ELI**

- [RCN<sup>+</sup>81] R. Waldo R. Roth, John Carroll, Susan Nycum, Thomas Lutz, and John E. Kastelein. Ethical and legal issues in computer science (panel discussion). *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(1):215, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Rice:1984:CDT**

- [RD84] Patricia Brisotti Rice and Susan Fife Dorchak. A course in documentation and technical communication. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(4):7–8, December 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Ryan:1985:CPA**

- [RD85] Patrick J. Ryan and Lionel E. Deimel. Contest problems from the 1985 ACM scholastic programming contest. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(4):83–91, December 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Reed:1985:PSA**

- [Ree85] Joylyn Reed. A parser for a small Ada-like language — a student software engineering project. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):241–254, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Reek:1989:TSH**

- [Ree89a] Kenneth A. Reek. The TRY system -or- how to avoid testing student programs. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):112–116, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Reek:1989:UCN**

- [Ree89b] Margaret M. Reek. An undergraduate concentration in networking and distributed systems. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):12–16, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Rehmer:1987:CCS**

- [Reh87] Karl Rehmer. A course in computer systems planning. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):248–252, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Reid:1986:IDS**

- [Rei86] Richard J. Reid. Interactive digital simulation. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(2):58–62, June 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Remmers:1983:SWR**

- [Rem83] John H. Remmers. Should we really teach more about the GOTO? (a reaction to an article by H. D. Shapiro). *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(3):36–39, September 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Ray:1983:UEP**

- [RG83] H. N. Ray and C. S. Guynes. Upgrading educational programs in computer information systems. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(2):14–15, June 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Robertson:1982:GCP**

- [RHA82] J. D. Robertson, D. D. Hearn, and Dennis Anderson. Graphics in the classroom (panel discussion). *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):269, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Rogers:1985:CSS**

- [RHL85] Jean Rogers, Michael R. Haney, and John D. Lawson, Jr. Computer science for secondary schools (panel session): course content. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):114, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Richards:1981:FUP**

- [Ric81] Dana Richards. On the file update problem. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(3):38–39, September 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). See note [Ric82a].

**Richards:1982:NAF**

- [Ric82a] Dana Richards. Note about: “On the file update problem”. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(2):31, June 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). See [Ric81].

**Richards:1982:CEM**

- [Ric82b] Thomas C. Richards. Cost effective methods for teaching introductory programming courses. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):128–132, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Richards:1982:ICP**

- [Ric82c] Thomas C. Richards. Introduction to computing VIA PSI. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):60–63, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Richards:1984:ECP**

- [Ric84] R. M. Richards. Enhancing Cobol program structure: sections vs. paragraphs. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(2):48–51, June 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Richards:1987:IUC**

- [Ric87] Roy Martin Richards. Implementing user/computer dialogue in COBOL. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(2):15–19, June 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Richmond:1989:SEE**

- [Ric89] E. R. Richmond. Software engineering education in the associate-degree-level vocational/technical computer science program.

*SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(4):31–36, December 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Rigler:1987:EDC**

- [Rig87] Joseph W. Rigler. Extra-disciplinary curriculum: analysis of the presentation of legal materials to computer science students. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):395–399, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Riley:1981:TPS**

- [Ril81] David D. Riley. Teaching problem solving in an introductory computer science class. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(1):244–251, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Rine:1980:PCA**

- [Rin80] David C. Rine. Personal computing: an adventure of the mind. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(1):8, February 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 11th SIGCSE Symposium on Computer Science Education.

**Rising:1986:CNP**

- [Ris86] Linda Rising. Conversions on the net: the professionalism issue. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(2):2–9, June 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Rising:1987:TDS**

- [Ris87] Linda Rising. Teaching documentation and style in Pascal. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(3):8–9, September 1, 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Rising:1989:REC**

- [Ris89] L. Rising. Removing the emphasis on coding in a course on software engineering. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):185–189, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Raymond:1989:SSI**

- [RJS89] R. Raymond, E. Jaede, and S. Standiford. In support of Scraggs: the issue of research. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(4):25–26, December 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Reges:1988:EUU**

- [RMS88] Stuart Reges, John McGrory, and Jeff Smith. The effective use of undergraduates to staff large introductory CS courses. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):22–25, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Rodgers:1987:SCC**

- [Rod87] Edward G. Rodgers. Student computer consultants for small business — a viable option. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(4):22–24, December 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Rogers:1984:CCC**

- [Rog84a] Jean B. Rogers. Course content for computer science at the secondary school level. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(1):181, February 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 15th SIGCSE Technical Symposium on Computer Science Education.

**Rogers:1984:ICF**

- [Rog84b] Jean B. Rogers. Inferring cognitive focus from students' programs. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(1):51–55, February 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 15th SIGCSE Technical Symposium on Computer Science Education.

**Roth:1980:TDG**

- [Rot80] R. Waldo Roth. The teaching of documentation and good programming style in a liberal arts computer science program. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(1):139–153, February 1980. CODEN

SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 11th SIGCSE Symposium on Computer Science Education.

**Roth:1981:CLE**

- [Rot81] R. Waldo Roth. Computers and the law (an experimental undergraduate course). *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(1):204–214, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Rushinek:1983:EAR**

- [RR83] Sara F. Rushinek and Avi Rushinek. EDP auditors' role in evaluating computerized accounting information systems efficiency by queuing, simulation and statistical models. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):205–210, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Rehmer:1986:TDA**

- [RR86] Karl Rehmer and Linda Rising. Teaching data abstraction in a beginning Pascal class. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(1):82–85, February 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 17th SIGCSE Symposium on Computer Science Education.

**Robinson:1980:IAS**

- [RS80] Sally S. Robinson and M. L. Soffa. An instructional aid for student programs. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(1):118–129, February 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 11th SIGCSE Symposium on Computer Science Education.

**Rigler:1987:PST**

- [RS87] A. K. Rigler and Daniel C. St. Clair, editors. *Proceedings of the 18th SIGCSE Technical Symposium on Computer Science Education, 1987, St. Louis, Missouri, USA, February 19–20, 1987*, SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education). ACM Press, New York, NY 10036, USA, 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).



**Rudolph:1988:SCR**

- [Rud88] Brian A. Rudolph. Spin-out: the Chinese rings in the classroom. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):279–282, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Remmers:1982:PGP**

- [RV82] John H. Remmers and Richard C. Vile, Jr. A parser generator project for a compiler construction course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):102–106, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Roth:1987:DDA**

- [RW87] R. Waldo Roth and Arthur White. Dealing with disparate audiences in computer science courses using a project group within a traditional class. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):148–154, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Robbins:1989:VRI**

- [RWW89] Kay A. Robbins, Neal R. Wagner, and Dennis J. Wenzel. Virtual rings: an introduction to concurrency. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(2):23–28, June 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Ryder:1984:HAC**

- [Ryd84] Barbara G. Ryder. A “hands-on” approach to computer literacy. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(1):102–107, February 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 15th SIGCSE Technical Symposium on Computer Science Education.

**Radensky:1988:EAF**

- [RZP<sup>+</sup>88] Atanas Radensky, Emilia Zivkova, Valia Petrova, Rumiana Lesseva, and Christina Zacheva. Experience with Ada as a first programming language. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(4):58–61, December

1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Salzberg:1986:TNF**

- [Sal86] Betty Salzberg. Third normal form made easy. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(2):64–74, June 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Sanders:1983:UJD**

- [San83] Dean Sanders. Using Jackson diagrams to classify and define data structures. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):137–142, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Sanders:1984:MES**

- [San84] Dean Sanders. Managing and evaluating students in a directed project course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(1):15–25, February 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 15th SIGCSE Technical Symposium on Computer Science Education.

**Sanders:1988:CSH**

- [San88] Sidney L. Sanders. Computer science homework and grading practices: an alternative to the popular model. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(2):26–29, June 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Sanders:1989:TLQ**

- [San89] S. L. Sanders. Teaching load and the quality of education. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(4):27–30, December 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Sathi:1984:POC**

- [Sat84] Harbans L. Sathi. A project-oriented course for software systems development. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(3):2–4, September 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Sathi:1986:PBC**

- [Sat86] Harbans L. Sathi. A project-based course in compiler construction. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(1):114–119, February 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 17th SIGCSE Symposium on Computer Science Education.

**Sharma:1982:APC**

- [SB82] Onkar P. Sharma and Ali Behforooz. An accelerated program in computer science. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):174–178, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Sharma:1985:RGP**

- [SB85] Onkar P. Sharma and Ali Behforooz. Retraining for a graduate program in computer science. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):282–288, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Sumner:1988:IMC**

- [SB88] Mary Sumner and James Benjamin. The impact of menus and command-level feedback on learners' acquisition of data base language skills. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):230–234, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Sidbury:1988:CRS**

- [SBD<sup>+</sup>88] James R. Sidbury, Nancy Baxter, Richard F. Dempsey, Ralph Morelli, and Robert Prince. Computing resources in small colleges. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):182, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Shiflet:1985:NTW**

- [SBK<sup>+</sup>85] Angela Shiflet, Jim Balch, Georgianna Tonne Klein, Jim Cameron, and Ken Whipkey. Non-traditional ways for preparing computer science faculty (panel session). *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*,

17(1):90–92, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Schrage:1982:PEL**

- [SBLL82] John F. Schrage, James E. Benjamin, Marjorie Leeson, and James Linderman. Productivity expectations in the level of COBOL programming for business (panel discussion). *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):265, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Stoddard:1980:BMS**

- [SC80] Spotswood D. Stoddard and Lawrence A. Coon. A basic monitor system for implementation in operating systems and computer architecture courses. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(3):27–30, September 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Scanlan:1985:RMD**

- [Sca85] David Scanlan. Retraining: Masters degree proposal for applied computer science education for community college teachers. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):289–291, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Scanlan:1987:DSS**

- [Sca87] David Scanlan. Data-structures students may prefer to learn algorithms using graphical methods. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):302–307, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Scanlan:1988:SSR**

- [Sca88] David Scanlan. Should short, relatively complex algorithms be taught using both graphical and verbal methods? Six replications. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):185–189, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Schmalz:1985:STR**

- [Sch85a] Rosemary Schmalz. Some thoughts on retraining and the lack thereof a mathematics educator teaching computer science.

*SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(3):3–4, September 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Stokes:1985:ECB**

- [SCH85b] Gordon E. Stokes, Larry C. Christensen, and Bill Hays. EL-ROND: a computer based instruction system for an introductory programming course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):82–88, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Schmalz:1986:SFP**

- [Sch86a] Rosemary Schmalz. Subprograms in the first programming course: an early but non-trivial introduction. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(2):31–32, June 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Schneider:1986:PRI**

- [Sch86b] G. Michael Schneider. A proposed redesign of the introductory service course in computer science. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(4):15–21, December 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Schikuta:1987:EAE**

- [Sch87] Erich Schikuta. An exemplary approach to the education of rule-based languages. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(2):43–45, June 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Schaller:1988:ME**

- [Sch88] Nan C. Schaller. The Modula-2 experience. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(3):42–44, September 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Schneider:1989:QEG**

- [Sch89a] G. M. Schneider. A quantitative evaluation of graduate programs in computer science in the United States and Canada. *SIGCSE*

*Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(4):20–24, December 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Schweller:1989:SCP**

- [Sch89b] Kenneth G. Schweller. Scheduling concurrent procedures using Modula-2. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(2):51–56, June 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Scotti:1982:CSD**

- [Sco82] Fiorenza Scotti. The conceptual schema as didactic tool. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):248–257, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Scrugg:1987:CCS**

- [Scr87] Greg W. Scrugg. A crisis in computer science education at liberal arts colleges. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(2):36–42, June 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Schiper:1984:POS**

- [SDE<sup>+</sup>84] André Schiper, Gérard Dalang, Jorge Egli, Imad Mattini, and Roland Simon. A paged — operating — system project. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(1):34–41, February 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 15th SIGCSE Technical Symposium on Computer Science Education.

**Searls:1988:TCE**

- [Sea88] Delmar E. Searls. Teaching computer ethics. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(3):45–48, September 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Sebesta:1983:SVC**

- [Seb83] Robert W. Sebesta. The suitability of the VAX for a course in assembly language. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):253–257, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Summers:1988:PPR**

- [SEF<sup>+</sup>88] Marguerite K. Summers, William B. Evans, James J. Fletcher, Cindy Hanchey, and Leslie J. Waguespack. Program plagiarism revisited: current issues and approaches. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):224, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Seilheimer:1987:TAE**

- [Sei87] Steven D. Seilheimer. Teaching all essential elements in a one semester database course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(2):51–54, June 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Sellars:1988:WCC**

- [Sel88] Harold L. Sellars. Why a college course in computer literacy? *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(2):58–59, June 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Sewry:1989:CGC**

- [Sew89] D. A. Sewry. A computer graphics course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(3):15–18, September 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Spence:1984:RAE**

- [SG84] J. Wayne Spence and Steve Guynes. A “realistic” approach for educating systems programmers. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(2):10–12, June 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Sloan:1985:TDC**

- [SH85] Lynda Sloan and Antony Halaris. Towards a definition of computing literacy for the liberal arts environment. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):320–326, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Sanders:1987:AQP**

- [SH87] Dean Sanders and Janet Hartman. Assessing the quality of programs: a topic for the CS2 course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):92–96, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Selig:1988:DTU**

- [SH88] Calvin Selig and Sallie Henry. A design tool used to quantitatively evaluate student projects. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):124–128, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Shapiro:1980:RIS**

- [Sha80] Henry D. Shapiro. The results of an informal study to evaluate the effectiveness of teaching structured programming. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(4):50–56, December 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Shay:1982:CDD**

- [Sha82] William A. Shay. A course in DBMS (Database Management Systems). *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(4):16–21, December 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Shaw:1984:GCS**

- [Sha84] Mary Shaw. Goals for computer science education in the 1980s. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(1):1, February 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 15th SIGCSE Technical Symposium on Computer Science Education.

**Shaffer:1986:ULI**

- [Sha86a] Dale Shaffer. The use of Logo in an introductory computer science course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(4):28–31, December 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).



**Shafto:1986:PLM**

- [Sha86b] Sylvia A. Shafto. Programming for learning in mathematics and science. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(1):296–302, February 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 17th SIGCSE Symposium on Computer Science Education.

**Shay:1986:POS**

- [Sha86c] William A. Shay. A project for operating systems simulation. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(1):289–295, February 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 17th SIGCSE Symposium on Computer Science Education.

**Shaffer:1988:CCS**

- [Sha88] Earl D. Shaffer, III. Counseling the computer science major. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(3):3–4, September 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Shiflet:1984:CSC**

- [Shi84] Angela B. Shiflet. Computer science component in mathematics for elementary school teachers. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(4):43–44, December 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Shiflet:1987:HPT**

- [Shi87] Angela B. Shiflet. A historical perspective for teaching. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):413–414, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Shneiderman:1982:TSP**

- [Shn82] Ben Shneiderman. Teaching software psychology experimentation through team projects. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(3):38–40, September 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Shooman:1983:TSE**

- [Sho83] Martin L. Shooman. The teaching of software engineering. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):66–71, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Shrikhande:1984:SCC**

- [Shr84] Neelima Shrikhande. A survey of compiler courses. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(4):23–24, December 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Shub:1980:SCC**

- [Shu80] Charles M. Shub. A simulation course for computer science students. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(1):131–138, February 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 11th SIGCSE Symposium on Computer Science Education.

**Shub:1981:MIA**

- [Shu81] Charles M. Shub. A machine independent assembler course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(1):115–119, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Shub:1982:DCS**

- [Shu82] Charles M. Shub. Does the computer system make a difference in the effectiveness of the introductory service course? *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):64–70, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Shub:1983:PCO**

- [Shu83] Charles M. Shub. A project for a course in operating systems. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):25–30, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the

14th SIGCSE Technical Symposium on Computer Science Education.

**Shub:1986:CPP**

- [Shu86] Charles M. Shub. A component part for a performance course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(1):120–123, February 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 17th SIGCSE Symposium on Computer Science Education.

**Shub:1987:DFO**

- [Shu87] Charles M. Shub. The decline and fall of Operating Systems I. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):217–220, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Shub:1989:PEP**

- [Shu89] C. M. Shub. Performance experiments for the performance course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):222–225, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Sidbury:1986:SAE**

- [Sid86] James R. Sidbury. A statistical analysis of the effect of discrete mathematics on the performance of computer science majors in beginning computing classes. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(1):134–137, February 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 17th SIGCSE Symposium on Computer Science Education.

**Sigman:1987:MSC**

- [Sig87] Scott Sigman. Mathematics support for computing degrees: a small college perspective. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):70–75, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Silver:1989:CPU**

- [Sil89] J. L. Silver. Concurrent programming in an upper level operating systems course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):217–221, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Simms:1986:CCC**

- [Sim86] Melvin W. Simms. A career component to the computer science curriculum cooperative education. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(4):22–27, December 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Shaw:1980:CPC**

- [SJK<sup>+</sup>80] Mary Shaw, Anita Jones, Paul Knueven, John McDermott, Philip Miller, and David Notkin. Cheating policy in a Computer Science Department. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(2):72–76, July 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Sebesta:1980:TTT**

- [SK80] Robert W. Sebesta and James M. Kraushaar. TOYCOM — a tool for teaching elementary computer concepts. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(1):58–62, February 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 11th SIGCSE Symposium on Computer Science Education.

**Shinners-Kennedy:1986:UST**

- [SK86] Dermot Shinners-Kennedy. Using spreadsheets to teach computer science. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(1):264–270, February 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 17th SIGCSE Symposium on Computer Science Education.

**Schweppe:1980:PCE**

- [SKR80] Earl J. Schweppe, Charles R. Kellner, Jr., and David C. Rine. Personal computers in education (panel discussion). *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(1):103, February 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 11th SIGCSE Symposium on Computer Science Education.

**Stoddard:1981:BDI**

- [SL81] Spotswood D. Stoddard and Robert R. Leeper. Breadth or depth in introductory computer courses: The experimental results. *SIGCSE Bulletin (ACM Special Interest Group on Com-*

*puter Science Education*), 13(1):182–187, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Silver:1983:STS**

- [SL83] James L. Silver, Jr. and Robert R. Leeper. Schemata for teaching structured assembly language programming. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):128–132, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Sellars:1985:SEP**

- [SL85] Harold L. Sellars and Sandra D. Lynn. Software engineering/professional writing: an interdisciplinary course combination. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):215–220, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Sayers:1988:HCS**

- [SM88] Jerry E. Sayers and David E. Martin. A hypothetical computer to simulate microprogramming and conventional machine language. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(4):43–49, December 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Smillie:1981:SCC**

- [Smi81a] K. W. Smillie. A service course in computing science presented from a historical point of view. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(2):27–33, June 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Smith:1981:MTP**

- [Smi81b] Jeffrey W. Smith. A method for teaching programming. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(1):252–255, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Smith:1985:HAU**

- [Smi85] Wayne D. Smith. A hypothetical ALU for use in teaching computer organization. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):56–62, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Smith:1988:CTS**

- [Smi88] Peter D. Smith. Computing trends in small liberal arts colleges. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):299–303, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Smotherman:1987:UNB**

- [Smo87] Mark Smotherman. On the use of naming and binding in early courses. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):79–83, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Smotherman:1989:ECC**

- [Smo89] M. Smotherman. Examining compiled code. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):165–169, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Salenieks:1988:PSA**

- [SN88] Peter Salenieks and Jeff Naylor. Professional skills assessment in programming competitions. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(4):9–14, December 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Solntseff:1980:AEC**

- [Sol80] N. Solntseff. An adult education course in personal computing. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(1):63–66, February 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 11th SIGCSE Symposium on Computer Science Education.

**Sedlmeyer:1980:CPC**

- [SP80] Robert L. Sedlmeyer and William Parman. A college preparatory course in computer programming. *SIGCSE Bulletin (ACM Special*

*Interest Group on Computer Science Education*), 12(1):166–171, February 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 11th SIGCSE Symposium on Computer Science Education.

**Schweller:1989:NNA**

- [SP89] K. G. Schweller and A. L. Plagman. Neural nets and alphabets: introducing students to neural networks. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(3):2–7, September 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Sidbury:1989:CUC**

- [SPB89] James R. Sidbury, Richard Plishka, and John Beidler. CASE and the undergraduate curriculum. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):127–130, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Spresser:1985:MAC**

- [Spr85] Diane M. Spresser. A moderate approach to computer literacy. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):327–331, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Schrage:1984:IIF**

- [SS84] John F. Schrage and Robert A. Schultheis. An intensive instruction format for information systems. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(1):174–180, February 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 15th SIGCSE Technical Symposium on Computer Science Education.

**Shirkhande:1986:WL**

- [SS86] Neelima Shirkhande and L. P. S. Singh. The war of languages. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(2):63, June 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Sondak:1989:NNA**

- [SS89] N. E. Sondak and V. K. Sondak. Neural networks and artificial intelligence. *SIGCSE Bulletin (ACM Special Interest Group*

on *Computer Science Education*), 21(1):241–245, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Schweitzer:1989:AAT**

- [ST89] Dino Schweitzer and Scott C. Teel. AIDE: an automated tool for teaching design in an introductory programming course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):136–140, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Steidley:1985:AAA**

- [Ste85] Carl W. Steidley. An alternative approach to applications programming. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):227–232, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Stoob:1984:TUC**

- [Sto84] John C. Stoob. Thoughts on university computer curricula. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(3):13–16, September 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Stone:1987:MAP**

- [Sto87a] Don C. Stone. A modular approach to program visualization in computer science instruction. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):516–522, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Stoob:1987:SAD**

- [Sto87b] John C. Stoob. Systems analysis and design in an uncontrolled management environment. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(3):18–19, September 1, 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Stone:1989:UCG**

- [Sto89] D. C. Stone. Using cumulative graphic traces in the visualization of sorting algorithms. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(4):37–42, December 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).



**Sumner:1984:ISM**

- [Sum84] Mary R. Sumner. Information systems for management in the eighties. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(1):168–173, February 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 15th SIGCSE Technical Symposium on Computer Science Education.

**Sigwart:1985:EGP**

- [SV85] Charles D. Sigwart and Gretchen L. Van Meer. Evaluation of group projects in a software engineering course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(2):32–35, June 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Sigwart:1986:SEA**

- [SV86] Charles D. Sigwart and Gretchen L. Van Meer. Software engineering: the art of the user interview. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(1):127–130, February 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 17th SIGCSE Symposium on Computer Science Education.

**Soloway:1980:PPP**

- [SW80] Elliot M. Soloway and Beverly Woolf. Problems, plans, and programs. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(1):16–24, February 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 11th SIGCSE Symposium on Computer Science Education.

**Szalajka:1980:FAC**

- [Sza80a] Walter S. Szalajka. Financing an academic computer laboratory. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(4):18–21, December 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Szalajka:1980:SCS**

- [Sza80b] Walter S. Szalajka. Statistics for computer scientists. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(4):27–32, December 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Szalajka:1982:M**

- [Sza82] Walter S. Szalajka. Microcomputers. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(4): 22–25, December 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Thorpe:1983:PSEa**

- [TA83a] Stephen W. Thorpe and Paul D. Amer. A proposed secondary education computer science curriculum. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1): 245, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Thorpe:1983:PSEb**

- [TA83b] Stephen W. Thorpe and Paul D. Amer. A proposed secondary education computer science curriculum. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(3): 22–26, September 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Tabak:1988:GEP**

- [Tab88] Leon Tabak. Giving engineers a positive view of social responsibility. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(4):29–31, December 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Taffe:1986:TCS**

- [Taf86] William J. Taffe. Teaching computer science through writing. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(2):82–83, June 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Tam:1985:MAU**

- [Tam85] Wing C. Tam. A multilevel approach to undergraduate software engineering education. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):332–334, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Taulbee:1986:AUS**

- [Tau86] Orrin E. Taulbee. Annual U.S. summaries of PH.D. production and employment in computer science. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(3):2–8, September 1, 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Taylor:1985:PSS**

- [Tay85] Harriet G. Taylor, editor. *The papers of the Sixteenth SIGCSE Technical Symposium on Computer Science Education, New Orleans, Louisiana, March 14–15, 1985*, volume 17(1) of *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*. ACM Press, New York, NY 10036, USA, 1985. CODEN SIGSD3. ISBN 0-89791-152-0 (paperback). ISSN 0097-8418 (print), 2331-3927 (electronic). LCCN QA76.27 .A79a vol. 17, no. 1.

**Tomek:1981:MNP**

- [TB81] Ivan Tomek and Wayne Brehaut. Microcomputers for non-professionals. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(1):138–142, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Tam:1987:TAU**

- [TE87] Wing C. Tam and Michael A. Erlinger. On the teaching of Ada in an undergraduate computer science curriculum. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):58–61, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Teague:1981:POC**

- [Tea81] David B. Teague. A project-oriented course (Computer Programming II). *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(1):41–45, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Temte:1986:ACU**

- [Tem86] Mark Temte. An Ada course for upper-level undergraduates. *SIGCSE Bulletin (ACM Special Interest Group on Computer Sci-*

*ence Education*), 18(4):41–45, December 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Temte:1987:ASC**

- [Tem87] Mark Temte. An application to support a course in numerical analysis. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):455–461, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Tenny:1980:ALP**

- [Ten80] Ted Tenny. Assembly language at Potsdam College. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(4):22–26, December 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Tenny:1985:PCV**

- [Ten85] Ted Tenny. Procedures and comments vs. the banker’s algorithm. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(3):44–53, September 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Tenny:1987:LSV**

- [Ten87] Ted Tenny. Leadership style vs. success in student chief programmer teams. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):103–114, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Texel:1982:ADA**

- [Tex82] Putnam P. Texel. Ada\_education := Design\_concepts “+” Ada\_constructs. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):201–204, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Teoh:1982:ICL**

- [TG82] William Teoh and Harry W. Gates. Increasing computer literacy & employability of the blind: a talking microcomputer. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):224–225, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Turner:1983:TFM**

- [TGHM83] A. Joe Turner, Susan L. Gerhart, Eric C. Hehner, and Harlan D. Mills. Teaching formal methods for program development and verification (panel session). *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):50, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Tharp:1981:GMO**

- [Tha81] Alan L. Tharp. Getting more oomph from programming exercises. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(1):91–95, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Tharp:1982:SRP**

- [Tha82] Alan L. Tharp. Selecting the “right” programming language. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):151–155, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Tharp:1984:IFG**

- [Tha84] Alan L. Tharp. The impact of fourth generation programming languages. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(2):37–44, June 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Tharp:1987:LM**

- [Tha87] Alan L. Tharp. Let’s motivate. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):415–422, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Editors:1987:SIS**

- [The87] The Editors. The senior information systems design project seminar. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):2–8, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Thompson:1987:CKM**

- [Tho87] Don Thompson. On constructing Karnaugh maps. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(2):20–23, June 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Taylor:1989:EHS**

- [TM89] Harriet G. Taylor and Luegina C. Mounfield. The effect of high school computer science, gender, and work on success in college computer science. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):195–198, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Taylor:1988:RPC**

- [TN88] Harriet G. Taylor and Cathleen A. Norris. Retraining pre-college teachers: a survey of state computing coordinators. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):215–218, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Tomek:1981:HHS**

- [Tom81] Ivan Tomek. HARD — hardware simulation in education. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(1):268–270, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Tomek:1982:JPE**

- [Tom82] Ivan Tomek. Josef, programming for everybody. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):188–192, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Taylor:1984:PCE**

- [TP84] Harriet G. Taylor and James L. Poirot. A proposed computer education curriculum for secondary school teachers. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(1):115–118, February 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 15th SIGCSE Technical Symposium on Computer Science Education.

**Tran:1985:TSA**

- [TR85] Con Tran and Pierre N. Robillard. Teaching structured assembler programming. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(4):32–44, December 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Travis:1985:OLY**

- [Tra85] David L. Travis. Open letter to a young Master's degree computer scientist. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(2):3–4, June 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Trenary:1987:PCP**

- [Tre87] Robert Trenary. A project centered programming language course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):67–69, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Trigg:1987:TPC**

- [Tri87] Joseph W. Trigg, Jr. Teaching personal computer Cobol with Watcom Cobol. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):40–43, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Ullrich:1989:EIC**

- [UC89] J. R. Ullrich and C. Cook. An experimental investigation of the close procedure as a measure of program understanding. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(4):2–10, December 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Uckan:1986:TCC**

- [Uck86] Yuksel Uckan. Teaching COBOL in computer information systems programs: Problems, a proposal and an experiment. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(3):58–64, September 1, 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Unger:1987:MC**

- [UHC87] Elizabeth A. Unger, Charles M. Hassett, and Constanza Castro. IS and MIS: a compromise? *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):483–489,

February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Ulema:1984:PHS**

- [UL84] Mehmet Ulema and Jack Larsen. Planning for in-house software engineering education. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(1):130–136, February 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 15th SIGCSE Technical Symposium on Computer Science Education.

**Ulloa:1980:TLC**

- [Ull80] Miguel Ulloa. Teaching and learning computer programming: a survey of student problems, teaching methods, and automated instructional tools. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(2):48–64, July 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Uram:1987:SFM**

- [UM87] Michael Uram and Robert J. McGlenn. Student file management under Primos. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):357–360, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Vann:1985:UMM**

- [Van85] J. Joyce Vann. Using miniframes, menu-driven environments, and networking in an introductory computer science programming lab. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):140–144, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**VanVerth:1986:TMP**

- [Van86] Patricia B. Van Verth. Testing a model of program quality. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(1):163–172, February 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 17th SIGCSE Symposium on Computer Science Education.

**VanDyke:1988:BJM**

- [Van88] Carolynn Van Dyke. Binary jargon: the metaphoric language of computing. *SIGCSE Bulletin (ACM Special Interest Group*



on *Computer Science Education*), 20(3):34–41, September 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**VanMeer:1983:CET**

- [VD83] Gretchen L. Van Meer and William H. Dodrill. A comparison of examination techniques for introductory computer programming courses. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(4):34–38, December 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**vanHouten:1987:SSC**

- [vH87] Karen van Houten. Software support for computer science video courses. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(3):35–37, September 1, 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Villasenor:1982:EPCa**

- [Vil82a] Yolanda F. Villasenor. Evolution of a program in computing for a Latin American graduate college. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):247, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Villasenor:1982:EPCb**

- [Vil82b] Yolanda F. Villaseñor. Evolution of a program in computing for a Latin American graduate college. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(2):11–16, June 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Villegas:1986:AAC**

- [Vil86] Alonso Villegas. Adapting not adopting a curriculum. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(1):211–216, February 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 17th SIGCSE Symposium on Computer Science Education.

**vonKaenel:1988:MWT**

- [vK88] Pierre A. von Kaenel. Microprogramming a watch: tools for a course in computer organization. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):309–312,

February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**VonKaenel:1987:DT**

- [Von87] Pierre A. Von Kaenel. A debugger tutorial. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(4):40–44, December 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**VanMeer:1985:BFC**

- [VS85] Gretchen L. Van Meer and Charles D. Sigwart. Beyond a first course in software engineering. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(3):26–29, September 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**VanMeer:1989:EGI**

- [VS89] G. L. Van Meer and C. D. Sigwart. Effective group interactions: some aspects of group projects in computer science courses. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(4):52–56, December 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**vanVerth:1989:UCP**

- [vVBK89] P. B. van Verth, L. Bakalik, and M. Kilcoyne. Use of the cloze procedure in testing a model of complexity. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):156–160, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Wadland:1980:OSP**

- [Wad80] Kenneth R. Wadland. Operating system projects for undergraduates. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(1):75–80, February 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 11th SIGCSE Symposium on Computer Science Education.

**Waguespack:1985:SCS**

- [Wag85a] Leslie J. Waguespack. A structural computer system resource model for teaching computer organization. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*,

17(1):63–67, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Waguespack:1985:PSW**

- [Wag85b] Leslie J. Waguespack, Jr. Personal student workstations: prospectus and requirements. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):145–151, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Waguespack:1989:IWA**

- [Wag89a] Leslie J. Waguespack, Jr. An IS1 workbench for ACM information system curriculum '81. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):83–87, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Waguespack:1989:VMT**

- [Wag89b] Leslie J. Waguespack, Jr. Visual metaphors for teaching programming concepts. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):141–145, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Wainwright:1980:ICS**

- [Wai80] Roger L. Wainwright. An introductory computer science course for non-majors. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(1):154–160, February 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 11th SIGCSE Symposium on Computer Science Education.

**Walker:1981:IAI**

- [Wal81] Henry M. Walker. An interdisciplinary approach to introductory programming courses. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(3):40–44, September 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Walters:1988:CSM**

- [Wal88] F. Garnett Walters. Computer science — a mathematical science and accreditation. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(3):53–56, September 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Warford:1988:ICS**

- [War88] J. Stanley Warford. Introductory computer science: the case for a unified view. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):44–48, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Wallentine:1980:PES**

- [WB80] Virgil Wallentine and William G. Bulgren, editors. *The papers of the Eleventh SIGCSE Technical Symposium on Computer Science Education, Kansas City, Missouri, February 14–15, 1980*, volume 12(1) of *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*. ACM Press, New York, NY 10036, USA, 1980. CODEN SIGSD3. ISBN 0-89791-013-3. ISSN 0097-8418 (print), 2331-3927 (electronic). LCCN QA76.27 .A79a vol. 12, no. 1.

**Wilson:1985:PDU**

- [WB85] Judith D. Wilson and Gerald F. Braun. Psychological differences in university computer student populations. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):166–177, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Werth:1985:CPP**

- [WBJ+85] Laurie Werth, Jeff Bonar, Saj-Nicole Joni, Barry Kurtz, and Dave Scanlan. Cognitive processes in programming (panel session). *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):373–375, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Woodfield:1983:SIE**

- [WCC83] Scott N. Woodfield, James S. Collofello, and Patricia M. Collofello. Some insights and experiences in teaching team project courses. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):62–65, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Wieckert:1984:WSA**

- [WD84] Karen Wieckert and Nell Dale. Women in science and academe. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(1):147, February 1984. CODEN SIGSD3.

ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 15th SIGCSE Technical Symposium on Computer Science Education.

**Weaver:1981:DML**

- [Wea81] Alfred C. Weaver. Design of a microcomputer laboratory for teaching computer science. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(1):132–137, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Weems:1989:OSI**

- [Wee89] B. P. Weems. Operations on sets of intervals — an exercise for data structures or algorithms. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):174–176, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Weiss:1981:EPC**

- [Wei81] David L. Weiss. An enhanced pseudo-code notation. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(4):21–24, December 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Weiner:1989:TAL**

- [Wei89] D. J. Weiner. Teaching of assembly language as a laboratory science. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(4):60–64, December 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Werth:1986:PSP**

- [Wer86] Laurie Honour Werth. Predicting student performance in a beginning computer science class. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(1):138–143, February 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 17th SIGCSE Symposium on Computer Science Education.

**Werth:1988:ISE**

- [Wer88] Laurie Honour Werth. Integrating software engineering into an intermediate programming class. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):54–

58, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Werth:1989:PSP**

- [Wer89] Laurie Honour Werth. Preparing students for programming-in-the-large. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):37–41, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Wilson:1989:ASI**

- [WGT89] Judith Wilson, Newcomb Greenleaf, and Robert Trenary. Algorithms and software: integrating theory and practice in the undergraduate computer science curriculum. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):42–46, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Waguespack:1984:WPO**

- [WH84] Leslie J. Waguespack, Jr. and David F. Hass. A workbench for project oriented software engineering courses. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(1):137–145, February 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 15th SIGCSE Technical Symposium on Computer Science Education.

**White:1983:UMA**

- [Whi83] Curt M. White. The use of microcomputers in an applied computer science program. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(1):278–280, February 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 14th SIGCSE Technical Symposium on Computer Science Education.

**Whipkey:1984:IPP**

- [Whi84] Kenneth L. Whipkey. Identifying predictors of programming skill. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(4):36–42, December 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Whitson:1986:SWH**

- [Whi86] George M. Whitson III. A set of workshops for high school computer science teachers. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(1):303–306, February

1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 17th SIGCSE Symposium on Computer Science Education.

**Whitson:1988:IPD**

- [Whi88] George M. Whitson. An introduction to the parallel distributed processing model of cognition and some examples of how it is changing the teaching of artificial intelligence. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):59–62, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Wallentine:1980:RTP**

- [WHL<sup>+</sup>80] Virg Wallentine, William Hankley, Ted Lewis, Stuart Meyer, and Ron Clark. Remote teaching (panel discussion): Technology and experience. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(1):192, February 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 11th SIGCSE Symposium on Computer Science Education.

**Ward:1981:CPD**

- [WI81] Darrell L. Ward and Tom C. Irby. Classroom presentation of dynamic events using Hypertext. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(1):126–131, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Wiedenbeck:1988:LRC**

- [Wie88] Susan Wiedenbeck. Learning recursion as a concept and as a programming technique. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):275–278, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Wiley:1982:OSC**

- [Wil82] Samuel J. Wiley. An operating systems course using stand alone computers. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):88–91, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Wilson:1985:WSM**

- [Wil85] Judith D. Wilson. What should be the mission of four year undergraduate programs in information systems? *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(1):367–372, March 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Wilson:1986:PTD**

- [Wil86] Judith D. Wilson. Problems teaching database design with information complexity to information systems undergraduates. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 18(1):2–7, February 1986. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 17th SIGCSE Symposium on Computer Science Education.

**Wilson:1987:ERD**

- [Wil87a] Judith D. Wilson. Entity-relationship diagrams and English: an analysis of some problems encountered in a database design course. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):26–35, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Wilson:1987:SAH**

- [Wil87b] Judith D. Wilson. A Socratic approach to helping novice programmers debug programs. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):179–182, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Wirth:1987:ERT**

- [Wir87] Niklaus Wirth. Extension of record types. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(2):2–9, June 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Witten:1987:CES**

- [Wit87] Ian H. Witten. A course on “expert systems” for electrical engineering students. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):257–260, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).



**Winslow:1982:CBC**

- [WJ82] L. E. Winslow and L. A. Jehn. A core based curriculum for a Master's degree. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):242–246, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**When:1988:MCA**

- [WJ88] J. Wey When and Gordon R. Jones. A major in computer applications for small liberal arts colleges. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):90–94, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Wells:1989:TMP**

- [WK89] M. B. Wells and B. L. Kurtz. Teaching multiple programming paradigms: a proposal for a paradigm general pseudocode. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):246–251, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Winslow:1989:AC**

- [WL89] L. E. Winslow and J. E. Lang. Ada in CS1. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(1):209–212, February 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Walters:1981:PTS**

- [WMD81] Frank Garnett Walters, Kenneth I. Magel, and Nell B. Dale, editors. *The papers of the twelfth SIGCSE Technical Symposium on Computer Science Education, St. Louis, Missouri, February 26–27, 1981*, volume 13(1) of *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*. ACM Press, New York, NY 10036, USA, 1981. CODEN SIGSD3. ISBN 0-89791-036-2 (paperback). ISSN 0097-8418 (print), 2331-3927 (electronic). LCCN QA76.27 .A79a vol. 13, no. 1.

**Wright:1981:SIC**

- [WMH81] William E. Wright, Robert J. McGlinn, and J. Archer Harris. A survey of interactive computing support in American colleges and universities. *SIGCSE Bulletin (ACM Special Interest Group*

on *Computer Science Education*), 13(3):22–25, September 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Wolfe:1987:OSP**

- [Wol87] James L. Wolfe. Operating system projects on two simulated machines. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):212–216, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Woodson:1982:CLC**

- [Woo82] M. I. Chas. E. Woodson. Computer literacy by computer. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 14(1):226–228, February 1982. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 13th SIGCSE Symposium on Computer Science Education.

**Walstrom:1980:SPC**

- [WR80] John Walstrom and David Rine. “A study of personal computing in education”. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 12(1):67–74, February 1980. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 11th SIGCSE Symposium on Computer Science Education.

**Wainwright:1987:APP**

- [WS87] Roger L. Wainwright and Dale A. Schoenefeld. Advanced placement-plus in computer science: a summer institute at the University of Tulsa. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):84–91, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Woodfield:1987:CCE**

- [WSC87] Scott N. Woodfield, Gordon E. Stokes, and Vern J. Crandall. On-campus cooperative education. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):353–356, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Werth:1984:RMC**

- [WSK84] John Werth, Mary Shaw, and Abraham Kandel. The role of mathematics in computer science education. *SIGCSE Bulletin (ACM*

*Special Interest Group on Computer Science Education*), 16(1): 82, February 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 15th SIGCSE Technical Symposium on Computer Science Education.

**Wilson:1981:ICLb**

- [WT81a] J. D. Wilson and H. G. Trenary. An investigation of computer literacy as a function of attitude. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(3):5–12, September 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Wilson:1981:ICLa**

- [WT81b] J. D. Wilson and R. G. Trenary. An investigation of computer literacy as a function of attitude. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 13(1):262, February 1981. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). Proceedings of the 12th SIGCSE Symposium on Computer Science Education.

**Wu:1983:PTS**

- [Wu83] B. F. Wu. A practical training in software engineering methodology. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 15(2):2–9, June 1983. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Wu:1985:RRT**

- [Wu85] B. F. Wu. Requirements of a real-time microcomputer embedded laboratory project. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(2):27–28, June 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Yaverbaum:1985:DME**

- [Yav85] Gayle J. Yaverbaum. A decision making environment in the classroom. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 17(3):9–11, September 1985. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Yaverbaum:1987:ERA**

- [Yav87] Gayle J. Yaverbaum. An evaluation of a realistic approach to MIS. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):36–39, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Yaverbaum:1988:RMG**

- [Yav88] Gayle J. Yaverbaum. Requirement methods: a graduate level course that integrates software engineering principles with information systems theory. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):119–123, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Yun-Lin:1989:TOS**

- [YL89] Su Yun-Lin. On teaching operating systems. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 21(3):11–14, September 1989. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Zahn:1987:BR**

- [Zah87] C. T. Zahn. Bubble reflections. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(1):264–266, February 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Zahn:1988:PPP**

- [Zah88] C. T. Zahn. A phased programming paradigm. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):9–12, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Ziegler:1984:NAP**

- [Zie84] William Ziegler. The new advanced placement computer science course: an analysis. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 16(2):34–36, June 1984. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Ziegler:1987:HSI**

- [Zie87] William L. Ziegler. Highly structured internship and cooperative education program in computer science. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 19(3):56–64, September 1, 1987. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic).

**Zimmermann:1988:UCP**

- [ZPS88] M. Zimmermann, F. Perrenoud, and André Schiper. Understanding concurrent programming through program anima-

tion. *SIGCSE Bulletin (ACM Special Interest Group on Computer Science Education)*, 20(1):27–31, February 1988. CODEN SIGSD3. ISSN 0097-8418 (print), 2331-3927 (electronic). URL <ftp://ftp.math.utah.edu/pub/mirrors/ftp.ira.uka.de/bibliography/Misc/DBLP/1988.bib>; [ftp://ftp.math.utah.edu/pub/mirrors/ftp.ira.uka.de/bibliography/Parallel/debug\\_3.1.bib](ftp://ftp.math.utah.edu/pub/mirrors/ftp.ira.uka.de/bibliography/Parallel/debug_3.1.bib); <ftp://ftp.math.utah.edu/pub/mirrors/ftp.ira.uka.de/bibliography/Parallel/par.debug.bib>.