Student Ratings of Instruction and Student Achievement: A Meta-analysis of Multisection Validity Studies

S journals.sagepub.com/doi/abs/10.3102/00346543051003281

Abstract

The present study used meta-analytic methodology to synthesize research on the relationship between student ratings of instruction and student achievement. The data for the meta-analysis came from 41 independent validity studies reporting on 68 separate multisection courses relating student ratings to student achievement. The average correlation between an overall instructor rating and student achievement was .43; the average correlation between an overall course rating and student achievement was .47. While large effect sizes were also found for more specific rating dimensions such as Skill and Structure, other dimensions showed more modest relationships with student achievement. A hierarchical multiple regression analysis showed that rating/achievement correlations were larger for full-time faculty when students knew their final grades before rating instructors and when an external evaluator graded students' achievement tests. The results of the meta-analysis provide strong support for the validity of student ratings as measures of teaching effectiveness.

References

BendigAWThe relation of level of course achievement to students' instructor course ratings in introductory psychologyEducational and Psychological Measurement195313437448(a) Google Scholar Abstract

BendigAWStudent achievement in introductory psychology and student ratings of the competence and empathy of their instructors Journal of Psychology 195336427433(b) Google Scholar

BentonSEScottOA comparison of the criterion validity of two types of student response inventories for appraising instruction1976AprilPaper presented at the annual meeting of the National Council on Measurement in EducationSan Francisco (ERIC Document Reproduction Service No. ED 128 397) Google Scholar

BiglanAThe characteristics of subject matter in different academic areas Journal of Applied Psychology197358195203 Google Scholar

BoltonBBongeDMarrJRatings of instruction, examination performance, and subsequent enrollment in psychology coursesTeaching of Psychology 197968285 Google Scholar Abstract

BorgWRHamiltonERComparison between a performance test and criteria of instructor effectivenessPsychological Reports19562111116 Google Scholar Abstract

BrachtGHGlassGVThe external validity of experimentsAmerican Educational Research Journal 19685437474 Google Scholar Abstract

BraskampLACaulleyDCostinFStudent ratings and instructor self-ratings and their relationship to student achievementAmerican Educational Research Journal 197916295306 Google Scholar Abstract

BrysonRTeacher evaluations and student learning: A reexamination The Journal of Educational Research1974681214 Google Scholar

CampbellDTRecommendations for APA test standards regarding construct, trait, and discriminant validityAmerican Psychologist196015546553 Google Scholar

CampbellDTStanleyJCGageNLExperimental and quasi-experimental designs for research on teachingHandbook of research on teaching 1963ChicagoRand-McNally Google Scholar

Carnegie Commission on Higher EducationA classification of institutions of higher education1976Berkeley, CalifThe Carnegie Foundation for the Advancement of Teaching (Rev. ed.) Google Scholar

CentraJAStudent ratings of instruction and their relationship to student learning American Educational Research Journal1977141724 Google Scholar Abstract

CentraJADetermining faculty effectiveness1979San FranciscoJossey-Bass Google Scholar

ChandlerTAThe questionable status of student evaluations of teaching Teaching of Psychology 19785150152 Google Scholar Abstract

ChaseCIKeeneJMValidity of student ratings of faculty1979Bloomington, IndBureau of Educational Studies and Testing, Indiana University(ERIC Document Reproduction Service No. ED 169 870) Google Scholar

CohenJStatistical power analysis for the behavioral sciences1977New YorkAcademic Press(Rev. ed.) Google Scholar

CohenJCohenPApplied multiple regression/correlation analysis for the behavioral sciences1975Hillsdale, N.JLawrence Erlbaum Google Scholar

CohenPAEffectiveness of student-rating feedback for improving college instruction: A meta-analysis of findingsResearch in Higher Education198013321341(a) Google Scholar CrossRef

CohenPAA meta-analysis of the relationship between student ratings of instruction and student achievement. (Doctoral dissertation, University of Michigan, 1980)Dissertation Abstracts International 1980415-A2012(University Microfilms No. 8025666) (b) Google Scholar

CohenPAEbelingBJKulikJAA meta-analysis of outcome studies of visual-based instruction Educational Communication and Technology Journal1981292636 Google Scholar

CohenSHBergerWGDimensions of students' ratings of college instructors underlying subsequent achievement on course examinationsProceedings of the 78th Annual Convention of the American Psychological Association19705605606(Summary) Google Scholar

CostinFDo student ratings of college teachers predict student achievement? Teaching of Psychology 197858688 Google Scholar Abstract

CostinFGreenoughWTMengesRJStudent ratings of college teaching: Reliability, validity, and usefulnessReview of Educational Research197141511535 Google Scholar Abstract

CrooksTJSmockHRStudent ratings of instructors related to student achievement1974Urbana, IllOffice of Instructional Resources, University of Illinois Google Scholar

DoyleKOStudent evaluation of instruction1975Lexington, MassD. C. Heath Google Scholar

DoyleKOCrichtonLIStudent, peer, and self-evaluations of college instructorsJournal of Educational Psychology197870815826 Google Scholar

DoyleKOWhitelySEStudent ratings as criteria for effective teachingAmerican Educational Research Journal197411259274 Google Scholar Abstract

ElliottDNCharacteristics and relationships of various criteria of college and university teaching Purdue University Studies in Higher Education195070561 Google Scholar

EllisNRRickardHCEvaluating the teaching of introductory psychologyTeaching of Psychology19774128132 Google Scholar Abstract

EndoGTDella-PianaGA validation study of course evaluation ratings Improving College and University Teaching 1976248486 Google Scholar

FeldmanKAGrades and college students' evaluations of their courses and teachers Research in Higher Education1976469111 Google Scholar

FollmanJStudent ratings and student achievementJSAS Catalog of Selected Documents in Psychology19744136(Ms. No. 791) Google Scholar

FreyPWStudent ratings of teaching: Validity of several rating factors Science 19731828385 Google Scholar

FreyPWValidity of student instructional ratings: Does timing matter? Journal of Higher Education 197647327336 Google Scholar

FreyPWLeonardDWBeattyWWStudent ratings of instruction: Validation researchAmerican Educational Research Journal197512435447 Google Scholar Abstract

GageNLGlasmanNSKillaitBRStudents' ratings of college teaching: Their justification and proper use Second UCSB Conference of Effective Teaching1974Santa Barbara, CalifGraduate School of Education and Office of Instructional Development, University of California, Santa Barbara Google Scholar

GessnerPKEvaluation of instructionScience1973180566570 Google Scholar

GlassGVPrimary, secondary, and meta-analysis of researchEducational Researcher1976538 Google Scholar Link

GlassGVShulmanLSIntegrating findings: The meta-analysis of research Review of research in education 19785 Itasca, IIIF. E. Peacock Google Scholar

GlassGVSmithMLMeta-analysis of research on class size and achievementEducational Evaluation and Policy Analysis19791216 Google Scholar Link

GlassGVStanleyJCStatistical methods in education and psychology1970Englewood Cliffs, N. JPrentice-Hall Google Scholar

GreenwoodGEA study of the validity of four types of student ratings of college teaching assessed on a criterion of student achievement gainsResearch in Higher Education19765171178 Google Scholar

GrushJECostinFThe student as consumer of the teaching processAmerican Educational Research Journal1975125566 Google Scholar Abstract

Guide to DIALOG searching1979Palo Alto, CalifLockheed DIALOG Information Retrieval Service, Lockheed Missiles & Space Company

HallJAGender effects in decoding non-verbal cues Psychological Bulletin 197885845857 Google Scholar

HoffmanRGVariables affecting university student ratings of instructor behavior American Educational Research Journal197815287299 Google Scholar Abstract

IsaacsonRLDimensions of student evaluations of teaching Journal of Educational Psychology 196455344351 Google Scholar

KulikC-LKulikJACohenPAInstructional technology and college teachingTeaching of Psychology 19807199205 Google Scholar Abstract

KulikJACohenPAEbelingBJEffectiveness of programmed instruction in higher education: A meta-analysis of findingsEducational Evaluation and Policy Analysis 1980265164 Google Scholar Abstract

KulikJAKulikC-LCStudent ratings of instructionTeaching of Psychology 197415157 Google Scholar Abstract

KulikJAKulikC-LCCohenPAA meta-analysis of outcome studies of Keller's personalized system of instructionAmerican Psychologist197934307318(a) Google Scholar

KulikJAKulikC-LCCohenPAResearch on audio-tutorial instruction: A meta-analysis of comparative studiesResearch in Higher Education197911321341(b) Google Scholar

KulikJAKulikC-LCCohenPAEffectiveness of computer-based college teaching: A meta-analysis of findingsReview of Educational Research198050525544 Google Scholar Abstract

KulikJAMcKeachieWJKerlingerFNThe evaluation of teachers in higher education Review of research in education19753Itasca, IllPeacock Google Scholar

LeventhalLTeacher rating forms: Critique and reformulation of previous validation designsCanadian Psychological Review197516269276 Google Scholar

LeventhalLAbramiPPerryRBogus evidence for the validity of student ratings1977AugustPaper presented at the annual meeting of the American Psychological AssociationSan Francisco(ERIC Document Reproduction Service No. ED 150 510) Google Scholar

LeventhalLSection selection in multi-section courses: Implications for the validation and use of teacher rating formsEducational and Psychological Measurement197535885895 Google Scholar Abstract

MarshHWResearch on students' evaluations of teaching effectiveness: A reply to Vecchio Instructional Evaluation198042513 Google Scholar

MarshHWFleinerJThomasCSValidity and usefulness of student evaluations of instructional quality Journal of Educational Psychology197567833839 Google Scholar

MarshHWOverallJUValidity of students' evaluations of teaching effectiveness: Cognitive and affective criteriaJournal of Educational Psychology 198072468475 Google Scholar

MaugerPAKolmodinCALong-term predictive validity of the Scholastic Aptitude Test Journal of Educational Psychology197567847851 Google Scholar

McKeachieWJStudent ratings of faculty: A reprise Academe 197965384397 Google Scholar CrossRef

McKeachieWJLinY-GMannWStudent ratings of teacher effectiveness: Validity studies American Educational Research Journal19718435445 Google Scholar Abstract

MintzesJJField test and validation of a teaching evaluation instrument: The Student Opinion of Teaching1977Windsor, OntarioUniversity of Windsor(ERIC Document Reproduction Service No. ED 146 185) Google Scholar

MorshJEBurgessGGSmithPNStudent achievement as a measure of instructor effectiveness Journal of Educational Psychology1956477988 Google Scholar

MurdockRPThe effect of student ratings of their instructor on the student's achievement and rating1969Salt Lake City, UtUniversity of Utah(ERIC Document Reproduction Service No. ED 034 715) Google Scholar

PetersonPLPetersonPLWalbergHJDirect instruction reconsidered Research on teaching 1979Berkeley, CalifMcCutchan Google Scholar

RankinEFGreenmumRTracyRJFactors related to student evaluations of a college reading course Journal of Reading196591015 Google Scholar

RemmersHHMartinFDElliottDNAre students' ratings of instructors related to their grades? Purdue University Studies in Higher Education1949661726 Google Scholar

ReynoldsDVHansvickCGraduate instructors who grade higher receive lower evaluations by students1978SeptemberPaper presented at the annual meeting of the American Psychological AssociationToronto, Ontario Google Scholar

RodinMRodinBStudent evaluations of teachers Science 1972 1771, 1641, 166 Google Scholar

RosenthalRExperimenter effects in behavioral research1976New YorkIrvington Google Scholar

RubinsteinJMitchellHFeeling free, student involvement, and appreciationProceedings of the 78th Convention of the American Psychological Association19705623624(Summary) Google Scholar

SeibertWFEricksenSCStudent evaluations of instructionSupport for teaching at major universities1979Ann Arbor, MichUniversity of Michigan, Center for Research on Learning and Teaching Google Scholar

SeldinPSuccessful faculty evaluation programs1980Crugers, New YorkCoventry Press Google Scholar

SheehanDSOn the invalidity of student ratings for administrative personnel decisions Journal of Higher Education 1975 46687700 Google Scholar

SmithMLGlassGVMeta-analysis of psychotherapy outcome studies American Psychologist197732752760 Google Scholar Medline

SolomonDRosenbergLBezdekWETeacher behavior and student learningJournal of Educational Psychology1964552330 Google Scholar

SorgeDHKlineCEVerbal behavior of college instructors and attendant effect upon student attitudes and achievementCollege Student Journal1973742429 Google Scholar

SpencerREDickWCourse evaluation questionnaire: Manual of interpretation1965Urbana, IllOffice of Instructional Resources, University of Illinois(Research Report No. 200) Google Scholar

SullivanAMSkanesGRValidity of student evaluation of teaching and the characteristics of successful instructorsJournal of Educational Psychology 197466584590 Google Scholar

TurnerRLThompsonRPRelationships between college student ratings of instructors and residual learning1974AprilPaper presented at the annual meeting of the American Educational Research AssociationChicago Google Scholar

VecchioRPStudent ratings of instructors: Should we take them seriously?Instructional Evaluation19804214 Google Scholar

WareJEWilliamsRGThe Dr. Fox effect: A study of lecture effectiveness and ratings of instruction Journal of Medical Education197550149156 Google Scholar

WherryRJControl of bias in ratings1952Washington, D.CDepartment of the Army, The Adjutant General's Office(PRS Reports 914, 915, 919, 920, and 921) Google Scholar

WhitelySEDoyleKOValidity and generalizability of student ratings from between-classes and within-class dataJournal of Educational Psychology 197971117124 Google Scholar

SEBASTIAN STEHLE is a research fellow at the Interdisciplinary Centre for Teaching in Higher Education at Goethe University, Frankfurt, Germany. His research interests include learning and teaching in higher education and assessing teacher competencies.

BIRGIT SPINATH is a professor of educational psychology at Heidelberg University, Germany. Her research interests include learning and teaching in schools and higher education institutions, motivational prerequisites to learning and achievement, and institutional research in higher education.

The authors would like to acknowledge the contributions of A. Celeste Farr and the faculty and students of the College of Communication Arts and Sciences at Michigan State University to this project

Authors

Dr Michael Townsend and Dr Dennis Moore are Senior Lecturers in the Department of Education, University of

Auckland, Private Bag 92019, Auckland, New Zealand.