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ABSTRACT

This manual describes the construction, administration and interpretation of the Course Evaluation Schedule, designed to assess students' perception of instruction. The inventory is divided into four parts; the first, designed to elicit information about the instructional modes used, is not included in the ratings. The remaining three parts consist of general course ratings, specific statements referring to course characteristics, and specific statements about instructor characteristics. Utilizing factor analytic procedures the 46 items in these three parts were grouped into five scales--educational value, management of instructional climate, instructional strategy, evaluation consistency, and scholarly affect--have reliabilities of .943, .908, .860, .811, and .907, respectively. Information is provided concerning: (1) administration--situation, time, materials, procedure; (2) interpretation of results--median ratings, scale scores, item analysis; and (3) technical concerns--instrument construction, norms, reliability, validity. The final form of the inventory is reproduced for scoring using an Optical Scan 100. (Author/KM)

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MANUAL

COURSE EVALUATION SCHEDULE

Form B

prepared by

Jon Clark Marshall

TM 002 620

UMSL



CEVS

School of Education

University of Missouri-

St. Louis 63121

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INTRODUCTION

The *Course Evaluation Schedule (CEVS)* is designed to assess instructional characteristics as perceived by students. The inventory has been constructed for use in evaluating college and university instruction. It could probably be used below this level. However, statistical data have not been obtained for these lower levels.

One aspect of education as a profession is the evaluation of staff performance. At the university level, this is divided into three categories: (1) research and publication; (2) service; and (3) teaching. Evaluation of the first two of these areas has been reasonably accomplished through the documented activities of the individual faculty member. The third, teaching, has been by far the most difficult to assess.

The assessment of instruction should take many forms. Among these are the students' perceptions of instruction, students' abilities and achievements when completing a course of instruction, and the congruence of the instructional materials and procedures with current knowledge in the field. Accurate faculty evaluation would necessitate reliable and valid assessment of each of these areas.

In order to obtain these data instruments have to be developed for each area which will enable the quantification of the masses of information available. The CEVS is designed to collect those data related to *students' perception of instruction*. The information obtained from the CEVS should be interpreted in conjunction with data obtained for the other areas of instruction.

GENERAL FEATURES

Form B of the CEVS is based on the content analysis of the literature in the field, interviews with faculty and students, and statistical analyses of data obtained on Form A. Its special features are listed below.

1. *The CEVS is easily administered.* The inventory and answer sheet are combined on an 8 1/2 by 11 inch sheet from which the data can be retrieved using an Optical Scan 100 scoring machine.
2. *The CEVS is comprehensive.* The inventory is divided into four parts. The first part is strictly informational and is not included in the ratings. It is designed to elicit information about the types of instructional modes used in the course, e.g., lecture or class discussion. The remaining three parts consist of general course ratings, specific statements referring to course characteristics, and specific statements about instructor characteristics.

3. *Form includes identification information.* Across the top of the inventory-answer sheet are locations to include ten sets of course or student information. This information consists of course identification number according to department code, course number, and section number; whether or not the course is in the students' major or minor field; whether the course was required or an elective; whether the course was taught in the day or evening division of the university; whether or not additional evaluation items are being used; and whether the course was taken under regular or pass-fail enrollment. Other information obtained is the student's sex, expected grade in the course, class level in the university, and (optional) student number.
4. *Data processing available.* The information from a set of evaluation forms can be machine processed through the University of Missouri-St. Louis Computer Center.
5. *Multiple scoring provided.* These sets of analyses are provided for each class: criterion-referenced ratings on five instructional characteristics; norm-references profile on five scales; and item analysis reported in the percent of students marking each response.

The primary purpose of the CEVS is to enable teaching staff to assess their teaching procedures. Analysis of the results can enable teachers to gain insight into the way they relate to students on several different dimensions.

SCALE DESCRIPTIONS

The scales for the CEVS are derived from 46 items arranged in three parts. The first part consists of five items for rating different aspects of instruction. The second part consists of 17 items describing course characteristics and the third set includes 18 items describing instructor characteristics. Utilizing factor analytic procedures the items have been grouped into five scales.

1. *Educational Value.* A high score on this scale indicates that relative to other courses, students perceived the course as being well taught and worthwhile with an effective use of class time. The students feel that they learned a lot in the course, that the material used was good, and the subject-matter was intellectually stimulating.
2. *Management of Instructional Climate.* A high score on this scale is reflected in a high rating for the instructor. Relative to other courses, the instructor is perceived as having greater interest and respect for students, treating them courteously and being aware of their needs, interests, and abilities. The instructor avoids useless jargon and encourages students to ask questions.

3. *Instructional Strategy.* A high score indicates that as compared to other courses students in the class *reject* the ideas that little is gained from the course; that it is too superficial and elementary; that it is poorly taught and organized; and that there are too many assignments that were a waste of time.
4. *Evaluation Consistency.* A high score indicates that relative to other courses students see the goals of the course to be clear, and the evaluation procedures and grades to be fair and consistent with the goals and materials used for the course.
5. *Scholarly Affect.* Relative to other courses, a high score on this scale indicates that students perceive the instructor as knowledgeable in the subject field, interested in teaching, and able to present material interestingly. Furthermore, the instructor is seen as having a sense of humor, tolerance, emotional balance, personal integrity, and enthusiasm in the subject taught.

ADMINISTRATION OF CEVS

The CEVS is short and very easy to administer. No specialized training is necessary. However, the administrator should follow the guidelines given below. These procedures can be modified where necessary to meet specific situations.

SITUATION

The CEVS was constructed and cross-validated at end of semester testing. The norms are based on the end of semester cross-validation sample. No data are currently available pertaining to the utilization of the instrument at other times in the semester or for purposes other than those previously specified.

Obviously, the particular time chosen for the administration of the CEVS may have dramatic effects on the results of the evaluation. Therefore, the inventory should be administered toward the end of the semester during a normal class period. Care should be taken to avoid unusually tense situations such as might exist immediately preceding or following an examination. Data on the stability of ratings is not currently available. Until such data are obtained, particularly regarding testing during adverse situations, it should be assumed that poor conditions will negatively affect the results.

TIME

The CEVS can be administered in most classes in less than 20 minutes. In many classes, the students will complete the inventory within 10 minutes. However, this is not a timed test. Therefore, all students should be given sufficient time to complete every item.

MATERIALS

The materials consist of two items.

1. The inventory-answer sheet.
2. Soft lead (at least #2) pencils. These pencils are necessary for accurate reading of the answer sheets by the Optical Scan scoring machine.

PROCEDURE

The examiner should state the following to the students in the class.

I am going to hand out forms for evaluating the instruction in this course. There are no right or wrong answers to the questions asked. You should mark each item as you feel that it relates to this class. Do not skip any items. Wait until I have handed out all the inventories and explained how to code in the identification information before you start.

Now pass out the forms to the students. Then, explain how to fill in the identification section.

1. *Turn the form sideways and write in the instructor's name and course title.*
2. *Locate the block that has Dept. no., Course no., and Section no. above it. (Point to the block). In the squares below the titles fill in the following numbers. (Write the department number, course number, and section number on the board for the students to copy. If the department code is 27, the course number 321, and the section number 1, the code would be as follows: 027/ 321/01. Similarly, if the course number is A321 the code would be 027/ A321/01.) After you have written in the codes, shade in the appropriate spaces in the blocks below them.*
3. *Fill in the rest of the information asked for in this section. (Instruct the students whether or not additional evaluation items besides those on this inventory are going to be used.) Be sure to complete all items, except your student number. Be sure to leave the student number section blank.*

Next, instruct the students to complete the inventory.

You may now proceed to the items on the inventory. Notice that they are divided into four parts. Be sure to read the directions for a part before responding to the items in that section. Mark a response for each item. Do not skip any items! If you decide to change a response, erase the first response completely. When you are finished, turn your form over.

When all of the students have completed the inventory, ask a student in the class to collect them and seal them in an envelope.

INTERPRETATION OF RESULTS

The analyses of student responses is reported from two vantage points. These consist of a graphic profile and item analysis. A sample profile is illustrated in Figure 1. The profile can be divided into five parts.

1. Upper-left portion of profile contains identification information, including the following:
 - a. Date of processing,
 - b. Department number,
 - c. Course number,
 - d. Section number, and
 - e. Number of students completing the CEVS.
2. In the upper-center are statements describing the course structure as perceived by the students.
3. In the upper-right are the median ratings assigned by the students of the instructor, material, amount learned, concepts and skills developed, and overall course. These are visually represented by bar graphs.
4. The center portion of the profile contains a graphic representation of the scale-scores. The reported scale-scores consist of percentile ranks and normalized standard scores. The standard scores are based on a mean of 50 and standard deviation of 10.
5. The lower portion contains the following specific information.
 - a. Percentile rank on each scale.
 - b. Standard score on each scale.
 - c. Internal consistency reliabilities of mean scores on each scale.
 - d. Standard errors, expressed in standard scores, for the mean scores on each scale.
 - e. Description of the norm group from which the percentile ranks and standard scores are derived.

MEDIAN RATINGS

The median ratings for the five instructional characteristics are presented in the bar graphs on the profile. These scores are criterion-referenced in that students are instructed to rate the characteristics for the course on a percentage scale in relation to all other courses they have taken. The median rating assigned

by the students for each characteristic is the value reported. Therefore, theoretically a value of 50 for the instructor should indicate that the students view him as being better than 50 percent of the other teachers from which they have taken courses. However, according to the research literature interpretation of these results has to be tempered with the realization that response-set bias generally occurs with ratings of this type. Students tend to mark them in a generally positive direction. The theoretical range of median ratings is from 10 to 90. However, because of the response-set bias, the effective range is more likely to be between 30 and 90, with most of the medians above 50.

~~SCALE SCORES~~

The CEVS consists of the five scales as previously defined. The profile graphically presents the results on these scales.

The results can be interpreted using the percentile ranks obtained on the scales. Percentile ranks indicate the percent of the norm group that obtained scale scores below those for the given course. For example, a percentile rank of 80 on Educational Value would indicate that the mean score obtained for the course is higher than the mean scores obtained for 80 percent of the courses in the norm group. Relative to the courses evaluated in the norm group, the percentile rank of 80 would indicate that the course was perceived by students as of relatively high value.

Note that the percentile ranks do not indicate an absolute quality level. The scores can be interpreted only in reference to the other courses with which they are being compared.

The profile can be interpreted to reflect the strengths and weaknesses for a course relative to the specified norm group. That is, for example, if for a course the percentile ranks of 80 and 40 are obtained on Educational Value and Evaluation Consistency, respectively, these values must be interpreted relative to the norm group for each scale. On Educational Value, the course received a high rating as compared to the norms and on Evaluation Consistency the course obtained a middle rating as compared to the norms. This means that as compared to other courses, the course being evaluated was perceived as being of high educational value but *relatively* lower in the consistency of evaluation.

Percentile ranks cannot be interpreted as indicators of absolute strengths and weaknesses. The profile of results cannot, therefore, be interpreted as indicating that the course or instructor

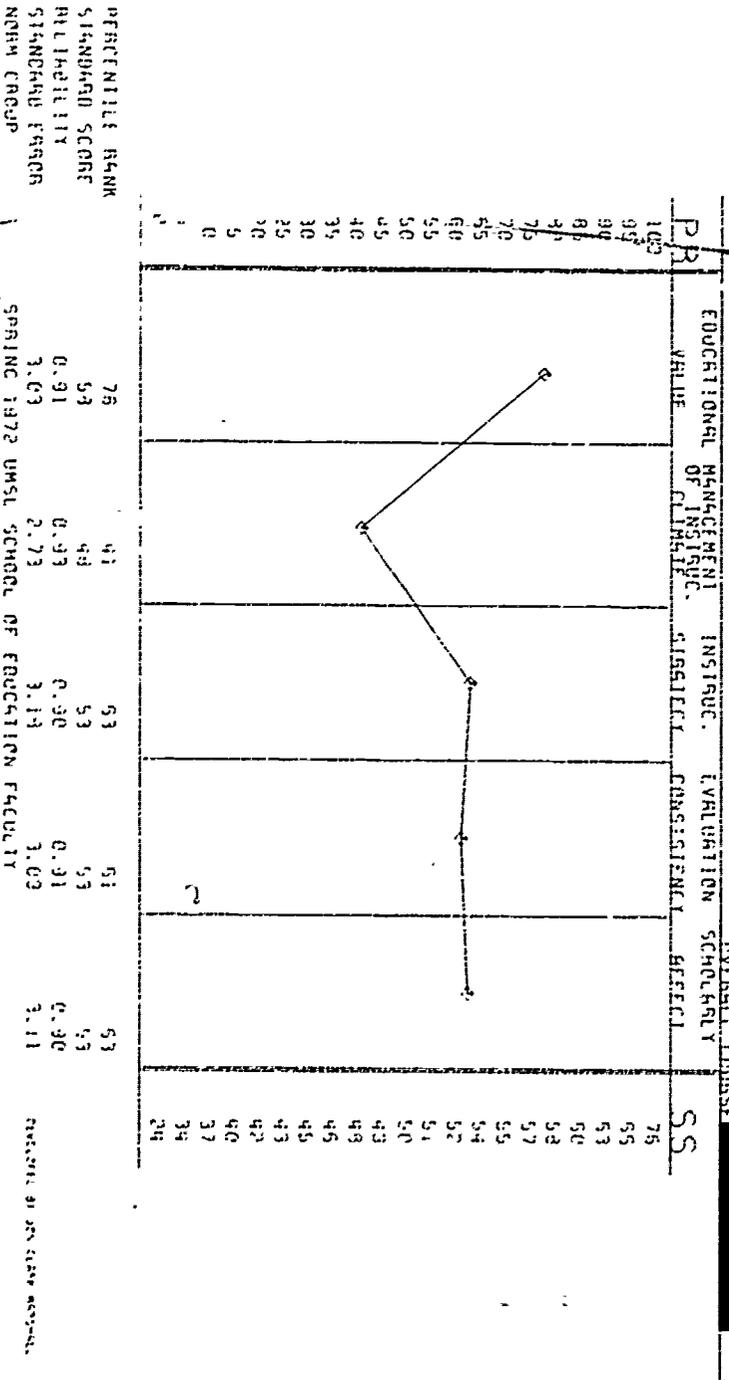
PROFILE COURSE EVALUATION

SCHOOL OF EDUCATION UNIVERSITY OF MISSOURI-ST. LOUIS

DATE 01/03/72
 DEPT. NO. 411
 COURSE NO. 4111
 SECTION NO. 20
 NO. OF STUDENTS 12

COURSE PRIMARILY CLASS
 DISCUSSION WITH SOME
 SMALL GROUP WORK AND
 INDIVIDUAL WORK.

INSTRUCTION MATERIALS
 4MT. LIBRARIAN
 CONC-SKILLS DEV.
 OVERALL COURSE
 MEDIAN RATINGS
 (Scale 1-5)



PERCENTILE RANK
 STANDARD SCORE
 RELIABILITY
 STANDARD ERROR
 NORM GROUP

SPRING 1972 UMSL SCHOOL OF EDUCATION FACULTY

Figure 1. Sample profile.

Figure 2, Item Analysis, Percent Results

Dept. No. 411 Course No. A411 Sec. No. 22

Item	Response Category					Mean	SD
	1	2	3	4	5		
Ratings							
1	33.3	25.0	41.7	0.0	0.0	2.1	0.9
2	33.3	25.0	41.7	0.0	0.0	2.1	0.9
3	25.0	25.5	50.0	0.0	0.0	2.3	0.8
4	41.7	58.3	0.0	0.0	0.0	1.6	0.5
5	50.0	16.7	33.3	0.0	0.0	1.8	0.9
Course Char.							
1	33.3	50.0	8.3	8.3	0.0	1.9	0.9
2	8.3	0.0	8.3	50.0	33.3	4.0	1.1
3	33.3	33.3	33.3	0.0	0.0	2.0	0.8
4	16.7	58.3	16.7	8.3	0.0	2.2	0.8
5	0.0	8.3	25.0	33.3	33.3	3.9	1.0
6	33.3	41.7	25.0	0.0	0.0	1.9	0.8
7	50.0	50.0	0.0	0.0	0.0	1.5	0.5
8	0.0	8.3	16.7	41.7	33.3	4.0	0.9
9	58.3	33.3	8.3	0.0	0.0	1.5	0.6
10	0.0	0.0	16.7	33.3	50.0	4.3	0.7
11	0.0	0.0	8.3	50.0	41.7	4.3	0.6
12	25.0	33.3	41.7	0.0	0.0	2.2	0.8
13	0.0	0.0	16.7	33.3	50.0	4.3	0.7
14	16.7	75.0	8.3	0.0	0.0	1.9	0.5
15	0.0	0.0	8.3	83.3	8.3	4.0	0.4
16	25.0	58.3	16.7	0.0	0.0	1.9	0.6
17	33.3	41.7	16.7	8.3	0.0	2.0	0.9
Instructor Char.							
18	16.7	41.7	25.0	16.7	0.0	2.4	1.0
19	25.0	66.7	8.3	0.0	0.0	1.8	0.6
20	25.0	58.3	16.7	0.0	0.0	1.9	0.6
21	25.0	58.3	8.3	8.3	0.0	2.0	0.8
22	50.0	41.7	8.3	0.0	0.0	1.6	0.6
23	33.3	50.0	8.3	8.3	0.0	1.9	0.9
24	41.7	50.0	8.3	0.0	0.0	1.7	0.6
25	58.3	41.7	0.0	0.0	0.0	1.4	0.5
26	50.0	50.0	0.0	0.0	0.0	1.5	0.5
27	41.7	50.0	0.0	8.3	0.0	1.8	0.8
28	25.0	50.0	25.0	0.0	0.0	2.0	0.7
29	25.0	58.3	16.7	0.0	0.0	1.9	0.6
30	66.7	33.3	0.0	0.0	0.0	1.3	0.5
31	58.3	41.7	0.0	0.0	0.0	1.4	0.5
32	41.7	58.3	0.0	0.0	0.0	1.6	0.5
33	33.3	58.3	8.3	0.0	0.0	1.8	0.6
34	25.0	58.3	16.7	0.0	0.0	1.9	0.6
35	25.0	58.3	16.7	0.0	0.0	1.9	0.6

is better in one area than in another. The strengths and weaknesses noted are relative to the ratings obtained by the norm group.

The normalized standard scores can be used for interpretation. A score of 60, for example, would indicate that the mean score for a course is one standard deviation above the mean of the norm group on that scale. Since these scores are normalized there is a direct transference between the standard scores and the percentile ranks. The standard scores should be used for any research or study done utilizing the CEVS.

ITEM ANALYSIS

Two sets of scores are provided for the CEVS: the profile and item analysis. The item analysis data are provided for diagnostic interpretation (see Figure 2).

The item analysis consists of the percent of students responding to each category for each item, and the item means and standard deviations. The direction of the item, either positively or negatively stated, should be noted before interpreting the results.

The means and standard deviations are provided to indicate the general direction and homogeneity of responses. Of particular note are the standard deviations. A low standard deviation, approximately under .5, would indicate that the students were in general agreement, while a large standard deviation, generally above 1.0, would suggest that the students differed substantially in their perceptions of the instructor and the course.

The item results can be utilized by the instructor to examine how he is perceived by his students. More specifically, they can be of value in determining strengths and weaknesses in the instructional process.

TECHNICAL CONCERNS

INSTRUMENT CONSTRUCTION

The CEVS, Form B is a revision of Form A. Form A contained 66 items under the same general format now being used in Form B. The original items were written from a review of the literature in the field and interviews with faculty and students. They were submitted to selected faculty and students for review and editing before completion of the inventory.

Form A of the CEVS was divided into four parts. The first of these was noticeably absent from other inventories. It contained course descriptor items. These items did not directly apply to the evaluation of a course, but they provided general descriptive information. The remaining parts of the inventory consisted of sets of items relating to specific course characteristics, instructor characteristics, and general course ratings.

The four parts differed in response format as well as specific content. The first part was to be responded to relative to the percent of instructional time spent in each of several activities. The second and third parts were to be responded to according to students' agreement or disagreement with the given statements. The final part reflected students' ratings of course characteristics relative to other courses they had taken.

This form of the CEVS was administered in 17 education classes including both undergraduate and graduate courses. Responses were obtained from 636 students.

Analyses of these responses were used to select items for inclusion in Form B. Items were selected that met or exceeded criterion levels on two sets of analyses.

One of the purposes of any instrument of this type is to be able to differentiate among classes. Items that are responded to similarly by students in most classes or that elicit a large variety of responses in a single class are of little value in evaluation. In order for an item to function usefully it must be responded to homogeneously by students within a class but be sensitive to differences between classes. In order to determine this, analysis of variance, simple randomized design was run on each item. The criterion level for acceptance in the final form was set at $F \geq 6.0$. This criterion level required that the between groups variability be at least six times as great as the within groups variance. This represented practical as well as statistical significance.

Student responses on their attitudes toward a course and instructor are not necessarily unidimensional. An instructor brings many characteristics into the classroom, including his approach to students, organizational ability, and knowledge of subject matter. The grouping of these items was determined using principal-axis factor analysis with varimax rotation. The criterion level for an item fitting in a scale was set at a factor coefficient equal to or greater than .30 and the inclusion of a factor in the profile was set at an eigenvalue of at least 1.0.

Forty items broken down into five scales satisfied both criteria. The majority of the items had F values between 10.0 and 20.0 with factor loadings greater than .50. The resulting items are presented in Appendix A.

Reliability estimates of the five scales were estimated using the α - coefficient. Even though this technique was not fully appropriate since it is based on individuals while the CEVS is a group instrument, it provided initial estimates of reliability. The resulting coefficients and the number of items in each scale are presented in Table 1. It can be noted that all the reliabilities were above .80 and three of them were above .90.

Table 1
Reliability Estimates for Scales
Determined from Form A

Scale	No. of Items	Reliability
Educational Value	10	.943
Management of Instructional Climate	10	.908
Instructional Strategy	7	.860
Evaluation Consistency	5	.811
Scholarly Affect	8	.907

The items for the scales developed from Form A were incorporated into Form B as parts II and III. The first part of Form B was derived from the general description items on Form A. However, feedback from the students who were administered the first form indicated that the response method for the items was too cumbersome. Therefore, it was changed to quantitative ratings for each item.

Form B consists of 46 items to be responded to in the following ways.

1. *Descriptive items.* Six descriptive items for determining the general type of course comprise Part I. These items are to be responded to according to the frequency that each type of activity occurs in the course.
2. *Ratings.* The five general characteristics comprising Part II are rated for the course according to their quality as compared to other courses the students have taken. The items are rated as being in the top 80-100%, 60-80%, 40-60%, 20-40% or lowest 0-20%. The items rated are instructor, material, amount learned, concepts and skills developed, and overall course.
3. *Course and instructor characteristics.* The remaining 35 items describe course or instructor characteristics. Seventeen of the items are grouped under *course characteristics* and the remaining 18 under *instructor characteristics*. These two groups of items are rated on a five point Likert-type scale according to the accuracy with which they describe the course or instructor.

Form B of the CEVS is designed to fit on one side of an 8 1/2 by 11 inch page from which the responses can be retrieved using an Optical Scan 100 scoring machine.

NORMS

Form B of the CEVS was administered to 2257 students in 107 classes in the School of Education, University of Missouri-St. Louis. The administration of the inventory took place during the last two weeks of the winter semester of 1972.

The sample of classes consisted of undergraduate and graduate courses taught in both the day and evening divisions of the University. The class sizes ranged from a low of 5 to a high of 53. Many methods of instruction were used in these classes ranging from pure lecture to individual instruction modules.

Two sets of norms are provided from the group: percentile ranks and normalized standard scores. The standard scores are based on a mean of 50 and a standard deviation of 10.

RELIABILITY

General reliability estimates were determined for the group scores using analysis of variance procedures. The values can be estimated by determining the proportion of overall variance that is between group variance. The formula used for the estimates was:

$$\text{reliability} = \frac{MS_{\text{Between Groups}}}{MS_{\text{Within Groups}} + MS_{\text{Between Groups}}}$$

The resultant reliabilities are presented in Table 2. The standard errors of measurement were determined for each scale and are reported in Table 2 in standard score units.

Table 2
Scale Reliabilities for Form B

Scale	Reliability	Standard Error (SS)
Educational Value	.91	3.03
Management of Instructional Climate	.93	2.73
Instructional Strategy	.90	3.18
Evaluation Consistency	.91	3.09
Scholarly Affect	.90	3.11

VALIDITY

The validity of an instrument such as the CEVS is dependent upon the degree that it measures the constructs considered important in instruction. These constructs can be viewed from two vantage points. The first is the content of the items.

The items for the CEVS were drawn from a review of the research in the area and interviews with faculty and students. Care was taken to avoid descriptive items which could not be assigned logical quality levels. Furthermore, the items were included that could apply to most any course regardless of instructional procedures or discipline being taught. Finally, before inclusion on Form A the items were critiqued by several faculty and students.

The second method of examining the validity of the items was through factor analysis of the results on Form A. No item was included in Form B that did not have a factor weight of at least .30 on one of the five factors extracted.

Cross-validation of the scales was done by determining their reliabilities and intercorrelations. As previously noted the reliability estimates were all above .90, indicating high scale internal consistency. The intercorrelations among the scales are presented in Table 3.

Table 3
Intercorrelation of Scales on the CEVS

Scale	Scale				
	1	2	3	4	5
1. Educational Value	--	.75	.80	.68	.80
2. Management of Instructional Climate		--	.71	.73	.85
3. Instructional Strategy			--	.70	.73
4. Evaluation Consistency				--	.70
5. Scholarly Affect					--

As might be expected, all the scales are interrelated. The largest intercorrelation was .85 between scales 2 and 5, reflecting about 72 percent common variance. As compared to the scale reliabilities, approximately 20 percent of the non-error variabilities in scores for these scales is not accounted for in this relation. Therefore, even though scale 5 is highly related to scale 2, it is retained in Form B since it does provide some additional information.

The remaining scales relate to each other with correlations in the upper .60's to .80. In general, there tends to be about 50 percent common variance among the scales. Thus, even though there tends to be an overall consistency among scales, each of these scales tends to have about 40 percent unique variability from any of the other scales. The CEVS scales seem to assess five overlapping but different aspects of the instructional process.

Another aspect of the validity of instruments like the CEVS is the degree to which the scales are free from contamination of variables extraneous to the assessment being made. In order to determine these relations, correlations were calculated between each of the scales and six student variables. The results of these analyses are presented in Table 4.

Table 4
Correlations Between Extraneous Factors
and Scale Scores

Factor	Scale					N
	1	2	3	4	5	
Sex	.02	.02	.00	.02	-.01	1323
Expected Grade in course	.22	.22	.17	.24	.17	1369
Course in field of study	.06	.03	.07	.01	.04	1394
Required or Elective course	-.11	-.11	-.11	-.01	-.12	876
Day or Evening Division	-.12	-.10	-.12	-.02	-.12	1404
Class Level	-.05	-.05	-.07	-.01	-.05	1437

The variables analyzed were the sex of the student, expected grade in the course, whether or not the course was in the students major or minor field, whether the course was required or elective, whether the course was taken in the evening or day division, and the class level of the student in the university. As can be noted from Table 4, the only variable that was practically related to the scales was the expected grade for the student in the course, and this variable accounted for only about 4 percent of the variance in the scales.

A final note on the validity of the CEVS is that it is designed to measure students' perceptions of instruction. It is not intended to be used for the total assessment of instruction. It was previously pointed out that assessment should be made in at least three areas: (1) students' perceptions of instruction, (2) students' abilities and achievements when completing the course of instruction, and (3) the congruence of the instructional materials and procedures with current knowledge in the field. These are obviously three somewhat independent dimensions of the instructional process. The fact that an individual relates well, or poorly, to students does not necessarily mean that students do or do not learn a great amount nor that the individual is up-to-date or behind in his field. The validity of the CEVS is for assessing students' perceptions of instruction and should not be inferred for any of these other purposes.

Appendix A

Items on CEVS

Area	Item
Rating	<ol style="list-style-type: none">1. Instructor2. Materials3. Amount Learned4. Concepts or Skills Developed5. Overall Course
Course Characteristics	<ol style="list-style-type: none">1. I learned a lot from this course.2. The content of the course was too elementary.3. Class time was used effectively.4. The course was well taught.5. Course was poorly organized for the logical development of basic concepts.6. The exams or projects were fair.7. It was a worthwhile course.8. Material was too superficial to adequately develop my skills or concepts.9. The exams or projects adequately related to the goals and materials of the course.10. Little was gained in developing skills by taking this course.11. Assignments were a waste of time.12. The subject-matter was intellectually stimulating.13. This was one of the poorest taught courses I have ever taken.14. The goals for the class were made clear to the student.15. There were too many assignments.16. Class meetings were interesting.17. The concepts emphasized on exams or papers were consistent with those emphasized in class.

Appendix A
(con't)

Instructor
Characteristics

18. Used time effectively.
 19. Avoided confusing or useless jargon.
 20. Graded fairly.
 21. Could present the material interestingly.
 22. Enjoyed teaching.
 23. Was interesting or easy to listen to.
 24. Treated students courteously.
 25. Encouraged students to ask question in class.
 26. Displayed interest and enthusiasm in the subject.
 27. Displayed professional integrity.
 28. Interested in students as persons.
 29. Attempted to alleviate students' difficulties.
 30. Was knowledgeable in the subject field.
 31. Displayed humor, tolerance, and emotional balance.
 32. Showed respect for students.
 33. Seemed aware of students' needs, abilities, and interests.
 34. Mutual respect was developed between students and instructor.
 35. Attempted to develop in students interest and enthusiasm for the course.
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