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ABSTRACT

While the value of portfolio learning and assessment has gained much support from the educational community, many questions arise as specific implementations are attempted. This study examined one aspect, namely, the content validity of specific requirements, and addressed the question "How do various constituencies (methods students, student teachers, teacher educators, and practicing teachers) rate the utility of various requirements for student teaching and future teaching in general?" The secondary methods instructor at a small teacher education institution designed 15 possible outcomes to be met, and student portfolio submissions were required for all 15 during the spring 1997 semester. At the conclusion of the semester, these various requirements were validated for perceived utility by comparing the rank order data collected from the following: (1) students just completing methods courses; (2) students just completing their student teaching; (3) practicing teachers from the spring 1997 semester; and (4) teacher educators. Results indicated that there were no differences in rank order correlations, suggesting that all four constituencies agreed on the relative importance of the items. These findings have important implications for future designers of portfolios. They may trust that the perception of utility is equivalent across the various groups. (Contains 4 tables and 18 references.) (SLD)

Comparative Ratings of the Utility of Portfolio Requirements: Toward Content Validity

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Abstract

One advantage presented by the movement toward portfolio assessment is the public validation of the learners' achievements. This aspect is especially important for teacher education, as education has been under "heavy fire" by many critics, from within and from without the profession. While the value of portfolio learning and assessment has gained much support from the educational community, many questions arise as specific implementations are attempted. This study examined one aspect, namely, the content validity of specific requirements. The question addressed by this study is, "How do various constituencies (methods students, student teachers, teacher educators, and practicing teachers) rate the utility of various requirements for student teaching and future teaching in general?"

The secondary methods instructor at a small teacher education institution designed 15 possible outcomes to be met and student portfolio submissions were required for all 15 during the Spring 1997 Semester. At the conclusion of the semester, these various requirements were validated for perceived utility by comparing the rank order data collected from the following: (1) students just completing the methods course; (2) students just completing their student teaching; (3) practicing teachers from the Spring 1997 Semester; and (4) teacher educators. Results indicated that there were no differences in rank order correlations, suggesting that all four constituencies agreed on the relative importance of the items. These findings have important implications for future designers of portfolios; they may trust that the perceptions of utility is equivalent across the various groups.

Review of Literature

Portfolios are becoming the assessment of choice for many teacher education programs(Barton & Collins, 1993; Stahle & Mitchell, 1993; Ross, 1996; James & VanCleaf, 1990; Mokhatari, Yellin, Bull, & Montgomery, 1996; Dollase, 1996). Authentic assessment, such as portfolios, include complete, integrative tasks which call for the use and application of different types of knowledge and skills. These measures are more flexible than traditional measures have been, allowing for the consideration of students' personal learning styles. Performance-based measures encourage reflection and analysis by the student (McFarland, 1994).

The value of portfolio learning and assessment has gained much support from the educational community and seems to be consistent with other changes in educational practice. For example, the research on learning supports the aspects of time-on-task and distributed practice shown to be important by Dempster (1991); portfolios are consistent with this reform. Their use is also consistent with the move to use portfolios in state and national certification (Costantino & DeLorenzo, 1994; Kendall, 1994). Portfolios encourage student responsibility and student ownership of the learning process in teacher education (Ross, 1996). Portfolios help create meaningful "rites of passage" type experiences for methods students and indicate growth in student's abilities. Their use has helped clarify program goals and course objectives (Barton & Collins, 1993). Finally, because portfolios are authentic and dynamic, they are thought to better capture the reality of a student's competence (Krause, 1996).

Empirical evidence, however, is lacking in research. Herman and Winters (1994)

reported that most portfolio articles written were anecdotal or conceptual and few reported actual research-based results.

One reason for the scarcity of data may be that portfolios are in their infancy stage. As schools of education define and refine portfolio content and application, assessment policies will continuously evolve. Due to the unstandardized nature and content of portfolios, assessment of such and the reliability and validity of the assessment become issues. This study attempts to provide evidence toward the content validity of the portfolio used at one teacher education institution.

In one previous attempt to establish reliability and validity, Naizer (1997) used a traditional measure (short-answer/discussion final examination) to correlate with performance-portfolio scores. This study found a very low (Pearson's correlation = .22) correlation between the final examination and performance-portfolio scores. This may have been due to the fact that the tests were measuring different information. McFarland (1994) found high correlations (Pearson's correlation = .98 and .96) for vocabulary subtests (standardized tests), while finding lower correlations (Pearson's correlation = .60 to .19) on the various performance subtests in the area of science. However, the use of standardized tests to evaluate performance-based tests has limitations: test form bias may have understated the "scores" of portfolio based learners.

Other approaches show scant evidence for the effectiveness of teaching portfolios, yet the arguments endure (Wolf, Whinery, & Hagerty, 1995). James and Van Cleaf (1990) suggest that preservice teacher portfolios should meet the needs of employers, college faculty, and preservice teachers. Tucker (1991) suggests that a large part of the evaluation of the student's competence should be project work, much of it done in collaboration with other students.

Currently our educational system tends to encourage individual, competitive performance. However, one of the chief complaints from the workplace is that the new employees must have the capacity to function as members of a team (McFarland, 1994). Portfolios are more likely to encourage group interaction and collaboration to enhance the learning process as well as improve the quality of portfolio submissions for assessment.

Finally, the purpose of the portfolio must be clearly defined to the student. The portfolio is something that is done *by* the student, not *to* the student (Paulson, Paulson, & Meyer, 1991). The portfolio becomes a living document which is an exhibit of the student's work. Portfolios must evidence student self-reflection as well as promote ownership over the learning process, enhance teaching, and open up assessment. The ultimate purpose of the portfolio is the improvement of teacher effectiveness.

Therefore the contents of the portfolio are of utmost importance. More argumentative controversy exists in this area. Simmons (1996) suggests that many portfolios used as evaluation systems, are overly prescriptive and more control of contents by the students is needed. Wolf, Winery, and Hagerty (1995) suggest a portfolio comprising three distinct sections which contain a variety of information regarding the professional development of the prospective teacher. Graves (1992) cautions against standardization of the portfolio to maximize the ownership of the portfolio by the student. Since no one had investigated what the constituencies of student teaching hold important, we decided to survey the four groups to determine the perceptions of relative importance of some of our program's requirements.

Method

At the conclusion of the Spring 1997 Semester in a college in northwestern New York,

portfolio data were collected from secondary education methods students and secondary education student teachers, as well as cooperating teachers and teacher educators. Subjects were directed to complete a form which required each of the items (portfolio requirements) to be ranked from 1 (high) to 15 (low) in terms of perceived utility.

During a previous pilot study, it was determined that 60 requirements were considered by teachers and students to be too large a number of requirements for one semester. The items which were the 10 most valuable and the 5 least valuable were compiled to form a list of 15 (see Table 1) portfolio submissions. The 5 least valuable items were randomly placed on the list of portfolio requirements. This list of portfolio requirements were presented to the 40 methods students, 28 secondary student teachers, 11 teachers, and 8 teacher educators, with directions to rank each item from 1 (high) to 15 (low).

Results

For each of the 15 portfolio requirement items, a mean was calculated for the 4 groups of subjects: the secondary methods students, secondary student teachers, cooperating teachers and teacher educators (see Table 2). These means were used as the basis for the ranking of the portfolio requirements (see Table 3).

Examination of these rankings reveal several consistent findings. For example, item number 4 (see Table 4), "Design a set of 6 lesson plans; include rationale, objective activities, assessments, and assignments and use a variety of Gardner intelligences" was ranked 2nd by 3 groups (methods, student teachers, teacher educators) and 1st by the cooperating teachers. Three of the groups (methods students, student teachers, teacher educators) ranked item number 1 (Design a lesson plan to teach an important concept to heterogeneously grouped 10th graders,

one that flows from Vermette's 1983 model. Include a visual--diagram, chart, picture, etc.--that helps clarify one aspect of the lesson as it is taught) as 1st. In keeping with findings from the pilot study, the lowest 5 items (rank 15, 14, 13, 12, 11) also received the lowest 5 rankings in this study.

Correlations were calculated between the student teachers and the methods students with the result of r = .979. Correlations were also calculated between the cooperating teachers and the teachers with a result of r = .786. The correlation between the combined group of methods students and student teachers with the combined group of teacher educators and cooperating teachers resulted in r = .79.

Discussion

Limitations

The generalizability of this study's findings are severely limited by several factors. First, the sample size is obviously too small for large scale comparisons, yet is of some value to the single institution whose program was used. Second, since it involved only one program, the study focused on the demands/requirements of that program. However, since there are no similar studies in the literature to contradict the findings, this investigation has pointed researchers in a direction that should be noted. Future research along these lines would be warmly welcomed and invaluable to teacher education reform efforts.

Observations

This study found tht methods students were like student teachers were like teachers were like teacher educators. In effect, all four groups held similar portfolio submissions

(requirements) to be of similar value. This finding is interesting for several noteworthy reasons:

1) The notion of ownership of the portfolio entries has been of great debate in the teacher education literature. Some (Barton & Collins, 1993; Mokharti, Yellin, Bull, and Montgomery, 1996; and Paulson, Paulson, and Meyer, 1991) enthusiastically demand that the makers should control the entries. We found that the owners/makers indeed will pick well, according to the standards of the more veteran members of the profession. In effect, they can be trusted to make wise choices and recognize what is of value to themselves and others. They can make these "acceptable" choices freely and yet still maintain a high level of credibility.

2) paradoxically, the data also support the notion that teacher educators can be trusted to demand the "right" kinds of outcomes from novices, again using the standards set by veteran teachers. While this may seem trivial at first blush, further examination may prove interesting. Many outside agencies, including the ETS (NTE), Teach for America, National Examiner Boards, all alternative certification regulations, and even the Holmes Group, have sent signals of deep mistrust of Teacher Education programs. In one way or another, these all suggest that TED colleges need heavy outside supervision and regulation; our preliminay findings suggest that the (involved) program has the same priorities as veteran teachers, a factor that is never discussed by outside control agencies.

Interestingly, the involved institution is an NCATE-approved program; perhaps further research exploring these issues may wish to examine those factors. Moreover, future research may wish to examine the perceptions of other "players" in the teacher education debate. Some that are suggested include administrators, politicians, Boards of Education, and parents: our findings can't help but make us wonder what other people think of these program

outcomes/portfolio submissions.

To reiterate: teacher educators actually recognize the value of the same set of desired outcomes as do veteran teachers.

3) the previous sentence should be looked at very closely: it suggests that the rank ordering of portfolio submissions also includes the ranking of possible program outcomes. In the case of the involoved institution, this is a reality. Note that this insitution has (1) made its oucomes public, (2) offered public analysis and debate on the wisdon of those outcomes, (3) and, by the portfolio pesentation process, directly connected the outcome to the demonstration of mastery by performance. These three conditions ARE NEVER POSSIBLE with standardized testing processes. Tests, by definition, "sample" a universe of possible knowledges, do not make their specific measurable objectives known and requires a "leap of faith" to connect a correct answer to a desired teaching skill. The portfolio process at this institution, partially "validated" by the findings of this study, have moved a long way toward improving its credibility. Admittedly, this third point is an argument favoring portfolios in teacher education, but that position is supported by discovering that all the "players" in the certification process seem to have the same perceptions of relative usefulness.

(4) Finally, one must recall that part of the portfolio "debate" is over the purpose of the process. Some argue that they show growth, spark reflective thinking, and promote best work or provide samples of student work.

The findings of this study suggest that they primarily have value as assessment tools, which is important, because candidates and programs are evaluated by their ability to present evidence of mastery of IMPORTANT outcomes.

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Table 1

Portfolio Submissions

Status: Check most accurate descriptor:

____(1)student
____(2)methods student
____(3)teaching 0-2 years
____(4)teaching 3-7 years
____(5)teaching 8 or more years
____(6)teacher educator

Directions: Here are 15 submissions for a student teacher's portfolio. Please rank order the value of these activities, with 1 as the most valuable, and 15 as the least valuable.

___a) Design a lesson plan to teach an important concept to heterogeneously grouped 10th graders, one that flows from Vermette's 1983 model. Include a visual (diagram,chart, picture, etc.) that helps clarify one aspect of the lesson as it is taught.

___b) Given a specific topic of content, create acceptable three part behavioral objectives, one for EACH of the six Bloom levels.

___c) Compare the depictions of teachers in four Hollywood films with the reality of Siegel and one other teacher.

___d) Design a set of 6 lesson plans; include rationale, objective, activities, assessments and assignments and use a variety of Gardner intelligences.

___e) Write and sing a song describing the ways that technology could be used to enhance specific lesson plans.

___f) Construct 3 interdisciplinary team taught lesson plans that would be acceptable to Madeline Hunter and which would be used at the middle school level.

___g) Cite information from three recent articles that is directly applicable to one's job as a teacher and indicate how that information will be used (explain the role of scholarship to a practicing teacher).

___h) Create a lesson plan for demonstration using the model found in Good & Brophy (1997) and which teaches a skill.

___i) Identify 50 key generalizations about teaching found in Good & Brophy and convert them to T/F statements.

___j) Outline an interdisciplinary unit designed for 8th graders. Choose six of the instructional activities included and create one anticipatory set for EACH of those six activities.

___k) Describe the essential components of Cooperative Team Learning, explaining the cognitive and motivational aspects involved.

___l) Build and defend a set of student teams for a particular classroom situation.

___m) Create a lesson plan for an 80 minute lesson taught with cooperative learning structures, one that avoids Vermette's (1994) fatal flaws and which involves the use of a popular teen song.

___n) Evaluate the multicultural aspects of five lesson plans, offering suggestions in the face of weaknesses.

___o) Design a theory of homework that utilizes its research base and your experiences. Define the concept "to study" and describe examples and non-examples.

Table 2

Means of Portfolio Requirements

Portfolio Requirements	Teachers	Teacher Educators	Secondary Student Teachers	Secondary Methods Students
a 1.	5.8	2.5	1.4	3.4
b 2.	6.9	7.6	5.6	5.5
c 3.	13.7	12.5	12.8	13.4
d 4.	3.45	3.1	1.6	3.55
e 5.	12.45	13.2	14.6	13.7
f 6.	5.9	7.8	3.0	4.4
g 7.	14.4	8.3	9.4	9.6
h 8.	8.4	7.6	6.2	5.55
i 9.	12.4	12.5	12.4	10.78
j 10.	6.7	6.3	4.0	5.21
k 11.	4.5	6.7	7.6	7.36
l 12.	6.6	8.5	9.8	8.65
m 13.	7.45	4.9	6.2	6.01
n 14.	4.7	5.7	9.6	8.95
o 15.	8.45	7.75	12.6	9.8
	N = 11	N = 8	N = 28	N = 40

Table 3

Rankings of Portfolio Requirements
(Most Valuable = 1; Least Valuable = 15)

Portfolio Requirements	Teachers	Teacher Educators	Secondary Student Teachers	Secondary Methods Students
a 1.	4	**1st**	**1st**	**1st**
b 2.	8	7	5	5
c 3.	14	12	14	14
d 4.	**1st**	**2nd**	**2nd**	**2nd**
e 5.	13	14	15	15
f 6.	5	9	**3rd**	**3rd**
g 7.	15	10	9	11
h 8.	10	7	7	6
i 9.	12	12	12	13
j 10.	7	5	4	4
k 11.	**2nd**	6	8	8
l 12.	6	11	11	9
m 13.	9	**3rd**	6	7
n 14.	**3rd**	4	10	10
o 15.	11	8	13	12
	N = 11	N = 8	N = 28	N = 40

Table 4

Means of Portfolio Requirements

Portfolio Requirements	Teachers and Teacher Educators	Student Teachers and Methods Students
a 1.	4.41	2.58
b 2.	7.19	5.54
c 3.	13.19	13.21
d 4.	3.30	2.74
e 5.	12.76	14.07
f 6.	6.70	3.82
g 7.	11.83	9.50
h 8.	8.06	5.82
i 9.	12.44	11.44
j 10.	6.53	4.71
k 11.	5.42	7.46
l 12.	7.40	9.12
m 13.	6.38	6.09
n 14.	5.12	9.21
o 15.	8.16	10.95
	N = 19	N = 68

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