ABSTRACT
        Portfolio assessment, a technique traditionally used
with elementary and secondary students, involves the presentation of
a collection of individual work documenting the learner's efforts,
progress, and achievement. Recently, it has been suggested that
portfolio assessment be broadened in its application to include
teacher hiring and evaluation. The types of documents suitable for
teacher portfolios include teaching documents, instructional
materials, samples of student work, academic products related to
teaching, and personal documents. Elementary and secondary
administrators and teachers in both general and special education
were surveyed on the use of portfolios in teacher hiring and
evaluation. At least 75 percent of respondents were from rural or
small schools in Oklahoma, Utah, and New Mexico. Portfolio assessment
was perceived as being a positive addition to the teacher hiring
process. In addition, both teachers and administrators supported the
use of portfolios in teacher evaluation. Teachers favored the
uniqueness, empowerment, and self-evaluative control involved in
portfolio assessment. Respondents showed moderate levels of knowledge
concerning the portfolio process. Greater knowledge is needed,
though, about portfolio processes such as establishing goal
statements and reflections, early documentation to demonstrate
professional growth over time, and appropriate products of teaching
portfolios. Appendix includes suggestions for contents of teacher
portfolios. (LP)

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PORTFOLIO ASSESSMENT IN TEACHER EVALUATION: A COMPARISON OF THE

PERSPECTIVES OF GENERAL AND SPECIAL EDUCATION ADMINISTRATORS AND

TEACHERS

Portfolio assessment is one of the latest entries into the movement toward "authentic" assessment designed to close the perceived theory-practice gap in education. Historically used with elementary and secondary students in specific content areas, such as reading or writing, its use is currently broadening in its applications to other content areas and expanding into other age groups. Teacher education programs have recently employed various strategies to go beyond preparing teachers for the appropriate classroom use of portfolio assessment to providing a model for using a portfolio for the evaluation of individual teacher's professional development. The purpose of this paper is to report the results of an exploratory study of the attitudes held by general and special education administrators and teachers toward the use of portfolio assessment for teacher evaluation.

The portfolio, a newly favored technique, is a collection of individual work that documents the learner's efforts, progress and achievement (Arter & Spandel, 1992). The portfolio can take on many forms, some of which are reviewed for efficacy herein.

Portfolio assessment used with teachers encourages choice, revision, and reflection related to their own work. It gives them a basis for displaying their best efforts and forms the foundation for professional development. In addition to its potential effectiveness for teachers, the portfolio is often advocated because it may provide public school administrators an organized product which documents a teacher's abilities and professional excellence. According to Cole and Uphoff (1992), this provides evidence of how the job candidate operates as a thinking, problem-solving, self-evaluating professional. Bird (1990) asserts that portfolio documentation will provide important information in hiring decisions such as teacher plans, examples of developed materials, tests and the like. In fact, several states require that portfolios be used as part of the teacher evaluation process (e.g., Furtwengler, 1985; Terry & Eade, 1983). Stemmer, Brown and Smith (1992) note that employers are now demanding evidence that those people they employ can get the job done. These authors raise the concern that students might put materials together that may not be employer relevant. This issue became one of several addressed from the teachers' perspective in this research.

Portfolio assessment is used when assessment must be dynamic. When change and development is needed to assess the potential of future employees, the richest portrayal of performance in action is based on the data in a portfolio. The portfolio in this dynamic sense is based on many different sources of information, collected over time, in authentic settings. The portfolio reflects the important activities that take place in classrooms. It is

believed that the best person to determine what is important is the teacher. The portfolio framework provides teacher with a purpose and a structure for keeping and sharing their work. It may lead to mentoring, collegial interactions, and reflections on the teaching process as well (Wolf, 1991).

A thors argue about the components that belong in the teacher portfolio. Some specify general categories (Barton & Collins, 1993), others advocate for the inclusion of domains of interest (Geiger & Shugarman, 1988; Ryan & Kuhs (1993), and still others prefer to include evidence of various processes that take place (Urbach, 1992). Some of these components are detailed in Table 1, Possible Contents of Portfolios: Suggestions From Various Authors. An examination of this table brings up several important points. A portfolio must clearly define the teacher's area of expertise, the contexts in which excellency has been demonstrated, and the groups of students taught. Additionally, a portfolio can document experiences with student differences, such as diversity in ethnicity, language, economics or ability.

Table 2 presents a more formal approach to the generation of portfolio contents. This table was derived from Bird (1990) and contains significant detail to account for the possible components in a portfolio.

Finally, portfolios must contain tangible products. One attempt at defining these products is provided in Table 3 abstracted from Urbach (1993) and supplemented by authors of this paper. This listing is illustrative but not comprehensive or exhaustive. It reflects examples of the current thinking in the field about what constitutes the portfolio.

Given the diversity of potential products to include in a portfolio and the multiple ways in which a portfolio might be used, there appears to be a need to develop baseline data regarding the form and function of portfolio assessments according to principals and superintendents. Additionally, there may be a discrepancy between the ideas of teachers and those who hired them regarding appropriate content and use of portfolios. Other differences may exist between general and special educators and rural and urban school needs.

One of the reasons for differentiating between general and special administrators relative to their perceptions of portfolio components is the differences they may have in the context for teaching. The general and special teacher are perceived by many to have different roles, and to some extent, these differences are reflected in their training. These perceptual and training differences lead to a different context in which artifacts are produced. The contextual differences are very important to identify so that one realizes how the contexts inform the possibilities. The need for a contextual understanding has led Collins (1991) to state that proper interpretation of a portfolio requires the inclusion of a professional biography, a description of the school and community setting, and a description of the school environment. Additionally, a client description for the kind(s) of special needs children who are involved may be a necessary inclusion.

The purpose of this study was to compare general education administrators (principals and superintendents) with special education administrators and special education teachers to see if there were differences in terms of their (a) knowledge of portfolio assessment, (b) attitudes toward the use of portfolio assessment, (c) beliefs about its use in hiring decisions, (d) the place of creativity in portfolio assessment and (e) the potential components that might be included in an academic employment portfolio for teachers.

Method

This study was an expansion of data collected as a pilot study on assessment techniques and issues at the college level. Funded in part by the Oklahoma State Board of Regents, a comprehensive competency-based assessment project was launched at a large land-grant university. Multiple committees were formed to conduct preliminary studies on various techniques. One study was the investigation of the perceptions of administrators regarding the use and structure of portfolios in teacher education. The details of this preliminary study have been reported in Coombs and Bull (1994). Adaptations of the instrument and an expansion of the population allowed the exploration of the research questions for the present study.

Instruments

The instrument used in the Coombs and Bull (1994) study was adapted into several forms for use in this study. It contained items about knowledge and attitudes related to portfolio, the relationship of the portfolio to the hiring decision, the relationships with creativity and risk-taking behaviors and an assessment of the desirability of components as parts of the teaching portfolio. To generate the product list for potential components, 47 faculty were surveyed as were 363 undergraduate students in teacher education classes. Their comments as well as examples from the literature were used to generate the portfolio components list.

Several forms of the instrument were needed for this study. In the Oklahoma sample, the questionnaire was split into two parts. This division was necessary because the questionnaire was sent by mail and the length of a survey instrument is known to effect the response rate. The participants in Utah and New Mexico were given the entire instrument.

The response rate for the Coombs and Bull (1994) core study was 40% (by mail questionnaire). Response rates for instruments collected in classes were nearly 100% and an 84% response rate was achieved with administrators at the New Mexico statewide special education meeting.

Sample

The various samples for the study were: elementary and secondary principals and superintendents, randomly selected from a list of all such officials in Oklahoma. Details of this sample are reported in Coombs and Bull (1994); Oklahoma special education administrators and teachers who were enrolled in classes at Oklahoma State University during the spring semester of 1994; Utah administrators and teachers who were enrolled in classes at the University of Utah during the spring semester of 1994; and New Mexico special education administrators who completed the questionnaire at a statewide special education meeting. At least seventy-five percent (75%) of all respondents were from rural or small schools.

Data were analyzed using a SAS program for personal computer. ANOVA procedures were conducted for between groups comparisons (1 x 3 analysis of variance by item). Descriptive statistics were calculated for items by groups.

Results

There are five sets of questions on the full and extended instrument. The first question set dealt with portfolio assessment and the hiring decision. Results indicate general agreement among teachers, special education administrators and general administrators that portfolio assessment: (1) will provide hiring information not available using other methods, (2) is not too time consuming, (3) can be understood by school boards, and (4) can be used by administrators. Upon examination of the ANOVA results, special education administrators were more likely to strongly disagree than general administrators and teachers ($F_{2,296}$, 7.34, p > .007) with the notion that a resume or curriculum vita is enough information to make an adequate hiring decision. One hundred percent of both general and special education administrators agree that portfolio assessment should be used as part of the teacher hiring decision.

The second set of questions contains items regarding perceptions of portfolio assessment in terms of uniqueness, creativity, risk taking, problem identification, and the degree to which teachers need to conform for comparison. The results indicate only three differences: (1) administrations were more willing to compare teachers to each other than were teachers ($F_{2,281}$ 3.59, p > .029); (2) teachers wanted to include more unique material in the portfolio assessment ($F_{2,283}$ 3.20, p > .042); and (3) administrators thought there was more risk-taking exhibited by teachers in the use of portfolio assessment ($F_{2,283}$ 3.88, p > .022).

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The third question set was used with special education teachers and general administrators only. The questions assessed attitudes toward portfolio assessment. Typical content of these items related to preferences for the portfolio process, beliefs toward the worth of portfolio assessment, perceptions of choice in portfolio use, potential for risk-taking, fairness of portfolio assessment, empowerment, and so forth. There were only two differences between teachers and administrators: (1) administrators favored over teachers the belief that portfolio assessment helps administrators ($F_{1,158}$ 5.82, p > .017), and (2) teachers favored the belief that portfolio assessment helps teachers be more reflective ($F_{1,159}$ 8.91, p > .003).

The fourth set of questions contains items related to cognitive knowledge about portfolios. These items presented recommendations from the literature for portfolio development using a Likert-like format to which respondents were asked to agree or disagree. Items that scored in the range of neutral or the opposite direction would rate as areas the subjects felt were unclear or they misunderstood the use of portfolio assessment. The following items were those that scored in the neutral to opposite range 2.5 - 3.5:

- Each portfolio component must have a goal statement and a reflection (an analysis of whether or not the teacher believes that the goal has been met).
- If the beginnings of a portfolio are too brief or incomplete, it is impossible to show growth or change over time.
- Portfolios are not designed to help teachers become more articulate.
- There are four classes of evidence that can be included in portfolios: artifacts, productions, attestations, and reproductions.
- Portfolios should not be used to determine the efficiency of a teacher's instruction in a given area (as shown by student products).
- A portfolio is seldom a systematic compilation of a teacher's work.
- Portfolios should not contain multiple examples of similar activities to provide repeated observations.
- Portfolio assessment is free of gender and culture bias.
- The major components of a good portfolio should not be work samples.

Results indicate significant differences between special education teachers and general administrators in relation to:

- (1) importance of portfolio goal statements and reflections - administrators rated as more important ($F_{1,159}$ 8.12, p > .005),
- (2) uniqueness and self-evaluation of teachers - rated higher general education administrators ($F_{1,159}$ 12.04, p > .007),
- (3) use of portfolio for self-evaluation - teachers rated agreement higher ($F_{1,160}$ 6.37, p > .013),
- (4) use of portfolio assessment to determine teacher efficiency - greater administrator agreement ($F_{1,159}$ 4.33, p > .039),
- (5) teachers - developed portfolio assessment objectives - teachers agreed more ($F_{1,160}$ 4.33, p > .039),
- (6) teachers should set criteria for inclusion in portfolio assessment - teachers agree more ($F_{1,160}$ 18.48, p > .0001), and
- (7) teacher empowerment as a major purpose of portfolio assessment - teachers rated higher ($F_{1,160}$ 5.92, p > .016).

The fifth set of questions contains items that were ranked by respondents as necessary to be included in portfolios. The ten top-ranked items recommended by regular administrators (in ranked order, from the top) are: (1) classroom management system, (2) (tied) multi-media presentations(s), (2) (tied) resume/vita, (4) (tied) autobiographical sketch/statement about teaching philosophy, (4) (tied) administrator evaluations of capabilities/products, (6) letters of recommendation, (7) (tied) list of extra curricular activities, (7) (tied) list of

objectives for content area, (9) description of what I want to teach, (10) lesson plan(s). The top ten items recommended by special education administrators (in rank order, top to bottom) are: (1) letters of recommendation, (2) administrator evaluations of capabilities/products, (3) (tied) resume/vita, (3) (tied) professor evaluations of capabilities/products, (5) autobiographical sketch/statement about teaching, philosophy (6) description of why I want to teach, (7) description of related experiences, (8) list of teacher assisting/aiding activities, (9) classroom management system, (10) (tied) self/peer assessment, (10) (tied) activity file. The top ten items recommended by special education teachers (in rank order, top to bottom) are: (1) (tied) letters of recommendation, (1) (tied) adapted materials (to meet the needs of diverse students), (3) (tied) autobiographical sketch/statement of teaching philosophy, (3) (tied) description of related experience, (5) classroom management systems, (6) multi-media presentation(s), (7) case study write ups (analysis of case study), (8) administrator evaluations of capabilities/products, (9) (tied) practical/applied paper(s), (9) (tied) list of objectives for content area.

Conclusions

Generally, portfolio assessment is perceived as being a positive addition to the hiring process of teachers, both by general and special education administrators. Administrators of both categories are in total (100%) support of the use of portfolio teacher evaluation. There are various positive attitudes toward the use of portfolios and toward the underlying assumptions of portfolio theory. Teachers favor the uniqueness, empowerment and self-evaluative control; whereas, administrators do not score in the opposite directions so they too indicate support for this part of the model.

Respondents showed moderate level of knowledge about the portfolio process. More knowledge seems to be needed in relation to goal statements and reflections, the need for beginning documentation (to show growth over time), the four classes of evidence, whether portfolios can be used to provide evidence of efficiency, whether portfolios should contain multiple examples of similar activities, whether they are gender and culture bias free, and the place of work samples in the portfolio. These would make ideal content for a staff development/inservice program for administrators.

Another interesting outcome comes in the rank ordering of what is considered important for each of the three respondent groups. Comparing special education administrators and teachers there are only four products common in the top ten: letters of recommendation, autobiographical sketch/philosophy, administrator evaluations and classroom management systems. When comparing regular administrators and special teachers, there were two additional correspondences, list of objectives for content area instruction and multi-media presentation(s). This would indicate that there is room for more instruction and training of teachers in terms of providing the appropriate products as part of teaching portfolios. There may also be need for training administrators on the variety provided by lower ranked products. This awareness may lead to useful information in administrative decision making.

These data are particularly useful as initial baseline measures for schools in rural areas because three quarters of the sample came from rural areas in rural states. The data also provide indications to teachers of the kinds of information typically sought by administrators in the evaluation of portfolios of special education teachers. We recommend that this data be shared with preservice students and inservice teachers who are using portfolios as part of the hiring process.

The results of this study are exploratory, so caution is necessary when interpreting the application for use of portfolios for student teacher evaluation. Practicing teachers and those entering the field may find the variability of these results helpful and may want to insure that the portfolios they develope will meet the trends discovered herein.

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Table 1

POSSIBLE CONTENTS OF PORTFOLIOS: SUGGESTIONS FROM VARIOUS

AUTHORS

<u>Barton & Collins (1993)</u>:

Artifacts: Things produced as part of the normal work, e.g., field notes

Reproductions: Documents describing typical events which describe the work of the portfolio developer

Productions: Documents which have been prepared particularly for the portfolio, e.g., goal statements, reflections, and captions

Attestations: Descriptions of the developer's work which are created by others, e.g., recommendations or evaluations

<u>Ryan & Kuhs (1993)</u>:

Domains of knowledge and performance

Knowledge of subject matter

Intellectual abilities and problem-solving skills

Pedagogical skills

Curriculum knowledge, insight and skill

Knowledge about learners and learning

<u>Geiger & Shugarman (1988)</u>:

Evidence of professional responsibility

Command of the subject matter

Content-specific pedagogy

Class organization and management

Student-specific pedagogy

<u>Urbach (1992)</u>:

Topics taught

Methods used to teach

Changes in teaching and coursework

Rigor in academic standards

Student impressions of teaching effectiveness

Student impressions of their learning

Efforts at developing teaching skills

Assessment of teaching by colleagues

Table 2

Nine Modes of Portfolio Working*

	Informal Norms	Mixed Sources	Formal Prescriptions
Entries produced by the teacher	Elective entries: Class handouts	Guided entries: Lesson plan for a required unit	Required entries: Employment application
Entries jointly produced by teacher and others	Collegial products: Team teaching notes	Negotiated entries: Shared review of teaching practice commented on by teacher and evaluator	Proctored entries: Situated performance assessments
Entries produced by others	Commentary: Letter of recommendation	Attestations: Surveys of students	Official records: Diploma, license

*Modified from Bird (1990)

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Table 3. TYPES OF DOCUMENTS AND ARTIFACTS FOR PORTFOLIO

Teaching Documents

Syllabi
Lesson plans
Study guides
Reading lists
Quizzes
Tests

Course schedules
Curricula*
Lecture notes
Classroom management system
Competency progress charts
Bibliographies

Assignments
Group Teaching Activity*
Review sheets
Story/poetry/puppet stage/shadow box*
Lists of objectives*
Handouts

Instructional Materials

Theme box*
Transparencies
Slides
Instructional aids*
Bulletin board*
Concept maps
Adapted materials*
Simulations
Case studies
Learning center design

Thematic unit*
Bound books for students*
Student worksheets*
Project requirements
Reduced reading level text*
Computer software
Classroom decorations*
Multimedia presentation*
Culture study
Art project(s)

Science experiment(s)
Lab manual*
Charts
Individualized student materials*
Course contracts
Activity file*
Tables of specifications
Research file(s)*
Demonstration videos/films
Other media

Samples of Student Work

Papers
Video recordings*
Photographs
Audio recordings

Projects
Grade book outline*
Performance videos
Multimedia presentation*
Test profiles

Course grade profiles
Journal notebooks (logs, journal entries)*
During-course feedback
Completed student worksheets
End-of-course evaluations

Academic Products Related to Teaching

Publications
Journal article reviews*
Research/Theory paper(s)*

Research
Practical (applied) paper(s)*
Field experiment write-up(s)

Case study write-ups (analyses of case studies)*
Critique of standardized tests or instruments
Subject matter monographs

Personal Documents

Resume/vita*
Diary*
Daily lesson evaluations*
Professor evaluations*
Self/peer assessment*

Autobiographical sketch*
Description of related experiences*
Analysis of observations*
Administrator evaluations*

Statement about teaching philosophy*
Description of why I want to teach*
Letters of recommendations*
List of extracurricular activities*

Adapted from Urbach (1993)

*Starred items added to complete product survey.

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