

Perceptions Regarding the Efficacy and Use of Professional Portfolios in the Employment of Teachers

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This study explored the perceptions of school administrators and teacher educators regarding the effective use of portfolios in the process of hiring new teachers. Three questions helped to focus this study: (1) What are the perceptions of school administrators and teacher educators regarding the value and use of portfolios in the employment of teachers? (2) What are the perceptions of school administrators and teacher educators regarding the quality and accuracy of teaching portfolios in documenting applicants' teaching skills? (3) What are the perceptions of school administrators and teacher educators regarding the problems and barriers in the use of teaching portfolios in the hiring process? Advantages and disadvantages regarding portfolios as an effective tool in the hiring process were identified along with several barriers to their more extensive use. Both teacher educators and school administrators reported that a high percentage of new teacher candidates are still using more traditional paper-based portfolios rather than ePortfolios. From the study emerged a clearer picture of how professional ePortfolios might be more effectively developed and used in the teacher interview and employment process to overcome some of the barriers identified by participants to the effective use of portfolios.

Over the last several decades, institutions of higher education have increasingly seen the value of portfolios as part of their academic programs. Portfolios are viewed as a way of determining not just how much students know, but also how they are able to apply and use what they know. A number of writers have attempted to define and describe the professional portfolio (Amirian & Flanagan, 2006; Goldsmith, 2007; Lorenzo & Ittelson, 2005). Yao, Thomas, Nickens, Downing, Burkett, and Lamson (2008) described a portfolio as "a systematic and purposeful collection of work samples that document student achievement or progress over a period of time" (p. 10).

The use of portfolios cuts across a wide range of disciplines and professional fields, including writing, communication, business, medicine, technology, and teacher education. (Mittendorff, Jochems, Meijers, & Brok, 2008; Newman, Cohen, Asaro, & Spalding, 2004; Nikirk, 2008; Oradini & Saunders, 2007; Ross, Maclachlan, & Cleland, 2009). It is especially in the areas of employment and career advancement that portfolios have increasingly been promoted as an essential element for success. Soon-to-be new college graduates are encouraged, prompted, and instructed in the proper development and presentation of their professional portfolio as documentation of their professional skills and accomplishments.

Various studies have focused on the value of portfolios in career development and advancement (Tubaishat, Azzedine, & Al-Rawi, 2009; Willis & Wilkie, 2009; Woodbury, Addams, & William, 2009). For instance, Borgen, Amundson, and Reuter (2004) conducted a study of public service employees in Canada involved in career portfolio development workshops. Results indicated that participants in the

study increased their engagement in the exploration of an expanded range of career options.

The Increasing Use of Electronic Portfolios

As the growing sophistication of technology makes digital portfolios more prevalent, the professional literature has turned its attention to an examination of the ePortfolio (Bowers, 2005; Buckridge, 2008; Lin, 2008; Moss, 2008; Ntuli, Keengwee, & Kyei-Blankson, 2009). An electronic portfolio has been described by Abrami and Barrett as "a digital container capable of storing visual and auditory content including text, images, video and sound" (p. 2). A variety of advantages to the digital portfolio have been described in the literature. Willis and Wilkie (2009) noted that, "Although similar to hard-copy portfolios, digital portfolios offer enhanced benefits to this digital generation of students by giving them creative options for transferring experiences into interactive, meaningful displays of performance" (p. 74).

Garis (2007), observing the growth of technology in so many areas of higher education, concluded that the use of the traditional paper-based employment materials is quickly becoming out of date. He stated, "Emerging electronic portfolios hold great promise to change the national and international landscape in offering new Internet-based tools to support college student career development. Specifically, career-related e-portfolios enable students to understand, develop, chronicle, and communicate their career attributes to others" (pp. 3-4).

Goldsmith (2007) discussed a number of advantages of a digital-based portfolio as compared to the paper-based portfolio. The electronic portfolio reduces the need for multiple loose-leaf binders and file

folders and a more efficient and effective means for keeping track of items over an extended period of time. The electronic portfolio is much more flexible, allowing for convenient viewing over place and time and it allows the portfolio to be more genuine. Perhaps the greatest value of the electronic portfolio noted by Goldsmith is that it has greatly expanded, and continues to expand, the idea of what a portfolio is and can be.

The Use of Electronic Portfolios in Teacher Education

In many ways teacher education has been a leader in the promotion and use of the earlier paper-based portfolios and the more recent ePortfolios (Boody, 2009; Boody & Montecinos, 1997; Fox, White, & Kidd, 2011; Martin-Kniep, 1999; Moss, 2008; Salzman, Denner, & Harris, 2002; Stemmer, Brown, & Smith, 1992; Strudler & Wetzel, 2008, 2005; Zubizarreta, 1994). Teacher education programs and their students utilize portfolios for a number of purposes and the format and structure of those portfolios has steadily evolved along with the growth of technology (Bartlett, 2002; Gathercoal, Love, Bryde, & McKean, 2005; Strudler & Wetzel, 2008; Mullen, Britten, & McFadden, 2007). A variety of benefits of portfolios in teacher education have been identified (Milman, 2005; Reese, 2004) and there are a number of uses to which portfolios are put in teacher education programs. (Bullock & Hawk, 2001; Fox, White, Stephen, & Kidd, 2011; Strawhecker, Messersmith, & Balcom, 2008; Strudler & Wetzel, 2005).

Wetzel and Strudler's 2008 study used case methodology to determine the perspectives of teacher education faculty and administrators regarding electronic teaching portfolios. Structured interviews were conducted with teacher education faculty, administrators, and teacher candidates at six universities. Among the advantages of electronic teaching portfolios noted by teacher education faculty were a variety of opportunities for students to reflect and learn, a better understanding on the part of students of the program's teaching standards, better access by faculty to student work, and increased communication with students. The disadvantages found included an increase in time and effort for implementing the electronic portfolio process and incompatibility with some of the goals, values and needs of the faculty in regard to curriculum and academic freedom. These same advantages and disadvantages have been identified by other writers for electronic portfolios (Barrett, 2000; Devlin-Scherer, 2003; Fox, et al., 2011; Mosely, 2005; Moss, 2008; Takona, 2003).

While the literature identifies several uses of portfolios in teacher education (Barrett, 2000; Bullock & Hawk, 2001; Carney, 2004; Devlin-Scherer, 2003;

Ma & Rada, 2006; Milman, 2005; Strudler & Wetzel, 2008), their use as a tool for hiring purposes has not been as widely explored (Evan, Daniel, Mikovch, Metz, & Norman, 2006; Moss, 2008; Reese, 2004; Takona, 2003). Studies that have been done on the use of electronic portfolio in the teacher employment process have indicated mixed advantages and disadvantages (Boody, 2008; Mosley, 2005; Strawhecker, et al., 2008; Temple, Allan, & Temple, 2003; Theel & Tallerico, 2004).

Although previous studies have indicated that teacher education students believe electronic portfolios to be of use in the employment process, many of them also believe that principals tend not to view them (Wetzel and Strudler, 2006). On the other hand, Achrazoglou, Anthony, Jun, Marshall, and Roe (2002) conducted a national study that surveyed more than 500 hiring officials in school districts across the country regarding what they would like to see in the ePortfolios of teacher candidates. They reported that, "Seventy-nine percent of respondents stated that a job seeker's eportfolio can be a significant selection tool along with references, credentials, transcripts, resume and cover letter, and interviews" (p. 20).

In his 2009 study, Boody conducted phone interviews with career services personnel at 15 universities. The individual interviewed at each institution was identified as the person who spent the most time with teacher education candidates. Results of the survey indicated that, although prospective employers did not require portfolios from teacher applicants, they were often looked at when brought to the interview. Respondents believed that portfolios allowed prospective employers to see applicants as individuals and gave them an opportunity to "stand out from the crowd" and showcase their skills. Boody concluded, "Perhaps most useful of all is that creating a portfolio helps them (students) take stock of themselves. Indeed, it serves mainly to organize themselves and reflect on as they prepare ahead" (p. 69).

Mosely (2004/2005) collected information from 252 school administrators who reported being involved in the teacher employment process. Of those responding, 85% reported that they use portfolios in some capacity during the hiring process. Of those administrators who did not use portfolios as part of the hiring process the two most common reasons cited were the lack of time and the unstructured nature of portfolios.

Strawhecker, Messersmith, and Balcom's 2008 study involved 37 principals in one Midwestern state and included administrators from both public and private schools. Participants were asked to respond to a questionnaire regarding the advantages and disadvantages of using portfolios in the teacher hiring

process. In general, respondents felt that portfolios allowed them to gain a more comprehensive understanding of an applicant's actual teaching ability and organizational skills. Administrators also liked the convenience of being able to go back and view portions of the portfolio again as part of the hiring decision.

Some of the findings from Mosely's study mirrored those of Temple, et al. (2003). In that study, school administrators also noted the time factor as a drawback to using portfolios in the employment process. One suggestion administrators made was the possibility of a two-tiered portfolio, one containing a number of items and one that would include only a few very carefully selected items.

Purpose of Study

Currently, the majority of teacher education programs appear to be requiring students to develop and maintain professional portfolios, in particular electronic or ePortfolios. One of the main purposes given by teacher education programs for this requirement is the use and value of the portfolio in the employment process. However, it is unclear from the literature if school administrators who are making hiring decisions have the same beliefs and perceptions regarding the value and use of portfolios as do the teacher education faculty who are requiring the development of those portfolios. This study's focus was to answer three questions regarding the teaching portfolio's value and use in the teacher employment process. The questions explored were:

- 1) What are the perceptions of school administrators and teacher educators regarding the value and use of portfolios in the employment of teachers?
- 2) What are the perceptions of school administrators and teacher educators regarding the quality and accuracy of teaching portfolios in documenting applicants' teaching skills?
- 3) What are the perceptions of school administrators and teacher educators regarding the problems and barriers in the use of teaching portfolios in the hiring process?

Method

To answer these questions we developed a survey instrument consisting of twenty-one items using PsychData (<http://www.psychdata.com>). We selected these items from a review of the literature and from our own experiences in working with teacher education students and school administrators involved in hiring teachers. Survey items used a variety of formats including ranking, rating, multiple choice and short

answer, depending upon the nature of the item. The final survey item was an open-ended response item which allowed participants to provide any comments or observations related to the use of portfolios in the teacher hiring process.

Using websites, attendance lists from professional conferences, and state education agencies we compiled a list of e-mail addresses of teacher educators from universities in Texas, Georgia, South Carolina, Missouri, and Illinois and another list of the e-mail addresses of practicing school administrators in the same states. In all, we identified a total of 988 teacher educators and 624 school administrators. We sent an e-mail request to everyone on both e-mail lists explaining the purpose of the study along with a link to the online survey. In addition, we sent a follow-up request approximately one month later to the e-mail addresses of those who had not yet accessed the online survey. The survey settings did not allow the names or e-mail addresses of individual participants to be linked to specific responses to the survey.

Results

Of the 988 requests for participation sent to teacher educators 127 responded, a rate of 12.8%. Of the 624 school administrators invited to participate, 41 responded, a participation rate of 6.5%. Participants' responses were analyzed and compiled into frequencies and percentages for each survey item. Tables were developed to assist in the analysis and interpretation of the survey results.

One of the survey questions asked respondents the type of portfolio format used most often by those teaching candidates who provide teaching portfolios. Table 1 displays the responses of participants to that question. There are several somewhat surprising observations to be made in regard to these data. There is a large difference between the percentage of digital portfolios that teacher educators believe their graduates are using in the hiring process and the percentage that administrators report are being used (50.5% to 17.5%). According to respondents to this survey, a high percentage of teacher candidates are still presenting the more traditional, paper-based portfolios.

There could be a number of reasons why school administrators in this study did not report ePortfolios being used by the majority of teacher candidates. It could be that teacher preparation programs use ePortfolios for other purposes, but do not put as much stress on them as an employment tool. It could be that teacher candidates do not feel as comfortable using digital portfolios in job interviews and prefer to use the more traditional paper-based portfolios. Another reason could be that this study did not differentiate between portfolio usage by newly graduating teacher candidates

Table 1
Most Common Portfolio Format Used by Teaching Candidates

Question	Teacher Educators		School Administrators	
Of those teacher candidates who provide a portfolio during the interview and employment process what format is the most common?	Website:	34 (33.0%)	Website:	2 (5%)
	CD/DVD:	18 (17.5%)	CD/DVD:	5 (12.5%)
	Print:	51 (49.5%)	Print:	34 (82.5%)

Table 2
Perceptions Regarding the Use of Portfolios in the Teacher Hiring Process

Question	School Administrators				Teacher Educators			
Do schools prefer that prospective teachers provide a portfolio	Required:	0%	Preferred:	20%	Required:	4%	Preferred:	15%
	Neutral:	73%	Other:	7%	Neutral:	68%	Other:	13%
How much weight do you give the portfolio in the hiring process?	Great deal:	3%	Equal:	17%	Great deal:	15%	Equal:	37%
	Some weight:	58%	Little:	22%	Some weight:	38%	Little:	10%
In the past five years have you seen an increase in newly graduated teachers submitting a portfolio?	Significant:	29%	Some:	6%	Significant:	15%	Some:	37%
	Same:	24%	Decrease:	5%	Same:	38%	Decrease:	10%
How much input have school administrators provided to local universities regarding the use of teacher portfolios?	Great deal:	0%	Some:	6%	Great deal:	4%	Some:	29%
	Little input:	15%	None:	79%	Little input:	37%	None:	30%
Are universities in your area promoting the development and use of portfolios for their teacher education students?	All are:	9%	Most are:	50%	All are:	17%	Most are:	43%
	Half are:	21%	Most aren't:	21%	Half are:	26%	Most aren't:	14%

Note: For the first question, school administrators listed "Do not have time" under the "Other" category and teacher educators listed "Don't want them" under the "Other" category.

and older, more experienced teacher candidates who may be more likely to use paper-based portfolios.

Table 2 shows the results of participants' responses to five survey items regarding the use and importance of portfolios in hiring teachers. These data describe the relative perceptions of school administrators and teacher educators regarding how often portfolios are used in the hiring process, how much weight they are given and the interaction between school and teacher preparation programs in the portfolio process. The perceptions of school administrators and teacher educators were very similar on most of these items. Both groups agreed that the majority of schools do not require portfolios as part of the teacher hiring process and only a relatively small percentage reported a preference for teacher portfolios in hiring new teachers.

School administrators and teacher educators agreed that portfolios are given weight in hiring decisions, although it is clear that portfolios are not given as much

consideration as several other factors. One interesting observation is that teacher educators appear to be more negative than school administrators in regard to how much weight is given to teacher portfolios. More than twice as many teacher educators, percentage-wise, perceived portfolios as having little or no weight in the hiring process. Another observation from the data in Table 2 is the seeming disconnect between school administrators and teacher educators regarding the input school administrators have in the use of teacher portfolios. Administrators overwhelmingly perceived their input to be fairly negligible, while teacher educators saw administrators as having substantially more input into the use of portfolios.

Table 3 displays the results of participants' responses to survey items regarding the quality and value of portfolios in making teacher hiring decisions. As can be seen from this table teacher educators and school administrators tended to agree that a portfolio

Table 3
Perceptions Regarding the Quality and Value of Teacher Portfolios

Statement	Strongly Agree	Agree	Somewhat Agree	Disagree	Strongly Disagree
I believe I get a clear and accurate sense for the kind of teacher a person is, or will be, based on what I see in his or her portfolio.	TE: 9% SA: 4%	TE: 37% SA: 28%	TE: 40% SA: 32%	TE: 11% SA: 28%	TE: 3% SA: 8%
Most of the portfolios I see are well-organized, creative, and interesting.	TE: 6% SA: 5%	TE: 40% SA: 49%	TE: 37% SA: 44%	TE: 10% SA: 0%	TE: 7% SA: 2%
Most of the portfolios I see contain appropriate artifacts which do an excellent job documenting and expressing the applicant's qualifications to be an excellent teacher.	TE: 9% SA: 8%	TE: 39% SA: 33%	TE: 38% SA: 51%	TE: 10% SA: 8%	TE: 4% SA: 0%

Note: TE = Teacher Educators; SA = School Administrators

can accurately reflect a teacher candidate's teaching ability and skills, although there is not strong agreement on this point from either group. Teacher educators were somewhat more certain than school administrators regarding the accuracy of the portfolio in documenting a candidate's relative effectiveness as a teacher.

Both groups agreed on the quality of portfolios in terms of their appearance, format, and technical components. There was substantial agreement that portfolios are well-organized, creative, and interesting and that they contain appropriate artifacts. The results displayed in Table 3 appear to support many of the comments made by both school administrators and teacher educators on the open-ended survey item. On that item, several respondents from both groups expressed their belief that portfolios tend to be technically sound and attractive, but that they do not always accurately reflect the quality of an applicant's teaching skills.

It appears evident from the results described in Table 3 that school administrators and teacher educators see value for portfolios in teacher hiring decisions. However, they did not perceive portfolios as having greater or even as great a value as other factors. So, exactly how important is the portfolio to the teacher hiring process in relation to other factors? Table 4 sheds some additional light on this question. According to this study both school administrators and teacher educators viewed direct observation of the candidate in a teaching situation to be the most important factor in the decision to hire. According to both school administrators and teacher educators, how teacher applicants respond to direct questions regarding teaching during a personal interview carries

substantial weight in the hiring process, as this item was ranked second by both groups.

Third in importance is the actual experience an applicant has had as a teacher. According to respondents, those involved in hiring teachers want to know if an applicant has actually demonstrated that he or she is an effective teacher. On the fourth item the two groups differed. Teacher educators perceived information from previous teacher employers to be the next most important factor, but administrators ranked personal characteristics ahead of this item. Administrators evidently have confidence in their ability to make hiring decisions based upon their personal perceptions of the candidate during the interview.

On the fifth most important factor school administrators and teacher educators differed somewhat. Teacher educators placed the reputation of the teacher preparation program as fifth in importance while school administrators placed information from previous teacher employers in that spot.

Portfolios were ranked seventh in importance by teacher educators and eighth in importance by school administrators. This indicates a belief that portfolios are useful in the teacher hiring process, but that they are not as useful as other, more direct, and objective sources of information.

Respondents to the open-ended item of this survey were grouped into three categories depending upon which of the three study questions was addressed by the comment. School administrators and teacher educators shared similar views and perception in a number of areas, but also revealed some unique observations based on their different experiences and perspectives.

Table 4
Importance of Factors Considered in Teacher Hiring

Ranking	Teacher Educators	School Administrators
First	Direct Observation	Direct Observation
Second	Personal Interview	Personal Interview
Third	Amount and Type of Previous Teaching Experience	Amount and Type of Previous Teaching Experience
Fourth	Information from Previous Teacher Employers	Personal Characteristics (personality, dress, demeanor)
Fifth	Reputation of Teacher Preparation Program	Information from Previous Teacher Employers
Sixth	Personal Characteristics (personality, dress, demeanor)	Casual Conversation with Others Regarding Students Skills and Performance
Seventh	Portfolio	References from Professors
Eighth	Casual Conversations with Others Regarding Students' Skills and Performance	Portfolios
Ninth	References from Professors	Reputation of Teacher Preparation Program
Tenth	Cover Letter and Resume'	Cover Letter and Resume'
Eleventh	GPA in Education Classes	GPA in Education Classes
Twelfth	References from Non-Education Employers	References from Non-Education Employers

Perceived quality and accuracy of teaching portfolios in documenting applicants' teaching skills.

Several school administrators noted that, although there is definite value in using portfolios to make hiring decisions, they do not believe that portfolios give an accurate indication of an applicant's teaching ability. The following comments by school administrators are reflective of this belief:

- While they are a good tool that allows a prospective teacher to showcase some of their skills, they are not a particularly effective measure of how that person will perform in the classroom.
- Portfolios are not that valuable as a measure of a teacher's potential success in interacting with and teaching children.

Even teacher educators, who it would be presumed play an important role in how teacher candidates structure their portfolios, found this to be a problem:

- It has been my experience (and, to be honest, it has been a while since I have seen or judged teachers based on portfolios) that candidate-chosen items for the portfolio often present little more than a dog-and-pony type of snapshot.
- They are too prescribed and the students are selecting artifacts to meet requirements (not best work).

Many respondents reported this perceived lack of authenticity to be a major drawback to the value of teacher portfolios for employment purposes:

- Portfolios are cumbersome to an interview committee and with the vast majority of portfolios being compiled as a college course requirement they are strikingly similar and tell me very little.
- They focus on organization, glossy photos, pretty bulletin boards, well-written papers, glowing student teaching reviews from supervisors, and a portfolio that was polished for a grade. They give me very little relevant information about a candidate. I prefer to not be given a portfolio by a candidate.

Some administrators see the use of ePortfolios as one way of overcoming this hesitancy regarding the ability of portfolios to accurately reflect teaching ability.

- I believe electronic portfolios are best and should include a brief video clip of the teacher candidate teaching in a real classroom setting.

Problems/barriers regarding the portfolio in the employment process. In addition to the perceived lack of authenticity, many respondents reported other barriers in the use of portfolios for teacher employment. A serious problem identified by both administrators and

teacher educators was that of time, as described by several school administrators:

- Actually it's a bit frustrating when a candidate brings their portfolio to the interview. There is little time to peruse the material and I hate to keep it. A digital portfolio would be ideal for me.
- While portfolios may be a great tool for the evaluation of teaching candidates, the logistics of reviewing full portfolios becomes difficult when dealing with large numbers. Electronic portfolios would be preferable.

This concern was also shared by teacher educators:

- My administrators rarely look at my student teachers' portfolios - they say they don't have the time.
- Some teachers have overwhelmingly large portfolios--big time overkill.

Value and use of the portfolio in the teacher employment process. Despite their concerns, a number of respondents did report that they see the teacher portfolio as a useful tool in the employment process, but varied in their perceptions of how useful. Some teacher educators considered portfolios as helpful in giving prospective teachers a slight advantage in the employment process as illustrated by the following comments:

- I believe portfolios are useful tools for the employment process especially with a narrowing of the field of applicants.
- Electronic portfolios, aside from affording the candidate a creative and organized way of presenting his/her outstanding qualities, also reveal the candidate's ability to effectively use technology.

This value was also shared by a number of school administrators responding to the survey. As several administrators noted,

- Portfolios help give the interviewer a sense of what the teacher has done in the classroom. I think it also gives a frame of reference for the interview.
- A portfolio would help us to know what level that person would be able to proceed to once she/he has been assigned a classroom.

This perception was also echoed by some teacher educators,

- I see portfolios as a benefit to the teacher candidate in that it gives them language and examples by which they can answer interview questions. If they can talk through the benchmarks of the portfolio, they will make an impression with the principal and/or grade level team.
- We have used portfolios for several years, but they have not been instrumental in the hiring process. We are going digital this semester and I hope that the students will be more comfortable using them as part of the application process.

As one school administrator pointed out, the portfolio can serve as a very valuable complement to the interview process:

- Portfolios are a nice addition to a strong interview as evidence of things (hopefully) heard and discussed in the interview process.

However, portfolios are not considered useful as a stand-alone component in the interview or employment process:

- Portfolios are a great tool, when the candidate can speak to the document. It is not the document that presents a person, yet it can help to indicate the level of instruction, knowledge, and practice that they have received in preparation for the classroom. (School Administrator)
- I think that portfolios, especially the electronic ones, are helpful to a prospective employer. However, it doesn't begin to replace the face-to-face response to questions that indicate the person's philosophy. A written philosophy is one thing; the actual beliefs are shown more in actions and responses to well crafted questions. We encourage our students to create electronic portfolios that paint a picture of them as a professional that can be previewed pre or post interview. (Teacher Educator)

Administrators and teacher educators reported that the portfolios' biggest value in the employment process was its use in self-reflection:

- Portfolios are important for self reflection. Portfolios are valuable for novice teachers in developing a comprehensive model of their work and pre-work. (School Administrator)

- We do not use our portfolio as an interview portfolio. It is a progress portfolio, providing a context for the teacher candidate to reflect on personal professional development. (Teacher Educator)
- The portfolio is a way for the candidate to reflect upon their teaching and also to explain it to the rest of the teaching community. (Teacher Educator)

Perhaps the overall benefits of teacher portfolios was summed up by one teacher educator who commented,

- The development of the portfolio can be a powerful process for interview preparation as the candidate reflects on what he/she knows, believes and can do in relation to teaching. It structures the practice of articulating in professional terms the candidate's skills and experience. It also provides the faculty with program assessment information.

Discussion

One limitation of this study is the low response rate of 12.8% for teacher educators and 6.5% of school administrators. However, a large initial pool of prospective participants was initially assembled in anticipation of a low response rate and the participation does represent a fairly wide range of institutions, school administrators and teacher education faculty.

Another limitation was discussed earlier in regard to the lack of differentiation between newly graduated teacher candidates and those that have been teaching for a while. This limitation makes it difficult to analyze the possible reasons for the apparent preference for paper-based portfolios as opposed to ePortfolios.

In regard to the questions posed by this study, the following conclusions can be drawn.

Question 1: What are the perceptions of school administrators and teacher educators regarding the value and use of portfolios in the employment of teachers?

The findings of this study indicate that school administrators and teacher educators agree that there is value in using portfolios in the teacher hiring process. While both groups acknowledge the usefulness of portfolios, both see them as one of several tools to be used in teacher employment decisions. In this regard, the present study was in agreement with Achrazoglou, Anthony, Jun, Marshall, and Roe's 2002 study in which 79% of their participants viewed an ePortfolio as a useful tool for teacher employment.

Respondents in this study perceived portfolios as helping employers to get a better overall picture of teacher applicants. Respondents also reported that portfolios can help give school administrators a frame of reference when interviewing candidates and can also assist in reviewing and evaluating candidates after the interview process is completed.

One conclusion that could be drawn from this study is that teacher applicants may derive more value from portfolios than do those who are involving in hiring teachers. Respondents in this study noted the value of portfolios in helping prospective teachers reflect on their abilities and skills and to anticipate and organize answers to possible interview questions. In this regard the portfolio can be an excellent tool for teacher applicants in preparing for job interviews. This agrees with other writers, such as Milman (2005), who noted the value of a portfolio in helping applicants develop self-confidence in their teaching skills.

Another value of the portfolio as indicated by this study is that it can provide applicants with the opportunity to distinguish themselves from the applicant field by the type and quality of their portfolio items and by using the portfolio to highlight their strengths as a teacher. This agrees with Boody's (2009) finding that "a major value of portfolios for students is that they can help close the sale and showcase their skills" (p. 69).

Question 2: What are the perceptions of school administrators and teacher educators regarding the quality and accuracy of teaching portfolios in documenting applicants' teaching skills?

Respondents in this study reported that portfolios were, in general, pleasing in appearance and usually impressive in their design and format; however, respondents did not necessarily see that as a positive factor. Respondents reported a certain sameness or "cookie cutter" appearance to many portfolios that, while technically attractive, did not necessarily give them confidence in the portfolio's accuracy in documenting the applicant's teaching ability. This is consistent with Theel and Tallerico (2004) who found that principals in their study perceived a "sameness" in the content and format of portfolios presented by teaching applicants.

Question 3: What are the perceptions of school administrators and teacher educators regarding the problems and barriers in the use of teaching portfolios in the hiring process?

Respondents in this study identified several problems with the use of portfolios in the hiring process and several barriers to their effectiveness. The one

problem mentioned most often was the skepticism regarding portfolios' accuracy in demonstrating the applicants' actual teaching skills and ability. The fact that applicants self-select items for the portfolio and can structure and present it in a way that puts them in the best possible light creates doubts among hiring personnel regarding the confidence that can be placed in the portfolio.

Another significant problem identified was that of time. Both teacher educators and administrators see time as a major barrier to the use of portfolios. School administrators are very busy people and the process of interviewing and hiring teachers is limited by serious time constraints. This makes it very difficult for them to give more than a cursory review of applicants' portfolios. This was consistent with what other studies have also revealed about the use of portfolios in the hiring process (Allan & Temple, 2003; Strawhecker, et al., 2008).

Recommendations

The purpose of this study was to determine the perceptions of teacher educators and school administrators regarding the value and use of portfolios, in particular ePortfolios, in the hiring of teachers. Based on the results of this study, a number of recommendations can be made that may improve the value and the use of teaching portfolios in the employment process.

1. School administrators and teacher educators both reported time as being a major barrier to the effective use of portfolios in the process of teacher employment. As a result, teacher applicants should reduce the amount of time it takes school administrators to view portfolios. This could be done by being more selective in the items included to reduce the size of the portfolio and make items more focused on those areas that more accurately document teaching skills and ability. Teacher educators should work with their students to insure that efficiency and the "time factor" is a major consideration in the development of portfolios for employment.

2. It was noted by a number of respondents that portfolios serve other purposes in addition to their use in the employment process. In that regard, teacher educators should work with their students to produce various forms of their portfolios for different purposes. Rather than try to make a one-size-fits-all portfolio, teacher applicants could design various versions of their portfolios for specific purposes including a version focused on

those items, issues, and formats most useful and beneficial to school administrators.

3. This study indicates that there is often a tendency to go a little over the top in the "bells and whistles" that are included in teaching portfolios. Teaching applicants may be trying a little too hard to impress prospective employers with their creativity and style, rather than on accurately documenting their teaching skills and ability in the most authentic way possible. While portfolios should be well-organized, thorough, interesting, and easy to read, the focus should remain on their true purpose, which is to accurately document the teaching candidate's preparation to be a successful teacher.

4. School administrators in this study did not report much involvement or input in the design and development of portfolios in teacher education programs. Involving them more in a meaningful and continuous manner may result in portfolios that are more useful and valuable to them in hiring applicants.

5. Respondents reported that portfolios have value in the employment process, but they are only one tool in that process. Teacher educators should work with their students, along with input from school administrators, regarding the portfolio's place in the hiring process. Rather than a separate, stand-alone component it should be integrated into the total interview and hiring process. For instance, some respondents noted that the real value of the portfolio is in how well the applicant could articulate what the portfolio says about their teaching skills. By not focusing on just the development of the portfolio, but also on how to use the portfolio, teacher applicants may be able to increase the value of the portfolio as an employment tool.

6. A number of the issues and barriers discussed regarding the effective use of portfolios in the teacher hiring process could be alleviated with more wide-spread use of ePortfolios as opposed to paper-based portfolios. For instance, the time factor could be controlled much better with ePortfolios, particularly those that are web-based. The digital and hypermedia capabilities of such portfolios can make the selecting, organizing and viewing of portfolio items much more efficient. The criticism regarding "sameness" of format could also be better addressed by the use of ePortfolios as opposed to paper portfolios. Easily available

technology tools offer an almost endless array of options for presenting and viewing ePortfolios. Finally, the flexibility afforded by ePortfolios makes it much easier for teacher candidates to shape and focus their portfolios for specific audiences and employment settings.

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