Portfolio Assessment of Teaching Practice: Views From Business Education In-Service Student Teachers in Botswana

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Portfolio assessment of teaching practice was first introduced into the University of Botswana's Faculty of Education in May 2010. This study sought to investigate the impact of this innovative new professional development/assessment system on the professional growth and development of in-service teachers. The findings of the study suggest that although student teachers found portfolio development to be cumbersome and time-consuming, the general consensus was that developing portfolios provided useful and valuable learning experience which enhanced their creativity, reflective practice and continuous professional growth. Overall, students found portfolio development and its assessment and evaluation of a cumulative collection of their creative works to be a better approach for the assessment of teaching than the traditional approach. The study also found out that there was a lack of consistency in the way supervisors assessed students' portfolio and for this reason, it concluded with the recommendation that in order to increase the reliability and credibility of portfolio assessment, there is a need to provide intensive orientation and clear guidelines to students and all classes of supervisors in future in the form of clear expectations for the purpose of selection of artifacts, organization, reflection, assessment and evaluation of portfolios.

Keywords: teaching practice, teaching practice supervision, portfolio assessment, reflective practice

Introduction

The term "teaching practice" represents the range of experiences, to which student teachers are exposed when they work in classrooms and schools in the practicum (Marais & Meier, 2004). Teaching practice is a vital component of teacher education, in which it provides trainee teachers with opportunities to translate theory learnt in methods courses into successful practice. During teaching practice, student teachers are given the opportunity to try the art of teaching before actually getting into the real world of the teaching profession (Kasanda, 1995). Campbell and Kane (1998) went further to assert that teaching practice is an essential component of learning to teach, as it provides a "real world" context for the development of professional teaching skills.

The University of Botswana employs the attachment teaching practice model during which student teachers are assigned to school-based cooperating teachers, who, together with university supervisors, form a supervisory triad. While on teaching practice in the schools, student teachers are followed-up by their lecturers who supervise and assess their teaching. Teaching practice supervision can be viewed as having the dual purpose of tutoring students for professional growth and assessing their performance (Chikunda, 2008). Up to

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2009, students at the University of Botswana underwent supervised teaching practice for a minimum of seven weeks and each student was assessed at least three times in each teaching subject (University of Botswana, 2008). The final teaching practice mark was a computation of marks awarded by university lecturers as well as those awarded by the school.

The method of assessing teaching practice that was in use at the University of Botswana prior to 2010 involved the use of structured LORF (Lesson Observation Report Forms) which was designed to capture the core areas for observation and assessment (University of Botswana, 2007), such as scheming, lesson planning, lesson presentation, class management and general professional competencies, such as ethics, creativity and resourcefulness. Supervisors used LORFs to grade and evaluate students' teaching in line with set criteria. After the lesson(s), supervisors and students would hold post-observation conferences where the supervisors would comment on the strengths and weaknesses of the lesson(s) and the student teachers' performances. Suggestions for change and improvements would be made concerning a variety of things, such as lesson planning, lesson sequencing, and discipline and class management.

Assessment of student teaching based on LORFs alone was replaced by an innovative new professional development/assessment system in line with the University of Botswana's learning and teaching policy, the graduate employability strategy and the need to reconstruct the existing practicum model in response to changes in the internal and external environments in which the university operates (University of Botswana, 2009). From May 2010, portfolio assessment was introduced and it was to be complemented with the conventional method of observation, but no grades would be awarded. Portfolio assessment was defined by Simon and Forgette-Giroux (2000, p. 89) as a cumulative and ongoing collection of entries that are selected and commented on by the students, the teacher and/or peers, to assess the students' progress in the development of a competency. The items in the portfolio are selected to demonstrate a teacher's accomplishments over time and document the variety of contexts in which these accomplishments occur. At the University of Botswana, student teachers are required to assemble teaching portfolio artifacts that reflect their teaching practice experience which consists of the students' teaching philosophy, syllabus to be taught, scheme of work, lesson plans and record of work done, lesson/teaching observation/evaluation reports by supervisors and peers, classroom management reports, reflective journal, sample teaching notes, instructional resources and assessment tasks given to students. At the end of the teaching practice period, the portfolio will be collected and graded.

The benefits of using portfolio assessment in student teaching are seemingly immense. According to Borko, Michalec, Timmons, and Siddle (1997), teaching portfolios are perhaps the most effective tool for the professional development of beginning teachers, because they afford them an opportunity and a structure to document and describe their teaching, articulate their professional knowledge and reflect on what, how and why they teach. According to Zubizarreta (1994), the portfolio is also a good tool to assess student teaching, because it provides outside evaluators, such as university supervisors with concise, selective, evidence-based information from a wide variety of sources which gives the trainee teacher a highly individualized, credible and factual document for the purpose of evaluation. Furthermore, portfolio development encourages student teachers to reflect on their knowledge, skills and classroom practices while they evaluate their own abilities (Hopfer, 1999). According to Xu (2004), the beauty of portfolio assessment in teacher education is that it focuses on what an individual does (the contents), how he/she does it (the strategy) and in what process he/she does it (the sequence).

However, it must be borne in mind that portfolio assessment is not without its own problems. One obvious

burden on students is that portfolio construction is time-consuming. Gathering all of the necessary artifacts and work samples can make portfolio preparation an overwhelming and tiresome process. In their study on portfolio assessment at the University of the Punjab in Pakistan, Azam and Igbal (2006) identified the lack of adequate orientation and time management on the part of students and supervisors as the main problem for using portfolios during teaching practice. Similar problems were identified by the author during the supervision of business education students at the University of Botswana. It was not uncommon to find conflicting instructions given to the same students by the various supervisors who had assessed them. For the sake of consistency, it is necessary to ensure that students and school-based university supervisors are sufficiently oriented on portfolio assessment before inducting it into a teacher education program. For student teachers, collaboration and support are essential elements in portfolio construction. A study on student teachers' perceptions on portfolio assessment in Turkey (Kocoglu, 2008) revealed that trainee teachers found support from peers invaluable in their success in developing their portfolios. Additional support from cooperating teachers and university supervisors can go a long way in enhancing students' benefits from teaching portfolios.

In light of the above, the purpose of this study was to investigate and analyze business education students' perceptions and attitudes to the portfolio assessment process. Of particular concern were the following research questions:

(1) How adequately were students prepared for portfolio assessment?
(2) What role(s) did practicum supervisors play in portfolio development and assessment?
(3) To what extent do teaching portfolios enhance the development of competent and reflective teachers?
(4) How do students rate the user's friendliness and effectiveness of portfolio assessment?

Methodology

An indicative small sample case study design was used, because it provided the opportunity to investigate the complex interactions of a faculty-wide portfolio assessment process and participants' perceptions of what they learned through that process in the context of reform efforts under implementation (Ellsworth, 2002). The case was defined as one Bachelor of Education class where students and their lecturers were engaged individually and collectively in a teaching practice portfolio assessment process and where the effects of that process on in-service student teachers could be studied.

The participants were 11 bachelors of education (business) students (S1, S2, S3 … and S11) who had just completed seven weeks of teaching practice. They participated in the study by virtue of their willingness to take part in it. The students were also chosen because they met the criteria required for a purposive sample (Wiersma, 2000), including: (1) They are in-service student teachers; and (2) They have been on teaching practice before and were supervised using the conventional approaches. Because of this, they would be most helpful to answer the basic research questions and fit the basic purpose of the study.

Data were collected using questionnaires, interviews and document analysis. A 17-item questionnaire adapted from Azam and Igbal (2006) was used to elicit information on student teachers' views and perceptions on portfolio preparation and assessment on their professional development. Data collected using questionnaires were complemented with data from structured interviews with the student teachers and the analysis of supervision reports in selected students' teaching portfolios. The use of triangulation or multiple data collection methods was a way of enhancing the credibility of data collected (Babbie & Mouton, 2006), in order to have a complete picture of the views and perceptions of students on portfolio assessment.

Limitations of the Study

There are limitations inherent in this study. Due to budgetary constraints, the study was confined to the third-year business education students to whom the researcher had easy and direct access. As a result, a sample of only 11 was used in the study which might not have been "big enough" to produce results that are statistically significant, since it is common knowledge that all things being equal, larger sample sizes produce better and more accurate estimates about populations (Osborne & Costello, 2004). It should, however, be remembered that the validity, meaningfulness and insights generated from qualitative inquiry have more to do with the information-richness of the cases selected and the observational/analytical capabilities of the researcher with sample size (Mugo, 1998).

Results and Discussion

All 11 respondents were in-service Bachelor of Education (Business) students who had just completed teaching practice in the preceding semester and holders of the DSE (Diploma in Secondary Education) and had done teaching practice before, but then, they were supervised and assessed using the traditional approach involving the use of conventional lesson observations. All of them were well-experienced teachers with teaching experience ranging from five to nine years. It is assumed that the responses that the in-service trainee teachers gave relating to portfolio assessment of teaching practice were a result of their experience(s) as teachers and trainee teachers at diploma level and now.

The questionnaire administered to students was designed to elicit information about experiences in developing teaching portfolios, views on developing portfolios and the extent to which portfolio development encouraged them to reflect on their knowledge, skills and classroom practices. Respondents' views on teaching portfolio generation, portfolio evidence-gathering and the nature of professional learning received are summarized in Table 1.

Table 1

Respondents' Views and Perceptions on Portfolio Assessment, n = 11

Statement	Agree		Not sure		Disagree	
	n	*%*	*n*	*%*	*n*	*%*
I knew I would need to generate a teaching portfolio, but I did not know what should go into it.	7	64	2	18	2	18
I had an in-depth understanding of the portfolio evidence-gathering process.	1	9	9	82	1	9
Building a portfolio was a useful and valuable learning experience which enhanced my creativity, reflective practice, continuous professional growth and increased interest in teaching practice.	9	82	2	18	1	9
Generating a portfolio was time-consuming and the amount of paperwork required to generate the portfolio was excessive.	8	73	2	18	1	9
The experience of building a portfolio helped me to organize and monitor my continuing professional development.	9	82	2	18	0	0
Building a portfolio helped me to apply pedagogical theories in the classroom.	7	64	3	27	1	9
Different supervisors were consistent in assessing my evidence.	2	18	6	55	3	27
My portfolio only measured my ability to write about my teaching, not my teaching itself.	6	55	1	9	4	36
Teaching practice should continue to be assessed on the generation of a portfolio.	6	55	4	36	1	9
Assessment of teaching competence needs to focus more on practical skills and less on paperwork.	10	91	1	0	0	0
Portfolio assessment is better than the traditional way of assessing teaching practice.	6	55	4	36	1	9

Students' Knowledge of Portfolio Development

Participants in this study had no prior experiences with using portfolios as tools of reflective practice. The lack of adequate orientation on portfolio development on the part of students has been cited as one of the problems hindering the effectiveness of using portfolios during teaching practice. Quantitative data in this study revealed that seven (64%) of the student teachers agreed that they knew that they would need to generate teaching portfolios while on teaching practice, they did not know what should go into it. This sentiment seemed to be confirmed by a follow-up item, in which nine (82%) of the respondents were not sure if they had an in-depth understanding of the portfolio evidence-gathering process prior to going on teaching practice. Responses from interviews also indicated that student teachers had not received adequate training on the use of portfolios in the practicum:

> S2: Intensive orientation should be conducted before students go for TP (teaching practice).

> S3: Student teachers need to be orientated more on how to make portfolios before they go on teaching practice.

> S10: All the stakeholders must be orientated on the portfolio preparation and assessment, as they need to be well-versed with the information before assessing.

It is evident that a big obstacle or challenge revealed by both the quantitative and qualitative data as inhibiting the use of portfolios during teaching practice was the inadequate training on portfolio development that the students received in their methods courses before going out on teaching practice.

Portfolios and Professional Growth

It is argued that portfolios can enhance and make teaching practice more tangible and permanent for novice teachers. Doolittle (1994) argued that the use of portfolios in teacher education programs could help student teachers to track their progress and professional development. Moreover, the use of portfolios increases reflection and provides an ongoing record of a teacher's growth. Data from this study suggested that student teachers believed that developing portfolios for assessing student teaching was an effective way of recording their learning and professional growth during teaching practice. At total of nine (82%) of the respondents agreed that building a portfolio was a useful and valuable learning experience which enhanced their creativity, reflective practices and continuous professional growth. Responses to an interview item on whether student teachers thought that portfolio development was an effective way to document student teachers' professional growth brought the following responses:

> S6: Building portfolios is very important to teaching because it brings innovation to teaching.

> S8: Yes, because it will have a record of what the student teacher has been doing in class, his/her lesson plans and the way he/she delivered in class.

> S9: Yes, it will help as a reference and it will help the teacher to assess and evaluate the work she has done.

> S10: Developing a teaching portfolio was new to me, but I really enjoyed it. I could really see that I was growing professionally and the evidence was there for all to see. All my assessors liked my work.

These findings seem to confirm those of Azam and Igbal (2006) who carried out a similar study at the University of Punjab and came to the conclusion that overall student teachers found process of developing portfolio very productive and that it enhanced their reflective practice, continuous professional growth and increased interest in teaching practice.

Supervisory Practices of University Lecturers

A concern with portfolio assessment is the subjectivity in the evaluation of the portfolio. Shulman (1988) was of the opinion that portfolios are difficult to score and vulnerable to misrepresentation. But in ways that no other assessment can, portfolios provide a connection to the contexts and personal histories that characterize real teaching and make it possible to document the unfolding of both teaching and learning over time (Shulman, 1988). Doolittle (1994) went further to say that the reasons why caution should be exercised with portfolio scores include the subjectivity involved in evaluating them, the variability in contents and construction of portfolios and the lack of consensus on what a teacher should know and be able to do.

Six (55%) of respondents in this study were not sure if different supervisors were consistent in assessing the evidence in their portfolios. In interviews conducted, students held different views on whether university supervisors were consistent or not in the manner in which they assessed portfolios:

> S3: No, they were not sure of some things, if they are to be written or practically done (sic).

> S4: No, they were contradicting themselves and at one point one had to agree in front of the (school-based) mentor that she had contradicted the previous lecturer.

> S6: They were consistent and they all gave me good and constructive advice.

> S7: They were very consistent in the way they assessed and they were very helpful, giving profitable and great advice.

> S8: Yes, I would say because their comments on my portfolio and teaching were almost similar all the time.

> S10: They differed and it appeared as if most of the stuff on portfolio assessment was new to them.

An analysis of teaching practice supervision reports by university supervisors' reports filed in students' portfolios did not show any significant differences in their supervisory practices:

> University lecturer 1: Portfolio—organized and up to date.

> University lecturer 2: Portfolio—organized very well and up to date with specific and clear labeling.

> University lecturer 3: Teaching portfolio is taking shape. Portfolio and purpose of portfolio are well-articulated. Portfolio artifacts are quite impressive.

> University lecturer 4: Teaching philosophy, expectations and purpose of portfolio are needed. Reflective journal entries must be made and filed. File artifacts of portfolio as per contents of the teaching portfolio Handout.

> University lecturer 5: Teaching philosophy must be clear and must touch on your values, beliefs, teaching metaphor, methodology and assessment. Purpose of portfolio is not detailed enough. Make reflective journal entries at least once a week.

Analysis of available documents suggests that university supervisors were consistent in their assessment of portfolios. If there were any points of departure, these could have been aired during post-observation conferences between students and university supervisors and were not captured in this study.

Supervisory Practices of School-Based Cooperating Teachers

While on teaching practice, student teachers are assigned at least one educator within the school who is expected to offer assistance and advice, observe and report on students' performance, guide in the collection of evidence and review of the portfolio prior to submission for assessment. Although school-based mentors were familiarized with teaching portfolio assessment rubrics to be used and their significance in the student teaching

experience, the available data indicated that the orientation they received might not have been adequate. When asked on whether school-based mentors were well-versed in portfolio assessment, responses from mentees indicated that they received little or no guidance from their school supervisors:

S3: No, they were confused by the whole process as if they were not well versed in it.

S4: No, they were used to the old system and complained that the new system was cumbersome and not clear.

S7: School-based supervisors were lost. They failed to assess us and did not meet our expectations.

S8: Not at all. They did not know what to do with the portfolio. They wanted to do their assessment the traditional way.

S9: They were complaining of the increased amount of paperwork that was involved in portfolio assessment. They did not like it.

A perusal through supervision reports by school mentors could not corroborate nor dismiss mentees' sentiments. School mentors in most cases wrote detailed reports on mentees' teaching and classroom management, but in all reports that were scrutinized, not a single mentor alluded to or made comments on teaching portfolios. One may assume that this was because they were not very sure of how to assess the portfolio and its contents.

Problems Related to the Development of Portfolios

One criticism leveled against the use of portfolios in teaching is that their development is cumbersome, labour-intensive, time-consuming and expensive (Costantino & De Lorenzo, 2009). Respondents in this study shared the same sentiment. Eight (73%) of the students were of the view that generating a portfolio was time-consuming and the amount of paperwork required to generate the portfolio was excessive. Furthermore, teaching portfolios have also been criticized for being able to only measure students' ability to write about their teaching but not the teaching itself. From the quantitative data, six (55%) of the respondents agreed that portfolios only measured their ability to write about their teaching, but not their teaching itself while four (36%) disagreed. This view was reinforced by ten (91%) of the respondents who felt that the assessment of teaching competence needed to focus more on practical skills and less on paperwork inherent in portfolio development. Some of the students had this to say:

S2: I think the portfolio paperwork should be reduced.

S7: A lot of items need to be scaled down, for example, community involvement is too ambiguous. Some items need to be scrapped off because I did not see their importance.

S9: I think portfolio assessment is good if the paperwork could be reduced and more assessment is done in the classroom. Teaching in the classroom is what we trained to do and not to do secretarial work!

S11: Less time must be spent on building a portfolio, but on developing me as a teacher. Or teach more about the portfolios before expecting students to do it (sic).

If portfolio development is cumbersome, labour-intensive, time-consuming and expensive, one then may ask: Why should the development of teaching portfolios is encouraged, since it is a burden that consumes an excessive amount of student teachers' time? Wiggins (2004) argued that portfolio assessment is authentic assessment and has the advantage of providing assessors with directly observable products and understandable evidence concerning their students' performance. He went further to argue that, to improve student

performance, we must not allow intellectual abilities to fall through the cracks of conventional assessment.

Portfolio Assessment Versus Traditional Assessment

Overall, students found portfolio assessment to be productive and most students seemed to prefer it to traditional assessment of teaching practice. Quantitative data revealed that six (55%) of the students were of the view that portfolio assessment is better than the traditional way of assessing teaching practice, four (36%) were not sure while only one (9%) disagreed. Most interview responses were supportive of portfolio assessment:

> S1: Yes, portfolio assessment is more effective because it helps you to develop your teaching both ways, which is, documentation of teaching plans and the actual classroom teaching.

> S6: It is more effective because it demands the marrying of theory with practice. What we learnt in methods classes becomes useful in developing portfolios.

> S7: Portfolio brings evidence of work done during TP which makes it more effective than the traditional approach.

> S8: Yes, because of the traditional way, sometimes, lecturers would give marks which were not tallying with their comments and it was kind of subjective. With portfolios all evidence is available for all to see.

> S9: I think paperwork should be reduced in portfolio assessment. Because of this, I prefer that the traditional approach be used or maybe a combination of both should be used.

As already mentioned, all 11 respondents are in-service teachers and hold DSE. They did teaching practice and were assessed through the traditional classroom observation before. Their responses, based on their personal experiences, showed that they had a strong preference of portfolio to traditional assessment. The fact that portfolio assessment is evidence-based seemed to appeal favorably to most of them.

Conclusions

Results from this study seemed to validate the assertion that teaching portfolios in teacher education are perhaps the most effective tool for the professional development of trainee teachers, because they afford them an opportunity to document and describe their teaching, articulate their professional knowledge and reflect on what, how and why they teach. The findings of this study suggested that trainee teachers found the developing of portfolios during teaching practice to be beneficial in many ways: (1) Portfolios provided tangible evidence of their student teaching experience and professional competence; (2) Portfolios enabled them to monitor their teaching practice experience and their teaching performance; (3) Unlike the traditional approach to assessing, teaching practice portfolio assessment is evidence-based and the development of teaching skills could be explicitly monitored; and (4) Developing portfolios helped student teachers' development into reflective practitioners, because completing reflective journals encouraged them to always look at ways to improve and do things differently.

The main problems identified in using portfolios during teaching practice were that they were labour-intensive and time-consuming for students and that there was need to focus more on practical teaching skills and less on paperwork. Also, students did not seem to have received adequate orientation on this new form of assessing teaching practice. Another problem was that there appeared to have been inadequate orientation of supervisors on the use of the rubrics of portfolio assessment, which seemed to be more pronounced with school-based supervisors. There is need to familiarize student teachers with the contents of portfolios as a part of their methods courses and provide them with relevant practice before they go on teaching

practice in future. University and school-based supervisors must also be familiarized with the assessment rubrics to be used and their significance in the student teaching experience.

References

Azam, S., & Igbal, H. M. (2006). Use of portfolios for assessing practice teaching of prospective science teachers. *The AARE 2006 International Education Research Conference*. Adelaide, Australia.

Babbie, E., & Mouton, J. (2006). *The practice of social research*. Oxford: Oxford University Press.

Borko, H., Michalec, P., Timmons, M., & Siddle, J. (1997). Student teaching portfolios: A tool for promoting reflective practice. *Journal of Teacher Education, 48*(5), 345-357.

Campbell, A., & Kane, B. (1998). *School-based teacher education: Telling tales from a fictional primary school*. London: David Fulton Publishers.

Chikunda, C. (2008). Inconsistencies within attachment teaching practice in Zimbabwe: Call for a participatory model. *Mentoring & Tutoring: Partnership in Learning, 16*(2), 141-146.

Costantino, P. M., & De Lorenzo, M. N. (2009). *Developing a professional teaching portfolio: A guide for success* (3rd ed.). Upper Saddle River, N. J.: Pearson.

Doolittle, P. (1994). Teacher portfolio assessment. *Practical Assessment, Research & Evaluation*, *4*(1). Retrieved November 19, 2010, from http://PAREonline.net/getvn.asp?v=4&n=1

Ellsworth, J. Z. (2002). Using student portfolios to increase reflective practice among elementary teachers. *Journal of Teacher Education, 53*(4), 342-355.

Hopfer, L. J. (1999). *Portfolio assessment as summative documentation in a teacher preparation program*. University of Tennessee-Knoxville. Retrieved November, 12, 2010, from http://www.eric.ed.gov/PDFS/ED435754.pdf

Kasanda, C. D. (1995). Teaching practice at the University of Namibia: Views from student teachers. *Zimbabwe Journal of Educational Research, 7*(1), 57-68.

Kocoglu, Z. (2008). Turkish EFL student teachers' perceptions on the role of electronic portfolios in their professional development. *The Turkish Online Journal of Educational Technology, 7*(3). Retrieved July 14, 2010 from http://www.tojet.net/articles/738.pdf

Marais, P., & Meier, C. (2004). Hear our voices: Student teacher's experience during practical teaching. *Africa Education Review, 1*(2), 220-233.

Mugo, F. W. (1998). *Sampling in research*. Retrieved November 15, 2010, from http://www.socialresearchmethods.net/tutorial/Mugo/tutorial.htm

Osborne, J. W., & Costello, A. B. (2004). Sample size and subject to item ratio in principal components analysis. *Practical Assessment, Research & Evaluation, 9*(11). Retrieved November 12, 2010 from http://pareonline.net/getvn.asp?v=9&n=11

Shulman, L. S. (1988). Teaching alone, learning together: Needed agenda for the new reforms. In T. J. Sergiovanni, & J. H. Moore (Eds.), *Schooling for tomorrow: Directing reforms to issues that count*. Boston: Allyn & Bacon.

Simon, M., & Forgette-Giroux, R. (2000). Impact of a content selection framework on portfolio assessment at the classroom level. *Assessment in Education, 7*(1), 83-101.

University of Botswana. (2007). *Teaching practice handbook 2007/2008*. Gaborone: University of Botswana.

University of Botswana. (2008). *Teaching practice regulations*. Retrieved July 13, 2010 from http://www.ub.bw/ learning _faculties.cfm?pid=932

University of Botswana. (2009). *Interim practicum paper: A concept paper*. Faculty of Education, University of Botswana.

Wiersma, W. (2000). *Research methods in education: An introduction* (7th ed.). Boston: Allyn Bacon.

Wiggins, G. (2004). *The case for authentic assessment*: *Education oasis*. Retrieved November 19, 2010, from http://www.educationoasis.com/resources/Articles/case_authentic_assessment.htm

Xu, Y. (2004). Teacher portfolios: An effective way to assess teacher performance and enhance learning. *Childhood Education, 80*(4), 198. Retrieved November 12, 2010, from http://www.thefreelibrary.com/Teacher+portfolios%3A+an+effective +way+to+assess+teacher+performance...-a0116223366

Zubizarreta, J. (1994). Teaching portfolios and the beginning teacher. *Phi Delta Kappan, 76,* 323-326. Retrieved July 14, 2010, from http://www.questia.com/googleScholar.qst?docId=5000292955