Louisiana State University of Alexandria Teacher's Preparation Program: Using Reflective Writing as a Way of Preparing Teacher Candidates

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Abstract

The purpose of this study is to analyze teacher candidates, at Louisiana State University of Alexandria, reflective writing, and its impact on future teaching opportunities of the teacher candidates. The results of this study have challenged the LSUA education professors to provide specific feedback to teacher candidates across all programs on the opportunities on how reflective writing can impact their teaching practice. Requiring teacher candidates to use reflection as an analysis has become an impact tool to guide the development of teaching and learning for all students.

The birth of reflection in practice began with John Dewey's teachings. Dewey espoused that reflective thinking is a tool to create meaning and order from complexity (Jorrgenson, 2015). Jorgensen summarized Deweyan reflective process by revealing that reflection was the foundation of developing one's self-efficacy in their practice through a critical analyzation of one's practice through a lens of critical thinking, self-efficacy, and problem solving.

The LSUA education faculty set goals for achieving quality reflective writing in order to impact the teacher candidate's ability to differentiate a lesson, promote a greater understanding of adapting lessons to fit the interests of their students, develop a stronger understanding of questioning, and to instill the importance of research. The teacher candidates have had a positive response to reflective writing. The recommendations following the review of data focused on the professor's quality feedback on the reflective writing and interrater reliability of the scorers. The recommendations for the teacher candidates were to focus on guiding questions that scaffold the reflection into a reflective narrative rather than bullet points and using the reflection to drive instruction.

Keywords: Reflection, Teaching, Rubric, Impact and Analysis

Introduction

Reflection is a key learning concept where new knowledge is developed by casting out our existing schema and replacing it with a challenge of questioning existing knowledge. (Maddux and Donnet, 2018)

Teacher reflection is engagement that encourages the growth of a teacher into a reflective teacher and a practitioner. It is a concept that is being used in many professions, such as teaching, business, and in the medical field. The birth of reflection in practice began with John Dewey's teachings. Dewey espoused that reflective thinking is a tool to create meaning and order from complexity (Jorrgenson, 2015). Jorgensen summarized Deweyan reflective process by revealing that reflection was the foundation of developing one's self-efficacy in their practice through a critical analyzation of one's practice through a lens of critical thinking, self-efficacy, and problem solving. Moreover, Dewey challenged educators to take a journey into different theoretical concepts, pragmatic thought, and critical thinking. Reflection is important for pre-service teachers because reflection involves problem recognition research on possible solutions and the use of current ideas to ensure best practices are followed (Willover, 1992). Willover goes on to summarize that reflection is a process that creates growth and moreover, a method that encourages growth by reconstructing the problem into a solution.

Reflective journaling is widely used in teacher training and other university disciplines (O'Connell, Dyment, & Smith, 2015).Although this practice is highly recommended, Spiker (2014) has cautioned that students do not always have positive views regarding reflection. As stated by Spiker, (2014) "students tend to view journaling with dread and see their journal as busy work" (p.9). Moreover, Spiker's research suggests that pre-service teachers may procrastinate journal writing to the point that entries are fabricated and are view just as a method of filling in space. Spiker also indicated in a study preservice teacher attitude, many students did view journaling as a personal experience and did see the value of reflection in improving their teaching (Spiker, 2014).

The key concept of reflection for pre-service teachers is an act of self-examination of beliefs, values, experiences, and assumptions of their role in teaching (Minot,). When teachers reflect on their practice, they become more confident in solving complex issues that arise in their classroom (Tajik and Pakzad, 2016). For example, sharing journals is an effective way of improving instruction and when teachers shared their journals, reflective writing becomes more beneficial to the process of improving student achievement (Lowe, Prout, and Murcia).Reflective journaling is connected to the development of teacher beliefs, empowerment, learning, and thinking (Minot,___)

Reflective writing has many advantages to pre-service teachers. When incorporated into their curriculum, it provides differentiation for learners at different levels, promotes a clear advantage to teacher training in areas of professional development, classroom management, increases self-efficacy, and being able to conceptualize constructive feedback. Hughes, Kanevsky and Kooy (1997) revealed that reflective writing by pre-service teachers improved lesson plan development and a strong understanding of observation feedback.

Aybek and Aslan (2019) concurred that a pre-service teacher's ability to become a good teacher was highly correlated to their level of self-efficacy, academic preparation, and their high quality of disposition. In a study of the effect of emotional intelligence of 212 preservice teachers, teachers discovered that the level of emotional intelligence positively impacted the development of their self-efficacy and their approach in effectively handling the stress that goes with teaching (Sahin, 2016). Moreover, John Dewey's research supported Sahin's findings that pre-service teachers high in self-efficacy, would formulate alternative solutions and that would increase their agency for reasonable choices where teaching and student success was concerned (Dewey 1922 as stated in Willover, 1992). Moreover, Sahin found other factors such as well-being, and sociability, predicated self-efficacy in pre-service teachers.

Interestingly, Hathorn and Dillon's study on teacher professional development and action research, kindergarten teachers showed that reflection in their practice increased their capacity for selecting and analyzing areas for improvement. In this study teacher reflection impacted the amount of collaboration on the staff and to take more risk to try different teaching strategies (Hathorn & Dillon, 2017). Tajik and Pakzad concurred that by designing a reflective teacher education course, found that their reflective

teachers became aware of issues in the classroom and became effective in finding solutions to these issues. Tajik and Pakzad accentuated that reflective writing by pre-service teachers seeded the beginnings of strong self-efficacy beliefs and that there was a strong correlation between self-efficacy beliefs and critical thinking. Moreover, reflection moves the teacher candidate to critically think about alternative solution methodologies that may not be conducive to good teaching practice (Ordas, 2019). To counter these difficulties, pre-service teachers must take on the role of a self-learner by critically analyzing their ability to write quality lesson plans, develop instructional pedagogies that engage students in learning, write strong measurable objectives, and develop strategies that accelerates student learning.

Canasoy and Turkoglu (2017) examined the relationships between pre-service teachers critical thinking skills, problem solving, and self-efficacy study found that where pre-service teachers scored strong in self-efficacy and critical thinking dispositions, were more competent in finding solutions to complex issues in the classroom and as a whole were more interested in being involved in solving school wide critical issues where instruction, classroom management were at the forefront of school wide improvement. Moreover, their study emphasizes the correlation of low and high self-efficacy in pre-service teachers as far as competence in their field. Moreover, Lau and Chan (2011) argued that critical thinking helps students to think across boundaries, helps students use knowledge to solve critical issues, 3) critical thinking encourages language and presentation skills and 4) critical thinking enhances creativity which plays a key role in developing and evaluating new ideas and concepts.

O'Connel, Dyment, and Smith (2015) found that creativity was a very important aspect in students to be critical thinkers. Their research focus was on the pre-service teachers would embrace creative and critical thinking into their journaling. They found through content analysis of 42 journals that 65% of the teacher had low levels of creativity in their writings and that 36% had mid to high levels of creativity in their journal.

A major issue in teacher reflection is that lack of knowledge in teaching methodology which would promote weak reflective writing practices. Toman (2017) found that when reflective writing of pre-service teachers was examined, found that general made statements concerning making targets effectively. For example, one teacher acknowledged that lesson targets were not met but failed to critically analyze why that they were not reached. Teacher preparation programs would best serve their candidates by starting reflective writing as early as possible and carry it throughout the program. Moreover, for effective reflective writing, teaching experiences need to be transferred into knowledge, and problems must be solvedthrough a systematic thought process of critical thinking, problem solving, and a strong theoretical understanding (Toman, 2017).

Purpose of the Study

The purpose of this study is to take a critical look at teacher candidates' reflective writing in the LSUA Teacher Education Preparation Program and identify the areas of reinforcement and refinement to support the further development of teaching practice of teacher candidates. Teacher candidates reflect following each formative observation. Reflective writing is a requirement for all teacher candidates at LSUA. However, there is a discrepancy in how well this practice is carried out by the teacher candidates and how each professor follows-up. We identified the following questions to be researched:

1. Do teacher candidates describe in detail the lesson and issues that occurred within the lesson?
2. Do teacher candidates interpret the lesson including student engagement?
3. Does the TC test their analysis against one or more sources?
4. Does the TC, based on analysis of experience, outline a plan for their learning needs or change their practice?
5. Does the TC show clarity and organization in their writing?

Four levels of pre-service reflective feedback data were gathered from students entering the education preparation program. Pre-service teachers in the education program are identified as teacher candidates. The first semester teacher candidates (Block 1), 2nd semester teacher candidates (Block 2), 3rdsemester

teacher candidates (Resident 1) and 4thsemester teacher candidates (Resident 2). Teacher candidates in Blocks 1 and 2 are assigned a mentor in a grade appropriate school and participate in field experience two full days each week of the semester. These teacher candidates will be formally observed a minimum of four times per semester. Resident 1 and 2 teacher candidates are in a clinical setting 5 days per week and will observe four times per semester. Teacher candidates entering the teacher preparation program will have to observe 30 hours in a public school and will only teach one 20-minute lesson. Quantitative data will be collected based on a reflective writing rubric. Teacher candidates will write their reflections following the observations. LSUA professors will then score the writing using the rubric. Professors will then provide feedback on both the observation and the reflective writing.

Teacher candidates in a central Louisiana four-year university taking undergraduate courses for a diploma in education were asked to reflect on both their planning and teaching As part of the teacher preparation courses and to facilitate the study, teacher candidates were asked to write a detailed reflection of each observation during a term. The observation includes planning, pre-conference, implementation, feedback and self-evaluation. The reflection should have included their description of the observation in detail, feedback from observer, and what they learnt from the observation. Three essential questions were answered: What worked? What needed help? What would I change before next time?

Design of Research

In this study, reflective writing was graded for accuracy and depth of each guiding question. Teacher Candidates reflective writing will be analyzed to what extent that reflective writing has improved their teaching skills. The collection of four levels of pre-service reflective and feedback data from students entering the teacher prep program, first semester teacher candidate (Block 1), 2nd semester teacher candidate (Block 2), 3rd semester teacher candidates (Resident 1) and 4thsemester teacher candidates (Resident 2). Teacher candidates in Blocks 1 and 2 are in schools two full days per week and will be observed three to four times in a semester. Resident 1 and 2 teacher candidates are in a clinical setting five days per week and will observed four times. Teacher entering the teacher preparation program will have to observe 30 hours in a public school and will only have to teach one 20-minute lesson. Qualitative data will be collected from reflective writing by the teacher candidates and feedback given to the pre-service teacher by their university supervisor and their school-based mentor teacher.

Data Collection

As part of the teacher preparation courses and to facilitate the study, teacher candidates were asked to write detailed reflections of each formal observation during a term. The observations include planning, pre-conference, implementation, feedback, and self-evaluation. The reflection should include their description of the observation in detail, what worked and what did not, what they learnt from the observation and how they would adjust their teaching for the next lesson. Three essential questions were answered: What worked? What needed help? What would I change before next time?

Discussion

The purpose of this study was to review teacher candidate's reflective writing for impact on their teaching practice. Teacher candidates are asked to reflect after each formal observation. Reflective writing is designed to support teacher candidates in recognizing reinforcement areas and refinement areas of lessons. The areas identified by the teacher candidate, support their planning of the next lesson.

The reflections were measured by a rubric adapted with permission from the University of Alberta Health Sciences Council. The rubric measures five areas of reflection on a 3-point scale. The five areas are:

1. What? (description) Briefly describe the lesson and any issues or situations that occurred.
2. So What? (impact) Interpret the lesson including activities, student engagement and the impact of the lesson.
3. So What? (analysis) Test analysis against one or more sources.

4. Now What? (plan)Based on analysis of the experience, outline a plan for learning needs or changes to practice.
5. Clarity & Organization of writing. Clearly and logically convey ideas.

The teacher candidate's reflections were scored using the rubric. The five criteria are measured on a three-point scale ranging from zero to two. Zero is an absence of information and a two provides a clear, relevant, interpretation and analysis of information.

The LSUA education preparation program wanted to identify areas of reinforcement and areas of refinement based on current practice. The teacher candidates were provided the requirements for writing reflections but were not given a rubric to follow. Scorers were asked to blind score 18 randomly selected reflective writings against the rubric across programs. Five scorers read and scored the 18 reflections using the rubric. The following results are the mean average for each teacher candidates' reflections in the five areas.

Using the mean of each area, we identified three areas of reinforcement. The three areas with the highest scores were Clarity and Organization (1.36/2), Now What (1.34/2) and What (132/2). The areas of refinement are Impact and Analysis. The data shows the lowest areas were Impact (1.10/2) and Analysis (.68/2).

Discussion

Describe in detail the lesson and issues that occurred within the lesson?

In the Impact portion of the survey, student 3 scored low on reflective writing and student 17 was considered high in the impact portion of the rubric. Student 3 had a mean average from all scorers of .80 and the mean average taken from the sample of students is 1.1. The difference in mean average of the scorers on student 3 and the mean average of the sample is .30. The scores scored student 3 with 1 score of 2, 2 scores of 0, and 2 scores of 1.

Research question 2: Does the teacher candidate interpret the lesson including student engagement.

The mean average score of all graders in the impact part of the survey was a 1 as compared to the mean average score of the sample of students (n=18) was a 1.32. The difference from the scorers mean and the mean of all students was a -.32. Student 2 received 3 scores of 1, 1 score of 0, and interestingly received1 score of 2.In the purposive sample of high and low student's reflection, student 2 scored low because the journal entry lacked detail.

Research question 3: Does TC test their analysis against one or more sources?
The students that were chosen from the purposive sampling were S7 ( ) and S11 p(   ). S7 had a mean score from all of the graders was .40. In comparing S7 to the mean average of all of the students sampled was .68. The difference in mean scores from all of the graders and mean average from the sample group was .28. S7 received a score of 3 zeros and 2 scores of one. In analyzing data, S7 scored low enough where very little of the data was analyzed by the TC. S7 failed to identify sources used to support the impact of the lesson. Moreover, S7 failed to identify how feedback will be used to improve.

Research question 4: Does the TC, based on analysis of experience, outline a plan for their learning needs or change their practice?
Although guiding questions for the students were given on the reflection rubric, scores indicated that our students are proficient in all areas of the reflective rubric except in analysis of data.

Research question 5: Does TC show clarity and organization in their writing?
When analyzing the results of all 5 graders, it was determined from the mean average of 1.36 on a 2-point scale that our Teacher Candidate's clarity in writing was above average. The highest score on reflective writing was a perfect score of 2 and the lowest was a mean average of .8.

Discussion

The LSUA education faculty set goals for achieving quality reflective writing in order to impact the teacher candidate's ability to differentiate a lesson, promote a greater understanding of adapting lessons to fit the interests of their students, develop a stronger understanding of questioning, and to instill the importance of research. The teacher candidates have had a positive response to reflective writing.

The recommendations following the review of data focused on the professor's quality feedback on the reflective writing and interrater reliability of the scorers. The recommendations for the teacher candidates were to focus on guiding questions that scaffold the reflection into a reflective narrative rather than bullet points and using the reflection to drive instruction.

Using the mean of each area, three areas of reinforcement were identified. The three areas with the highest scores were Clarity and Organization (1.36/2), Detail Lesson and Issues (1.34/2) and Interpret the lesson (132/2). The areas of refinement were Impact and Analysis. The data shows the lowest areas were Impact (1.10/2) and Analysis (.68/2).

The addition of the rubric provided guidelines that improved the quality of the reflective writing. The rubric provided a guide for both professors and teacher candidates. Teacher candidates improved in their reflective writing after one semester of implementation.

Conclusion

Just through observation of reflective writing scores, scores the professors in the School of Education found that student with high scores on reflective writing scored highest on their observation marks. Even though a correlation study was not completed, through observation of writing samples and observation scores, our professors could see a significant improvement in teaching quality. As summarized, Canasoy and Turkoglu (2017) examined the relationships between pre-service teachers critical thinking skills, problem solving, and self-efficacy study found that where pre-service teachers scored strong in self-efficacy and critical thinking dispositions, were more competent in finding solutions to complex issues in the classroom and as a whole were more interested in being involved in solving school wide critical issues where instruction, classroom management were at the forefront of school wide improvement. This paper agrees with the positivity of the reflective writing activity supported by the body of research on reflective writing.

Recommendations for Future Studies
1.   A correlation between reflective writing scores and observation scores.
2.   A correlation between cohort observation scores that did not reflective journal and those who did.

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Table 1 Reflection Rubric

How to Write a Reflection (Reflection Guide)		How Reflections Will Be Scored (Rubric)		
Stages of Reflection	**Questions to Guide Your Reflection**	5 criteria, maximum 2 points each, no half points		
		0	**1**	**2**
What? Briefly describe the lesson and any issues or situations that occurred.	• What happened? • What was your role in the lesson (e.g., instructor, facilitator, coach, audience) • How did students, mentor and others in the room contribute to the lesson?	Description is absent.	Description is vague or lacks relevance.	Description is relevant and concise.
So What?(Impact) Interpret the lesson including activities, student engagement and the impact of the lesson.	• How did you feel? What did you think? What did you learn? • What expectations/assumptions did you have? Did you base this on data? If so what data? Were they confirmed? • What were your personal or professional strengths and/or limitations in relation to the lesson? • What other factors, big or small, may have affected the lesson? • How and what data did you use to design differentiated learning experiences and assessments.	Interpretation and impact are absent.	Interpretation and impact are vague or lack depth or relevance	Interpretation and impact demonstrate personal insight.
So What?(Analysis) Test your analysis against one or more sources*.	• Identify a source and use it to support or challenge the **So What (Impact)** section above. • The source is cited using an acceptable format*. • How does/did the information support your lesson or future lessons you may teach?	Sources and analysis are absent.	Sources and analysis are superficial or lack relevance.	Sources are relevant and the analysis demonstrates insight into the event being discussed.
Now What? Based on your analysis of the experience, outline a plan for your learning needs or changes to practice.	• Discuss how this experience will shape your future practice. • Comment on what you might still need to learn, and how you would go about learning it. • Is anything still unclear? How might you deal with anything that's still unclear?	Implications for future action not identified.	Planning for future action is incomplete, vague, or not feasible.	Planning for future action is clear, specific, and realistic.
Clarity & Organization of writing. Note: 1 point will be deducted for papers that do not follow the required format (e.g., file type, line spacing, word count etc....).		Writing is disorganized and difficult to interpret.	Writing shows some organization.	Ideas clearly and logically conveyed.

Table 2 Students Mean Scores

	Rubric Scores	What	Impact	Analysis	Now What	Clarity and Organization or Writing
	1	1.4	1.4	1	1.6	1.6
	2	1	0.8	0.4	1	1.2
	3	1.4	0.8	0.6	1.4	1.2
	4	1.2	1.2	0.6	1.2	0.8
	5	1.2	0.8	0.6	1.2	1.4
	6	1	0.8	0.6	1.2	1.4
	7	1.2	1	0.4	1	1.2
Individual mean of students for all scorers	8	1.4	1	0.6	1.4	1.6
	9	1.4	1.2	0.6	1.2	1.4
	10	1.2	0.8	0.4	1.2	1.2
	11	1.8	1.8	1.6	2	2
	12	1.2	1.2	0.6	1.4	1.8
	13	1.8	0.8	0.6	0.6	1.4
	14	1.2	1	0.6	1.4	1.6
	15	1.6	1.2	0.6	1.8	1.4
	16	1.6	1.2	0.8	1.2	0.8
	17	1	1.6	1	1.8	1.4
	18	1.2	1.2	0.6	1.6	1
	Mean	1.32	1.10	0.68	1.34	1.36
	standard deviation of students	0.241650702	0.284800125	0.275994274	0.325272915	0.3022549