

Independent Study as Action Research –Learning from Experience

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Abstract

An independent study provides one of the most important opportunities for teacher candidates to pursue a topic of personal interest. But how can candidates become actively engaged in an independent study that is a required course? In this action research I investigated how to conduct an independent study framed as action research for three seniors who needed to successfully complete the course to graduate. A four step process was used: identify an area of focus; collect data; analyze and interpret data; develop an action plan. I concluded that an independent study could effectively be conducted as action research.

Introduction

For students with well defined goals and motivation, an independent study course can be an opportunity to pursue a topic of personal interest. But how can candidates become actively engaged in an independent study that is a *required* course?

Three teacher candidates in their final semester before graduation needed to complete a required course that was not available to them because of a scheduling conflict. The course — Reading in the Content Area – was offered during the day when two of these students (Ayla and Roslyn) were student teaching and the third student (Laurie) was taking a required biology course. I advised the students to present their dilemma to the Chair of the Department. The Chair informed the students they could take this course with me as an independent study.

My first reaction was positive. I taught these students in other semesters. They were serious students focused on becoming secondary educators in their respective fields. I also taught the course several times and, based on course and teacher evaluations, it was one of the courses students generally found enjoyable and practical. I was scheduled to teach the course as a traditional lecture course. Now I would simultaneously teach the course as an independent study. Both the traditional and independent study courses would be full semester courses.

As I thought more about this, I became skeptical about conducting an independent study and my anxiety increased. I had never conducted an independent study. I did not know what constituted an independent study. I did not know my responsibilities in conducting an independent study. Could I just conduct this independent study in the same way I conducted the traditional class? What would I have to do with these students to be sure they met the requirements of the course without being in a traditional setting? How would these students respond to taking an independent study in a course that was required?

At our institution the number of teacher candidates taking independent study courses doubled in the past three years. I reviewed reasons for this increase. A new structured schedule was instituted in the fall 2013 semester. Conflicts in course offerings, as was the case for these three students, necessitated teacher candidates take some of their education courses independently. Other education students were taking independent studies because of small class enrollments. Upon further investigation I found our education department had the greatest number of students taking independent studies for required courses. Other departments in the college offered independent studies, but the description for those courses did not match these circumstances.

Based on the college catalog, an independent study course was generally associated with a student's opportunity to conduct research on a topic of interest. The research was associated with the student's program of study but was not in place of a required course. Typically the student and professor agreed on a topic for research and determined requirements for successfully completing the independent study. This was not the case for the three students. Their independent study course would be more a guided study for a required course rather than the typical independent study.

My problem was how to conduct this independent study that was a required course. The concept of independent study that suggested student choice of a topic contradicted the reality of this required course. Was there a way for me to design this independent study that would give these students an opportunity to pursue a topic of their choice and yet fulfill the expected outcomes of Reading in the Content Area? I needed to build an independent study which offered the same outcomes for all students. I made a decision to design the independent study framed as action research.

Literature Review

An independent study in higher education typically involves a student working one on one with a professor on an agreed topic. The student investigates the topic guided by the professor. This gives the student an opportunity to pursue a topic of interest that may not be offered as a course in the student's program (Moore, 2009).

There are multiple benefits to taking an independent study. Tweed and Boast (2011) in their study of students who took a research module course offered as an option to the traditional research course found this type of independent study attracted students who enjoyed working independently. Students reported this type of course encouraged a deeper level of learning, was more rigorous and time consuming than traditional classes, improved their research, organizational and time management skills, boosted their confidence in researching real world problems within a research environment, and made them more marketable. They noted that challenges they faced included getting started and working without teacher mandated time parameters. They recommended that students who take this form of independent study need clear outcomes for the course as they must adhere to two agendas – that of doing research and fulfilling course requirements. Smith, Goldfine, & Windham (2009) listed similar benefits to self-learning as a result of independent studies include learning how to learn, focusing on process and not just goal, learning time management, passion and curiosity drive learning, internal satisfaction, self-critiquing, and resourcefulness.

While these benefits are not contested, how an independent study is conducted may not always result in independent learning. This was noted at Auburn University when allegations were made that athletes were participating in independent studies to get a jolt in their GPAs (Lipka, 2006). Rose (2011) noted that independent studies are not always regarded in a positive light. In his study he found several reasons for not taking independent studies. Independent studies are not worthy of the tuition that is paid, students often lack needed motivation, students are intimidated to take on a manager role in completing their own assignments without specific due dates, and students are more likely to engage in unethical practices because independent studies are perceived as gimmicks to enable them to graduate on time. He also found that traditional courses more likely equip students with necessary skill sets that independent studies may not develop.

In a study of 110 students enrolled in an optional independent study in a human geography class, Lemanski (2011) found the majority of students did not complete required readings although they reported they chose the course because they perceived the content to be interesting. Students reported one reason for not completing the required readings was the lack of time bound assessments associated with the readings. Students were more likely to complete the readings if they were given an assignment that required them to use the readings.

While the research suggests the academic limitations of independent studies, self-learning is laudable as a result of an independent study. This is particularly the case for teacher candidates who will potentially engage in a career that advocates self-learning. "One of the best learning experiences that an undergraduate can have is to tackle a complex problem or question, one that requires them to do research, guided by an experienced researcher, and think creatively in the face of obstacles and dead ends" Lang (2011).

Action research is an educational form of research that addresses a specific and practical issue and seeks to solve a problem in an educational setting. Unlike most research in education that is conducted by university professors or educational theorists on teachers and educational issues, action research designs are systematic and done by teachers to gather information about an issue to improve their educational setting, teaching, and student learning. "Of all the research designs, action research is the most applied, practical design" (Creswell, 2008, p. 596). Teachers attempt to improve their practice by studying issues or problems they face in their classroom. They reflect on these problems, collect and analyze data, and implement changes based on the findings from their data (Mills, 2014). Prior to entering the classroom, teacher candidates need many learning-by-doing experiences that will prepare them to meet the challenges of teaching.

While standard course and fieldwork elements of traditional preparation programs provide candidates with requisite knowledge and skills, action research can nurture development of the dispositions needed to be an effective teacher in the classroom (Lattimer, 2012). Action research allows candidates to expand their practice. It is crucial that dispositions towards reflective practice and inquiry into practice be supported in the work environment during the induction years, if we hope to link pre-service and in-service teaching. Doing so will ultimately create communities around educational issues focused on positive educational change (Kitchen & Stevens, 2008; Bransford, Darling-Hammond, & LePage, 2005).

Researchers also found that engaging teachers in action research led them to become more reflective, critical, and analytical about their practice and more confident and articulate in explaining what they were doing and why they were doing it. Studies show significant benefits can be derived from engaging candidates in action research as a part of their teacher preparation program. Teacher candidates learn most when they have opportunities to undertake tasks similar to those undertaken by professionals within a discipline (Choi, 2011; Kincheloe, 2003; Rock & Levin, 2002). Involvement in action research in pre-service also enhances teacher candidates' level of engagement in their own learning. When teacher candidates participate more in the classroom, they report a better understanding of course concepts. Without engagement there is little motivation to learn.

While the research presents pros and cons to independent studies, the research strongly supports action research as a viable form of research to study one's practice and make changes to promote student learning. Rose (2011) suggested that in preparing an independent study the professor look at the intended outcomes of the course and consider alternative ways to meet those outcomes.

In this study I undertook the task of finding a way to conduct an independent study that would meet course requirements, engage teacher candidates in the learning process, and give them the opportunity to independently pursue a topic of interest while meeting the requirements of Reading in the Content Area. Using Mill's (2014) Dialectic Action Research Spiral I followed a four step process: 1) identify an area of focus; 2) collect data; 3) analyze and interpret data; and 4) develop an action plan. I decided to design and deliver the independent study course framed as action research.

The Action Research Study

Area of Focus

Reading in the Content Area, a required course for all secondary education majors, was taught in the traditional lecture format for six teacher candidates and as an independent study for three senior teacher candidates who had schedule conflicts. The purpose of the study was to determine the effectiveness of the independent study framed as action research.

The description for the course was the same for both forms of the course: teaching for critical literacy to construct meaning in the content areas through reading and writing of expository text with emphasis placed on methods of evaluating and integrating literacy teaching including vocabulary, comprehension, study skills and writing while assessing individual differences of general and special needs students as a basis for providing appropriate literacy instruction. Teacher candidates in the traditional course met three times a week for a total of 150 minutes. Students in the independent study met face to face once a week for 60 minutes. Both courses were 15 weeks.

Figure 1- Topics for Required Course

Week	Topic
Week 1	Study Skills and Note Taking
Week 2	Standards and High Stakes Testing
Week 3	Inquiry : Key to Critical Thinking
Week 4	Designing Assessments
Week 5	Informal Writing
Week 6	Formal Writing
Week 7	Inquiry Plan presentations
Week 8	Vocabulary
Week 9	Pre Reading Comprehension - Previewing
Week 10	Pre Reading Comprehension –Making Connections
Week 11	During Reading Comprehension– Self-questioning, visualizing
Week 12	During Reading Comprehension –Monitoring/clarifying
Week 13	Post Reading Comprehension
Week 14	Using Technology in the Content Area
Week 15 - Finals	Final Project presentations

Figure 1. Course outline topics for Reading in the Content Area for traditional and independent study courses.

Throughout the semester both groups addressed the same topics (Figure 1), but in week three the traditional group investigated inquiry based learning in content area activities while the independent study group investigated action research as a form of inquiry. Both groups read assigned chapters in the text and topic specific articles. The independent study group also read assigned articles on conducting action research and spent more time in actual classrooms with teachers and students. The traditional group was assigned unit plan development as the major course project and the independent study group was assigned an action research project.

Gathering Data

Data collection was a critical component in this action research. Creswell (2008) suggests “It is probably wise to limit data collection in your first action research study so that you have a manageable amount of information to analyze.” (p. 611). Mills (2014) suggests data collection techniques he describes as the Three Es - experiencing through observation and field notes, enquiring by asking people for information, and examining through using and making records. Because action research is a fluid process in which the researcher spirals back and forth between reflecting on the problem, data collection, action, and back to reflection, the sources of data may expand as the action research unfolds (Mills, 2014). The data collection for this study (Figure 2) included the following:

Figure 2. Data Collection Plan for Independent Studies

Experiencing (through field notes and observations)	Enquiring (when the researcher asks)	Examining (using and making records)
Face to face classes with students in independent study	Pre and post interviews with the 3 independent study students	Field notes
Individual meetings, email, and e-chats with students	Course evaluations	Student assignments Student participation

Figure 2. The three Es for collecting data in action research.

To verify the validity and reliability of the data sources I followed Sagor’s (2000) recommendation for formulating a triangulation matrix for determining the data sources to answer my central question: How effective is an independent study framed as action research in meeting course requirements, engaging teacher candidates in the learning process, and giving them the opportunity to independently pursue a research topic of interest? I used procedural sub-questions to indicate the steps to be used in gathering and analyzing the data.

Figure 3. Data Sources			
Research Sub-Questions	Data Source 1	Data Source 2	Data Source 3
How did the independent study engage teacher candidates?	Student assignments	Class participation	Teacher journal
How did teacher candidates experience independent studies?	Student pre-course interview	Student post-course	Teacher journal
How effective was independent study in meeting course outcomes?	Student action research	Course & teacher evaluation	Teacher journal

Figure 3. Data Sources for verifying research sub-questions.

The major data collection device was the teacher journal. The journal had two purposes: to record my own observations and what participants in this study shared through interviews and to reflect on this data. Journal entries were made at least once a week beginning two months before the course and continuing for several weeks after the course was completed.

The second source of data was teacher candidates' participation and assignments in the independent study. Students' participation in the weekly classes and their assignments provided different perspectives on the development of the independent study course. Without their response, the course would be developed based solely on teacher insight.

The third source of data was pre- and post-course interviews with the teacher candidates in the study. They responded to the following questions: (a) What did you learn through the independent study process? (b) How did the independent study affect your learning experience? (c) What were some challenges of engaging in an independent study as a teacher candidate? (d) Why or why not should independent studies continue to be a part of the education program? (e) What suggestions do you have for improving independent studies?

A final data source was the course evaluations from teacher candidates in both the independent study and traditional class. In this evaluation they shared their own reactions and made suggestions for improving the course. This data contributed to making final revisions to the action plan.

Data Analysis

Several themes emerged from the data: from reliance to independence, skill set development, reflective practice, and community of learners. These themes were noted in interview responses, class participation, student assignments and projects, course evaluation, and reflection on the data.

From Reliance to Independence

Teacher candidates in the independent study began the course with the typical course responses: take notes in class, respond to questions, read assigned readings. When they understood they would be involved in action research, they began to assume more responsibility for their own learning. They shared challenges they experienced with their own students, posed questions for how they could help their students, and made applications of the readings to their own situations. Face to face sessions emerged from teacher initiated and directed discussions to teacher candidate led classes. While in the beginning of the course they waited to be told what would come next, as the course progressed they set their own agenda and calendar for addressing steps in their action research.

Skill Set Development

One concern researchers found with independent studies is that required courses equip students with necessary skill sets, while independent studies may result in students lacking vital skills (Rose, 2011). Assignments and the action research project in the independent study revealed teacher candidates' ability to practice what they were learning in class. In order to plan their action research they needed to assess their students' learning to provide appropriate literacy instruction. The candidates used reading and writing strategies learned in class as they worked with students and teachers in classrooms. They selected strategies they would use in their own action research to improve student learning. Real world connections were evident in their practical application of reading and writing skill development.

In addition to their reading and writing skill development, teacher candidates also reported how they learned and used research, organizational, and time management skills. The three students identified how they assumed responsibility for their own learning and for the learning of the students with whom they worked.

Reflective Practice

The three teacher candidates in the independent study engaged in reflective practice. Their professional experiences in the classroom rather than just formal learning in a course helped them connect theory and practice. They posed questions to each other in the face to face sessions and the following week they would return with possible solutions. They readily shared ideas with each other on how a strategy learned in class could be used in each other's action research project.

Analyzing their own data from their action research project enabled the teacher candidates to see beyond quantitative data. They posed questions, proposed solutions, and challenged each other's thought on particular situations.

In the post-course survey they indicated that reflecting on their own actions and decisions was a result of participating in the independent study. They reported feeling more confident in the decisions they made and believed they had the ability to learn from their own mistakes.

Community of Learners

Studies have shown that working on research with a professor is a highly effective way to increase engagement. Higher levels of engagement promote desirable results such as higher achievement, lower dropout rates, positive self-efficacy, and ultimately life success (Zumbrunn, 2014).

These teacher candidates not only had the opportunity to pursue research of a personal interest with a professor, but also with a community of learners. While independent studies are generally conducted one on one, these students worked with each other in developing their individual research. Class contributions through discussion of readings and assignments as well as individual contributions to each other enlarged their circle of learning.

Teacher candidates also commented in the post-course survey how working closely with other professionals enhanced their learning. Cooperating teachers in the field and their content area college professors shared their own reactions to students' studies. They provided guidance in the development of the action research project.

The teacher candidates described themselves as novice researchers. The experience of being able to make changes in a classroom to promote student learning was one of the benefits they listed for keeping independent studies as part of the education program.

Differences in Independent and Traditional Classes

One advantage with this study was teaching Reading in the Content Area in a traditional class setting while conducting my first independent study. It was impossible not to compare the two classes.

The greatest difference I noted between the two classes was engagement of the course participants. In the traditional class, two of the six teacher candidates had already student taught. Those two brought very different experiences to class discussions as they would reference their student teaching experiences from the previous semester. Although the other four candidates in the traditional class participated in class discussions and activities, their insights were much more theoretical than practical.

With the three candidates in the independent study, there was hardly a pause in their class engagement. Their engagement included sharing insights from their readings, working with cooperating teachers, connecting with other professors and professionals in their content area, and each other. In more than one journal entry I noted that these three students referenced the text and assigned articles to their own research as well as to the research of each other. Comments such as, "Roslyn, this could really work well with your math students." were more often the norm than the exception. During one session, Laurie demonstrated how the sketch and write organizer she was using with her biology students could be applied to Ayla's noun/adjective focus in her Spanish class. These students were not merely studying reading and writing strategies, but were putting concepts into practice. They were using multiple experiences and took their content and pedagogical knowledge in the context of a real classroom with knowledgeable others to try out their ideas in teaching and learning.

Another difference between the two classes was in student assignments. For the final exam I arranged for both classes to come together to share their major course projects.

The traditional group shared their unit plans and the independent study group shared their action research projects. Each student had 15 minutes for presentation and response to questions. While there was a polite response from all students to the unit plans, there was an overwhelming response with questions and comments for the students in the independent study.

In the final discussion of the course after the presentations, eight of the nine students highly recommended that all undergraduates in teacher education be required to take an independent study that included action research.

The final noted differences in the two groups came through the course evaluations. Students are asked to respond to nine statements using a Likert scale response (Table 1).

Because the class sizes were small there were limited differences in the responses, but what was interesting was where the differences occurred. All students in the independent study strongly agreed that the teacher provided adequate opportunity for students to ask questions, that assignments were clearly related to the course objectives, and that the teacher was available for consultation beyond the classroom, while two-thirds of the students in the traditional class strongly agreed with those statements. Two-thirds of students in the independent study class strongly agreed that the teacher provided challenges to stimulate students' thinking, while 100% of the students in the traditional setting strongly agreed with this statement. These differences, while very slight caused me to reflect on students' responses. Within the first four weeks of the 15 week course the major course assignment -- action research project -- although something these three students had never done was already begun. The format of the weekly meeting moved from teacher directed to student directed so that by the sixth and seventh weeks the students initiated and led class discussions, critiqued text readings, and brought to class their own findings related to the topic under discussion which they freely shared with each other. I met only one hour with these students each week, yet their perception was that I was available to them outside of class.

Table 1: Comparison of Independent and Traditional Student Responses to Course and Teacher Evaluation Statements

Statements	Independent Study				Traditional			
	SA	A	D	SD	SA	A	D	SD
1. Course objectives were clearly defined.	67%	33%			100%			
2. Class sessions were clear and well-organized.	67%	33%			67%	33%		
3. The teacher provided challenging questions, problems, or activities to stimulate students' thinking.	67%	33%			100%			
4. The teacher provided adequate opportunity for students to ask questions and express opinions.	100%				67%	33%		
5. Assignments and examinations were clearly related to course objectives.	100%				67%	33%		
6. Course requirements (projects, papers, examinations, etc.) and grading policies were adequately explained in advance.	100%				100%			
7. The teacher was concerned with students' learning and was willing to help students.	100%				100%			
8. The teacher was available for consultations with students outside class.	100%				67%	33%		
9. The required texts were appropriate and integrated with other aspects of the course.	100%				100%			

Note. SA = strongly agree; A = agree; D = disagree; SD = strongly disagree

Learning from Experience - Independent Study as Action Research

The final steps in the action research process are developing and implementing an action plan. An action plan is the formulation of a strategy to address the original problem (Creswell, 2008). My original problem was how to engage these three teacher candidates in an independent study framed as action research to meet the requirements for Reading in the Content Area. The independent study became an opportunity for me to pursue a topic of personal interest -- action research.

In using action research and involving my students in using action research, I discovered independent studies can have components that engage students even when the study is for a required course.

Regular class attendance and participation, putting forth effort into academic tasks, learning and mastery of materials, desire for challenge, using strategies for planning, monitoring and evaluating one's thinking, relating appropriately with others, promoting a sense of connectedness, interest in academic content, and promotion of self-efficacy and confidence in their own academic ability are all reasons that support engagement (Bundick, Quaglia, Corso, & Haywood, 2014). Independent studies address many of these components.

Another key component in this independent study was the students' personal interest in a real life classroom problem which they felt they had power to change. Their identified problems gave them purpose in pursuing this course from the perspective of a teacher and researcher. No longer was this just another course to take, but this course helped them immediately by addressing an issue they identified, and with the collaboration of a teacher in the classroom, they set out to resolve. Learning had meaning. They were not doing assignments; they were making a difference in the lives of students.

The data on skill set development and practicality suggested that students were seeking ways to make connections between what they learned in the classroom and their interests in life (Bundick, Quaglia, Corso, & Haywood, 2014). Research is a way for students to make these connections and action research is a way to solve problems in an educational setting. Based on the data, I concluded that an independent study designed with an action research framework could be a way to engage students in practicing what they were learning.

Based on the themes that emerged from the data, I plan to make these changes

- Provide information for cooperating teachers in the field to alert them to the action research component of this course
- Place teacher candidates in the field as soon as possible once the course starts
- Use action research in the traditional class and give teacher candidates the option to pursue the course as an independent study and thus have more hours in the field.

Final Thoughts

I now have a new appreciation for the potential in independent studies. I appreciate action research as the educator's way of researching. While the research on independent studies lists more negative than positive reasons for participating in an independent study, I recognize that independent studies that use an action research design engage teacher candidates in course work in a most effective way. Experience is once again the great teacher.

References

- Bransford, J., Darling-Hammond, L., & LePage, P. (2005). Introduction in L. Darling-Hammond & J. Bransford (Eds.), *Preparing teachers for a changing world: What teachers should learn and be able to do* (pp. 1-39). San Francisco, CA: Jossey Bass.
- Bundick, M.J., Quaglia, R.J., Corso, M.J. & Haywood, D.E. (2014). Promoting student engagement in the classroom. *Teacher College Record*, 116(4), 1-34.
- Choi, J. (2011). A self-study of the teaching of action research in a university context. *Studying Teacher Education*, 7(1), 35–49.
- Creswell, J.W. (2008). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (3rd ed). Upper Saddle River, NJ: Pearson Education, Inc.
- Kincheloe, J. (2003). *Teachers as researchers: Qualitative inquiry as a path to empowerment*. London: Routledge.
- Kitchen, J. & Stevens, D. (2008). Action research in teacher education: Two teacher-educators practice action research as they introduce action research to pre-service teachers. *Action Research*, 6, 7-28. DOI: 10.1177/1476750307083716
- Lang, J.M. (2011). Doing research with undergraduates. *The Chronicle of Higher Education* August 15, 2011. Retrieved from: <http://www.edinboro.edu/dotAsset/676865.pdf>
- Lattimer, Heather. (2012). Action research in pre-service teacher education: Is there value added? i.e.: inquiry in education: Vol. 3: Is. 1, Article 5. Retrieved from: <http://digitalcommons.nl.edu/ie/vol3/iss1/5>
- Lemanski, C. (2011). Access and assessment? Incentives for independent study. *Assessment & Evaluation in Higher Education*, 36(5), 565-581. doi:10.1080/02602930903541031
- Lipka, S. (2006). Auburn alters policy on independent study. *Chronicle of Higher Education*, 53(2), 75.
- Mills, G.E. (2014). *Action research: A guide for the teacher researcher* (5th ed.). New York, NY: Pearson.
- Moore, K.D. (2009). *Effective instructional strategies: From theory to practice* (2nd ed.). Thousand Oaks, CA: Sage Publications.
- Rock, T.C., & Levin, B.B. (2002). Collaborative action research projects: Enhancing pre-service teacher development in professional development schools. *Teacher Education Quarterly*, 29(1), 7–21.
- Rose, R. (2011). Graduate program scheduling gains flexibility through container courses: A case study. *College & University*, 87(2), 57-62.
- Sagor, R. (2000). *Guiding school improvement with action research*. Alexandria, VA: Association for Curriculum and Supervision Development.
- Smith, D. N., Goldfine, R., & Windham, M. (2009). Comparing student learning outcomes in an independent section of a first-year seminar to a first-year seminar embedded in a learning community. *Journal of the First-Year Experience & Students in Transition*, 21(2), 47-63
- Tweed, F., & Boast, R. (2011). Reviewing the ‘Research Placement’ as a means of enhancing student learning and stimulating research activity. *Journal of Geography in Higher Education*, 35(4), 599-615. doi:10.1080/03098265.2011.559579
- Zumbrunn, S. (2014). Support, belonging, motivation, and engagement in the college classroom: a mixed method study. *Instructional Science*, 42(5), 661-684.