

Action research: enhancing classroom practice and fulfilling educational responsibilities

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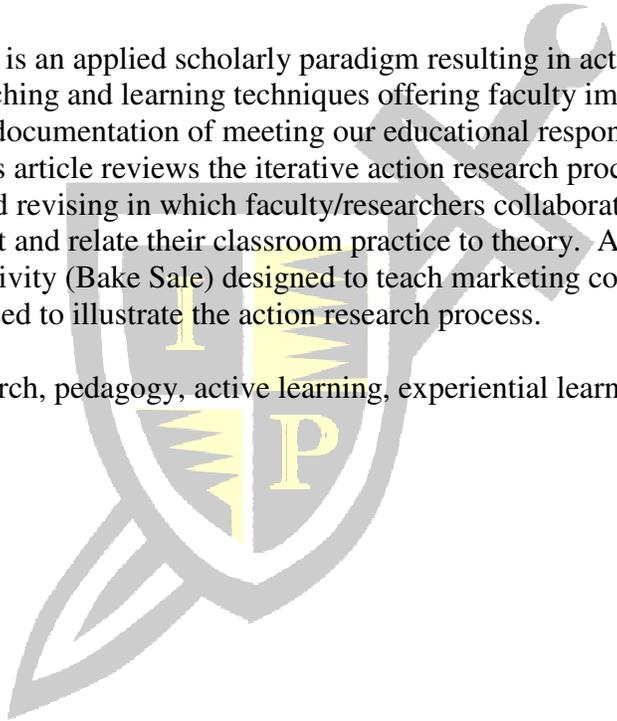
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Abstract

Action Research is an applied scholarly paradigm resulting in action for continuous improvement in our teaching and learning techniques offering faculty immediate classroom payback and providing documentation of meeting our educational responsibilities as required by AACSB standards. This article reviews the iterative action research process of planning, acting, observing, reflecting and revising in which faculty/researchers collaborate, openly communicate, critically analyze, reflect and relate their classroom practice to theory. An innovative experiential learning activity (Bake Sale) designed to teach marketing concepts to Principles of Marketing students is used to illustrate the action research process.

Keywords: action research, pedagogy, active learning, experiential learning



Introduction to Action Research

Action Research is an applied scholarly paradigm resulting in action for a specific context offering faculty immediate payback by improving his or her own teaching and providing explicit documentation for meeting their educational responsibilities as required by AACSB standards. It seeks to document the context, change processes, resultant learning and theorizing of faculty in developing their pedagogies (Fisher and Phelps, 2006). John Elliott (1991) defines action research as:

“Action research is the process through which teachers collaborate in evaluating their practice jointly; raise awareness of their personal theory; articulate a shared conception of values; try out new strategies to render the values expressed in their practice more consistent with educational values they espouse; record their work in a form which is readily available to and understandable by other teachers; and thus develop a shared theory of teaching by research practice.”

Dick (2004, 2006) provides a comprehensive overview of the themes and trends in the action research literature and identifies prominent action research books, journals, and applications. What separates this type of research or learning from general practice or assessment is the emphasis on scientific study, which is to say the researcher studies the problem systematically and ensures the intervention is informed by theoretical considerations (O'Brien, 2001). What separates action research from other forms of research are its epistemological underpinnings (Ozanne and Saatcioglu, 2008). Action research is not about hypothesis testing and producing empirically generalizable results; however, it is consistent with the definition of the scholarship of teaching and learning defined as “systematic reflection on teaching and learning made public” (Illinois State University, www.sotl.ilsta.edu).

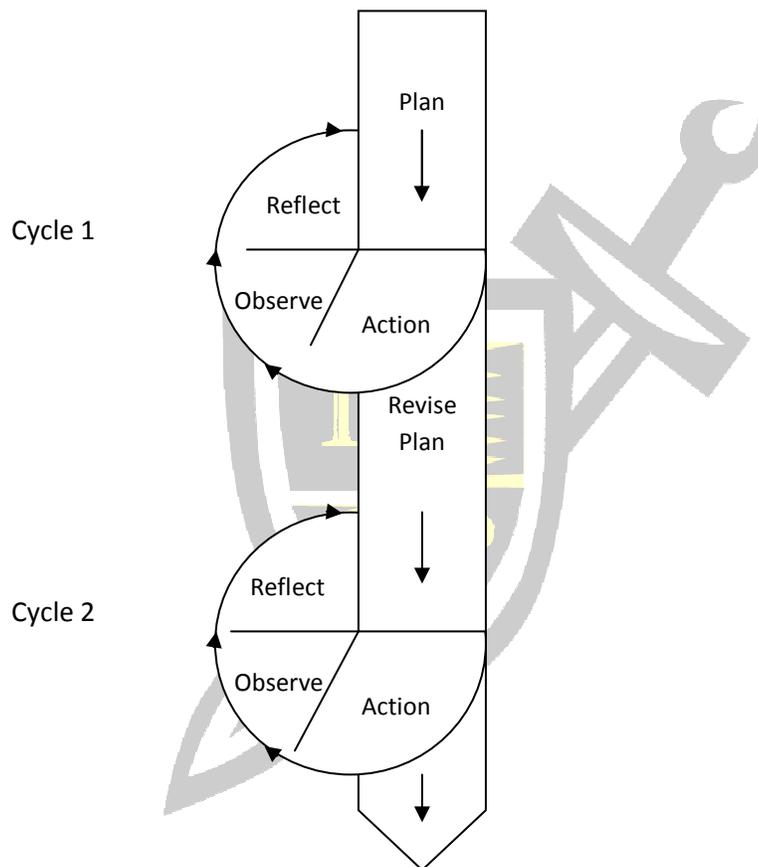
The action research model illustrated in Figure 1 shows the process as iterative or cyclical in nature involving multiple cycles. The first cycle moves through the major steps of planning, action, observation and reflection, which are then used to revise the process in the next cycle (Kemmis and McTaggart, 1990). The iterative action research cycle starts with faculty (and possibly students) deciding on the focus of the inquiry and creating a plan to observe and record their classroom activities (Plan). The classroom activities are then implemented (Action) and pertinent observations are recorded (Observe) which are then individually and collaboratively critically reflected upon (Reflect) leading to revising classroom activities based on what has been learned (Revised Plan) (Winter and Munn-Giddings, 2001).

The observation and reflection stages should incorporate, and are based on, widely used quantitative and qualitative research tools used in other research paradigms such as: questionnaires, interviews, focus groups, observations, research journals, document collection, and case studies. In addition, the evaluation of the process should incorporate multiple perspectives and present convergent validity. The action research process described in this paper incorporates traditional outcome assessment where students produce some end product (projects, papers, presentations, exams, etc.), as well as, faculty and students' perspectives of the impact the learning activity had on the learning process.

The purpose of this paper is to encourage business educators to utilize the action research paradigm for meeting our educational responsibilities in the everyday improvement of classroom practices. We illustrate the iterative action research process with the three authors' individual

and collaborative experiences of implementing theory-based evidence-supported changes to enhance their process of incorporating experiential learning activities into principles of marketing. From this collaborative experience, we provide implications and recommendations for teaching and learning.

Figure 1: Action Research Process



NOTE: adopted from Hopkins, 1985.

Illustration of Action Research in Refining Experiential Learning Activities

The following is an illustration of an experiential learning activity and how action research can be used to refine that activity. The experiential learning activity involved the use of

a semester long bake sale, which was used to illustrate marketing concepts to college students in a Principles of Marketing class. This section provides a brief background and context to the cycles of the action research process that the three authors/instructors utilized in improving and understanding the effects of their pedagogical changes in Principles of Marketing. Three professors, each teaching separate sections of approximately forty traditional students, collaborated on this project. The department had established two primary goals for the course which were to: 1) develop students' declarative knowledge consisting of the terms/concepts and frameworks of marketing and 2) enhance their procedural knowledge skills by writing a basic marketing plan. In addition, the three instructors also shared a common objective of how to accomplish these two course goals in a manner in which the students actively participated in a challenging active learning project that increased their involvement in learning as well as their understanding of how the course material applied to business situations.

To accomplish the above goals, each of the instructors deployed semester long experiential learning activities. Each instructor selected a different experiential activity to integrate into their 'traditional' course activities consisting of lectures, mini-assignments and exams. Whereas each instructor chose a different activity (personal marketing plan, marketing simulation, and bake sale) the common course goals and the desire to improve the learning process facilitated the collaborative action research process for evaluation and change. While all of these activities were experiential, they differed in the degree of realism introduced into the classroom. Because of predetermined decision choices and competitive structure, simulation exercises offered the least amount of realism and a learning environment where students are less active in their learning (Smith and Van Doren 2004). The bake sale, where students are responsible for their decisions, and the competitive market changes with these decisions, was thought to provide a more active learning environment. This paper, then, illustrates the action research process by describing the evolution of the more realistic of the experiential learning activities – the bake sale.

Action Research Cycles

Initial planning of the bake sale activity began by posing the research question, "What learning activity would satisfy the following course objectives: 1) it would incorporate a real product to which students could relate, 2) it would provide a method with which to teach the more abstract and difficult topics in marketing, such as pricing/profit, and 3) it would allow for the creation of a realistic marketing plan." In the first iteration, the course syllabus required the marketing plan to be worked on all semester, which would allow students to apply course terms and concepts throughout, culminating in a written marketing plan at the end. We began by examining the various experiential learning activities described in the marketing education literature and decided the bake sale met the criterion of realism, as previously discussed. In addition, the product could be easily "manufactured" by students as well as provide straight forward performance measurements, for example, profitability, units sold, etc, which is similar to how marketing activities are assessed in "real life." Finally, this activity could be completed within the semester time frame and students would be able to see the relationship between their decisions and actions and the end results that were achieved.

The first implementation of the bake sale was moderately structured, with the instructor choosing the product category for the students as well as the target market (The planning stage). Students were divided into teams of four or five and were directed to select and prepare a type of

cookie that would be targeted toward the students of an upper level marketing class. To mimic a more “real-world” scenario, buyers and sellers were brought together in a classroom, where each group displayed their product and pertinent information, including nutritional ingredients and pricing information (The implementation stage). The upper level class circulated among the teams taste testing and evaluating the products using a scoring rubric (collaboratively developed by the authors) (The observation stage). Student teams then followed the textbook format for creating a marketing plan and submitted the finished plan at the end of the semester based on their knowledge of what was learned throughout the semester and through the bake sale.

The last stage (The reflection stage), involved photos of the products and displays, instructor observation, informal student feedback, peer evaluations, and structured course evaluations supplemented the results of the marketing plan evaluations and exam performance to form the primary data for evaluating and reflecting on this activity. It should be noted that although the course and this activity were taught by one instructor, regular involvement (designing the rubrics, taste testing, etc.) and dialog among the instructors took place throughout the course. In addition, a common final exam and course evaluations were used among the instructors which allowed comparison and stimulated reflection on student performance given the different experiential activities. This initial experiential learning activity was judged as having provided an interesting product in a format that did generate student involvement, collaboration, and did allow detailed cost-based pricing information. The instructor also observed during class discussions that students saw the connections between the project and course concepts. However, an examination of the marketing plans showed the majority of teams did not incorporate course concepts in the plans but rather wrote the plans as narratives of the activity. It also revealed that the timing of the plans did not allow for instructor feedback, which would have provided students the opportunity not only to reflect upon the experience as well as instructor feedback but also, per the experiential learning model, revise and resubmit.

Per the action research model, cycle 2 allowed the process of observing student learning and evaluating and reflecting upon the outcomes to be revised and improved upon. Thus, the second iteration of the action research cycle/experiential learning activity focused on restructuring the activity in several ways, one of which was to enhance the marketing plan aspect of the project. Based on the class data and discussions among the instructors, the learning activity, along with the course material, was divided into four modules and teams were required to submit parts of the marketing plan at the end of each of these modules. Thus, in each of these modules students would apply marketing concepts from the textbook to the appropriate bake sale activity and write a corresponding section of the marketing plan. Students received timely evaluations from the instructor and would then revise and resubmit these graded sections as they continued on to the next module. The previous semester’s “best projects” and photos now provided tangible examples for class discussion of key concepts and set higher project expectations for this semester’s students. In addition, the product category was broadened from cookies to include any food item that might be of interest to the target market. The in-class taste test was kept in a similar format to provide teams with initial market information regarding the pros and cons of their products. However, actual sales and distribution of the products, i.e., the marketplace, were moved from the classroom to predesignated times/places in the business school hallways, which allowed students more flexibility and ownership in selling their products and allowed for better tracking of team efforts. Student teams had to front the money for their products and collaborate to manufacture their products at levels that would meet their sales

forecasts and profit expectations. This investment of their own time and money and the competitive nature among teams was observed to increase their involvement in the course.

Faculty observation and reflection on the classroom data suggested that the revised format did help students to relate the experiential activity to the course concepts. Requiring students to choose a product category; develop, manufacture and sell specific food products; and generate actual sales data was seen as creating a more “real-world” experience and increased participation in classroom discussions. Concurrently requiring teams to submit sections of the marketing plan, when they then revise and resubmitted allowed corrections and enhancements so the end marketing plans were much more in line with expectations. Classroom discussion and individual student feedback also revealed the activities students found enjoyable and motivating. Allowing some class time to work on the project also generated peer pressure for team members to attend class which improved attendance and participation as compared to the instructor’s previous pre bake sale classes.

As is explained in this section, classroom data, observations, and faculty data, along with additional insights from the literature on Kolb’s (1984) experiential learning cycle and additional articles of experiential activities (e.g. Helms et al., 2003 “The Benefits of Trade Shows for Marketing Students and Faculty”; Smith and Van Doren, 2004) guided the next revision of this learning activity. (Note the literature review in action research typically is an ongoing process and continues to inform the process as the project progresses.)

First, discussions among the instructors reviewed what was learned from the first cycle in order to ensure that students learn from each of the stages. Specifically, it was desired that students initial experience (taste test) lead to observing and reflecting on the outcomes (feedback from taste test and instructor), and that the students correctly incorporated the chapter terms into their marketing plans (abstract conceptualization), forming the foundation for their active experimentation (incorporating what they learned from the taste test into the actual bake sale).

Second, this frequent dialog and critical reflection among the instructors not only focused on modifications to this bake sale learning activity but also shared and compared observations, survey data and other information on what was and what was not working in the learning activities being deployed in the other sections. These cycles of action research continued to evolve and improve each of the instructors’ learning activities.

Third, it was thought that Marton and Saljo’s (1976) Student Approaches to Learning Theory would help us gauge the impact of the learning environment on student learning. To briefly review, the Student Approaches to Learning theory emphasizes the context or learning environment in which learning takes place and its effect on study behavior. Students who concentrate on the underlying purpose and meaning of the learning activity are classified as using a *deep approach* to learning. Deep learning approaches facilitate the ability to understand and apply the information learned. In contrast, surface learning occurs when students focus on facts and ideas to memorize based on what they think is important and may be required to reproduce at the end of the activity. This *surface approach* to learning suggests that even though students provide details from the learning activity, they may fail to grasp the main principles. The relatively passive approach of surface learning often fulfills course requirements but lacks the reflection that leads to deeper learning and uses low-level cognitive skills. The underlying theory of students’ approaches to learning can be further reviewed in Biggs (1987) and Kember and Leung (1998).

Fourth, supplementing the above antidotal assessment evidence is more traditional survey assessment and actual class performance data. Biggs, Kember and Leung’s (2001) revised two-

factor Study Process Questionnaire (20 items, $\alpha = .88$ deep learning and $\alpha = .85$ surface learning) was used to measure student's approaches to learning. When compared to a traditionally taught section ($n = 39$) the results (significant level of .05) indicated that Bake Sale students ($n = 40$) were utilizing a deeper approach to learning ($\bar{X} = 34.9$ versus $\bar{X} = 31.3$) and less surface learning ($\bar{X} = 23.2$ versus $\bar{X} = 27.0$). These results suggest that this experiential exercise encouraged learning and helped confirm the effectiveness of the bake sale in complying with the underlying Students' Approaches to Learning theory. In addition, course evaluations which included students' perceptions of learning measures (Young et. al, 2003) (9 items, $\alpha = .95$) suggest a higher perceived level of knowledge gained and affect for the activity ($\bar{X} = 45.6$ versus $\bar{X} = 36.2$). Finally, a common final exam also indicated that the Bake Sale activity help student performance with an average score of 286 versus 118 for the traditional section.

Finally, the result of this action research process has resulted in today's bake sale activity which has evolved into a publicized event on campus with the previous in-class taste test now being held in a special conference hall with students, faculty, staff and community members as evaluators of not only the product but also the trade show style booths which have promotional materials, props, and presentations by well dressed and rehearsed student teams. Students now also actively seek information from the evaluators on ways to improve and incorporate the 'taste test/trade show' information into their actual bake sale. The actual sale has also evolved and broadened to where students now analyze competition, carefully select locations, incorporate corresponding campus events, solicit pre-sale orders, and/or develop other promotional tie-ins to maximize their sales effort. Photographs and actual results of the activities allow engaged classroom discussion focused on the course concepts. In addition the photos and sales results become data to reflect on and discuss in the action research process. Integral to each of the four modules' activity is an explicit 'lessons learned' team presentation and class discussion. Both students and the instructor take a great deal of pride in the polished taste test/trade show displays, the effective sales events, and the written marketing plans.

Whereas space prohibits detailed discussion of all of the iterations and changes that took place in this and the other instructors' experiential learning activities, the collaborative framework of the action research process led to theory-based evidence-supported systematic changes in these specific pedagogies. The purpose of this example was not to demonstrate that this learning activity is universally effective or to confirm a particular learning theory. Rather, our intent was to illustrate the action research process that facilitated the continuous improvement of this classroom activity and to document how these faculty carried out their educational responsibility. We feel confident in the merits of this experiential learning activity and want to share it with other faculty who may wish to incorporate it into their own classroom and continue the action research process to modify it for their own unique setting.

Implications and Recommendations

- 1) Action research an appropriate paradigm for improving everyday classroom practice.

Business educators work in their own environments, with their own students, implementing their own pedagogies with the challenge and responsibility to improve their own teaching and learning. Explicitly incorporating faculty's practical goal of improving their current practice and at the same time improving their understanding and contribution to theory can help dissolve the differentiation between teaching and research. Stephen Corey (1953, p70)

profoundly states: “We are convinced that the disposition to study...the consequences of our own teaching is more likely to change and improve our practices than is reading about what someone else has discovered of his teaching.”

Action research allows business educators to learn about themselves, their students, and their colleagues in a meaningful way intent of improving their teaching. Systematically incorporating critical reflection along with professional conversations with colleagues in the form of an action research project can be a significant type of professional development (Ferrance, 2000).

Action research treats our own observations and thinking as data which must be made available for analysis and interpretation not only for our first-person inquiry but also for our colleagues involved in the second-person inquiry. Therefore, detailed and prompt recording of our personal observations and thoughts of classroom events and experiences is critical for facilitating our own personal learning, as well as, to form the collaborative basis for reflection. Each instructor/researcher should maintain a research diary or journal in order to capture and document their perspectives in addition to keeping the research project top-of-mind throughout the process. Regular after-class journal entries into a Word document were found to be an effective form of journaling in this reported project. Other options for journaling include Microsoft’s Windows Journal or OneNote. Many significant thoughts and ideas can be lost if the journal is not regularly maintained; in addition, it can take significantly more time and effort to think back and recall the past activities and observations.

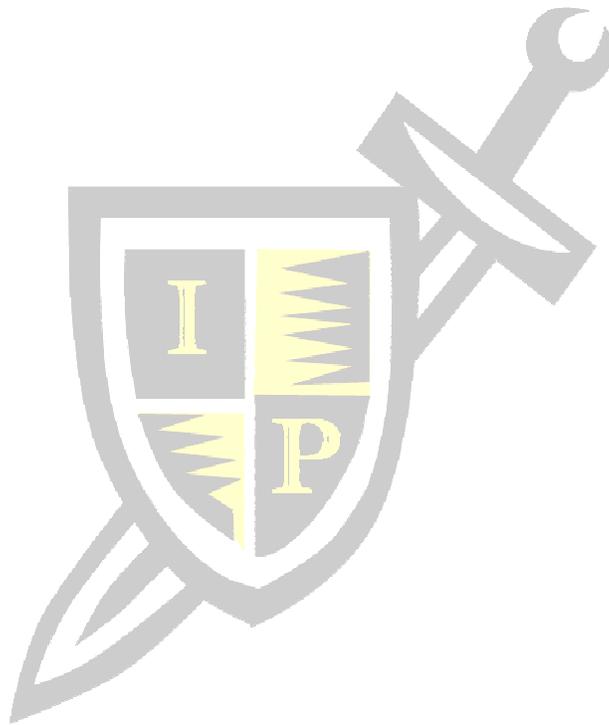
Faculty/researchers should explicitly consider the learning theory their pedagogies are intended to implement and evaluate their learning outcomes in light of that particular theoretical framework. Revised intervention strategies should then be based on multiple viewpoints, interpretations, and evidence as well as theory. Thus, action research is an appropriate paradigm for enhancing our current teaching in addition to having the potential to contribute to the scholarship of teaching and learning.

2) Monitor the learning process, as well as, learning outcomes.

Relying solely on typical learning outcomes such as exams, projects, written cases, etc provide the instructor with little direction for improvement. Was low performance due to lack of motivation and effort or insufficient knowledge and skills? Was high performance based on the use of surface learning strategies that may result in satisfactory short-term performance but lacks long-term transfers and generalizations? To develop a deeper understanding of the learning outcomes, we recommend that they be supplemented and interpreted with an evaluation of the learning process. In our action research we utilized the Student’s Approach to Learning Scale (Biggs, Kember, & Leung, 2001) as an indicator that the learning process was fostering deeper learning strategies as compared to surface learning strategies. Assessment of the learning process allows the instructor to see beyond the face of the learning outcome and can assist in improving the learning process to produce the desire level of performance.

Continuous improvement in our teaching and learning techniques remains a core faculty educational responsibility that requires a systematic research process that is consistent with our everyday classroom practice. Action research may not always produce the same empirically generalizable results as with the tradition research paradigm; however, the publication of action research based articles might provide faculty with ideas and innovations that may be adapted and tailored for effectiveness in their own unique classroom context using the action research process

itself. Collaboration, open communication, critical analysis, reflection and relating practice to theory are cornerstones of what we try to instill in our students and we advocate the same for faculty's approach to teaching. In conclusion, we recommend action research as a method for involving more faculty in the scholarship of teaching and learning with the promise of personal relevancy, immediate opportunity for improving their own teaching, and with the potential for knowledge generation.



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