2012

Experiential Learning in Industrial/Organizational Psychology: A Case Study

Amy Luthanen
Manchester College

Harrison Sibert
Manchester College

Holly Morris
Manchester College

Whitney Ohmer
Manchester College

Rebecca Lowden
Manchester College

See next page for additional authors

Follow this and additional works at: https://digitalcommons.butler.edu/jiass

Part of the Social and Behavioral Sciences Commons

Recommended Citation

Experiential Learning in Industrial/Organizational Psychology: A Case Study

Authors

Amy Luthanen, Harrison Sibert, Holly Morris, Whitney Ohmer, Rebecca Lowden, Jordan Garber, and Russell G. Coulter-Kern

Teaching/Pedagogy

Experiential Learning in Industrial/Organizational Psychology: A Case Study[*]

AMY LUTHANEN
Manchester College

HARRISON SIBERT
Manchester College

HOLLY MORRIS
Manchester College

WHITNEY OHMER
Manchester College

REBECCA LOWDEN
Manchester College

JORDAN GARBER
Manchester College

RUSSELL G. COULTER-KERN
Manchester College

ABSTRACT

Experiential learning is considered a powerful tool for learning in college. Community-based research is one type of experiential learning that has

[*] Send correspondence concerning this article to Russell G. Coulter-Kern, Manchester College, Department of Psychology, 604 E. College Ave., North Manchester, IN 46962; email: rgcoulter-kern@manchester.edu

been used to learn research skills in a variety of social science disciplines. The current case study was conducted as an experiential learning research project. A team of six students and a professor from a small Midwestern college conducted community-based research with a large agribusiness company headquartered near the college. The goal of the project was to create an effective employee-selection process for this firm and to provide an effective learning experience for students. This included development of a situational judgment test, cognitive ability testing, and personality assessment. The article focuses on steps taken to organize a community-based research project, the steps required to develop an effective selection process, and an evaluation of the experience from students, the community partners, and faculty.

KEY WORDS Industrial/Organizational Psychology; Experiential Learning; Community-Based Research

Experiential learning is a popular method in postsecondary education in which students gain knowledge through application of theory, often to further their knowledge in a specific field (Clark, Threeton, and Ewing, 2010). Vesper et al. (2010) state that "[a]cquiring knowledge and skills from experience is one important method for developing competence in a task, occupation, or profession." Typically, students gain this experience in nonacademic settings, such as workplaces or the community, and the learning experience may be combined with research and the task of assisting a community organization.

Experiential learning is defined as "[t]he process whereby knowledge is created through the transformation of experience" (Kolb 1984). Experiential learning was developed from the ideas of several scholars, including John Dewey, Jean Piaget, William James, and Carl Jung (Kolb 1984). Kolb suggests there are six main components to experiential learning. First, learning "is best conceived of as a process." Second, this process should draw out prior beliefs and ideas about the topic so they can be examined against and integrated with new ideas and experiences that develop during the process. Third, resolution of conflict is necessary for learning to occur. During the learning process, "one is called upon to move back and forth between opposing modes of reflection and action and feeling and thinking." Fourth, learning is "a holistic process of adaptation to the world." Learning involves integrating all of the functions of a person, such as thinking, feeling, perceiving, and behaving. Fifth, learning results from the interactions between the person and the environment. This is best explained using Piaget's concept that learning occurs through "processes of assimilating new experiences into existing concepts and accommodating existing concepts to new experience." Sixth, learning is the process of creating knowledge (Kolb and Kolb 2005).

In addition to his six-stage learning process, Kolb also developed a four-stage learning cycle to explain the process of experiential learning. The four learning stages

consist of pairs of concepts that reflect how to grasp and transform experience. The learner grasps experience through concrete experience and abstract conceptualization and transforms information through reflective observation and active experimentation (Ng, Van Dyne, and Ang 2009). The tangible elements of an experience form concrete experience, while the "conceptual interpretation and symbolic representation of the experience" compose the abstract conceptualization (Ng et al. 2009). Concrete experience and abstract conceptualization explain how the information from an experience is grasped, or understood. Similarly, reflexive observation is simply the process of internal processing, whereas active experimentation encourages a manipulation of the world being experienced. As before, reflexive observation and active experimentation explain how the experience is transformed into knowledge, or how the learners act on their experiences (Ng et al. 2009). For learners to transform experience into knowledge, researchers must engage in four activities—experiencing, reflecting, thinking, and acting (Kolb and Kolb 2005). The stages build and depend upon one another. Without an experience to reflect on, learning cannot occur. Conversely, if active reflection does not occur after the experience, no learning can occur.

Experiential learning's holistic approach makes it highly interdisciplinary (Kolb and Kolb 2005). Researchers have identified the process of experiential learning in the fields of management, psychology, accounting, law, medicine, nursing, and information science. Comprehensive reviews of the literature surrounding experiential learning show that 61.7 percebt of the 81 studies showed support for experiential learning, compared to 16.1 percent that showed mixed results and 22.2 percent that did not find support for experiential learning (Kolb and Kolb 2005).

COMMUNITY-BASED PARTICIPATORY RESEARCH

The experiential learning in this case study occurred within the context of a community-based participatory research project, which is characterized by "equal participation from researchers and community members in all dimensions of the research process" (Israel et al. 1998). The community is anyone affected by the research (Baumann, Rodríguez, and Parra-Cardona 2011). A research project is an ideal environment for experiential learning in that the four-stage model of learning and the research cycle share many similarities. The research cycle consists of planning, collecting data, analyzing, and reflecting (Cepeda and Martin 2005). Like the learning cycle, it consists of alternating steps of concrete experience and abstract conceptualization and reflection versus action. The steps in the cycle progress seamlessly, and the entire cycle leads to future research cycles. In a community-based research project, the community members act as equal participants in the process and the participants utilize the strengths and resources available within the community. The initial research question should begin with the community member's problem that the research will seek to address (Minkler 2005). The research cycle "integrates knowledge and action for the mutual benefit of all the partners" (Israel et al. 1998). The knowledge that is gained from the research is

shared among all the community partners in language that can be understood, and in the process, the equal ownership of knowledge is acknowledged.

Community-based research requires a "partnership synergy," which is more than "a mere exchange of resources. By combining the individual perspectives, resources, and skills of the partners, the group creates something new and valuable together—something that is greater than the sum of its parts" (Lasker, Weiss, and Miller 2001). This "partnership synergy" that exists in a successful community-based research project dovetails well with the theoretical basis of experiential learning, the constructivist theory of learning. In this model of education, the teacher is a facilitator of knowledge construction, and the individual characteristics of the teacher and the students determine the form of the knowledge created, depending on their prior experience in teaching and learning, respectively. In community-based research, knowledge is created in a similar manner, with the interaction between the two community partners defining the outcome of the study. Experiential learning and community-based research are two processes that can be easily integrated.

Common challenges in community-based research include the development of the relationship between the community and researchers, which requires more time and effort than in other types of research, and the joint development of norms and operating procedures that will increase attentive listening, openness, caring, mutual respect, equality, and other traits that are necessary for a successful partnership (Israel et al. 1998). Another common challenge is the development of priorities and division of time between research and action. "Community members are frequently, although not always, more interested in how the data promote [changes] rather than using the data to address basic research questions. In addition, community members may not agree on the value of collecting as much data as the researchers might prefer" (Israel et al. 1998). At the end, it can be difficult to conclude how successful the implemented changes or the intervention were.

The students involved in the present experiential learning/community-based research project faced many of these challenges. They also saw research issues unique to the field of industrial/organizational (I/O) psychology throughout the project. To evaluate the experience, the students collected and analyzed qualitative data in order to better understand the integration of the learning and research cycles and the effect of the experiences on the students and the community members involved. It is hoped that the present case study can offer insight into these processes and provide relevant recommendations for future projects.

METHOD

In the present study, the research team consisted of six students, junior and senior psychology majors, who had previously taken a survey course in I/O psychology and worked under the supervision of their professor. Their goal was to construct an employee-selection procedure for the community partner in the project, a local

agribusiness with approximately 300 employees. The chief participants from the company were the president and two operations managers. The selection procedure would be used for the position of barn manager, whose responsibilities include feeding and monitoring the health of approximately 250 veal calves. The process required the students to apply information learned in I/O psychology, including how to create a job analysis, using selection tools, and developing an original selection measure specific to the barn manager position. A successful selection process would allow the company to predict which potential employees would perform the functions of the barn manager position similar to their highest-performing incumbents; therefore, the project centered on studying these incumbents to establish a baseline for prospective employees based on their performance. The team started by learning about the company and its history.

Job Analysis

To create a profile of the ideal employee, the team first toured the agribusiness company facilities and conducted unstructured conversations with current employees and company officials. Based on the subjective experience at the worksite and initial conversations, the students constructed a standard set of questions for interviews with current barn managers who were identified as high performers. The interviews were designed to be semi-structured, in that they provided a framework but also allowed for follow-up questions based on the interviewees' responses. The employees were asked to describe their workday in detail, their previous work experience, the physical and mental skills required in the job, and the common and uncommon challenges and to differentiate between average and above-average employees. The research team also examined existing job descriptions on O*NET, a website sponsored by the US Department of Labor/Employment and Training Administration, for similar job titles. All of this information was used to create a job analysis.

Company officials reviewed the first draft of the job analysis and provided feedback. The job analysis was revised, and the process of feedback and revision continued for several more cycles. The final job analysis included tasks of the job; equipment used on the job; knowledge, skills, and abilities required by the job; and desired attributes of the candidate. The feedback was especially valuable in identifying desirable attributes for employees, which included conscientiousness, self-motivation, and compassion (for the animals), which were useful later in choosing personality measures. As part of the process, and throughout the project, the students had to identify what the company officials wanted to change in the pool of employees, what characterized better employees, and, in contrast, what behaviors and traits were found in poor employees.

Selection Measures

The team evaluated various types of established selection methods that would identify desired attributes in prospective employees while also considering the amount of

time each selection method would take to complete. The team developed a situational judgment test (SJT; see Appendix) specifically for the barn manager position. Drawing on information gathered from the interviews with current barn managers, they developed 10 possible scenarios that an employee might encounter on the job. Test takers were asked to indicate what they would do in each situation by choosing one of three responses. Company officials were asked to rate each option in order to construct the scoring. The team went through several rounds of feedback and revision cycles with company officials to make the scenarios presented on the SJT more realistic and to target the type of knowledge that the ideal incoming employee would have before on-the-job training.

The team chose the Wonderlic Cognitive Ability Pretest (Wonderlic & Associates 1997), which measures general intelligence, or the prospective employee's ability to learn on the job. The team also chose two personality measures: one that could be used with current employees and one for prospective employees. All tests could be administered on a computer and had Spanish language versions with established validity and reliability.

Prospective employees completed the Wonderlic Behavioral Profile Plus (Wonderlic & Associates 1997), which was designed to identify productive, low-risk employees by measuring conscientiousness, stability and agreeability, and identifying self-reported instances of risky behavior. Current employees completed the Wonderlic Behavioral Profile (Wonderlic & Associates 1997), which did not include the behavioral risk component. The results were easy for the company to quickly interpret.

The group developed a standardized assessment process so each prospective employee would have the same testing experience onsite, which started when the applicant turned in an application and continued through the conclusion of testing. A drug testing waiver was included to allow the employer to conduct preemployment drug testing. The verbal instructions given to each prospective employee were standardized as well.

Evaluation of the Learning Experience

To evaluate the project in terms of the effectiveness of the experiential learning it provided, the team created a standardized questionnaire that asked participants what they had learned, what challenges they had faced, what had gone well, and what they would recommend to others conducting community-based research. Each of the students, the advising professor, and the agribusiness officials completed the questionnaire, and the resulting comments were arranged into major themes and then summarized. Each question on the questionnaire was examined across the 10 individuals. The students constructed the themes from identifying similar comments from the various participants. The use of multiple sources of data that covered the same concepts allowed for triangulation on key issues and a more robust analysis of the experience as a case study (Cepeda and Martin 2005; Kyburz-Graber 2004).

RESULTS

Several common themes emerged from the self-reflections as universal issues that could be transferred to any community-based research project, and some issues were specific to employee selection and testing. Universal topics included learning how to apply course concepts, the importance of listening to the clients' wants and needs, the need for continual communication with the community partners, the importance of concrete timelines and deadlines for the specific sections of the project to get finished, and the importance of understanding the history or background of the community partner.

The concepts that were unique to I/O psychology included how a psychologist might help to improve a company, how to create a selection process, how to create a job analysis, how to conduct interviews, and the importance of standardized procedures to ensure that all people have similar experiences while being tested. Students also learned that testing is an objective way to determine potential job success versus subjective evaluation, or "going on gut instinct." Students learned how to evaluate testing procedures and to choose the best tests for employee selection in different settings. For example, students needed to choose tests that were available in both Spanish and English for participants for whom English may be a second language. Students also learned how to administer the computer-based tests and discovered how long the testing process should typically take.

Although much was learned throughout this process, some common challenges were also encountered throughout the project. Accurate and effective communication between researchers and the community partners was very important. Complications arose when the student researchers did not know exactly what the community partners were expecting from the project and also when the researchers did not have a clear idea about what the community partners wanted in a prospective employee in the beginning of the project. For example, in the beginning of the project, company officials frequently repeated that they wanted employees who "had a knack" for working with animals. This needed to be clarified and translated into concepts that could be measured. One student wrote:

> They described employees that have a "knack" for taking care of animals and anticipating their needs. I kept trying to define this. Such employees have to be aware of the minute details of each individual calf while going about their work and then recall this information as needed. They have to identify the important details and arrange the pieces into a pattern, make a decision, and then follow up on the results. The "knack" would seem to entail attention to detail, memory, analysis, decision making, and ability to evaluate the change in a situation as prerequisites. There is also probably some aspect specific to working with animals. I just keep thinking of the Horse Whisperer movie.

The many meetings that participants required to complete numerous rounds of feedback and revision often slowed the process because it was difficult to find times in everyone's schedules to meet. Both students and the company officials reported that at times, the pace of the work was too slow because they were waiting on a meeting or waiting for the other to respond. The community members stated that they would have liked to make decisions more quickly. Students also reported issues with dividing time between projects and some frustration with the length of time it took to research and learn the conceptual material before they could then attempt its implementation. One stated, "A lot of time was consumed because we had to do so much research before we could start the first steps of the selection process and also between each step. We just didn't have a lot of prior knowledge of employee selection."

Students reported personal conflicts with the nature of the agribusiness's product, which was feeding veal calves. One student stated, "It was difficult to walk through the barns and see the calves in such small spaces, and I wasn't sure what I thought about working on the project at first. I decided I wanted to continue because we were trying to help them select better employees that would treat them better, so I accepted that." Another student wrote, "Even if I don't fully support the veal business itself, I was OK with helping them become more productive."

Students and the community partners faced a major challenge with the content validity of the SJT constructed specifically for the barn manager position. SJTs can vary on the degree to which they correlate to cognitive ability and personality factor measures (McDaniel et al. 2007). This depends on the content and construction of the test, although in both cases, STJs are intended to measure qualities or knowledge that the prospective employees possess before training. The SJT is intended to measure the applicant's judgment, or "the ability to comprehend situations and anticipate the consequences associated with actions taken in those situations" (Brooks and Highhouse 2006). The students found it a challenge to write items for the SJT that did not require any on-the-job training, and the initial distribution of scores from testing prospective employees indicated a ceiling effect. It was not clear if the latter was due to restriction of range that existed early in the process, when the company was sending only its best applicants for testing. One company official stated, "I was worried that the situational judgment test was not indicative of anything." Another stated that the SJT and, to some degree, the entire selection procedure, "still needs to prove itself."

Another challenge to the validity of the measures was due to the difference in scores between Hispanic and non-Hispanic current employees. One student stated, "Some of their best workers, who were Hispanic, did not score very well on the Wonderlic Cognitive Ability test, which is supposed to be a good predictor of job success. There was a concern that the test may be biased against Hispanics, which comprise a substantial number of the company's workers." One company official stated that they were sure that one lower-scoring Hispanic employee was one of their best, and it made them question the usefulness of the cognitive ability measure for other employees as well. He stated, "[We] were very confident that this guy has some very good calf skills." To understand this better, we consulted with one of the Spanish language professors at our college. This

professor noted that rural farm workers from Spanish-speaking regions may actually know less vocabulary than some nonnative college students. If those workers migrate to the United States, then even basic Spanish language testing may prove too difficult for them. We needed to make sure we were taking this into account in our selection procedures.

Working with members of different ethnic groups made some aspects of the process more difficult. The SJT had to be translated into Spanish so the Hispanic employees and applicants could be tested in their preferred language. Translations in an academic setting can vary from what native speakers learn, so discrepancies sometimes arose during the administration of the tests. In these cases, the student proctoring the evaluation had to rely on any past experience with the language to decipher the meaning of the words in question.

An additional challenge in the project was that the college group wanted to test a large number of current employees to establish a baseline for scores, while the community partner wanted to obtain test results quickly to make better hiring decisions. Although testing prospective employees provided data, without a baseline, it was impossible to determine what the scores meant; thus, this data will not be very useful until after further testing and validation is done. The professor stated, "Collecting data is challenging when managers must keep running the business and don't have the same pressure to collect data as the researchers, but we have to collect a lot of data for it to be meaningful and useful." Overall, both the students and the community partners looked forward to continued data collection to determine the predictive validity of the selection procedures.

Several different themes about what went well with the project were mentioned by the student researchers. These included improvement in interpersonal skills, working as a team to divide and conquer tasks, accomplishing goals, learning more about I/O psychology, gaining experience administering tests, and meeting deadlines. Overall, students stated that they enjoyed participating in the project and that there existed a positive, supportive learning space. The learning space described is not a physical space but an environment in which students can participate freely in the entire learning cycle. The concept of learning space assumes that students feel most comfortable at one part of the cycle; therefore, it takes a supportive environment to encourage experiential learning, which encompasses the entire cycle (Kolb and Kolb 2005). Because this was a supportive environment, students were very committed to the project. One student stated, "People stayed positive even through late nights and long meetings," and the professor noted, "Students were committed to the process and made large amounts of time available to work on the project." The importance of student commitment illustrates the constructive learning space as discussed in Vesper et al. (2010).

The community partners also mentioned some key issues that they thought had gone well. They were appreciative of the fact that they could list times that they would like to have employees tested and typically at least one student would be able to fit the testing into his or her schedule. They also were happy to see that the employees

responded well to the process. One of the community partners said, "No one went in kicking or screaming or thought their rights were being violated." Another expressed that he had been concerned in the beginning, saying, "I wondered how we were going to explain to the guys who had been with us for a while what was going on, but I never did hear any complaints."

Establishing trust is an important part of conducting research within a business setting with employees (Meyer 2001). Students worked to increase trust by several means. The students made sure that current employees who were interviewed and tested knew they were chosen because they were excellent employees whom management thought would have insight into the responsibilities of the position. Overall, the current employees appeared to have enjoyed the process, and one stated that it was nice to think "I'm part of a college research project." The professor stated, "Having the president of the company committed to the project was important. At key times, he was instrumental in making things happen." The company president stated that he thought the project went well:

> We are very excited about continuing the testing program here at [our company]. Thus far, everyone has welcomed the idea. I find that it has been convenient and nonoffensive for the applicant, and in my mind, the potential employees respect our company more for having such a test in place. So far, the results have reinforced some of our decisions.

The students also found the experience valuable. During the experiential learning project, the team learned about I/O psychology selection methods and procedures as well as the application of theory into an actual workplace setting. For example, the students first researched job analyses and then created a job analysis for the particular position. At other points in the project, the students started with a concrete experience, such as "The calves need to be fed at the same time every day" and the "barn managers must pay attention to detail," and then searched for abstract conceptualizations of these skills that we could measure. In this case, the team matched these desired traits with the concept of conscientiousness, or "being dependable, as well as hardworking, achievement-oriented and persevering" (Barrick, Mount, and Judge 2001) and chose the Wonderlic Behavioral Profile because it included a measurement of this concept as well as others that appeared relevant for the position. It is clear that experiential learning did, in fact, take place, because the students went through all four stages of Kolb's learning cycle (Kreber 2001), and this illustrates that the process is seamless and that one can begin at any point in the "experience-reflect-think-act" cycle (Kolb, Boyatzis, and Mainemelis 2001).

DISCUSSION

Overall, Kolb's model for experiential learning and community-based research are important tools for learning. Clearly, some guidelines were important in construction of a good project. First, it is very important that students make time available and for

someone to manage the schedules of everyone involved. This does not need to be the professor. Designating one person to be in charge of coordinating the group's schedule makes delegating tasks easier and more efficient. This closely resembles a recommendation from Israel et al. (1998), who suggest that students need to be prepared to make a large time commitment to a community-based project because such projects tend to be quite time consuming. Second, it is important that the community partner understands the time constraints of the researchers and that the researchers understand the time constraints of the partners. College semesters have an ebb and flow that doesn't necessary exist in other settings. The difference in schedules should be communicated to all. Third, it is important for the researchers to have a clear understanding of the partner's wants, goals, and timelines. Again, this recommendation is echoed by Israel et al. (1998); they state that there is a need "to identify a common set of goals and objectives." Fourth, it is important to be flexible and to make adjustments as needed. In the present cases, the community partners recommended speeding up the process of testing prospective employees so they could receive feedback more quickly. They also recommended developing strategies to encourage employees to accept the new selection process and to consider it a worthwhile investment that would benefit the company. Fifth, it is important to put mechanisms in place and to train appropriate personnel to carry out the research if it is to be an ongoing project. In this case, the company recommended integrating the selection procedure into its human resource department so the company could continue the selection practices and data collection when the students were finished with the project. Sixth, it is recommended that researchers make themselves aware of the unique characteristics of the local community so they are better able to respond to challenges that may arise. After the current project began, it became apparent that selection measures were needed for speakers of both Spanish and English who may have little formal education. Finally, it is recommended that researchers actively work at developing close working relationships with community partners so they trust one another and can engage in problem solving that is beneficial to both partners. In this way, a stronger working alliance can be formed.

The recommendations given in this case study are applicable to other experiential-learning and community-based research projects, but as with any case study, generalization is one limitation of this method. What was helpful in this instance, with a small academic group and a local company, may not prove as helpful in other research settings; however, researchers are utilizing case studies more often in the field of I/O psychology because they allow data collection to be tailored to research questions. Case studies allow researchers to answer "how" and "why" questions when other methods cannot be utilized, and they allow researchers to look at phenomenon within the context of the particular workplace, field, or community (Meyer 2001).

The common themes drawn from the reflection of the students and the community members also highlight the success of the project as an experiential-learning opportunity. First, there was a large emphasis on the process, instead of specific content: emphasis on how all the pieces of the project fit together as opposed to the pieces themselves. The fact that there were, at times, delays in feedback from the community partner or frustration

with integrating different parts of the learning cycle (research and application) is evidence that the learning cycle was, in fact, taking place. Kolb and Kolb (2005) state, "Conflict, differences, and disagreement are what drive the learning process. In the process of learning, one is called to move back and forth between opposing modes of reflection and action and thinking and feeling." The professor in the project noted that the students and the community partners cited some of the same themes when discussing what had gone well in the project and what had been challenging, including communication, building relationships, and learning and applying concepts simultaneously. The professor stated, "The overlap really illustrates how messy qualitative research can be. What makes the project challenging also makes it valuable."

The conflict itself must be "responsive to contextual demands" to be adaptive in the process. The students needed to continuously evaluate the results of the application and its effects on the organization. Kolb's theory traditionally focuses on active, or primary, learning as opposed to passive, secondary, learning (Bergsteiner, Avery, and Neumann 2010). The learners do not move passively along the cycle of experience-reflect-think-act; instead, they take much more active roles.

As participants in a community-based research project, the students brought knowledge of the I/O concepts, while the officials and employees at the agribusiness company brought knowledge of the position and their needs as a company. According to Vygotsky's social learning theory, there must exist "more knowledgeable others" (MKO) for learning to occur, or individuals who "know more or have more advanced skills" than the learner (Vesper et al. 2010). In this project, the students and the community partner were both MKOs, and therefore, cooperation and communication between the two was a vital component. Also, within the student group, the range of abilities in writing skills, data skills, and Spanish language skills allowed the students to learn from each other.

This community-based research project was a valuable experiential-learning opportunity for students and community members. As a case study, the project illustrates the importance of efficient time management and building relationships through clear communication, as well as the value of integrating the learning and research cycles in a manner that supports students and assists the community partner in meeting their needs. Finally, it should be noted that after the project was completed, student researchers continued to inquire about the project and volunteered to assist with any further action that might be needed even though they were no longer receiving college credit. This level of commitment appears to be part of what many professors seek to obtain from college students. Perhaps community-based research may be one way to effectively engage our students in ways that have lasting effects on both students and the communities in which we live and work.

REFERENCES

Barrick, Murray R., Michael K. Mount, and Timothy A. Judge. 2001. "Personality and
     Performance at the Beginning of the New Millennium: What Do We Know and

Where Do We Go Next?" *International Journal of Selection and Assessment* 9(1–2):9–30.

Baumann, Ana, Melanie Domenech Rodríguez, and José Rubén Parra-Cardona. 2011. "Community-Based Applied Research with Latino Immigrant Families: Informing Practice and Research According to Ethical and Social Justice Principles." *Family Process* 50(2):132–48.

Bergsteiner, Harald, Gayle C. Avery, and Ruth Neumann. 2010. "Kolb's Experiential Learning Model: Critique from a Modeling Perspective." *Studies in Continuing Education 32*(1):29–46.

Brooks, Margaret E. and Scott Highhouse. 2006. "Can Good Judgment Be Measured? Pp. 39–55 In *Situational Judgment Tests: Theory, Measurement, and Application*, edited by J. A. Weekley and R. E. Ployhart. Mahwah, NJ: Lawrence Erlbaum Associates.

Cepeda, Gabriel and David Martin. 2005. "A Review of Case Studies Publishing in Management Decision 2003–2004: Guidelines and Criteria for Achieving Quality in Qualitative Research." *Management Decision* 43(6):851–76.

Clark, Robert W., Mark D. Threeton., and John C. Ewing. 2010. "The Potential of Experiential Learning Models and Practices in Career and Technical Education and Career and Technical Teacher Education." *Journal of Career and Technical Education* 25(2):46–62.

Israel, Barbara. A., Amy J. Schulz, Edith A. Parker, and Adam B. Becker. 1998. "Review of Community-Based Research: Assessing Partnership Approaches to Improve Public Health." *Annual Review of Public Health* 19:173–202.

Kolb, David A. 1984. *Experiential Learning: Experience as the Source of Learning and Development*. Upper Saddle River, NJ: Prentice-Hall.

Kolb, David A., Richard E. Boyatzis, and Charalampos C. Mainemelis. 2001. "Experiential Learning Theory: Previous Research and New Directions." Pp. 227–47 in *Perspectives on Thinking, Learning, and Cognitive Styles*, edited by R. J. Sternberg and L. Zhang. Mahwah, NJ: Lawrence Erlbaum Associates.

Kolb, Alice Y. and David A. Kolb. 2005. "Learning Styles and Learning Spaces: Enhancing Experiential Learning in Higher Education." *Academy of Management Learning and Education 4*(2):193–212.

Kreber, Carolin. 2001. "Learning Experientially through Case Studies? A Conceptual Analysis." *Teaching in Higher Education* 6(2):217–28.

Kyburz-Graber, Regula. 2004. "Does Case-Study Methodology Lack Rigour? The Need for Quality Criteria for Sound Case-Study Research, as Illustrated by a Recent Case in Secondary and Higher Education." *Environmental Education Research* 10(1):53–65.

Lasker, Roz D., Eliza Weiss, and Rebecca Miller. 2001. "Partnership Synergy: A Practical Framework for Studying and Strengthening the Collaborative Advantage." *The Milbank Quarterly 79*(2):179.

McDaniel, Michael A., Nathan S. Hartman, Deborah L. Whetzel, and W. Lee Grubb III. 2007. "Situational Judgment Tests, Response Instructions, and Validity: A Meta-Analysis." *Personnel Psychology 60*(1):63–91.

Meyer, Christine Benedichte. 2001. "A Case in Case Study Methodology." *Field Methods 13*(4):329–52.

Minkler, Meredith. 2005. "Community-Based Research Partnerships: Challenges and Opportunities." *Journal of Urban Health: Bulletin of the New York Academy of Medicine 82*(2 Suppl 2):ii3–ii12.

Ng, Kok-Yee., Linn Van Dyne, and Soon Ang. 2009. "From Experience to Experiential Learning: Cultural Intelligence as a Learning Capability for Global Leader Development." *Academy of Management Learning and Education 8*(4):511–26.

Vesper, James, Ümit Kartoğlu, Rafik Bishara, and Thomas Reeves. 2010. "A Case Study in Experiential Learning: Pharmaceutical Cold Chain Management on Wheels." *Journal of Continuing Education in the Health Professions* 30(4):229–36.

Wonderlic & Associates (1997). *Wonderlic Personnel Test Manual*. Northfield, IL: Author.

APPENDIX: SITUATIONAL JUDGMENT TEST WITH SCORING

1. It is Saturday at 7 am, and you need to be at the barn by 11 am. You get a call from a family member about an emergency, and you know you won't be able to make it to work on time, if at all. What would you do?

   (2)   a)   Leave a message at the main office saying you won't be in.
   (3)   b)   Call your supervisor, explain, and ask for a relief feeder to cover your shift.
   (1)   c)   Skip the first shift of the day but try to make it to the evening shift.

2. You arrive at the barn and turn on the lights. You notice a calf that looks like it might be sick, but you're not sure. When you offer feed, it eats very little. What would you do?

   (1)   a)   Take it out of the pen and walk it outside to get some fresh air.
   (2)   b)   Check the calf at the evening shift, and see how it looks then.
   (3)   c)   Call the supervisor to ask how to treat the calf.

3. It is feeding time and you are mixing the liquid and dry feed into the tank. You accidentally pour too much dry feed into the tank, but it is a small amount. What would you do?

   (2)   a)   Call your supervisor and ask what to do.
   (1)   b)   Throw the whole batch away and mix a new batch.
   (3)   c)   Add extra liquid feed to the batch to balance the extra dry feed.

4. It is the beginning of the feed cycle with the new calves and many of them had to be trained to drink from the bucket. You are running behind schedule by the time you

finish the morning feeding, but you still have several things left to do. What do you do?

(1) a) Skip cleaning the milk lines and make sure you spend extra time on them after the evening feeding that night.
(3) b) Finish up the rest of the work as quickly as you can.
(2) c) Finish up quickly, and then plan to come in for the evening shift later than usual.

5. You are covering a shift at another barn for a feeder who has the day off. You know there are some things that the two of you do differently, but you're not sure about the details. What would you do?

(3) a) Call the supervisor and ask how things are done at the barn.
(2) b) Feed the calves the way you normally do at your barn.
(1) c) Call the supervisor and ask them to send someone else who knows the routine better.

6. The mixing motor breaks down as you are mixing a batch of liquid and powder feed in the tank. You have never fixed the machine yourself before. What would you do?

(1) a) Use a yardstick to stir the batch, and then feed the calves.
(3) b) Call your supervisor and ask that someone be sent right away to fix the machine.
(2) c) Throw the batch away and use only liquid feed for that shift.

7. One of the relief feeders has been running late to shifts and feeding the calves incorrectly. What would you do?

(3) a) Tell the relief feeder what needs to be done better.
(1) b) Say nothing and wait to see if the relief feeder improves.
(2) c) Tell your supervisor that the relief feeder is late and feeding incorrectly.

8. At the morning shift, you notice a calf that doesn't stand. It remains on the ground as you prepare the feed and it looks very sick. What would you do?

(1) a) Place the bucket of feed on the ground for it to eat.
(2) b) Stand the calf up and place the bucket in the normal spot.
(3) c) Treat the calf with medication and then offer feed.

9. One calf seems to have a much larger appetite than the other calves, and it always eats all the feed that you give it. What would you do?

(3) a) Give it more feed than the other calves.

(1)   b) Feed it less so the other calves can catch up in weight.
(2)   c) Continue to feed it the same amount as the rest of the calves.

10. It is a very hot day and the temperature in the barn is climbing. It is also very windy outside. What would you do?

(3)   a) Open the doors wide and let the wind quickly cool down the barn.
(2)   b) Open the doors a little to let in a small draft.
(1)   c) Spray water over the calves to wet them down and cool them off.