From Celebration to Critical Investigation: Charting the Course of Scholarship in Applied Learning

ROY SCHWARTZMAN
University of North Carolina at Greensboro

KELLY BOUAS HENRY
Missouri Western State University

Applied learning refers to learning experiences that take place outside traditional classroom settings. Examples include study away, service-learning, undergraduate research, and internship/practica/clinical experiences. As these pedagogies have increased in frequency over the past twenty years, the number of outlets devoted to the publication of scholarly work related to them has not kept pace. The Journal of Applied Learning in Higher Education *(JALHE) attempts to fill that gap, providing an outlet for research and theory that critically examines applied learning's impact and purpose using multiple methodological and disciplinary approaches. The initial volume of JALHE showcases work in this vein from a wide variety of disciplinary backgrounds and highlights areas ripe for future research.*

> Now is the time, we conclude, to build bridges across the disciplines, and connect the campus to the larger world. Society itself has a great stake in how scholarship is defined. (Boyer, 1990, p. 77)

Ernest Boyer's provocative epigraph captures much of what the *Journal of Applied Learning in Higher Education* (JALHE) seeks to accomplish. Applied learning figures prominently in national higher education reform efforts. In an era when few, if any, of higher education's

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long-held presumptions, such as the value of the liberal arts and of tenured professors, can be taken for granted, educational leaders have become more responsive to the demands of various stakeholders—businesses, governing boards, legislatures, parents, community organizations, local residents, regional accreditation agencies, and students. In particular, higher education institutions are learning to use scarce resources more efficiently to adapt to multiple learning styles and to produce measurable learning outcomes that meet the needs of industry and society.

The reform of scholarly research charts a similar path. Boyer (1990) comments that "future scholars should be asked to think about the usefulness of knowledge, to reflect on the social consequences of their work, and in so doing gain understanding of how their own study relates to the world beyond the campus" (p. 69). He goes on to praise fieldwork experiences in various disciplines "that involve students in clinical experience and apprenticeships" (Boyer, 1990, p. 70). The evolution of scholarship clearly involves a deepening concern for the experiential aspects of education. This essay will chart the course of JALHE by briefly tracing its historical and intellectual lineage, then embark on navigating it through the ongoing scholarly dialogues related to educational theory and practice.

CONCEPTUAL TOPOGRAPHY OF APPLIED LEARNING

Before proceeding, a definition of the central term in this journal's title requires clarification. "Applied learning" refers more to a spirit or movement in education than to a definitively bounded subject matter. It designates the kinds of pedagogical principles and practices associated with engaged scholarship, communities of practice, civic engagement, experiential education, and critical pedagogy. Diverse as applied learning may appear, all its manifestations share certain characteristics. Concrete experience, "learning by doing," lies at the core of applied learning. This pedagogy represents active learning at its most literal level, the activity of putting intellectual principles into practice.

Applied learning may be curricular or co-curricular, connected with coursework or a learning experience that occurs through other institu-

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AUTHOR NOTE: *Roy Schwartzman, Ph.D., Department of Communication Studies, University of North Carolina at Greensboro; Kelly Bouas Henry, Ph.D., Department of Psychology, Missouri Western State University, St. Joseph, MO. Correspondence concerning this article should be addressed to: Roy Schwartzman, Dept. of Communication Studies, 109 Ferguson Building, University of North Carolina at Greensboro, Greensboro, NC 27402-6170; e-mail: docroy@triad.rr.com*

tional means (such as student service projects). These practices always have a central educational component that—as service-learning practitioners quickly observe—distinguishes them from volunteerism conducted solely for its intrinsic value. Although they extend beyond conventional classroom education, applied learning practices complement rather than replace other pedagogical methods. Applied learning typically becomes manifest in higher education as one or more of the following kinds of pedagogical practices: study away (in an off-site environment, such as studying abroad or community-based learning), service-learning, independent research, and internships/practica/clinical experiences. These practices always have a central educational component which distinguishes them from out-of-class activities conducted solely for their intrinsic humanitarian value.

The distinction between applied learning and more abstract theoretical knowledge is articulated most crisply by philosopher Gilbert Ryle. According to Ryle (1949), intelligence melds two kinds of knowledge, which he labeled "knowing that" and "knowing how." "Knowing that" encompasses theoretical understanding, the propositional knowledge typically reflected in mastery of facts and principles. "Knowing how" involves the demonstration of skill in performing a task. The integration of these two types of knowledge proves crucial in what counts as intelligence. Imagine someone learning how to play a game. The "knowing that" component deals with internalizing the rules to enable play. The "knowing how" aspect refers to the ability to execute moves in the game. Scholarship on applied learning investigates this relationship between intellectual understanding (comprehending the rules, knowing the system) and skillful practice (taking appropriate action).

Theoretical knowledge without practical application creates the Ivory Tower intellectual incompetent to face the everyday challenges of life. In the film *Defiance* (2008), a Jewish refugee who cannot hammer a nail describes his vocation as "an intellectual," which generates the puzzled reply from his comrade: "This is a job?" On the other hand, practical skill without theoretical understanding cannot generate desired results consistently. The swiftest runner cannot win the race without knowing which direction to run. Ryle (1949) suggests that blending theory with practice enables a learner to transcend mere training and move toward initiating the self-discipline that characterizes lifelong learning: "To be intelligent is not merely to satisfy criteria, but to apply them; to regulate one's actions and not merely to be well-regulated" (p. 28).

The concepts of applied learning often infused the educational literature in discussions of vocational education. Researchers noted that a knowledge-based economy would require the flexibility to apply knowledge to a variety of tasks, and this versatility could arise only through putting theory into practice by engaging in concrete activities beyond the con-

fines of the traditional classroom (Kolde, 1991). Ongoing calls for greater relevance of higher education have helped to accelerate the pace of applied learning and extend it beyond job training. For most of society beyond academia, the true test of knowledge lies in its connection to lived experience.

RATIONALE: WHY THIS JOURNAL? WHY NOW?

The development of any new scholarly journal responds to an intellectual need, the proverbial "gap in the literature" recognized in every thesis or dissertation. The need for this journal is both profound and persistent. Applied learning programs have proliferated far more rapidly than the scholarly tools to examine the merits of their design and the measures of their effectiveness. While the popularity of applied learning generates celebration that the Ivory Tower is becoming part of the surrounding neighborhood, it also triggers consternation. As mushrooming numbers of individual case studies accumulate, the speed of implementing various applied learning practices has outpaced the ability to determine systematically what works best, when, and why (Densmore, 2000; Eyler, 2002).

The chronological history of this journal begins with the Conference on Applied Learning in Higher Education (CALHE), developed and hosted by Missouri Western State University in St. Joseph. The conference was born out of Western's statewide mission as Missouri's "applied learning" institution, a designation that became official in 2005. Like many universities, Western already had institutionalized many forms of applied learning experiences. Beyond simply practicing applied learning, the university sought to implement its mission by providing a venue to promote best practices of applied learning that could serve the state, region, and nation. The conference emerged as a way to meld the often abstract realm of institutional mission statements with the often under-theorized and under-analyzed practice of applied learning. CALHE offered to bring state-of-the-art training, research, and analysis through the top experts in various areas of applied learning—thereby putting the university's mission into practice through scholarship and intellectual dialogue.

Shortly after the first CALHE in 2006, we began to see that a related way to support the university's mission and to deepen the conversations regarding applied learning was to develop a peer-reviewed outlet that faculty and practitioners could turn to as a way to engage in scholarly discussions related to applied learning. The conference was becoming a provocative avenue for sharing ideas about applied learning across various disciplines. Unfortunately, it was limited by the ephemeral nature of such events. Energetic exchanges of ideas occur, stimulating further reflection, and then those exciting conversations gradually fade after the conference concludes. The narcotic everyday routine of paperwork

and other mundane tasks quells the momentum built at the meeting. The journal offers an ongoing, permanent resource for restoring and sustaining vibrant intellectual discourse.

The journal also addresses an issue that has emerged on many college and university campuses. CALHE emerged at a time when higher education was (and still is) embroiled in one of many dilemmas that pit traditional academic perception against current academic practice. On one hand, the realities of academic life at all levels place increasing demands on faculty to serve and teach. The chronic shortage of personnel willing to engage in governance and leadership means that a broader range of these administrative duties filters into the everyday duties of faculty and staff. Increasing teaching and service loads driven by demands for efficiency translate to more students and more tasks with fewer resources. Time for discipline-based research may erode in the face of these demands, especially in a social climate where only classroom instruction is conceived as "genuine" academic labor. On the other hand, promotion and tenure committees still tend to prioritize scholarship, especially at research-oriented institutions. How can these competing demands be reconciled?

Applied learning often falls through the cracks of faculty evaluation and reward systems in higher education. If understood solely as a pedagogical practice, it remains segregated in the "teaching" realm of evaluation. The conference and the journal treat the boundaries between teaching, research, and service as permeable. Too often, especially at research-oriented universities, teaching and service occupy distinctly lower levels in the evaluative hierarchy. The *Journal of Applied Learning in Higher Education* is dedicated to demonstrating that pedagogical practice—much of which involves service—and rigorous research are not only compatible, but symbiotic. The nature of the journal reflects the mutual fertilization among the four types of scholarship Boyer (1990) articulates: scholarship of discovery, scholarship of integration, scholarship of teaching, and scholarship of application. Within the pages of this journal, the practices and principles of different disciplines are integrated by their shared goal: to probe the theoretical grounds, best practices, and implications of applied learning in all its forms. This journal also provides a scholarly forum for conducting the scholarship of engagement (Boyer, 1996), the examination of pedagogical practices that implement the traditional institutional mission to serve its community and constituencies. This scholarly approach to service-related activities reunites the public service activities of higher education with the critical analysis that constitutes the core of academic research.

Some excellent peer-reviewed journals currently address different aspects of applied learning, but few scholarly avenues have provided a single forum to engage multiple disciplines in discussions of all aspects

of applied learning. By providing such a venue, this journal broadens the reach of scholarship beyond disciplinary restrictions (thereby fostering integration) and adds depth to scholarship of teaching by covering multiple pedagogical practices (not only undergraduate research, service-learning, etc.). In many ways, the movement of engaging students in experiential learning has grown up in silo form, with different forms of applied learning having their own organizations and emphasizing differences between disciplines and practices rather than seeking shared concerns with the nature and practice of applied learning per se.

The different forms of applied learning can inform each other and need not remain segregated in separate journals. For example, faculty who have for many years engaged in undergraduate research have used critical reflection to further student learning (though often such work was couched in analysis of methodological design and statistical inference). Practitioners of service-learning who wish to go beyond reflection based on sharing reactions to more analytical reflective practice could probably learn a great deal from the work of undergraduate research directors and practitioners on how to integrate that sort of critical reflection into a service-learning project. In addition, undergraduate research directors might be pushed by faculty who think a lot about finding good internship sites to consider ways to integrate undergraduate research into internship experience that relates the research to potential employment.

In its fetal stages, CALHE began as an internal, single-institution poster session with fewer than ten poster presentations. In 2009, the conference had more than 200 registrants from 17 states and Australia. Through JALHE, those who are committed to applied learning, and the scholarship of teaching and application, will have a way to document and disseminate their work. The journal's promotion of deeper discourse between the different forms of applied learning can build a foundation for understanding and furthering best practices in all forms of experiential education.

THEORETICAL MILIEU OF APPLIED LEARNING RESEARCH

Many years of reviewing conference papers, journal manuscripts, and grant proposals reveal a narrative structure that has become too common in the scholarship on applied learning. The structure constitutes what could be called the cheerleading model of self-advocacy. Too many submittals to conferences, journals, and grant review boards use a positive experience with a particular applied learning experience to make a generic argument in favor of applied learning per se. These self-congratulatory narratives of unqualified success invite readers to worship at the altar of applied learning. The scholarship on applied learning, however,

must move from love fest to knowledge quest. A productive first step in this direction is to recognize and discuss the pitfalls of projects, the limits of experiential learning, and more nuanced ways to evaluate quality of outcomes. For example, the problems associated with teaching about the Holocaust via simulated starvation diets and mock persecutions has led the Anti-Defamation League (2006) to issue a statement condemning simulation-based Holocaust education. Research on best practices should offer insight about what to avoid as well as what to emulate. Rather than offer a one-shot case study with the narrative pattern "Lo, we did it, and behold: it was good," research must probe the rationale for the results it reports. How does a particular project fit within the broader intellectual conversation regarding how to structure, administer, and assess applied learning? Another way to pose this question would be to inquire, along the lines of Fink (2003), about how a specific study is driven by and expands upon the relevant pedagogical and disciplinary theories.

Part of this larger conversation concerns the role applied learning can play in the discourse regarding higher education. Several examples illustrate the intriguing issues studies of applied learning might confront. One issue involves equipping students to become more independent, lifelong learners. Early exposure to a directed research experience might enable students who are conditioned to become received knowers—passively and obediently responding to authority but not initiating ideas—to acquire greater ownership over their ideas. Guided research activities could recondition students to become more independent thinkers by prioritizing invention over retention. Rather than implement a master plan of "please the teacher" by repeating whatever the authority figure wants to hear, research could guide the capacity for creative risk-taking, a key factor in critical thinking and problem solving. Future studies might investigate the connection between such research experiences and innovative student achievements beyond the classroom.

Apprehension about the competing forces of efficiency and effectiveness looms over the higher education landscape. The narrow constraints of commodification have positioned students as consumers to be placated, but as cheaply and quickly as possible (McMillan & Cheney, 1996; Schwartzman, 1995; Schwartzman & Phelps, 2002). This discourse of efficiency clashes with the competing pressures of demonstrable effectiveness. The result: paradoxical mandates to increase class sizes but also increase "customer service" to each student, or broaden access to higher education but improve standardized test scores and accelerate graduation rates. The list could continue indefinitely. Applied learning, however, offers pedagogical practices that have navigated the contrasting demands of higher education and external constituencies. For example, what lessons from sustainable campus-community partnerships in

service-learning projects might generalize to campus-corporate administration of internships? How does applied learning demonstrate the practical relevance of educational experience (a *sine qua non* of commodification) while also improving field-specific intellectual expertise (the essence of academe)?

METHODOLOGY MATTERS

Thus far, we have discussed the "what," "when," and "why" of scholarship on applied learning by tracing its theoretical parameters, intellectual history, and social justification. Attention now turns to the "how," which constitutes the modes of conducting research relating to applied learning. Much scholarship on applied learning relies on self-reports, especially from student participants, as a major source for evidence of learning outcomes and social effects. Such self-reports, especially when used as the sole data points, raise significant methodological concerns. These challenges should generate further scholarly reflection on how self-reports are used and should stimulate researchers to employ multiple methods that can produce more diverse documentation of applied learning experiences. The following concerns should urge scholars to employ a variety of evaluative measures when seeking to determine the value of applied learning.

Eyler (2002) notes that self-reports from student participants do not constitute sufficient evidence of successful educational outcomes or social impact. She raises the fundamental issue of validity: anecdotal self-reports cannot consistently or systematically link experiential learning inputs (e.g., program design, student demographics, nature of the learning experience) with personal or societal benefits. Schwartzman (2002) details some of the methodological challenges when he expresses concerns over the heavy reliance on self-reports in the service-learning literature. First, many survey instruments measure attitudes regarding the applied learning experience. It becomes difficult to correlate attitudinal tendencies with behavioral outcomes, especially when the desired outcomes include long-range or ongoing behavioral changes. For example, studies may attempt to show a project increased civic engagement by reporting a significant increase in likelihood to participate in activities associated with responsible citizenship, such as voting. Yet, how many of these studies actually track whether participants eventually engage in the desired activities? More studies of observable effects through direct observation and longitudinal data collection can document not only the immediate success but the long-term staying power of applied learning.

Excessive reliance on self-reports also invites systematic bias. Gelmon (2003) observes that community partners are likely to overemphasize positive service-learning experiences and underplay any draw-

backs, because they fear that any negative feedback might jeopardize future supplies of labor. This concern could extend to other applied learning activities. Host universities might be reluctant to report negative experiences with study abroad students as they could endanger reciprocal agreements with institutions that sent the students. Site supervisors of interns might offer overly positive performance appraisals to protect the continued infusion of low-cost labor.

Self-reports from students may suffer from distortion on several levels, including social desirability bias, self-justification, and reciprocity. Each of these difficulties deserves further reflection. Discussing research on service-learning, Pritchard (2001) identifies social desirability and self-justification as factors that might taint results: "When surveys are used to evaluate the success of an effort, particularly at its completion, the respondents usually know what answers the evaluators want and are also predisposed to rationalizing their own investment of time and effort" (p. 24). Most applied learning projects include a rather explicit statement of desired outcomes. Even without a pre-established outcome for the specific project, the social and educational goals tend to be transparent: study abroad increases cultural awareness, undergraduate research enables acquisition of discipline-specific knowledge, service-learning aids clients of community organizations, internships develop job-related skills. End-of-project surveys also invite false or exaggerated positives as ways to avoid cognitive dissonance that might arise from admitting failure to achieve the project's objectives. Finally, reciprocity introduces potential distortions if respondents feel morally obligated to "return the favor" of a stakeholder by skewing evaluations toward the positive side. Even with properly designed questionnaires, a study abroad student may rank a host university's academic programs as outstanding based on the institution's hospitality rather than its academic quality. In fact, many assessments of applied learning experiences may require substantial reconsideration to improve their validity. Minimally, the tendency to generate "false positives" should raise concerns about reporting self-evaluations absent some type of comparative scales with control populations that establish evaluative norms (Darby, 2008).

Another methodological challenge lies in distinguishing satisfaction from learning outcomes and social impact. Too often, success of applied learning initiatives tends to be judged by measures of positive affect. Put more directly, popularity presumably proves success. Especially in times of economic constraint, applied learning must pay more tangible dividends than spreading happiness. Neil Postman (1984) has offered ongoing cautions about confusing entertainment with education, noting that highly engaged students may not have learned much despite their expressing deep satisfaction with a learning experience.

In fact, enthusiastic appreciation of applied learning needs to be tempered by carefully determining which measures would suffice to support the positive impact of an applied learning experience. The support invoked here refers to what would count as evidence for various constituencies, including legislators and funding agencies. Frankly, few people outside the walls of academia find the results of student feedback particularly compelling because they recognize the subjectivity of even the most statistically saturated evaluations. One pedagogical strength of applied learning is that it offers many other types of measures from multiple stakeholders that can document outcomes. For example, a service-learning project could document the number of clientele a community organization served prior to the project compared to the number the project reached. This kind of documentation provides demonstrable evidence that a project extended the capacity of a service agency, an especially powerful statement if the agency already has been recognized as vital to the community.

When several indicators demonstrate similar outcomes, the conclusion becomes much stronger. Applied learning experiences are amenable to many assessment measures in addition to (or instead of) subjective self-reports from students. Several academic fields have developed quite refined measures of learning outcomes, and these field-specific measures could be administered to compare students who undergo applied learning with their counterparts who participate in traditional classroom instruction. External constituencies, such as community partners for service-learning or professional practitioners for field experiences, could document how student involvement affected organizational practices or administer independent assessments (such as knowledge of field manuals) to determine levels of practical knowledge. Interns might receive performance appraisals from multiple evaluators rather than only from a site supervisor who feels compelled to maintain a positive relationship with the academic institution. A long-term assessment of any participant in applied learning could consist of making that student a mentor for subsequent students, who would then evaluate the quality of the preparation they received for their educational experience.

Research on applied learning can catapult beyond the "testimonial of success" mode by going beyond a one-dimensional pre-test/post-test design. This methodology measures student opinions or learning outcomes before and after an applied learning experience and attributes improvements to the project. Frequently these designs fail to incorporate controls or benchmarks that would enable the researcher to isolate the "value added" uniquely from the project itself. For example, would similar outcomes have resulted from less expensive, less labor-intensive, less risky instructional techniques? How do the experiential project's outcomes compare with the same material taught in a non-experiential format?

Does the study control for the instructor or supervisor of the project, or are outcomes the artifact of the administrator rather than stemming from the project itself? Which demographic factors are controlled? For example, does a study discussing the impact of a study abroad program include comparisons or controls across different nations? Could the demonstrated impact of a study abroad program result more from the nature of a particular national culture or university system than from the international experience?

The applied learning literature also could benefit from more vigorous longitudinal studies, especially those that track long-term behavioral patterns attributable to applied learning experiences. Some excellent work has been done on tracking specific programs, such as service-learning partnerships, over time (e.g., Keen & Hall, 2009; Kiely, 2005). Still, few findings have accumulated that document the extent to which students independently embark on activities consistent with the objectives of their applied learning experiences. In short, are students applying the lessons of their applied learning? The research questions in this area seem deceptively obvious, yet they have paramount significance for the long-term justification of applied learning practices. Consider only a few examples. Do students who study abroad initiate or participate more frequently in organizations that further intercultural awareness and collaboration? To what extent do international experiences reduce ethnocentric attitudes and behaviors? How are the membership numbers of international student groups correlated to the rates of study abroad experiences? Do study abroad participants exhibit distinctive patterns in their career choices that leverage the value of their international experience? Have field experiences been correlated with better qualified applicants for positions in those fields? How do in-field placement rates of student researchers compare with those of students who did not engage in undergraduate research? How has the undergraduate research experience equipped alumni to (a) conduct research outside their field, or (b) embark on professional duties that do not involve research in the academic sense? Closer tracking of student participants as well as other constituencies over an extended period of time would begin to answer these questions and many more that linger.

Research on applied learning could reap substantial benefits from mining the rich but often untapped data from voices rarely heard in scholarship that plucks the low-hanging fruit of student self-reports. More extensive explorations of input from constituencies such as applied learning program administrators (e.g., service-learning, study away, and internship coordinators), community members, site supervisors, clientele served in community-based projects, or students and faculty in host universities abroad would broaden the conversation beyond faculty reporting their students' opinions to other faculty. The impact of applied

learning research also would intensify if it embraced public policy issues more directly. For example, how do legislators and funding agencies define successful applied learning? How do their criteria and perceptions square with those of academics? What might account for or correct misalignments? How could academic expectations for applied learning interface better with desired political and social outcomes?

IN THIS ISSUE…AND BEYOND

The contents of this issue span a broad scope of applied learning, illustrating the range of pedagogical practices that can generate productive intellectual discussion. The articles begin with an analysis of the role of reflection in applied learning and how to develop reflection tools that can facilitate learning while accurately documenting the nature of the learning experience. The scholarship in the rest of the issue covers a wide array of concerns: an alternative certification program centered on experiential components, a field experience that connects coursework with professional practice, the impact a rubric to assess student learning can have on student motivation in an experiential setting, and a service-learning project that enables teacher candidates to develop their Spanish skills while teaching basic English. Together, these articles provide a sample of the range of scholarship that applied learning can generate. Individually, each article raises issues and questions that can stimulate ongoing research.

"Generating, Deepening, and Documenting Learning: The Power of Critical Reflection in Applied Learning," by Sarah L. Ash and Patti H. Clayton, addresses the importance of the careful and purposeful use of reflection to motivate and measure student learning outcomes. Ash and Clayton (2009) note that the term "reflection" is somewhat problematic in that it suggests a reactive, emotional analysis to the events that take place in an applied learning situation rather than a critical analysis of those events. Thus they use the term "critical reflection" to connote this more analytical process that has been linked so closely to student learning (Eyler & Giles, 1999). Henry and Kempf (2005) found that faculty may use critical reflection far less than they actually prefer. Ash and Clayton call for faculty who supervise applied learning to intentionally design critical reflection around learning goals. The piece provides an enormous resource to faculty who too often rely on an end-of-term reflection paper (which rarely gets feedback to students in a timely fashion) or journaling that degenerates into sharing observations rather than analyzing those observations in light of learning goals for the course.

In addition to providing a powerful pedagogical tool, Ash and Clayton's work inspires us to think in terms of how student assessment might not just feed into a gradebook, but into a scholarly analysis of

how well our instructional design worked in terms of facilitating learning goals. Student learning assessed using their Describe-Examine-Articulate Learning (DEAL) model informs a faculty member's assessment of his or her own work. For instructors who want to publish their work as scholarship of teaching, the DEAL model can generate compelling evidence of the effectiveness of a given applied learning experience beyond Likert-type evaluations that may measure student satisfaction as much as learning (Greenwald & Gillmore, 1997; Snare, 2000). The ability to generate such an argument is increasingly tied to funding support for activity in higher education. Particularly in tight financial times, this sort of assessment tool is critical in demonstrating the impact of applied learning and its value to external constituents.

Finally, Ash and Clayton's approach to applied learning lays out a research process by which faculty develop, in a sense, hypotheses about what strategies will positively impact student learning and test those hypotheses using student critical reflection products. This approach allows faculty to move beyond scholarly teaching toward the critical evaluation and testing of one's own strategies that can be submitted for peer review. Indeed, work that follows this line of analysis would be most welcome in future volumes of the *Journal of Applied Learning in Higher Education*.

"Examining the Development of the Victorian Certificate of Applied Learning and Its Implications for Schools and Teacher Education in Australia," by Damian Blake and David Gallagher, provides an outstanding example of what can be accomplished when applied learning is implemented system-wide. It also highlights the implications such an adoption can have on teacher training programs, which implies that there may be unanticipated impact in other disciplines that seek to integrate applied learning across the curriculum.

The Victorian Certificate of Applied Learning (VCAL) was motivated by a desire to increase graduation rates from secondary schools in the province. The baseline completion rate of senior high school prior to the development of an alternate educational path based in applied learning pedagogy was 80%, with the goal that the VCAL might raise that to 90%. Achieving that goal would add more than 60,000 individuals to the workforce, significantly boosting the regional economy. But why the VCAL, and not some other alternative route to completion, such as the GED program in the United States? Because the VCAL addresses the increased diversity that folds into an educational system trying to retain students who would otherwise leave school early. The VCAL provides a means for these students to earn legitimate academic credit for learning that occurs in non-traditional situations. The process involves creating a dialogue with students about the curriculum through which curricular content is negotiated and ultimately assessed.

The assessment component to the VCAL is critical to the integrity of such programs. It is part of the reason that the VCAL had significant implications for teacher training. For teachers who are trained in traditional assessment strategies, it can be difficult to imagine how a real-world experience could translate to assessment focused on test scores. The universities in the province educating future teachers had to prepare these individuals to handle a wider array of assessment strategies, as well as to deliver a wider array of pedagogical strategies. Given the difficulty in recruiting and retaining high-quality secondary school teachers in the United States, making the process broader and more rigorous is not a trivial problem. The key to doing so successfully may lie in the ability to demonstrate such a program's economic impact. The VCAL has moved Victoria significantly toward the goal of 90% completion rates. In addition to documenting completion rates, it will be important in future years to document the impact of that improved completion rate in terms of increased workforce and related productivity gains.

In fact, this type of accountability is not only relevant to the VCAL, but may be a useful strategy for others doing research on applied learning. Applied learning is inordinately inefficient compared to traditional lecture-based counterparts in the academy. In lean times, university administrators may question the value of continued support for such pedagogical strategies if the faculty who practice them have not carefully documented the benefits of such investments for the constituents of the university. Future research in a variety of areas of applied learning will benefit from scholars who establish an economic value to the expensive process of applied learning, as well as the impact on graduation rates and student learning.

"Will They Recognize My Lecture in the Field? The Juvenile Corrections Critical Assessment Tour Applied Learning Experience," by Greg Lindsteadt and Regina Williams-Decker, raises several important issues for applied learning. The authors note the stimulus for applied learning as pedagogical, but also as a step in rehabilitating the reputation of criminal justice as an academic field. This kind of reflection proves especially timely during economic belt-tightening, when academic programs must appeal to (largely non-academic) policymakers by demonstrating practical relevance. Lindsteadt and Williams-Decker examine the ways a deep field experience within juvenile justice facilities can show the applicability of course content to the actual practice of juvenile justice. Writ large, this essay poses the question of how well class- and text-based theory aligns with the practices within the criminal justice system.

The Juvenile Corrections Critical Assessment Tour (JCCAT) discussed in the article invites reflection that extends far beyond the dynamics of the specific applied learning experience, ambitious as it was.

Usually the practical relevance of course content is judged unidirectionally, by measuring correspondence of class experience with activities in the profession. Future research might invert the question these authors ask, querying whether practitioners will recognize future juvenile justice workers when they interact with the students. Applied learning experiences usually occur at the intersection of several realms of participants: students, academics, field workers, and clients in the field. It might prove rewarding to gather data not only on whether students recognize course content in the field, but also whether the personnel at juvenile justice facilities view the course content as an accurate depiction of the justice system.

As for learning outcomes, the JCCAT opens the door to multiple measures of learning. The article offers intriguing glimpses of possible systemic biases in the actual practice of juvenile justice, especially in the areas of racial, gender, and class equity. The course as well as the project itself might in future iterations dig deeper into the roots of these disparities—perhaps uncovering lingering, unresolved tensions between rehabilitative models of justice and punitive practices that may contribute to recidivism more than reformation. On a broader level, the JCCAT experience could confront the convergences and divergences between social justice and criminal justice (Rawls, 1971). Direct engagement with these systemic issues might equip students not simply to become future workers within the justice system, but rather to empower them as agents to rectify the discrepancies they observe between theories of justice and the ways justice is meted out to juveniles.

"Student Motivation and Assessment of Applied Skills in an Equine Studies Program," by K. I. Tumlin, R. Linares, and M. W. Schilling describes the impact of using a rubric—and providing it to students prior to testing—to assess hands-on, psychomotor skills such as showmanship in an equine studies program. Theoretically, providing students with the rubric ahead of the assessment should clarify the grading standards and improve student performance on the applied tasks. In fact, the authors of this study report the counterintuitive finding that students who were given a rubric beforehand actually performed worse on the assessment of their applied skills than students who had not seen the rubric at all.

Rubrics are standard operating procedures in much of the educational domain, in part because they standardize assessment of skill and in part because they make the evaluation standards transparent to students. Indeed, McTighe and O'Connor (2005) argue that providing the rubric to students is a necessary (though not sufficient) condition for supporting student learning. The finding that in an applied learning setting the rubric resulted in poorer student learning outcomes is intriguing. Future research might focus on establishing whether or not this result is replicable in other disciplines that use applied learning, and if the result is

reliable, the reason behind it. The authors of this study report that the students in this program are largely more goal-oriented than process-oriented. Could it be that providing students who are already goal- (i.e., grade?) oriented pushes them to achieve the minimum rather than the maximum possible? This is exactly what happened for the students in this study—the average performance was lower overall and the failure rate was lower when the rubric was present but the "superior" performance category was much more likely to be achieved when the rubric was not provided.

This result invites the question of what impact a rubric has in an applied learning setting. In some ways, providing a rubric "frames" the situation for students a priori. Part of the point for those of us who encourage students to participate in applied learning activities such as practica in a discipline is to expose students to learning situations that are vague and undefined, requiring the student to frame the problems they encounter on-site for themselves. The ability to effectively frame a situation so that one can apply the appropriate academic content to generate solutions and productive work is critical to applied learning. Indeed, Eyler and Giles (1999) argue that "application" is one of the vital components of the learning process in service-learning settings. Does providing a rubric to students in an applied learning situation perhaps defeat part of the purpose of applied learning by effectively narrowing students' attention to a limited set of features or possible solutions? The results reported by Tumlin, Linares, and Schilling invite future scholars to investigate these and other possibilities.

"Demographic Tipping Point: A Discussion of Cultural Brokering with English Language Learners as Service-Learning for Teacher Candidates and Educators" by Wendy McCarty, Rosemary Cervantes, and Geraldine Stirtz details the experience of a service-learning project that illustrates the mutual impact such experiences can have on students and community members. The project implements "cultural brokering," defined as intercultural partnerships initiated to instigate positive social change. The brokering in this case involves teacher candidates helping native Spanish speakers learn basic English. The language learning moved in two directions, typifying the brokering relationship. The English language learners (ELLs) developed their linguistic skills to improve their social mobility, while the teacher candidates acquired more Spanish language skills through conversing with the learners and their families.

The cultural brokering experience offers intriguing possibilities regarding how service-learning might combine with intercultural activities to enhance linguistic and intercultural competence. Specifically, standardized pre-tests and post-tests of language skills could gauge the degree to which the teacher candidates and the ELLs learned

each other's language. As for intercultural sensitivity, prior research on service-learning has noted the potential for intercultural experiences to trigger boomerang effects if the unfamiliar culture is cast in particular kinds of social roles (Erickson & O'Connor, 2000). Placing certain populations, such as non-native English speakers, consistently in the role of needing assistance might actually reinforce ethnocentric views of Anglo-American hegemony. Inventories of intercultural tolerance or measures of prejudice could be administered to determine how cultural brokering affects the cross-cultural attitudes of participants.

As the authors note, participant feedback deserves supplementation with other kinds of empirical and interpretive analysis. One interesting direction for further research would be to employ different pedagogical techniques to teach the ELL students. The project could collect important data on the most effective ways to enable non-native English speakers to acquire English language skills. Do the same techniques for foreign language instruction of native English speakers work as well for students from other linguistic backgrounds? Which pedagogical techniques prove most effective with particular demographics of language learners? McCarty, Cervantes, and Stirtz open the door for future research to begin to mine a variety of data sources for answers to these questions.

INVITATION TO FURTHER INVESTIGATION

The finale of this article consists of suggestions for future research directions rather than a definitive conclusion that brings inquiry to a neat—and necessarily premature—conclusion. Scholarship on applied learning needs to move beyond self-advocacy. The justifications for applied learning have been made convincingly. These arguments require more nuanced examination to avoid categorical endorsement of applied learning regardless of its method or context of implementation. We suggest several modes of conducting scholarship on applied learning that go beyond self-justifications of particular applied learning experiences.

Many fruitful paths for scholarship on applied learning await exploration. Thus far, little attention has focused on the interface between applied learning and emergent educational technologies. Applied learning techniques have been discussed as low-tech ways to intensify intellectual experiences, especially when compared to hands-off, depersonalized methods that operate via economies of scale (Schwartzman, 2001). Minimal attention, however, has been devoted to the role technology might play within applied learning. For example, what implications do computerized simulations have for field experiences and practica? As budgetary belts tighten, might virtual experience supplement, enrich, or displace what counts as experience in experiential learning? Rather than demonize new technological tools, future research could tap into the

instructional technology literature to investigate how technological tools and applied learning could prove mutually beneficial. How could inexpensive means for touring sites and conducting long-distance interviews enhance preparation for study away? In what ways might collaborative and social networking tools from wikis to Twitter and beyond increase the sustainability of learning beyond the duration of a term spent studying abroad or at an internship site? Could virtual realities such as Second Life and similar realms intensify preparation for firsthand applied learning experiences? Overall, how might applied learning leverage the power of technology to (a) improve student readiness for applied learning, (b) enrich the applied learning experience, (c) extend the sustainability of applied learning beyond a project's termination at a given locale, (d) improve methods of assessing learning outcomes, (e) reduce or maintain costs without sacrificing quality?

In an important essay surveying the theoretical territory of the communication studies field, Craig (1999) identifies socio-cultural and critical approaches as two classifications of communication theory. These perspectives transcend communication studies and could generate research that would enrich the study of applied learning.

Socio-cultural scholarship on applied learning asks questions that explore the interaction between applied learning and its social environment. Internships offer an excellent example of opportunities for socio-cultural explorations. Internships tend to be discussed from two perspectives: the student's pedagogical/professional development and the sponsoring organization's labor needs. Less attention has been devoted to issues related to internships and organizational culture. One such issue involves the intern's place in organizational hierarchies. If an internship serves as a training ground for executive positions, a hope many student interns harbor, then how do rank and file employees view the intern who serves a brief internship and then leapfrogs over employees with greater seniority to a position that outranks them? How does the rapid rise of an intern through the organizational ranks comport with an organizational culture that touts advancement through "paying your dues," and "taking care of our own"? If interns are analogous to apprentices, then how does an apprenticeship through an educational institution's internship program compare to an apprenticeship of on-the-job training without an academic component?

Internships also provide an opportune venue for delving into the ambiguous role of students engaged in applied learning. The student intern assumes a dual role comparable to the graduate teaching assistant. Teaching assistants must navigate between several potentially conflicting roles, such as peer to the students they teach (all are students earning grades) grader , mediator between undergraduates and full-fledged

faculty. Student interns, whether paid or unpaid, face similar complexities in positioning their role within an organization.

Scholarship that explores applied learning as a critical force could investigate the maintenance and disruptions of power relationships that infuse experiential learning. Johnston (2007) notes the disconnect between the compliant subservience so often rewarded in cooperative education ventures, which could include internships, and the encouragement of questioning and challenging systems of embedded privilege that lie at the heart of critical pedagogy. How might scholarship on applied learning reconcile the conflicting social pressures to train obedient employees while also fostering critical thinkers who question the embedded systems of privilege that perpetuate subservience? A study by Carson and Fisher (2006) found that 25 percent of students did not demonstrate signs of critical thinking in their reflections on the internship experience. These students simply described their experiences without questioning what they encountered. The researchers note that students might become reluctant to engage in critical reflection when simple description poses fewer risks. "We recognize that attempting to produce criticality in an environment that often asks for the opposite (conformity and adherence to the status quo) can be a risky undertaking, one that many students may be reluctant to pursue" (Carson & Fisher, 2006, p. 716). To what extent can applied learning move toward more critical reflection without jeopardizing the continuity of campus-community or campus-corporation partnerships?

Another productive path for research would lead researchers toward reflecting more deeply on the relationship between applied learning and the cultivation of what Benjamin Barber (2004) calls "strong democracy." A more substantial body of empirical research could document which kinds of applied learning correlate with long-term behavioral changes that reflect deep involvement in civic affairs. Theoretical and interpretive research could explore how applied learning can build the capacity for systemic democratization, perhaps by creating a culture of mutual obligation and care as a counterpoint to consumerism and commodification (Schwartzman & Phelps, 2002). For example, studies could adopt networking theories or diffusion of innovations to determine the most effective ways to disseminate the cultural awareness students acquire from study abroad. Such investigations might provide insights regarding ways to counteract American hegemony and foster more civilized intercultural dialogues.

Future scholarship on applied learning can blaze many promising intellectual trails. We are pleased to play a role in this exploratory venture and invite all scholars and practitioners involved in applied learning to join the journey.

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