

*Artistry in Action: Framing Learner-Centered Academic Advising
Practices*

E. R. Melander
The Pennsylvania State University

2005 DUS Conference
The Arts and Sciences of Academic Advising
September 20 and 21, 2005

Contents:

Section:	Page
Abstract:	2
Introduction:	2
Brief Look at Theory of Practice	5
Framing Student Centered Academic Advising	9
Figment: An Imagined Advisee's Self Reflection	20
Conclusions	25
Bibliography	28

Abstract:

This paper examines gaps between theory and practice and their implications for the curricula of higher education institutions. The common perspective in higher education is that theory is in the knowing and practice is in the doing, with institutions committed to organizing curriculum content around abstract theories—knowledge about phenomena generated by the academic disciplines—and leaving knowledge about doing left to the practice experiences of students. This perspective implies that an educated person is one who has been enlightened with knowledge of disciplinary theories, without regard to his or her capacities for constructing, evaluating, and applying knowledge in practice situations. But an examination of practice reveals that the practitioner in order to solve problems of practice must construct, evaluate, and apply knowledge; the practitioner must also be a theorizer. This paradox—the practitioner in doing must also be a scholar to generate knowledge—suggests that there exists a special epistemology of practice knowledge. Because graduates over their lifetime fulfill multiple roles as practitioners in a wide array of practice settings, it is important for them as educated persons to be empowered as practice scholars, thoroughly grounded in the epistemology of practice knowledge. The traditional definition of an educated person as being enlightened by knowledge generated by formal scholarship in the disciplines needs to be extended to include empowerment through the development of capacities for practicing personal scholarship in practice situations. This expanded definition of what it means to be an educated person, especially if the institution considers itself to be learner-centered, has important implications for the practitioners of the educational process in higher education institutions, including students as learners and advisees, faculty as teachers, advisers as educators, and the institution itself.

Introduction:

This started out as a formal paper on *Artistry in Action: Framing Student-Centered Academic Advising*. As I began reflecting on issues of artistry, action, framing, and student-centered academic advising, I found I needed to revisit some basic questions about practicing, theorizing, learning, knowledge construction, problem solving, and scholarship. Along the way, I discovered some interesting things about theory and practice and their interrelations that, in a round-about way, led me back to the topics of artistry and framing. The paper has ended up being more of a narrative, a story, than a formal argument containing proofs and documented references.

To whet your interest in my story, may I first present you with some of the conclusions that were revealed in my journey of discovery toward understanding

artistry and framing in advising practice. Here are the nine “big ideas” of the story line:

- *Advising practice involves a paradox: to practice advising also involves practicing scholarship to generate new knowledge and new theories;*
- *Knowledge—its generation, application, and evaluation—is at the core of each practice; our concern is with the epistemology of practice, the nature of practice knowledge;*
- *The practice of advising scholarship is based on a simple model of diagnosis, action, and reflection to generate knowledge;*
- *“Good practices” by practitioners include two types of reflective theorizing activities: One called framing to generate descriptions of forces and factors affecting the actions and outcomes of practice; the other called “reflection-on-practice” to evaluate the effectiveness of practice activities of diagnoses, decisions, designs, and actions;*
- *Practice activities of all major educational practitioners in the institution are organized around working out responses to the question of “what does it mean to be an educated person?”*
- *Formal knowledge generated in the disciplines is about phenomena and is, in itself, inert. Practice knowledge and skills are about doing, about taking action; they empower the practitioner to accomplish some goal, such as solving a problem or enacting a project;*
- *An educated student is both enlightened (has gained knowledge about phenomena) and empowered (knows how to construct knowledge and use it to guide actions in practice situations).*
- *The operative definition of an educated person in higher education assumes a student is educated if she is enlightened with knowledge about phenomena generated by formal scholarship in the basic and applied disciplines. The definition is incomplete for it fails to adequately address the student’s need for empowering visions, practice scholarship skills, and personal practice knowledge so that she can effectively engage in practice.*
- *Practitioners in higher education—students, teaching faculty, advisers, and the educational institution itself-- must, for both moral and marketing reasons, reframe their operative definition of educational goals to that of producing a fully educated person—one who not only knows about things, i.e., is enlightened, but also knows how to do intellectual things in practice, i.e., is empowered to practice.*

Anyone engaged in practice is aware of the gaps between theory and practice—why theory doesn’t seem relevant to the practitioner and practice doesn’t seem relevant to the theorist. First, I approached the gap from the point of view of the scholarly

researcher. What I discovered was that theories about practice constructed by scholarly researchers from the disciplines were mostly concerned with the phenomena of practice, addressing questions such as “what is advising,” “what are the outcomes of advising,” or “who are the students?” They typically are not concerned with the actions of practice, where they would be addressing such questions as “how do advisers do advising,” “how do advisers make decisions and take actions,” or “how do advisers in their advising practice address problems faced by practicing student advisees?”

For a current public reference to the theory vs practice gap in the case of teacher education, see “Who Needs Education Schools? What colleges teach. What teachers need to know. And why they are not the same.” (Anemona Hartocollis, *New York Times, Education Life*, July 31, 2005.) In the article, there is a quote by Arthur Levine, President of Teachers College at Columbia, “One of the biggest dangers we face is preparing teachers who know theory and know nothing about practice.” David Steiner, the new dean of education at Hunter College, indicates his goal is to “prepare teachers who are scholars of their craft,” both proficient in methods and curriculum and able to think in a sophisticated way. We shall use that phrase, “scholars of their craft” later to reference the goal of preparing students to be scholars as they craft their own education while engaged in their own practice of becoming educated.

Advising practitioners are not particularly concerned about the theory/practice gap for they are mostly concerned with issues associated with their everyday practice of advising. They don’t find much of value in formal research results or in formal theories for everyday practice. They know what advising is from the insider perspective of the practitioner and are more concerned with how to do it in effective ways and how to improve their performance. Most of their expertise and knowledge has been gained from doing advising, from their experiences as practicing advisers, rather than from studying the results of formal research and formal models of scholars. They believe they can learn more about how to do advising from their own reflections and the reflections of colleagues of advising practice—both fellow advisers and advisees—than from the scholarship conclusions of their distant colleagues in the basic and applied disciplines.

Then I approached the theory/practice gap from the opposite direction, asking whether the actions of advising practitioners include the construction of knowledge or theories—asking, if you will, whether practitioners construct and use their own theories of “how to do” advising? What I discovered was that practitioners constantly use scholarship methods as they construct and use knowledge to solve everyday problems of practice. As they practice advising they also practice

scholarship. *This is the paradox of practice—that practice necessarily involves acts of scholarship, learning, knowledge construction, and theorizing.*

What is so striking about this paradox is that it is not widely understood among practitioners of any practice, including advising practitioners, student learning practitioners, or formal scholarship practitioners in the disciplines. If it were better understood by advising practitioners, they could gain important insights about the nature of their expertise and about how they to go about improving both their expertise and their performance as practicing advisers. If it were better understood by student learning practitioners, they would be more conscious of how to improve and evaluate their own learning and development activities. If formal scholars in the disciplines better understood it, they could apply their powerful scholarship methodologies to the study of the phenomena of scholarly practice in addition to the study of the discipline phenomena; they could also include the development of practice scholarship as part of their professional curricula.

A brief look at the theory of practice:

The study of practice has as its intended outcome the identification of certain principles and a narrative that describes the relationships among the component parts of practice; that is, the intended outcome of the study of practice is the development of a theory of practice. The scholarship of practice has been dominated by the work of two researchers, Chris Argyris and Donald Schön, who individually and jointly have been studying and writing about action in practice since the early 1970's [Argyris and Schön (1972, 1975); and Schön (1983, 1987a, 1987b)] as well as by Howard Gardner (1983,1999), and Marcia Baxter-Magolda (1999). Their work has been inspired by the earlier work of John Dewey (1933). Much of what follows here as we try to understand advising practice and how to do it has been strongly shaped by their work on general theories of practice.

The key concept that unlocks the mystery of the relationships between practice and theory is that practice is essentially problem solving (project and program enactment can be reframed as problem-solving). Practitioners engaged in practice make decisions and take actions to implement some purposeful process. Their decisions and actions are aimed at solving big and little problems, principally problems arising within the practice as well as problems arising out of the practice environment. As problem solvers, all practitioners face a common task of diagnosing what is at work and what constitutes a solution in a particular problem situation and then taking actions to achieve a solution. A solution is reached when the diagnosis reveals no further action is needed.

The common problem solving process focuses on the diagnosis of three knowledge-based decision situations: deciding on whether enough knowledge is available to solve the problem; deciding on what additional knowledge, if any, is needed; and deciding on how to go about gaining the needed additional knowledge. The process then focuses on the actions needed to implement the diagnostic decisions. If additional knowledge is needed, the solution path is discovered through repeated applications of the diagnosis/action routine. The ultimate solution to the problem is achieved when repeated application of the diagnosis/action routine results in enough accumulated knowledge to solve the original problem. At this point, no additional knowledge and no additional action are needed.

In applying this problem solving process, the practitioner may encounter two different problem situations: the simplest case is called closed system problem situations, which are characterized as having a clearly specified definition of what knowledge is required in order to solve the problem. Such closed problem situations are solved through repeated applications of the diagnosis/action inquiry process until no further knowledge and actions are needed. In these cases, each time the immediate diagnosis reveals that further knowledge is needed, a new local problem is generated and is solved by another application of the diagnosis/action routine. This is a single loop learning situation in that each application of the diagnosis/action routine goes through a single test—is there yet enough information to solve the local problem or is more information needed? In effect, the total solution emerges out of repeated applications of the diagnosis/action discovery routine to solve a series of local knowledge-based problems.

An example of a closed-system, single loop problem situation would be a picture puzzle, where the fixed total solution is the picture on the cover of the box and a local problem is whether two pieces match, both in their edges and their image fragments. When all the pieces have been properly matched and the picture on the box cover has been reproduced by the assembled puzzle parts, the puzzle is solved.

Most problem solving situations, however, are open-ended in that the definition of the knowledge needed to totally solve the problem is not known in advance. The final solution is discovered through a discovery process where each local problem solution is also tested against an imagined possible total solution. This represents a double-loop learning model. The first test on any trial of the diagnostic/action routine is whether the additional knowledge gained is adequate for a local solution but a second test also is made to check whether the additional knowledge gained is consistent with an imagined total solution.

A picture puzzle where the box has no cover image is an example of an open-ended, double loop problem situation. The challenge is to discover the final solution image while working the puzzle. After each local match of edges and image fragments, the puzzler must test the match with an imagined final cover image. If the fit with the imagined final image isn't good, the imagined final image is modified. This is not a linear process because, as the imagined final image is modified, it may be necessary to revisit and modify some earlier local solutions.

The diagnosis/action cycle can be viewed as a four-step process—observe, analyze, design, and implement (OADI)—where diagnosis includes *observing* to gather evidence and *analyzing* to create and evaluate knowledge and where action includes *designing* to construct an experiment for gaining additional needed knowledge and *implementing* the experimental design. The problem solver exercises judgment in all four steps of the diagnostic/action cycle: that is, in deciding what evidence to observe; in analyzing and evaluating whether and what additional information is needed; in designing an experiment that will produce the needed information; and, finally, in deciding how the designed experiment is to be implemented. The analysis and the design steps, in particular, are dependent on the judgment, imagination, and prior knowledge of the problem-solver, all of which are tempered by the practitioner's reflections on prior experiences.

The concept of framing is an important tool for understanding practice and the role of practitioners. Framing is the construction of a framework around the activities of practitioners and is used to identify forces and factors that affect either the processes or the outcomes of practitioners' activities in their role as practicing problem solvers. Framing requires two kinds of knowledge: formal knowledge about the process being framed—its purposes, structure, and outcomes; and personal tacit knowledge based on experience about how to do framing. Practitioners frame both the environment, called contextual framing, and the specifics of the problem situation they are confronting, called operational framing. The task of framing can itself be considered a problem that needs to be solved by the practitioner before he can proceed to the task of solving the operational problem. In solving the framing problem, the practitioner uses the same four-step reflective scholarship model he uses to solve operational problems. The scholarship model helps him construct and use intuitive or tacit knowledge in both his framing and operational tasks. Others, such as the institution itself or clients of the practitioner, can and do frame the role of the practitioner, especially in terms of the practitioner's basic purposes and activities in the core processes of the institution. In this presentation, I shall be attempting to frame the roles of the principals of the educational process, the student, the adviser, and the institution itself. The framing of the role of the instructor will be left to another time.

Artistry in action applies to those situations where the problem solver is exercising creative and imaginative judgments in either closed or open-ended problem situations. Artistry in action simply means that as practitioners are making decisions and taking actions in the course of their respective practices, they reveal and practice artistry—creativity, imagination, invention, skill, and talent. Albert Einstein, the author of the $e = mc^2$ theory, when asked how he works to solve problems in open-ended problem situations, is reported to have responded, “I grope. I have tried 99 times and have failed, but on the 100th time came success,” and, as to the importance of imagining, he responded, “All meaningful and lasting change starts first in your imagination and then works its way out. Imagination is more important than knowledge.”

The expertise of the problem solver is reflected in his effectiveness as he applies his knowledge, skills, and judgments in the conduct of the four-step reflective process of the diagnostic/action cycle for generating and evaluating additional knowledge. The problem solver excels when his expertise reaches extraordinary levels of effectiveness.

The “good practices” of the practicing problem solver are the decisions and actions he takes to make sure he is framing and specifying problem situations accurately and is applying the diagnosis/action cycle with integrity and effectiveness. More generally, “good practices” by the practitioner include making decisions and taking actions to improve his own expertise and performance. Among these more general “good practices” of the practitioner is to conduct reflections on his practice that are aimed at assessing and evaluating the effectiveness of his decisions, judgments, and actions in the problem-solving process.

Reflection on the experiences of practice is at the core of the practitioner’s scholarship activities: experience alone is not sufficient for learning to occur. Dewey (1933, p.9) defined reflection as “active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and the further conclusions to which it tends [that] includes a conscious and voluntary effort to establish belief upon a firm basis of evidence and rationality.” Reflection is a learning activity to generate knowledge: it is a process of applying careful thought to make meaning and gain understanding about actions, decisions, and events in terms of their underlying conditions, causes, and outcomes. Reflection can occur before, during, or after the application of the diagnosis/action scholarship model and it can be done by the individual practitioner, by the participants in the practice, or by a community of practitioners. A distinctive feature of the practitioner’s scholarship is that self-reflection occurs in-practice as the practitioner frames the problem, forms

judgments, makes decisions, imagines solution patterns, and designs and evaluates experiments in the conduct of all four steps of the diagnosis/action cycle.

Reflection-in-practice is an intuitive appraisal activity by the practitioner. The practitioner strengthens his intuitive knowledge and, therefore, his expertise, by consciously introducing a structured process of reflective appraisals of his practice. Reflective appraisals should address questions who, what, when, and where and should analyze questions of why and how at each stage of the diagnosis/action cycle.

Reflection-on-action starts with a description of both the “who, what, when, and where” details of the problem and, in turn, of the “why and how” questions of the analysis. It is this description that is reflected on and appraised. The author of the description and/or the appraiser can be either the practitioner himself or other principals engaged in the practice. A well-structured reflective appraisal process of the practitioners’ practice of scholarship will include others beyond the practitioner himself to ensure a degree of objectivity in what is otherwise a very subjective process.

The reflective appraisal process needs to provide for a communications network in which both the descriptions and appraisals are shared and discussed. A formal communication process for the adviser/advisee interactive appraisal process could revolve around an internet system to facilitate the assembly of reflective descriptions and the processing of reflective appraisals. A networked portfolio communications system has been proposed by the ePAAWs project for adviser/advisee interactions at Penn State.

This completes our very brief excursion into the theoretical domains of practice and framing. We shall think of these concepts as tools as we try to gain an understanding of the roles in the educational process of the adviser, the advisee, and the institution. In particular, we shall be concerned about the coherence and consistency of their roles in terms of how they operationally frame their purposes, goals, and educational outcomes in the context of a student-centered university.

Framing Student Centered Academic Advising:

This is esoteric country—all this theory stuff--and often is not of interest to someone deeply engaged in everyday practice. The practitioner is likely to say: “Let the scholars and researchers worry about the theories, I am just interested in knowing practical things--how to do my job and how to do it better.”

Theories are considered to be abstractions—the stuff of philosophers, researchers, and scholars—to be used to guide abstract thinking and reasoning. The irony is that practice involves the application of a scholarship model in the construction of working theories by practitioners, partly as they “frame their practice” and partly as they design solutions to particular problems embedded in the uniqueness of individual problem situations of practice. This is the paradox of practice. The dilemma of practitioners is that if they wish to do their jobs well—to meet standards or norms of effectiveness and efficiency—and to improve their performance, they must understand how, as they practice, they are constantly applying and constructing theories. Restated, practicing advisers must understand how they practice scholarship to construct and use their own theories in the process of solving the problems of practice. To gain an understanding of their practice scholarship, advising practitioners need to go through a process of introspection.

Introspection is an open-ended problem situation and it is a task only the practitioner can do. As you reflect on your role as an adviser, you may feel you need help. Fortunately, a number of your experienced advising colleagues have reflected on their intuitive knowledge of advising practice and have produced a series of scholarship-based publications through DUS that are wonderful guides for both advisers and students in their advising interactions. [See, for example, *The Penn State Adviser* (2000), available in paper format, and *The Center for Advising Excellence and the Navigator*, both available through the DUS website].

I need to make a disclaimer at this point: I am not here to tell you what you already know and I am not here to tell you how to conduct an introspective reflection on your own practice activities. Perhaps, however, I can prompt and motivate your introspection and even provide some coaching on how to do it. To begin with, our brief overview above of the theory of practice provides a framework for your reflection, bringing some new language and labels and possibly introducing a different perspective on advising practice for you to consider. Further, my strategy for motivating and coaching your personal introspection of your advising practice is to offer some reflections on the role of the adviser for you to consider and reflect upon. In effect, I’m suggesting that you reflect on my reflections.

I turn now to my own reflections on the practices of advising and learning. We will consider the general problem of coherence in framing adviser and advisee roles in their advising interactions in the context of an educational institution committed to being student-centered in its purposes and in the operations of its educational processes.

Practitioners operate in the context of purposeful processes. The core educational processes in an educational institution relate to the design and delivery of the curriculum as well as to the guiding of students in their choices as they navigate the curriculum. Coherence in the educational processes of the institution requires that there be a consistency among them in terms of their operational definitions of educational purposes, goals, and outcomes. Practitioners in each of the processes must frame their respective practices around a common definition of purpose and outcomes that leads to the development of an educated person. For there to be integrity in the institution's educational processes, practitioners must focus on a common definition of what it means to be an educated person.

The principal practitioner in the core educational processes of a student-centered institution is, of course, the student. Others, including advisers, instructors, and the institution itself, are to focus their activities on the education of the student. We need to begin by recognizing that each participant in the educational system is a practitioner with an overlapping dual role. The student practices learning both as a developing educational planner and as a learner engaged in the advising and curriculum processes; the adviser practices advising both as an educator and as a deliverer of advising services; the institution practices educating both in the processes of designing the academic curricula and environment and delivering educational opportunities. All practitioners need two kinds of knowledge—knowledge about the processes in which they are engaged and knowledge about how to conduct and fulfill their practice responsibilities for problem solving.

The generic answer to the question of what should be the educational goal for the student is usually phrased in terms of developing the student's knowledge and capacities for leading a fully productive and rewarding life in all the worlds she will inhabit over her lifetime--world of own mind, world of knowledge, world of work, and worlds of nature and culture. This is some times paraphrased as *“the educational goal of the student should be to become both enlightened and empowered to function effectively in the practice of all her adult roles.”*

The student's role in this new learner-centered educational environment is to develop knowledge and expertise in “how to,” as in how to construct knowledge, how to use it, and how to evaluate it in the same hierarchy of practice settings as faced by the adviser—the immediate level of adviser/advisee interactions; the intermediate level of operating in the institutional education environment; and the ultimate level of what it means to be educated in order to lead a fully rewarding and productive life. The student's competencies for learning and generating knowledge on how to frame and solve problems are applicable at all levels of the student's educational experiences—at the level of advising interactions, at the level of institution-wide educational

experiences, and at the level of being a life-long learner and knowledge-constructor in the student's personal worlds after college.

The challenges for the student are no less daunting than those faced by the adviser: indeed, they are likely to be larger by an order of magnitude because of the student's relative lack of experience and more modest knowledge-base about "how to" frame and solve problems. The focus of the student as a developing educational planner should probably be on a reversed hierarchical ordering of these tasks of framing and problem solving: that is, the student probably should start at the top, most general level of framing, concerned with how to frame her education in terms of its central purposes of gaining a personal understanding of what it means to be educated and developing the competencies needed to lead a fully productive and rewarding life after college. In turn, she would work down the hierarchy to the level of framing her role in the institution setting and, finally, framing her role in the advising setting. Ultimately, the student needs to be concerned with developing skills for framing her role in the classroom and other educational settings.

Let's look at framing the role of the adviser in the educational process of advising. The framing of the adviser's task can be looked at from three different perspectives—top down or bottom up or a combination of both. In the top down approach, his framing is conditioned by the goals and roles of the institution that influence how he determines his own goals and roles, which, in turn, influence how the student determines her own roles and goals. In the bottom up approach, the student frames her own goals and roles, which influence how the advisee determines his goals and roles, which, in turn, influence how the institution determines its goals and roles. In both cases, the adviser is in an intermediary position of being a translator and interpreter in the middle between the authorities of the institution and the student. Advising over the years has evolved from a dominant top down approach, i.e., where the institution and adviser are assumed to know best and are expected to impose or direct their solution on the student. Remember back when the student could take no academic action without an approval signature by an adviser?

Over time, a combination of the top-down and bottom-up approaches has become the operative practice. As institutions have set goals of becoming student-centered, everyone across the institution is expected to adopt a strong bias in their operations toward respecting and accommodating the educational needs and goals of students, even while respecting the needs and goals of the institution. What has emerged is a mixed mode of top-down and bottom-up, with the adviser in the middle. The adviser now finds himself in the position of having to formulate his own goals, roles, and actions in such a way that they reflect respect for the authority of both the institution and the student. It has made the adviser's task much more challenging.

In the top down part of the mixed mode, the adviser is responsible for explaining and interpreting the institution's goals, roles, and infrastructure to the student; in the bottom up part of the mixed mode, the adviser is responsible for helping the student frame her own educational goal setting and planning to navigate the institution's educational environment. The adviser is also responsible for educating the student on how to become a framer and solver of educational problems both within the institution and over her lifetime of being a responsible, self-directed author of her own decisions and actions as she practices problem-solving in multiple-settings.

This new mixed-mode model for advising frames the adviser in an educational role: advising has become educating. The operative term here is "helping the student," as in helping the student become educated by helping her to solve her own educational problems, not directing or imposing a solution on the student. The adviser is responsible for the education of the student as to how to frame her own educational goals and navigation plans to include personal empowerment as well as discipline enlightenment. Personal empowerment includes discovering and developing capacities for applying multiple intelligences to gain practice knowledge and skills in how to personally frame problems, make decisions, form judgments, and evaluate outcomes in educational practice situations and, by transfer, in other practice situations. The adviser provides educational opportunities in the context of an advising discovery curriculum and interacts with each student in order to guide her in discovering and developing her own capacities for applying the art of personal scholarship in diagnosing, designing, and reflecting to gain personal tacit knowledge on how to solve educational problems and discovering and planning on how to navigate the institution's educational opportunities to achieve her own educational goals and plans. There are four levels of advising curriculum responsibilities that correspond to four types of discovery questions faced by the advisee (note all are "how to" questions of practice):

- Questions about how to plan for personal academic and learner development.
- Questions about how to construct and assess progress in attaining educational and self development goals.
- Questions about how to gain and construct meta-knowledge about knowledge structures, cognition, and learning.
- Questions about how to discover and navigate institutional educational opportunities.

In the larger context of the institutional educational process, the adviser's role is to address questions of the advisee related to her educational experiences across the institution. The adviser's tasks at this level are to help the student gain and evaluate knowledge and expertise in how to frame her own institutional educational goals and

in how to solve problems of planning and navigating through the whole range of educational opportunities and curricula provided by the institution.

In the still larger context of the purposes of education as a preparation for life, the adviser addresses the questions of the advisee related to her education for leading a fully rewarding and productive life. The adviser's tasks at this level are to help the student become a general practitioner of framing and solving learning and knowledge construction problems in all the different problem situations she may encounter in the various worlds she will be living in: the world of work, the world of personal and society relationships, and her own personal intellectual world. He does this by coaching the student in the development of a personal vision of what it means to be educated and in the development of personal and transferable competencies for learning and constructing knowledge in how to frame and solve problems in whatever setting she may encounter.

This hierarchy of tasks of advising practice presents a daunting challenge to the adviser. The challenge is confounded and escalated when the adviser's responsibilities for considering both the institution's and the students' own frameworks regarding the goals and processes of education are factored in.

To the question of who should decide what are the knowledge and capacities needed by the student, the traditional operational answer has been the institution and its specialized knowledge agents, the discipline faculty. This is revealed in the operational framing of roles of the participants in the educational process. The faculty set the knowledge and capacity requirements for the majors and courses in the academic curriculum and establish check sheets on how to fulfill the requirements. Under the authority of discipline knowledge, the faculty decide what it means to be educated both in the major and in the general education curriculum. All practitioner roles in the educational process, particularly that of the student, are operationally framed to reflect the traditionalist's perspective. The adviser's role is authoritative in terms of interpreting the institution's policies and program requirements for the student and guiding the student in navigating the student's path through the institution's curriculum. A student is responsible for following the prescribed check sheets for the major and is operationally defined as educated when she has met the requirements for graduation.

Scholarship and curricula in the basic disciplines are typically focused on the subject matter—the phenomena—of the discipline rather than on how to practice in the domain of the phenomena. The scholarship and curricula of the professional disciplines are primarily focused on constructing knowledge about how to apply basic discipline knowledge to the professional discipline subject matter—their

phenomena—rather than on how to practice in the domain of the phenomena. As an example, professional engineering disciplines are interested in their scholarship and curricula in questions of how to apply physics and chemistry to the phenomena of their various sub-disciplines such as electrical and chemical engineering; only to a modest degree are they interested in developing the capacities of practicing engineers to perform as engineers, usually through a practicum in the field under the guidance of a practitioner, not of a discipline scholar; the capacities of practitioners are expected to be developed after graduation while actually engaged in practice. Similarly, for the other professional disciplines such as business, communications, information sciences, and education, only they typical reference different basic disciplines such as economics, sociology, and psychology.

General education in the curriculum is rationalized by all disciplines on the basis of what a broadly educated person should know about the phenomena in the basic disciplines, not on what the educated person should know about how to practice scholarship in whatever their area of practice. The general education curriculum fails to address the question how general knowledge is to be used by practitioners in their daily practice. Only areas of the curriculum explicitly address the development of the student as a practitioner—some prominent examples: design and performance areas that offer studio courses as a practicum where instruction takes the form of coaching while the student actually engages in the arts of practice, including the fine arts, architecture, and landscape architecture. The education curriculum features practice teaching experiences and some professional areas include field or service learning experiences that focus on developing tacit knowledge of practitioners.

The knowledge perspective of discipline faculty, their epistemology, is shaped by their expertise in knowing about things, about the phenomena of the natural and cultural worlds. Their discipline expertise extends to knowing how to conduct the scholarship of the discipline; it does not extend to knowing about how to do things in practice, about how to practice the scholarship of practice. They frame the student's role as needing to gain knowledge about things, not knowledge about how to do things. This reflects a strong bias toward the enlightenment rather than the empowerment goals of higher education. Knowledge about how to—tacit knowledge—is empowerment knowledge and is typically viewed as a lower form of knowing that is best relegated to the experiences of practice. This criticism needs to be softened somewhat by recognizing that the disciplines frequently concede that it is important for the student to become a “critical thinker.” However, developing critical thinking activities in the discipline-dominated curriculum are primarily focused on understanding the phenomena of the discipline. Typically, little consideration is given to how the student develops critical thinking skills or to how they are applied by the

practitioner in the scholarship of practice to develop, use, and evaluate knowledge in problem-solving situations.

There exists a gap between the operative goals of education—to acquire subject matter content knowledge in the form of theories constructed by scholars in the formal disciplines, and the needs of the practitioner—to be empowered through the scholarship of practice to be able to construct, use, and evaluate knowledge in practice problem-solving situations. This “operative-goals/needs-of-practice” gap represents a problem for the educational process of the institution and this translates to problems for all practitioners in the educational process.

The problems are essentially two-dimensional, one moral and one marketing. If operative goals don't meet the needs of the practitioner, the outcomes of the educational process are not likely to meet the needs of the practitioner and, therefore, our claims that as educators we are preparing students to lead a fully productive and rewarding life are not being fulfilled. If our mission as educators is to meet the educational needs of students and we are not doing this, our claims are not true.

Moral issues arise in that if our claims about what we provide are not true, we have violated the institution's own integrity. Marketing issues arise in that if our claims are not true, we have not provided truth in packaging. These false claims could result in recruiting or even legal difficulties.

The moral and marketing issues associated with the goals/needs gap are visible at all levels of the educational process. For students, if they knowingly make false claims that they are well educated, it is a moral issue in terms of their own integrity; it's a marketing issue in that they have not provided truth in packaging, thereby putting their employment futures in jeopardy. For advisers, if they knowingly make false claims about educational outcomes to their advisees, it is a moral issue in terms of the integrity of their own professionalism; it's a marketing issue in that they have not provided truth in packaging to their advisees, thus putting their future relationships with advisees in jeopardy and perhaps even making themselves subject to legal action for malpractice. Similarly at the institution level, there are moral and marketing issues associated with knowingly making false claims.

Let us imagine a different way of framing the student's role in the educational process and then imagine what the implications are for how we should frame the roles of the practicing adviser and the practicing institution. To reframe students' roles in the educational process, we need to begin by framing the goals of the educational process. Traditionally in higher education, the operative goals have focused on the acquisition of subject matter knowledge in the basic and applied

disciplines; little attention has been directed to questions of how practitioners develop and use knowledge in their practice activities. Our strategy is to reframe the operational goals of education for the student to include the acquisition of both subject matter knowledge and knowledge about how to construct and use knowledge in practice; that is, the operational goals should be reframed to include both enlightenment and empowerment goals for the student. A controversial issue for some educators is whether the empowerment goals should include the development of interpersonal and intrapersonal knowledge and skills. Under the scholarship of Howard Gardner and others about multiple intelligences regarding different ways of knowing, knowledge and skills in these areas are considered to be critical in the development of an effective practitioner (Lazear, 1991)

At the level of the student, the advisee needs to reframe her personal operative goals of what it means to be educated to include both the goals of enlightenment and empowerment in both of her roles as an advisee in the advising process and as a learner in the curriculum process. The framing task of the practicing advisee confronts the paradox of practice: practicing advising and practicing learning involves practicing scholarship to develop knowledge and skills useful in practice. We can't expect the novice student without experience to know how to frame or reframe her personal operative goals of what it means to be educated without some help and guidance; she needs to be educated in the task and this becomes the task of the adviser: to educate the student advisee in how to operationally frame her educational goals to include both subject matter knowledge and practice know-how and then, in turn, in how to design and implement a personal plan for acquiring such an education.

At the level of the adviser, the adviser needs to reframe his task such that the operative goals for advising of students includes both the acquisition of advising subject matter knowledge and advising practice knowledge and skills. Penn State's President Graham Spanier has called for advisers to reframe their practices "from helping students make smart choices about courses and majors to helping students craft a first rate education." He goes on to indicate: I hope each of our students can use the University's many advising resources to become a skillful learner for life" (<http://www.psu.edu/dus/cfe/impadv.htm>). The framing task of the practicing adviser confronts the paradox of practice: practicing advising involves practicing scholarship to develop knowledge and skills useful in practice.

The operational task of the practicing adviser is to transform his practices such that they accurately reflect this reframing. Advisers need to conduct interactive sessions with advisees as dialogues to coach their self-development of educational goals and plans through "learning by doing" experiences in a design studio or practicum

setting. Advisers also need to introduce structured reflections into interactions with advisees so that both may learn from their practice experiences. They can do this by using electronic portfolios as reflective communication media.

At the level of the institution, the institution needs to reframe its task such that the operative goals for the education of students includes the acquisition of both subject matter knowledge and practice scholarship knowledge and skills. The framing task of the institution confronts the paradox of practice: practicing education involves practicing scholarship to develop knowledge and skills useful in practice. The operational task of the institution is to transform its educational practices such that they accurately reflect this reframing.

How likely is it that the operational educational goals of the student, the adviser, and the institution will be reframed to include both enlightenment and empowerment goals, we might ask. The short answer is: “Not likely--unless!” In the mixed-mode of advising responsibilities, the moral burden falls on the adviser in his role as educator to help the student frame her educational goals around the dual educational goals of empowerment as well as of enlightenment. The student must be empowered through the advising process to plan and implement her own educational experiences such that the result is her empowerment for self-authoring her own learning, knowledge construction, decisions, and judgments over her life-time. Because this empowerment process for the advisee is an open-ended problem situation, the advisee as educator can only coach, not teach, the student in the process of discovering and gaining expertise in her own powers of self-direction and autonomy in the practice of personal scholarship.

The marketing issue for the adviser revolves around his ability to motivate and inspire the student to take on the extra burden of planning, implementing, and evaluating her own education. It’s much easier for the student to adopt the stance: “Tell me what to do to be educated and I’ll do it.” She needs to be inspired through the adviser/advisee interactions by the prospects of being a self-directed practitioner of life. The more effective adviser will be one who can inspire his students to aspire through their education to become their own autonomous, independent thinking persons, competent to function as a practitioner of life-long learning, life-long decision making, and life-long problem solving. Acquiring all the knowledge in the library does not make an educated person—yet that is the implied presumption underlying the institution’s formal curriculum. To be educated, a person needs to know how to practice the arts of practice, whether on the job, in family and social settings, or in their own life of the mind. It is the development of knowledge and skills about how to construct knowledge in order to make and evaluate decisions and design and evaluate actions in practice that is missing in the institution’s formal

curriculum. The student, with the help of the adviser, must discover her own educational path that will allow her to gain self-empowerment knowledge and skills. The adviser/advisee interactions must provide for a coaching dialogue in which the educational goals and decisions of the student are developed, clarified, and evaluated.

So there is my own personal reflection on framing the practice of learner-centered advising. I can only invite you to reflect on my reflection and ask whether it represents a theory of advising practice that has meaning for you. I would be pleased to enter into a dialogue with you on how this personal theory would need to be modified in order for it to be meaningful to you. You can reach me by email at erm1@psu.edu.

Figment: An Imagined Advisee's Self Reflection on the Practice of Student-Centered Advising

This narrative on *Artistry in Action: Framing Learner-Centered Academic Advising* is culminating in an imagined reflection by an advisee on her interactive advising experiences with her adviser. Her descriptive reflection is in the form of a letter nominating her adviser for an Excellence in Learner-Centered Advising Award. I am offering it here as a reflection-on-advising practice that we, in moving up the reflective ladder, can jointly reflect on.

As practicing advisers, you know that subjective observations rather than scientific data have provided the basis for most of what you know in practice about learners and how to guide them individually in their pathways toward achieving an education. The imagined nomination letter occurred to me after I had been reading and reflecting over an extended period of time on the notion of learner-centered advising. One might say that I slept with the idea. The attached bibliography provides a fairly extensive reading list to haunt you as you ponder the question of framing learner-centered academic advising.

In this imagined scenario, the Award for Excellence in Learner-Centered Advising was announced to the University Learning Community with the indication that the selection of the awardee would be based on the following five criteria—all points to be addressed by my advisee in her letter of nomination.

The awardee must demonstrate a vision, a capacity, an understanding, a strategy, and a measure of outcome success—all centered on the education of the advisee as learner:

- a vision of advising *that focuses on meeting the developmental needs of the advisee as learner*
- *a capacity for motivating the advisee to take responsibility for her own development as a learner*
- *an understanding of how to frame and structure the advising process in terms of learner and knowledge development activities—i.e., of knowledge construction, organization, application, and assessment—and how to connect these knowledge development activities with the advisee’s ways of learning and knowing about educational planning*
- *a strategy for introducing and empowering the advisee in the practice of making goal-oriented, personalized, educational decisions in a particular learning context*
- *a plan for continuing evaluation and improvement of success measured by enhancements in the capacities of advisees to take charge of their own learning, knowledge development, and educational planning decisions.*

The imagined nomination letter:

“Dear Selection Committee:

As a graduating senior, I would like to nominate Mr. Dreamer, my academic adviser since I was an entering freshman, for the Excellence in Learner-Centered Advising Award. Mr. Dreamer meets and exceeds the criteria for excellence in advising. He knows his subject matter—how to educate the individual learner in her own self-development—exceedingly well; he uses an individual learner-centered pedagogy that actively motivated and engaged me in the process of learning skills and developing the knowledge base needed for the mastery of the discovery advising curriculum, and, most importantly, he transformed my perspective of what it means to be an educated person—both enlightened and empowered—and what I needed to do to take charge of my own education. And he did this not only with me, but with all of his advisees.”

“It took me a while, but, with the guidance of Mr. Dreamer, I eventually came to understand that the subject of my “real” major in college was me—my own education and development of me as a learner, as a knowledge constructor and user, as a problem-solver and decision-maker, and as a responsible contributor to the several worlds that I now and will inhabit. I also understood, however, that to earn a diploma, I would need to select and meet the requirements for a traditional major identified in the university’s academic degree program catalog. So, when people asked about my major, I reply that I have had a dual major: I have been working to achieve subject matter mastery in both my “me” and my catalog majors. The challenge has been to identify a set and sequence of educational experiences—some

formal courses and some informal learning exercises that would lead me to the simultaneous realization of the requirements of both my majors.

My “me” major has centered on educating me as the agent for my own development as a life-long learner and educational planner. Mr. Dreamer served as my personal “learning coach” for my “me” major. We came to describe my role in our relationship as an “analyst for self-learning and self-development.” His frequent reminder—it almost became a mantra—was, “It’s all about knowledge and developing your own powers for determining what it is and how to gain it, organize it, evaluate it, and use it in practice.” And then he would go on to elaborate: “In becoming an educated person, you will need to develop mastery knowledge and skills in how to function in three domains: the world of your own mind, the world of higher learning and knowledge creation; and the world at large, including the natural, cultural, and work worlds.

As the agent for your own learning, you are responsible for developing mental capacities for constructing knowledge, making meaning, framing understanding, energizing imagination, forming judgments, and solving problems in all three domains. As a student, you are simultaneously learning how to develop these mental capacities and how to function in the University environment in order to meet your educational goals. What you learn as a student should carry over to the worlds of culture and nature—and, most assuredly, to the world of work, where you will be empowered to create your own career rather than fulfill one defined by the label of your discipline major.”

“Together, we engaged in a continuing dialogue aimed at identifying the key questions relating to me as a developing learner and as a navigator of the educational environment of the university. We thought of these questions as organizers for defining the curriculum of learning experiences for my “me” major. We came up with four basic learner development questions:

1. How shall I define myself as an educated person and, in turn, use that definition in identifying the goals and purposes of my “me” major?
2. What basic learning skills and knowledge activities are essential to my achieving mastery of my own self-development as a learner?
3. How do I establish a curriculum of personal educational experiences needed for my development as a master learner and educational planner?
4. How do I reflect on and assess progress toward reaching my educational objectives and, in turn, make appropriate adjustments in my self-directed curriculum?

We established a collaborative process for developing responses to each of these learner-centered questions. In brief, it consisted of our considering each learner development question as a learning problem and, to resolve it, we followed a problem-based learning protocol. I would conduct an initial assessment of my current understanding and skill levels with reference to a particular question and then design a proposed learning agenda of things I needed to know and ways I would come to know them. Together, we would reflect on the adequacy of my initial assessment and proposed learning agenda and jointly come up with revisions to fine-tune them; I would then implement the revised learning agenda and develop reflective learning products to demonstrate what I had learned. We then would recycle through these steps, together reflecting on learning outcomes and progress in my goal attainment, and I would follow-up with re-designs and revisions in my learning agenda.

Along the way, under Mr. Dreamer's guidance, I set as my goal as an educated person the development of my own powers of mind so that I could be the agent of design, analysis, and interpretation of my own future learning development experiences and actions. As initial learning objectives, I chose the dual tasks of evaluating my own status as a learner and of developing knowledge about the learning opportunities and expectations embedded in the institution's educational environment. For my second stage learning objectives, I chose the setting of my own learner development goals and, in turn, of completing the design and evaluation of my own learning development curriculum and, simultaneously, the selection of my catalog major.

Reflection and analysis of what I needed to learn and how I needed to develop in order to master my sense of agency resulted in the realization that among the basic competencies I needed to acquire as a learner were mastery of interpersonal knowledge about interacting with others and intrapersonal knowledge about my own ways of feeling and thinking about thinking, learning about learning, and knowing about knowing.

We realized that much of the knowledge and skills that I needed to acquire were available in the regular academic curriculum and co-curriculum of the University—though they are not typically organized and catalogued in ways that allowed me to readily match available learning opportunities with my self-development curriculum needs. We developed a mapping strategy to discover and locate relevant learning opportunities available in the University's educational environment. When we were unable to locate opportunities that matched my "me" curriculum needs, Mr. Dreamer would devise and then instruct me in learning modules complete with syllabi,

knowledge development activities, and reflective assessment rubrics to help me fill out my curriculum requirements.

Finally, we attacked the problem of reflection and assessment of self-development learning gains in my “me” curriculum by agreeing that I would construct a series of “learning products” along the way that would summarize my immediate learning gains and my reflections on how far they moved me in the direction of accomplishing my learning objectives in the latest round of knowledge construction activities. These learning products were stored in a portfolio on my personal website and were accessible by both of us—and sometimes others—as we jointly shared reflections during our collaborative learning cycles that led to the continuous revising of my “me” curriculum learning agenda.

I learned to be an analyst and planner of my own learning and development—to be an assessor of what I currently knew and what I needed to know, to be a designer of strategies and actions as to what and how I would gain needed knowledge, to be a self-developer of skills in knowledge construction and evaluation, and to be the author of my own personal benchmarks of success.

In my researching of campus learning opportunities, I made several interesting discoveries that I would like to provide as feedback to the educational community. One has to do with the lack of formal learning opportunities that focus on the development of knowledge and skills relating to leadership, imagination, cognition on cognition, and construction and management of knowledge in learning communities. More specific to my “me” major, I discovered the Bachelor of Philosophy Degree Program in which a student can create and complete her own curriculum under the guidance of a Preceptor and earn a degree. The curriculum you design is subject to the approval of the B. Phil. Curriculum Committee, which has the authority to award a degree when evidence is provided to demonstrate that the student has achieved her educational objectives. I plan to petition the B. Phil. Committee for a degree for self-development in my “me” major, along with evidence of my achievements as a developing learner drawn from my portfolio of learning products. I expect to graduate with dual degrees in my two majors of “Me-development” and my formal major curriculum.

“Becoming an educated person became a passion, to the point of obsession, for me under Mr. Dreamer’s guidance and instruction that centered on my “me” development as a learner striving to take charge of my own education and my own life.”

Sincerely,

Mr. Dreamer’s eternally grateful advisee.

P.S. As a way of summarizing my nomination of Mr. Dreamer for the Excellence in Student-Centered Adviser Award, may I offer this free verse tribute to him.

You have Taught Me

Teacher,
You have taught me
How to learn
How to know
How to understand
My own capacities, my own humanity, my own worlds
So that I might better
Author
My own engagements with Life.

Teacher,
You have taught me
Through your instruction,
Your guidance,
Your inspiration,
To be more responsible and passionate
In my own habits of
Mind
My judgments, my choices, my actions.

Teacher, Teacher,
You have taught me
How to imagine,
How to discover.
How to fall in
Love
With what I might become.

I, Mr. Dreamer, after the reading of her letter of nomination at the award ceremony, could only exclaim:

“She’s got it; by Jove, she’s got it!”

So I end at the beginning. In the beginning, she was a bright and eager student, seeking direction and focus as she anticipated her undergraduate experiences and their outcomes. Through our relationship, she has transformed herself into a confident, competent self-directed learner and educational planner. She should not only be receiving degrees in her dual majors, but also an award for Excellence in Self-Development. She will do well is authoring her own life's experiences."

Conclusions:

The shift in focus in higher education to be more learner-centered suggests that it is time to revisit the basic question of what are the purposes of a higher education and ask if the principals in the educational process—the student, the adviser, the teacher, and the institution itself—need to reframe their roles in the educational process to be consistent with the redefined purposes. Each student, each adviser, each teacher, and the institution itself must organize itself around the goal of providing opportunities for students to define and implement their own definitions of what it means to be an educated person.

This is a radical proposal, not only for educational principals in the institution, but for students and their parents as well. Reformers have argued that we need to look much closer at what is assumed to be the essence of leading a full and productive life, with the traditionalists again suggesting that the only objective definition of such a life is someone who is prepared to function fully in the world of work because the student's needed capacities in their other worlds are too subjective and too ill-defined to be accommodated in the institutional design and delivery of educational opportunities. Some reformers, including John Dewey, have taken the position that it is possible to identify certain knowledge and skill capacities that are essential to the educated student performance in all of their worlds: the world of work, the world of education, the worlds of family, social, and civic life, and even the world of the student's own mind. The key is to focus on the student's role in each of those worlds and then look at what is common in all of their role-playing. The studied conclusion has been that what is common among these multiple roles is that the student is a practitioner and the role of a practitioner is the same in each and every practice situation. So what we need to do is specify the general role of the practitioner and identify what knowledge and capacities are needed for that general definition.

The special knowledge and capacities of the practitioner are embedded in the "doing" of practice—the knowledge of how to make decisions, design actions, and form judgments—to solve the problems of practice, which, in turn, are dependent on the capacities of the practitioner to apply a scholarship model to construct, apply, and evaluate knowledge in particular problem settings. The special "how to" personal

knowledge of the practitioner is intuitive or tacit in nature and is constructed under a special scholarship methodology. At the core of the practitioner's scholarship model is a reflective process used to validate the knowledge gained. So, the education of the practitioner involves the development of reflective scholarship skills for constructing, applying, and evaluating intuitive knowledge while undertaking the decision and action steps of practice.

Armed with this concept of educating the reflective practitioner, we can address the question of how the educational process of a student in higher education institution might best be framed and organized. The conclusion is that it should be framed and organized in terms of an educational goal for the practitioner to acquire the knowledge and capacities needed to fulfill her role in whatever practice setting she may encounter in her several different worlds. She should be educated to play the role a practitioner, meaning she should be educated in how to frame and solve problems, which in turn, means she should be educated in how to apply the reflective scholarship model of practice. In the hierarchy of educational processes in the context of a student-centered university, it all starts with the education of the reflective educational practitioner, the student. Students should be educated in the art of reflective scholarship in practice. The phrase "reflective scholarship-in-practice," suggests a powerful metaphor to guide students in their own framing of their educational goals and experiences. It also serves to guide the framing of the educational roles of the adviser, the teacher, and the institution. Audits of the frames and practices of the adviser and institution reveal a theory/practice gap in their practices as well.

If the reflective scholarship-in-practice model of education is adopted for framing the educational process, it is possible to audit the actual educational practices in the institution to identify whether a gap exists between the implications of the model and the realities of actual practice. An examination of whether such a gap exists in the educational practices of students, advisers, and the institution itself, reveals that a strong case can be made for the existence of a theory/practice gap at all levels. This points to questions of whether these gaps matter and, if so, how do we shift our operational educational practices in the direction of meeting the expectations generated by the reflective scholarship-in-practice model?

Clearly, the gaps have continued to exist for a long time, even though they have been pointed to often and strenuously. The resistance to change in higher education is very strong. Scholars of institutional change suggest that for meaningful change to occur, there needs to be either strong leadership or a crisis situation to shape a response strong enough to overcome the resistance to change. Some would argue that higher education finds itself in a crisis situation at this point of time, due

primarily to the competition for enrollments among other institutions and with for-profit providers. Technological advances have made higher education a global market place. The competition will be answered in the market place in terms of assessments by students and parents as to the value of an education obtained from one institution relative to its costs as compared with value/costs ratios for other institutions.

There are signs that Penn State is reaching a crisis situation in enrollments at some of its campuses. Responses can be focused on making a Penn State education more valuable or cheaper. Cheaper does not appear to be possible, so how do we make it more valuable. One obvious way is to offer a customized approach to education, with special emphasis on identifying the needs of individual students. A reflective scholarship-in-practice model, by pegging the whole educational process to the students' own definition of what it means to be enlightened and empowered, is an ideal way of customizing the educational experiences of students in ways that best prepare them for fulfilling their practice responsibilities in all practice settings they may encounter in their worlds of work; education; family, social and civic settings; and their own life of the mind.

Comparing that outcome of an educational experience at Penn State with the more narrow outcomes of another educational experience that is focused exclusively on the development of world of work knowledge should position a reflective scholarship-in-practice education in a highly favorable market position. So, one reason for moving to a reflective-scholarship-in-practice model of education is market-driven. Another more fundamental reason is a moral if not a legal one. If we claim to be student-centered and concerned about developing the capacities of students for self-authorship of their ideas, judgments, and actions and for the assumption of responsibilities that go with that and do not frame and organize our educational process to deliver on those claims, we are not providing truth in our packaging. We should all expect that Penn State is organized to deliver on its claims; our students and our state legislatures do.

Without institution-wide momentum for changes to operationally adopt an empowerment focused definition of educational goals, the burden for change falls on the adviser in his educational interactions with advisees. Together, they can design ways for augmenting the formal curriculum of the institution where it falls far short in providing an empowering education to produce graduates competent to function as a practitioner of life-long learning, life-long decision making, and life-long problem solving.

Bibliography:

American Association of Higher Education, American College Personnel Association, & National Association of Student Personnel Administrators. (1998). *Powerful partnerships: A shared responsibility for learning*. Retrieved November 4, 2004, from http://www.aahe.org/teaching/tsk_frce.htm

American College Personnel Association & National Association of Student Personnel Administrators. (2004). *Learning reconsidered: A campus-wide focus on the student experience*. Washington, DC: Authors.

Association of American Colleges and Universities. (2003). *Greater expectations: A new vision for learning as a nation goes to college*. Retrieved November 4, 2004, from <http://www.greaterexpectations.org>

Argyris, C., and D. A. Schön (1974). *Theory in Practice*. San Francisco, CA: Jossey-Bass.

Argyris, C., and D. A. Schön (1978). *Organizational Learning*. Reading, MA: Addison-Wesley.

Baxter Magolda, M. B. (1999). *Creating contexts for learning and self-authorship: Constructive-development pedagogy*. Nashville, TN: Vanderbilt University Press.

Bereiter, C. (2002). *Education and mind in the knowledge age*. Mahwah, NJ: Lawrence Erlbaum Associates.

Buck, J. B., J. W. Moore, M. Schwartz, and S. Supon, (2000). *The Penn State Adviser*, The Pennsylvania State University, The Division of Undergraduate Studies, Office of the Vice Provost and Dean for Undergraduate Education.

Center for Excellence in Academic Advising, found at <http://www.psu.edu/dus/cfe/overview.htm>

Chickering, A. W. (1994). Empowering lifelong self-development. *NACADA Journal*, 14(2), 50–53.

Dewey, J. (1933). *How We Think: A restatement of the Relation of Reflective Thinking to the Educative Process*. Lexington, MA: Heath.

Donald, J. G., (2002). *Learning to Think: Disciplinary Perspectives*, San Francisco, CA: Jossey-Bass

DUS Navigator: A Guide for Educational Planning, found at <http://www.psu.edu/dus/navigate/>

Egan, K. (1997). *The Educated Mind: How Cognitive Tools Shape Our Understanding*, Chicago: University of Chicago Press.

Gardner, H. (1983), *Frames of Mind: The Theory of Multiple Intelligences*, NY, NY: Basic Books.

Gardner, H. (1999). *Intelligence Reframed: Multiple Intelligences*, NY, NY: Basic Books.

Goleman, D. (1995). *Emotional Intelligence: Why it can matter more than IQ*, New York: Bantam Books.

Gowin, D. B. (1981). *Educating*. Ithaca, NY: Cornell University Press.

Krogh, G.V., K. Ichijo, and I. Nonaka, (2000) *Enabling Knowledge Creation: How to Unlock the Mystery of Tacit Knowledge and Release the Power of Innovation*, Oxford, UK: Oxford University Press.

Lazear, D (1991). *Seven Ways of Knowing: Teaching for Multiple Intelligences*, 2nd edition. Palantine, IL: IRI/Skylight training and publishing, Inc.

Lynch, C. L., Wolcott, S. K., & Huber, G. E. (2000, January). *Tutorial for optimizing and documenting open-ended problem solving skills* [On-line]. Available: <http://home.apex.net/~leehaven>

Melander, E. R. (2005). Advising as educating: A framework for organizing advising systems, *NACADA Journal*, 25(2), Fall 2005.

Mezirow, J and Associates, (2000). *Learning as Transformation, Critical Perspectives on a Theory in Progress*, San Francisco, CA: Jossey-Bass.

Palmer, J.A. (ed.) (2001). *Fifty Major Thinkers on Education: From Confucius to Dewey*, NY: Routledge.

Palmer, J. A. (ed.) (2001). *Fifty Modern Thinkers on Education: From Piaget to the Present*, NY: Routledge.

Rama, D. V., *Service Learning: Using Structured Reflection to Enhance Learning from Service*, Campus Compact Engaged Scholar, found at <http://www.compact.org/disciplines/reflection/>

Schön, D. A. (1995). The new scholarship requires a new epistemology, *Change*, November/December 1995.

Schön, D. A. (1983). *The Reflective Practitioner*. New York: Basic Books.

Schön, D. A. (1987). *Educating the Reflective Practitioner*. San Francisco, CA: Jossey-Bass.
The Pennsylvania State University, Office of Planning and Institutional Assessment. (2004). *Strategic indicators: Measuring and improving university performance*. University Park, PA: Author.

Putnam, R. (1991), Recipes and reflective learning: what would prevent you from saying it that way? From, *The Reflective Turn: Case Studies in and on Educational Practice*, D. A. Schön (ed.). New York: Teachers College Press.

Spanier, Graham, (President of Penn State University) quoted on the Center for Excellence in Academic Advising Web-site , <http://www.psu.edu/dus/cfe/impadv.htm>