Executive Summary: Defining Liberal Arts Education

Charles Blaich, Anne Bost, Ed Chan, and Richard Lynch

In this short paper, we will outline both the rationale for and the implications of our approach to understanding liberal arts education.

Terminology: The First Hurdle

For many, the terms “liberal arts education” or “liberal education” encompass all of the very best pedagogies, goals, and accomplishments in higher education. Although striving for the “best” is certainly a laudable goal for liberal arts education, we propose that a more precise definition of liberal arts education is needed if the term is to distinguish a certain form of education, as opposed to referring to any education that is good or has good components.

As a first step towards clarifying our discussion, we will use “liberal arts education” rather than the more popular “liberal education.” We believe that “liberal education” points to so many different kinds of programs in higher education that, in our view at least, it points to nothing. We will take a different path and start with a small set of goals, and call the combined effect of these goals “liberal arts education.” This will differentiate our work from the many different, and interesting, projects that focus on a much broader set of educational objectives. This is a purely practical move apart from the histories behind both terms.

Empirical Approach

One of our aims in this project is to expand the range and quality of the methodological tools that we will apply to the question, “What is a liberal arts education?” We will use both quantitative and qualitative research to bring together ideas that now often are separated in education research by disciplinary and epistemological boundaries, in order to develop and test a definition that captures the richness of many of the philosophical claims for the liberal arts.

Implications of adopting an empirical approach

We believe that adopting an empirical approach will shape our work in the following ways

(1) Our definition of liberal arts education will have to be falsifiable.

We must be sure to put our cherished ideas about liberal arts education at risk.

(2) Our definition, and our theories, will develop over time as we learn from our research.

This means that we will begin with a simple and necessarily imperfect definition and work from there. We will

1. identify goals of liberal arts education,
2. hypothesize the means by which those goals may be attained and what outcomes would constitute achievement of the goals,
3. use a diverse set of empirical methodologies to test those hypotheses,
4. consider how we should alter our definition in light of our findings, and
5. begin the cycle of testing again.

At the same time, we also will work with more open-ended, exploratory approaches to develop our understanding of other goals that might be included in our definition of liberal arts education.
(3) Quantitative data will be a necessary component of our assessment of liberal arts education.

We raise this point here not to exclude qualitative research, which will play an essential role in our work, but because we believe that many advocates of liberal arts education will be strongly opposed to the use of quantitative methods in our studies. While it is appropriate to raise concerns about whether we can develop quantitative measures that are sufficiently rich to capture some of the claims for liberal arts education, we do not believe this concern leads to the conclusion that we should not try.

(4) It is important to differentiate between liberal arts colleges and liberal arts education.

The term “liberal arts college” is used to refer to a particular kind of institution in higher education. However, we will start by examining institutional practices, cultures, and settings, and work towards determining if these correspond with current institutional designations.

(5) We have to limit the claims for liberal arts education.

It is much easier to think about, discuss, and ultimately promote the value of something that has sharp and distinguishing qualities.

Operational definition

In August 2002, we invited an elite group of educational researchers to discuss the current state of knowledge on the effectiveness of liberal arts education. Our participants argued that our understanding about the effects of liberal arts colleges and liberal arts education remains sketchy.

With that background, our first step is to develop, or at least make explicit, a theory of liberal arts education that we can use to guide our research. This provisional theory constitutes a first pass on the ends and means of liberal arts education, and will become more sophisticated as our work proceeds.

Theory of Liberal Arts Education

We’ll hypothesize three “factors” or conditions that must co-exist to support liberal arts education. They are:

1. An institutional ethos and tradition that place a greater value on developing a set of intellectual arts than on developing professional or vocational skills.
2. Curricular and environmental structures that work in combination to create coherence and integrity in students’ intellectual experiences.
3. An institutional ethos and tradition that place a strong value on student-student and student-faculty interactions both in and out of the classroom.

This three-factor theory will serve as our starting point both for our discussions and our research. We will, of course, be developing our ideas on each of these components as our work proceeds.

In the paper, we will describe some of our initial thoughts on the theory and each of the components.
Defining Liberal Arts Education

Charles Blaich, Anne Bost, Ed Chan, and Richard Lynch

In this short paper, we will outline both the rationale for and the implications of our approach to understanding liberal arts education. This will not be an historical review of the many different definitions and arguments about liberal arts education, the liberal arts, or liberal education. The conversation about the meaning of these terms is very long, often contentious, and marked by many thoughtful arguments — and it has generated little agreement. Moreover, it has been well documented by many thoughtful scholars, including Bruce Kimball, W. A. Carnochan, and George Allan, to name just a few. We will, however, begin with a brief overview of why we believe a precise, empirically tested definition of liberal arts education is important.

Terminology: The First Hurdle

For many, the terms “liberal arts education” or “liberal education” encompass all of the very best pedagogies, goals, and accomplishments in higher education. Of course, if we review these goals individually, it turns out that there is considerable variation in what individual scholars consider to be “the best,” and at times, the claims come into conflict with one another. Glyer and Weeks summarize this nicely, stating:

Does liberal education foster independence or interdependence, look to the past or the future, develop national identity or global citizenship, promote unity or diversity, cultivate moral or intellectual virtue, address urgent social problems or timeless human dilemmas, help students understand the world or motivate them to change it, inculcate respect for eternal verities or nurture a spirit of skepticism, lead to personal introspection or promote social action? Is liberal education concerned with transmission of knowledge or with the advancement of knowledge? Is it elitist and aristocratic or egalitarian and democratic? Is it preparatory or an end in itself, an introduction to different disciplines or interdisciplinary, preparation for specialization or a counter balance to specialization?

The literature suggests liberal education does all of these things and more. (pg. x)

Furthermore, advocates of liberal education do not seem eager to remedy the situation. The Association of American Colleges and Universities has recently suggested in its Greater Expectations report that “…liberal education will need to change in two major ways from earlier incarnations. First, it must define itself as the best and most practical form of learning for a changing world and strive to meet that standard. Second, it needs to become available to all students ...” (emphasis added).^5

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Although striving for the “best” is certainly a laudable goal for liberal arts education, we propose that a more precise definition of liberal arts education is needed if the term is to distinguish a certain form of education, as opposed to referring to any education that is good or has good components.

As a first step towards clarifying our discussion, we will use “liberal arts education” rather than the more popular “liberal education.” As we shall argue later in this paper, “liberal education” points to so many different kinds of programs in higher education that, in our view at least, it points to nothing. We will take a different path and start with a small set of goals, and call the combined effect of these goals “liberal arts education.” This will differentiate our work from the many different, and interesting, projects that focus on a much broader set of educational objectives. This is a purely practical move, and we understand that there is a history behind the term “liberal arts education” just as there is behind “liberal education.”

Empirical Approach

Our work to understand liberal arts education will follow the approach first taken in 1981 by three psychologists, Winter, McClelland, and Stewart, who also were interested in understanding the impact of liberal arts education. They, too, were aware of the “long conversation” and devoted the first chapter of their book, *A new case for the liberal arts*, to reviewing some of the more prominent arguments about the goals of liberal arts education. Included below are the goals they listed in their summary of that chapter:


7 Winter, McClelland, and Stewart. (pp. 12-13).
While the case for liberal education in terms of these goals has never lacked rhetorical eloquence, it has not received substantial empirical support from the growing body of research on the effects of higher education. There are several reasons why. For one thing, the “guardians” of the liberal education tradition are not accustomed to thinking this kind of support is necessary. From the classical tradition, they have apparently inherited both an emphasis on the power of rhetoric and form and a distrust of the empirical method. If the justification of liberal education were not self-evident, therefore, it could surely be established by personal testimony and eloquent rhetorical appeals…rather than by systematic collection and evaluation of empirical evidence. Thus in the words and phrases already cited, the tone and styles of the celebrant override the proof of the scientist. No wonder Bird (1975, p.109)\(^8\) concludes, “The liberal arts are a religion, the established religion of the ruling class. The exalted language, the universalistic setting, the ultimate value, the inability to define, the appeal to personal witness…these are all familiar modes of religious discourse.” (pp. 13-14)

Bird’s conclusions are harsh, but they may contain an element of truth when it comes to raising questions about the claims made for liberal arts education. In an exuberant address to a graduating class at Pomona College, John Seery\(^9\) stated:

Ladies and gentleman, I am proud to say, the spirit of liberal arts is alive and well at Pomona College! It lives on. Believe it or not, there are skeptics even among us, doubting Thomases, who question the merits of liberal arts, who want proof…And so, I want you to evangelize, I want you to spread the word. If you can’t find passion and conviction about what went on here, you will never awaken to the rest of life. So hereby, starting today with you, I pronounce the next century to be the Pomona Century. You’ve got to make it happen. If you must, make Pomona College and liberal arts education into a religion. Let only the eager, thoughtful, and reverent leave here. This is a community of faith. (pp. 151-152)

While there is certainly a place for religion and faith, this need not be the realm in which the value of liberal arts education is based. Without diminishing the enormous effort that has been poured into staking out claims for liberal arts education and the deep commitment of its proponents, we believe that the absence of an empirical component to this effort has directly contributed to the enormous range of goals that are attributed to liberal arts education. Stated simply, without empirical testing, there is no way to sort through the many claims about what liberal arts education can accomplish.

Winter, McClelland, and Stewart devoted the remainder of their book to describing their careful empirical study of three different institutions—a prestigious liberal arts college, a four-year state teacher’s college, and a two-year community college.\(^10\) Like Winter, McClelland, and Stewart, we will adopt an empirical approach in our work to understand the effects of liberal arts education. We will intend to follow, to an even greater extent, Winter, McClelland, and Stewart’s efforts to connect their empirical research to the thoughtful work that many

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\(^10\) Winter, McClelland, and Stewart. (pg. 53).
philosophers, historians, and educators have brought to bear on the question “what is a liberal arts education?” History and philosophy will serve as our theory—but empirical research will be used to test and sort through these theories.

Furthermore, while we share Winter, McClelland, and Stewart’s commitment to empiricism, one of our aims is to expand the range and quality of the methodological tools that we will apply to this question. We will use both quantitative and qualitative research; our quantitative tools will be more extensive; and we will design studies which include a much wider range of institutions than Winter, McClelland, and Stewart could. Indeed, our challenge will be to bring together methods and ideas that often now are separated in education research by disciplinary and epistemological boundaries, in order to develop and test a definition that captures the richness of many of the philosophical claims for the liberal arts. In essence, we will be taking a pragmatic methodological approach in our research. William James described this approach best, stating, “No particular results then, so far, but only an attitude of orientation, is what the pragmatic method means. The attitude of looking away from first things, principles, ’categories,’ supposed necessities; and looking towards last things, fruits, consequences, facts.”

There will be those who dismiss our empirical approach to understanding liberal arts education because of its scientific bearing. From this perspective, science in general, and positivism in particular, will not allow us to understand the rich and subjective changes in our students that liberal arts education should create. Given the comments on the “liberal education as religion” that we cited at the beginning of this essay, Robert Wuthnow’s arguments in favor of the utility of a scientific study of religion are a fitting response to this view:

Science teaches us the value of empirical rigor and the need for systematic investigation. The scientific method involves thinking of ways in which our cherished assumptions about the world may prove to be wrong. It involves the strategic use of rationality, not in the interest of doing away with all that is not rational (any more than the legal system is mean to replace literature and music), but to have reasons for conducting our research in one way rather than another. Science also involves the criterion of replicability, and that means candidly disclosing what we have done so others can track our mistakes.

Those aspects of science can be followed without claiming to be finding any universal laws of human behavior, and they can be employed in the study of religion without “explaining away” the topic of inquiry. The more scholars apply scientific methods to the study of human behavior, the more they have learned that human behavior is indeed contextual and contingent, and that its meanings must be examined from multiple perspectives (pg. B10)

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Implications of adopting an empirical approach

We believe that adopting an empirical approach will shape our work in the following ways:

(1) Our definition of liberal arts education will have to be falsifiable.

Essentially, this means that we will have to state our ideas about the goals of liberal arts education, and mechanisms that may help us achieve those goals, in a manner so that empirical data can support or contradict them. Another way of stating this is that at every step in our research, we should be able to describe the empirical finding that would “wound,” perhaps mortally, our theory. While this is a fairly basic requirement for empirical research, it will be particularly important in researching liberal arts education because the claims for this form of education are often so broad and abstract, that, if we are not careful, our enthusiasm for a theory will allow us to “render consistent” almost any finding. We must be sure to put our cherished ideas about liberal arts education at risk.

(2) Our definition, and our theories, will develop over time as we learn from our research.

Once again, the difficulty that we face is that arguments about the aims of liberal arts education are so numerous and wide-ranging that our initial attempts to come up with a definition will inevitably fall short. Nonetheless, we will follow the words of advice from a member of our advisory board to “not let the best get in the way of the better.” This means that we will begin with a simple and necessarily imperfect definition and work from there. Our process will be recursive. We will:

1. Identify goals of liberal arts education,
2. Hypothesize the means by which those goals may be attained and what outcomes would constitute achievement of the goals,
3. Use a diverse set of empirical methodologies to test those hypotheses,
4. Consider how we should alter our definition in light of our findings, and
5. Begin the cycle of testing again.

In essence, we will “reduce the problem to little solvable bits and attack them serially.”

At the same time, we also will work with more open-ended, exploratory approaches to develop our understanding of other goals that might be included in our definition of liberal arts education.

(3) Quantitative data will be a necessary component of our assessment of liberal arts education.

We raise this point here not to exclude qualitative research, which will play an essential role in our work, but because we believe that many advocates of liberal arts education will be strongly opposed to the use of quantitative methods in our studies. While it is appropriate to raise concerns about whether we can develop quantitative measures that are sufficiently rich to capture some of the claims for liberal arts education, we do not believe this concern leads to the conclusion that we should not try.

When we’ve gathered groups of educators from liberal arts colleges together and asked them to describe their views on the effects of liberal arts education, they often talk about how it transforms students. While these claims are certainly true (and ignoring for the moment whether all kinds of transformations further liberal arts education), they also are true for students who attend institutions that do not emphasize liberal arts education. Indeed, it is surely also the case

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14 This is a quote describing the scientific method from page 25 of Tim Radford’s article, “Metaphors and Dreams,” (2003) from The Scientist, 17, 24-26.
that some people who do not attend any kind of institution of higher education undergo similar transforming experiences. Developing an understanding of the nature of these transforming experiences without understanding how often these experiences occur in different educational contexts will not help us fully understand the differential impact of liberal arts education.

If we wish to test the transforming impact of liberal arts education, we need to understand both the nature of these experiences and how often they occur. Quantitative research is the best approach to understanding the “how often” or “how much” questions. In order to claim any special benefits of liberal arts education, we will have to provide evidence that such transformations are either more likely or greater in magnitude for students in some educational settings (and perhaps for some kinds of students) than others. This means that both quantitative and qualitative methods will be at the heart of our work.

(4) It is important to differentiate between liberal arts colleges and liberal arts education.

The term “liberal arts college” is used to refer to a particular kind of institution in higher education. Although the term has been used for many years, most higher education researchers use this term to refer to the Carnegie Classification of Baccalaureate Colleges–Liberal Arts. According to Carnegie,15 “These institutions are primarily undergraduate colleges with major emphasis on baccalaureate programs. During the period studied, they awarded at least half of their baccalaureate degrees in liberal arts fields.”16

Although the Carnegie classification system is a very useful system, we believe that, for our research at least, there are two potential problems with using it to designate a type of education. First, an institution’s Carnegie designation may not map well onto an institution’s educational goals and practices. For example, Harvey Mudd and St. John’s in Annapolis are both designated as Baccalaureate Colleges–Liberal Arts by the Carnegie system. Yet, these are very different kinds of institutions with many different curricular goals and structures. Indeed, a quick examination of the range of institutions in Carnegie’s Baccalaureate Colleges–Liberal Arts category reveals considerable variation in student selectivity, the number of different majors that are offered, expectations for on-campus living or service, the degree of breadth in the curriculum, etc. It is not clear yet whether these variations are associated with important distinctions in how and what students learn.

Second, it is also true that many institutions that are not in Carnegie’s Baccalaureate Colleges–Liberal Arts category may have goals and curricular structures that are similar to those of many “traditional” liberal arts colleges within Carnegie’s Liberal Arts category. Two interesting examples are Gonzaga University (Masters Colleges and Universities I) and Columbia College (undergraduate college within Columbia University). Thus, the Carnegie classification system is not sufficiently precise for our work. Although there may turn out to be a strong relationship between an institution’s Carnegie designation and its educational practices, this remains to be empirically demonstrated.

Finally, it is worth noting that there is an implicit theory of the liberal arts embedded in the classification system that may not be one that we wish to follow. That theory is that there are “liberal arts” disciplines, and that students who complete a major in one of these disciplines have

15 http://www.carnegiefoundation.org/Classification/index.htm
16 Liberal arts fields include English language and literature/letters; foreign languages and literatures; biological sciences/life sciences; mathematics; philosophy and religion; physical sciences; psychology; social sciences and history; visual and performing arts; area, ethnic, and cultural studies; liberal arts and sciences, general studies, and humanities; and multi/interdisciplinary studies (as listed in the Classification of Instructional Programs).
received a “liberal arts education.” Our empirical research may eventually show that this is a reasonable idea, but it is not an assumption with which we wish to begin our work.

Carnegie’s institutional classification system is a very useful system for sorting schools based on student majors and degrees, and as we proceed with our research it may turn out to do a good job of identifying fundamental differences in the type of education that is pursued at different institutions. However, we will start by examining institutional practices, cultures, and settings, and work towards determining if these correspond with current institutional designations.

(5) We have to limit the claims for liberal arts education.

From an empirical standpoint, it is impractical to attempt to define, study, and create an operational definition that in some way subsumes all of the very best practices and goals in higher education. The task is simply too daunting. Instead, we shall begin by “taking small bites,” and examining a small number of goals for liberal arts education.

As we stated earlier, there are an enormous number of claims for the effects of liberal arts education. One unfortunate consequence of this fact is that the term no longer gives us the power to distinguish between those programs our faculty and our institutions should adopt and those we should avoid. As long as “liberal arts education” is synonymous with “good,” then anything that is of some benefit for our students will be seen as promoting liberal arts education.

Our sense is that one factor that drives the definition of liberal arts education to such expansive proportions is that many educators “trade on the label” of liberal arts education, and assert the benefit of a particular program by including it as a component of liberal arts education. In the short run, this may help the argument for why a program should be included at a particular institution. In the long run, as the label “liberal arts education” is fixed to an ever larger set of programs, the meaning of the term becomes so broad that it no longer points to anything specific and meaningful.17

We hope our efforts to create a more narrow working definition of liberal arts education take us in a different direction. We suggest that there may be some academic programs, extra-curricular activities, living-unit structures, etc., that have a benefit for our students, but that are not part of liberal arts education. For example, a course that trains a student to learn how to repair computers may be good for a student, and good for society, but it doesn’t mean that it is part of liberal arts education. Taking this argument another step, an assertion that liberal arts education should not have a vocational focus is not a claim that vocational training is harmful. Indeed, it seems reasonable to assume that helping students acquire important job skills is beneficial for students. That does not mean, however, that it necessarily should be part of liberal arts education.

Another benefit of thinking about the limits of liberal arts education is that we may sharpen public discussion on its value. It is much easier to think about, discuss, and ultimately promote the value of something that has sharp and distinguishing qualities. On the other hand, if we take an expansive definition of liberal arts education, so that it includes all of the positive goals and ideals of higher education, we continue the practice of using “liberal arts education” as an academically prestigious “brand” that every institution wants to have, and can in fact have, without altering current educational practices.

17 Bruce Kimball used the phrase “trade on the label” on page 12 of his essay “Toward pragmatic liberal education.” In R. Orrill (Ed.), The condition of American liberal education. New York: College Entrance. (pp. 3-122).
Operational definition

In August 2002, we invited an elite group of educational researchers to discuss the current state of knowledge on the effectiveness of liberal arts education. The participants included Peter Ewell, John Gardner, Patricia King, George Kuh, Cecilia Lopez, Marcia Magolda, Ernest Pascarella, and Pat Terenzini. We started the meeting by asking our participants to respond to Alexander Astin’s conclusions on the effectiveness of liberal arts colleges. Astin published the results of his massive study of higher education in 1993. This study was based on a longitudinal sample of more than 24,000 students from 217 institutions. Astin analyzed the impact of hundreds of variables, including environmental, institutional, affective and cognitive variables. His conclusions on the effectiveness of residential liberal arts colleges are clear:

In many ways, the British “college” supplied the prototype model for undergraduate education in the United States. The colonial colleges and the many hundreds of private colleges that were founded in the next 250 years were in several respects predicated on that model: A primary commitment to educating the undergraduate, a residential setting that not only removes the student from the home but also permits and encourages close student-student and faculty-student contact, smallness, and a sense of history and tradition that generates a strong sense of community. This sense of community is manifested in many ways, including alumni loyalty, the strong student interest in team sports, and the friendly rivalries that evolve between neighboring colleges.

This study has shown, once again, that this traditional model of undergraduate education leads to favorable educational results across a broad spectrum of cognitive and affective outcomes and in most areas of student satisfaction. (p. 413)

Astin followed up this work in the mid-90s by studying liberal arts colleges that emphasized both teaching and research. Finally, in 2000 he summarized his findings on residential liberal arts colleges, stating:

The question of educational efficacy is probably more important to the private liberal arts college than to any other type of institution. Indeed, the fact that so many of these institutions have been able to survive and even prosper during several decades of massive expansion of low-cost public higher education can only be attributed to the fact that many parents and students believe they offer special educational benefits not likely to be found in either the more prestigious private universities or in the various types of public institutions with whom they often compete for students. How justified are these beliefs? The short answer to this question is that residential liberal arts colleges in general, and highly selective liberal arts colleges in particular, produce a pattern of consistently positive student outcomes not found in any other type of American higher-education institution. (p. 77)

Despite Astin’s conclusions, our participants argued that our understanding about the effects of liberal arts colleges and liberal arts education remains sketchy. Ernest Pascarella gave a short

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presentation that he called, “What We Don’t Know about the Effects of Liberal Arts Education.” He argued that

- What we don’t know about the effects of liberal arts education far outweighs what we know.
- The definition of liberal arts is problematic (some studies define it at an institutional level, some in terms of coursework, pedagogy, etc.).
- There is limited research on the effects and outcomes of taking liberal arts courses.
- The direct causal effects of attending a liberal arts college versus other type of school are difficult to determine; instead, effects are likely to be indirect (transmitted through distinctive environments).
- There is some suggestive evidence (non-replicated) that liberal arts colleges increase some student outcomes (i.e. moral reasoning, MCAT scores).
- There is no research on the impact of liberal arts colleges (or education) in terms of cognitive growth, reasoning skills, general academic skills, moral reasoning and behavior, service, identity development, career maturity, etc.
- There is little evidence of long-term impact of liberal arts education.

He concluded that while Astin had taken an important first step, much work needed to be done to develop a firmer understanding of liberal arts colleges and education.

Given this conclusion, it is interesting to note the following statement in one of Pascarella and Terenzini’s papers:

“…we know a number of conditions that foster student learning and development. These conditions include (among others) small institutional size, a strong faculty emphasis on teaching and students, a student body that attends college full-time and resides on campus, a common general education emphasis or shared intellectual experience in the curriculum, and frequent interaction in- and outside the classroom between students and faculty and between students and their peers.”

These conclusions seem to be almost identical to Astin’s. Moreover, most faculty and students at liberal arts colleges would say that this quote describes, in precise terms, the environment at their colleges. Why then didn’t these conclusions enter the discussion at the August meeting?

This is mostly speculation on our part, but we believe that many educational researchers view liberal arts colleges as well-to-do institutions at which both a set of supportive conditions and good pedagogical practices happen to co-exist. They do not see these laudable conditions and practices as being intrinsically connected to any underlying educational philosophy that might exist at such institutions. On this view, these practices and conditions can flourish at any kind of institution providing there are sufficient resources.

Yet, many faculty and administrators who’ve worked both at residential liberal arts colleges and larger institutions have a different perspective. They might argue that these supportive practices and conditions are more likely to co-exist at liberal arts colleges because such institutions are governed to some degree by an underlying philosophy that connects curricular

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22 This seems to be Astin’s argument.
emphases with a set of educational practices and environmental conditions. Hence, the fact that many small liberal arts colleges combine a host of effective and engaging teaching practices while avoiding an overemphasis on vocational education is not an accident. Rather, it stems from an underlying theory, which, for now, we will call “Liberal Arts Education.”

With that background, our first step is to develop, or at least make explicit, this theory so that we can use it to guide our research. Please keep in mind that this provisional theory constitutes a first pass on the ends and means of liberal arts education, and that it will become more sophisticated as our work proceeds.

Theory of Liberal Arts Education

We’ll hypothesize three “factors” or conditions that must co-exist to support liberal arts education. They are:

1. An institutional ethos and tradition that place a greater value on developing a set of intellectual arts than on developing professional or vocational skills.
2. Curricular and environmental structures that work in combination to create coherence and integrity in students’ intellectual experiences.
3. An institutional ethos and tradition that place a strong value on student-student and student-faculty interactions both in and out of the classroom.

This three-factor theory will serve as our starting point both for our discussions and our research. We will, of course, be developing our ideas on each of these components as our work proceeds. The following is a description of some of our initial thoughts on the theory and each of the components:

Connection between the first, second, and third factors

We think of the first factor as the specific end of liberal arts education, and the second and third factors as the means by which that end may be achieved. We do not believe that the second and third factors are the sole means by which the intellectual arts may be achieved. Just as an individual may learn how to be a carpenter without serving as a carpenter’s apprentice, people may gain the intellectual qualities that are identified by the first factor (and are described below) without attending a college or university which has the second and third factors, or even without any kind of formalized higher education whatsoever. However, we believe that just as the goal of being a carpenter’s apprentice is to become a skilled carpenter, the goal of pursuing a liberal arts education is to develop the intellectual arts. We also believe that the second and third components of our theory are especially suited to bringing about liberal arts education. Thus, our prediction would be that the student is more likely to develop the intellectual arts when the second and third factors are present.

Factor 1: Vocational arts versus the intellectual arts

An institutional ethos and tradition that place a greater value on developing a set of intellectual arts than on developing professional or vocational skills: The debate about the relative importance of the vocational and intellectual arts has been going on as long as the discussion about liberal arts education, so it is important to clarify our stance on this issue. First, we are not arguing that students should not have career goals nor view higher education as a means to a successful career. Furthermore, we are not arguing against the value or presence of pre-professional programs, or that the intellectual arts have no practical value. Instead, we are focusing on the orientation and goals of the institution, not the student. We are hypothesizing that students are
more likely to develop the intellectual arts when the faculty and the administration place a greater value on developing their students’ quality of mind than on providing training for specific careers or professions, including training students for graduate programs in liberal arts disciplines. In essence, we are arguing that the ends that institutions seek matter for their students’ intellectual development.

Factor 1 [continued]: The intellectual arts

The initial set of intellectual arts we posit as the goals of liberal arts education are

- An attitude of intellectual openness, especially to inquiry, discovery, new ideas and perspectives. The eagerness to grapple with difficult questions, to develop and act on provisional answers to these questions, and to continue to re-evaluate these provisional answers in light of experience.
- The ability and desire to adopt a critical perspective on one’s and other’s beliefs, behaviors, values, and positions, whether this perspective leads one to a reaffirmation or revision of one’s current position.

This short, focused list neglects many of the common claims for liberal arts education, including making students more humane or “more fully human,” or developing some form of citizenship (e.g., developing “citizens for democracy” or “global citizens”). The reasons for starting with such a short list are both practical and theoretical. As we described in the first section of this paper, our practical strategy is to begin with a small set of claims for liberal arts education and work with these claims empirically. On the theoretical side, it is clear that the intellectual qualities that we describe may, if practiced in certain ways, improve an individual’s humanity or citizenship or a variety of other characteristics. However, we do not yet see any embedded values in liberal arts education that mandate that the intellectual arts be practiced in just those ways. No doubt this discussion will continue.

Factor 2: Curricular and environmental structures

Curricular and environmental structures that work in combination to create coherence and integrity in students’ intellectual experiences: Our hypothesis is that if the curriculum and the campus community are well integrated, then students are more likely to share and discuss their intellectual work in and out of the classroom. These common experiences create the sense of community, and renew and develop the shared agreement on intellectual attitudes and dispositions that the institution values. In doing so, we believe they become a catalyst for the development of the intellectual arts. Our prediction is that higher levels of integration between the curriculum and the campus environment in which students work will lead to higher levels of development of the intellectual arts.

Factor 3: Student-student and student-faculty interactions

An institutional ethos and tradition that place a strong value on student-student and student-faculty interactions both in and out of the classroom: We hypothesize that the infusion of intellectual content into student/student and student/faculty interactions outside of the classroom is far more likely to occur on campuses in which such interactions are deeply embedded in the campus culture and mission. We also hypothesize that this ethos and tradition is more likely to occur at places that focus on undergraduate education. Certainly, there are many graduate and professional programs that are structured around strong and close student-student and student-faculty interactions. However, if the primary end of these interactions is to develop
professional skills or disciplinary acumen, then they are serving a different end than that postulated by our first factor.

Final points
A quick glance at the factors tells us that institutions may adopt them to varying degrees. That implies that we will be thinking of and talking about liberal arts education as something that varies on a continuum rather than categorically. As we develop studies, we will have to create measurements, or operational definitions, for each of the three factors. An operational definition of the intellectual arts, curricular and environmental coherence, and student-student and student-faculty interactions must have two qualities in order to help our research. First, it must be based on observable items such as existing databases, course catalogs, or interviews with campus representatives, site visits, cognitive tests, etc. Second, the operational definition of our three factors for any particular study must, in our minds, be sufficiently representative of our definition of liberal arts education that negative results would lead us to weaken our belief in the efficacy of liberal arts education.