

# LIBERAL EDUCATION AND EFFECTIVE PRACTICE™



## Clark LEEP Working Paper #1

Clark University, Worcester MA — November 2011

*This framing document is intended to guide discussions as Clark builds towards the launch of its new Liberal Education and Effective Practice Initiative. It stems from the work of Clark's Undergraduate Task Force and the workshop on Liberal Education and Effective Practice co-sponsored by Clark University and the Association of American Colleges and Universities in 2009 (<http://www.clarku.edu/research/mosakowskiinstitute/conferences/mar12/index.cfm>).*

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# CLARK UNIVERSITY'S Liberal Education and Effective Practice Initiative

*"At Clark, we re-affirm the enduring value of liberal education as a powerful foundation for life, career, and citizenship. But we also believe liberal education must advance, must become more deeply attuned to the profound changes that are underway in our economy, our society, and our democracy." – President David Angel*



Ten years into the new millennium it is abundantly clear that the challenges and opportunities for higher education are intensifying in a world marked by continual flux, enhanced interconnectivity and the globalization of everything from economic structures to cultural mores. Many are questioning the value and relevancy of liberal education and are looking for universities that can better equip students with the capacities needed to shape future economies, communities, and lives.

However, as we look at the challenges of climate change, of economic dislocation, the competitive need for scientific discovery, the persistence of poverty, violence, and inequality, and the fracturing of civic institutions, we must conclude that liberal education is a most precious resource and an investment in our common future. These challenges demand the mental agility and the creative and analytical skills that are hallmarks of a traditional liberal education. Yet, beyond this, students also need capacities that empower them to transform that knowledge into lives of purpose and consequence.

But how?

At Clark, we are building a new model of liberal education: *Liberal Education and Effective Practice (LEEP™)*. This innovative model integrates the wealth of intellectual and academic resources already present at the university with the skills and capacities

that are becoming increasingly essential in the 21st century. The Clark undergraduate experience — in all its dimensions — from the classroom to the research laboratory, from the cocurricular experience to teams and clubs — will educate graduates known not just for academic excellence, but also for resilience, persuasion, creativity, and the ability to demonstrate character when tested.

Employers are seeking strong contributors with a broader set of skills and higher levels of learning, knowledge and ingenuity to meet the heightened demands of a rapidly changing workplace and global economy. Our students will acquire the capacities to be adaptable and nimble in a dynamic work or post-graduate environment; they will be able to design innovative approaches to tough problems, collaborate energetically with others across differences, and translate their ideas into action quickly, efficiently, and confidently. The world our students are stepping into demands graduates who can both *think* and *act* at the highest levels. In the evolving universe of liberal education there is no longer room for either/or.

Through a series of campus discussions, Clark has created a new approach to liberal education that addresses these pivotal needs. We have concluded that a sound liberal education remains the strongest foundation for college learning, but that it needs to be augmented by a careful focus on helping students achieve further crucial learning outcomes that together we call

the *Capacities of Effective Practice*.

Our graduates will leave Clark with the knowledge, skills, habits of mind, and character to ensure professional, personal, and civic success.

Our plan to combine liberal education and effective practice is outlined here as the answer to three questions:

- What should the learning outcomes of a 21st century liberal education be?
- How should Clark sequence and structure the learning experience across a student's four years to assure these outcomes are met?
- How should Clark organize the entire institution to support the learning objectives of a 21st century liberal education?

QUESTION 1:

What should the LEARNING OUTCOMES of a 21st century liberal education be?

Clark's innovative and developmental approach to liberal education combines the essential learning outcomes developed by the Association of American Colleges and Universities ([http://www.aacu.org/leap/documents/EssentialOutcomes\\_Chart.pdf](http://www.aacu.org/leap/documents/EssentialOutcomes_Chart.pdf)) with a new learning outcome uniquely focused on effective practice.

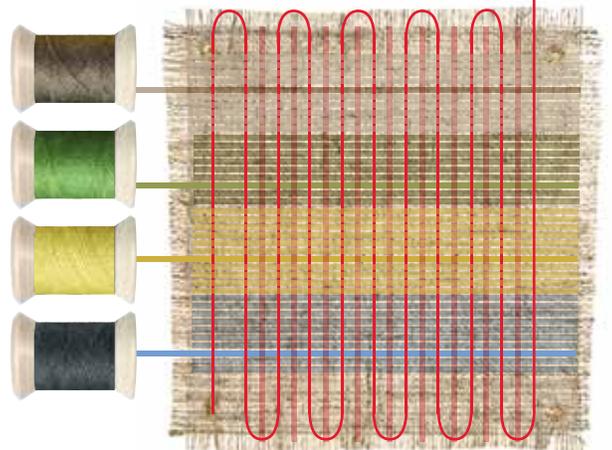
FOUNDATIONAL LIBERAL EDUCATION SKILLS AND CAPACITIES

	<b>1 Knowledge of the Natural World and Human Cultures and Societies</b> — including foundational disciplinary knowledge and the ability to employ different ways of knowing the world in its many dimensions.	<i>The acquisition of this knowledge will be focused by rigorous engagement with big questions, both contemporary and enduring.</i>
	<b>2 Intellectual and Practical Skills</b> — including inquiry and analysis, the generation and evaluation of evidence and argument, critical and creative thinking, written and oral communication, quantitative literacy, information literacy, teamwork and problem solving.	<i>These skills will be practiced extensively, across the curriculum, in the context of progressively more challenging problems, projects, and standards for performance.</i>
	<b>3 Personal and Social Responsibility</b> — including ethical reasoning and action, the intercultural understanding and competence to participate in a global society, civic knowledge and engagement locally as well as globally, and the lifelong habits of critical self-reflection and learning.	<i>These abilities will be anchored through active involvement with diverse communities and real-world challenges, taking particular advantage of Clark's urban location and global connections.</i>
	<b>4 Ability to Integrate Knowledge and Skills</b> — including synthesis and advanced accomplishment across general and specialized studies, bridging disciplinary and interdisciplinary thinking, and connecting the classroom and the world.	<i>This will be experienced through progressively more advanced knowledge creation, contextual reasoning, and the construction of shared meaning and opportunities for reflection.</i>

CLARK'S DEFINING CONTRIBUTION: THE CAPACITIES OF EFFECTIVE PRACTICE

	<b>5 Capacities of Effective Practice</b> — including creativity and imagination, self-directedness, resilience and persistence, and the abilities to collaborate with others across differences and to manage complexity and uncertainty.	<i>These will be demonstrated by application of knowledge and skills to issues of consequence and by emerging membership in larger communities of scholarship or practice.</i>
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Clark believes that students need extensive opportunities to connect their learning within and across many contexts, including their major, Clark's general education requirements known as the Program of Liberal Studies, as well as research, internships and cocurricular experiences. But Clark's distinctive addition is a new educational goal informed by learning science research and aimed at better preparing students for their lives beyond college: capacities of effective practice (Budwig, 2011a). In addition to a strong liberal education, Clark students will graduate with the ability to engage effectively on issues of consequence, bringing creativity and imagination, resilience and persistence, and the ability to constructively collaborate with others in the face of complexity and uncertainty. Over their time at Clark, undergraduate students will weave together a program of curricular and cocurricular experiences that inculcate the five learning outcomes of a Clark degree.



CLARK'S CAPACITIES OF EFFECTIVE PRACTICE

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There are four important pieces that comprise the definition of effective practice: creativity, adaptive expertise, capacities of enactment, and the power of collaboration (Budwig, 2011b).

**CREATIVITY:**

Learning to navigate uncertainty involves cultivating a sense of creative imagination. Students need to immerse themselves deeply to understand accepted ways of knowing. Students also require the space to explore, tinker, fail and discover. Nurturing creativity is central for participation in the modern world.

**ADAPTIVE EXPERTISE:**

Adaptive expertise also is crucial to managing complexity and uncertainty. Expertise goes beyond knowledge mastery. Learning scientists have shown that central to the formation of expertise is an individual's capacity to learn and adapt knowledge across contexts by drawing freshly on knowledge-rich environments. Experts have the capacity to make use of available resources flexibly, facilitating their own future learning and meaning making. This goes beyond what traditionally has been called "learning to learn." Expert strategies for adapting for future learning are tied to specific knowledge and practices. Capacities of effective practice allow a student to go beyond previously acquired knowledge and skills, by adapting prior expert knowledge in authentic settings.

**CAPACITIES OF ENACTMENT:**

Creative and innovative ideas alone are not enough. Students need to experience what it takes to translate ideas into action. We call the abilities to translate ideas into action *Capacities of Enactment*. They include the ability to rise above obstacles in the face of adversity, the ability to transition effectively from big picture to on-the-ground implementation, and the ability to ensure focus, set priorities and drive results. Essential to developing these is experience in authentic contexts with seasoned collaborators.

**COLLABORATION:**

Success in framing and solving some of the most interesting and complex problems that society faces will require collaboration, and consequently the capacity to harness the creative power of collaboration (Sawyer, 2007). New research shows that teams often display a "collective intelligence" or "group genius" that has little correlation to the intelligence or knowledge base of individual team members (Woolley et al, 2010). Experience adopting practices accepted by larger communities of knowledge, being open to test out new approaches in light of the ideas and experiences of others, and creating time and room for playful improvisation with a team of others all contribute to tapping into the power of collaboration. The capacity to work with others depends on close listening and a heightened ability to adapt, building on improvised collaborations. Clark's Liberal Education and Effective Practice initiative draws on new findings about fostering the capacity to collaborate, which is an essential component of capacities of effective practice.

Clark is convinced that focusing heightened attention on integrated learning and effective practice in particular will distinctively prepare Clark graduates to develop the habits of mind and repertoires of practice for engaged citizenship, successful careers and meaningful lives.

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## QUESTION 2:

How should Clark sequence and structure the LEARNING EXPERIENCE across a student's four years to assure that these outcomes are met?

### CLARK'S DEVELOPMENTAL MODEL OF LIBERAL EDUCATION

Clark University understands a student's passage from high school, through college, and beyond as a developmental process. Every aspect of the student's college experience, whether curricular or cocurricular, on campus or in the community, should support the expanding arc of that student's development.

Our distinctive approach to undergraduate education builds on Clark's distinguished history as a center for developmental psychology. It also draws on contemporary research in the developmental sciences, including work on adolescence and emerging adulthood (see Amsel and Smetana, 2011; Arnett, 2004).

The Clark developmental model shifts the relationship between general and specialized education. Instead of taking breadth and depth as two relatively separate aspects of the undergraduate experience, this approach

sees academic progress as a single arc that is defined by the student's maturation, by experiences of inquiry and reflection, and by enacting what they have learned in a sharable-public form. This arc aims to support each student as she or he cultivates the traditional characteristics of liberal education and the capacities of effective practice in preparation for a life of meaning and purpose personally, professionally, and civically. Clark graduates will be ready to flourish in meeting the challenges of our time.

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Clark's developmental model identifies three phases: orientation, exploration, and enactment.

While each phase may recur within any particular process as well as at different scales (in a course, in a major, across an undergraduate career, or through a lifetime), the Clark model focuses especially on the student's longitudinal progress through college. In that journey, each student traces a developmental arc across traditional boundaries between general and specialized education.



*THE ORIENTATION PHASE* marks the entry into higher education. This phase calls on the learner to acquire the language, practices, standards, and mores of the university community. In the orientation phase, students take up fundamental skills and build fundamental relationships. Active involvement with faculty and more advanced peers around significant issues helps ground each student's transition and plays a central role in transitional learning experiences.

*THE EXPLORATION PHASE* invites students who have entered higher education to explore the spaces and possibilities available there. This phase requires curiosity, openness, learning to listen well, asking good questions, and beginning to integrate the streams of learning—both formal and informal—that the student is experiencing. In exploration, students learn to organize, compare and position themselves rigorously with respect to new knowledge. They have opportunities to sit quietly with complex questions and to experience the exploratory possibilities inherent in doubt and uncertainty. In this phase students are challenged to apply what they learn to new contexts, and to stretch their learning in ways that provide global and international experiences.

*THE ENACTMENT PHASE* calls on students to show their progress by enacting what they know. The work of this phase requires them to work in an authentic setting, addressing an issue of consequence. Each student—alone or with others—will synthesize and construct something new in a way that adds value to a larger community. Students will document this achievement in a public venue (e.g. at Clark's Academic Spree Day, a regional or national conference, or through a publication, performance or other presentation).

QUESTION 2: How should Clark structure and sequence the LEARNING EXPERIENCE across a student's four years to assure that these outcomes are met?

### ITERATIVE SEQUENCING OF THE FIVE LEARNING OUTCOMES

Clark also sees student development taking place simultaneously at different scales: across an entire undergraduate career, within a major, or through engagement with a community of practice. All phases come with high expectations for rigorous work and attention to designing environmental supports consistent with those expectations. The five learning outcomes are sequenced iteratively across the three developmental phases.



### SUCCESSIVE PHASES DEMAND:

1. Greater foundational knowledge across disciplinary areas, including fluency in multiple ways of knowing;
2. More extensive practice in intellectual and practical skills;
3. Increased agency and social responsibility, where students take on increased responsibility for organizing their own learning;
4. Additional opportunities to integrate and apply knowledge across diverse contexts;
5. Further experiences that sharpen capacities of effective practice.

### STRUCTURING THE LEARNING EXPERIENCE IN LIGHT OF LEARNING SCIENCE RESEARCH

Clark's undergraduate reform efforts also have been informed by the rapidly developing interdisciplinary field of learning science and socioculturally grounded research that has provided a clearer analysis of how people learn and how expertise is built (Budwig, 2011a). Although much of this work has not specifically focused on college learners, this literature nevertheless provides a wealth of information that has influenced Clark's LEEP work (see Lave and Wenger, 1991; Sawyer, 2006). Five principles that emerge from learning science research have guided Clark's approach to structuring the liberal education reform efforts.

### COMMUNITIES OF EFFECTIVE PRACTICE AND MULTI-GENERATIONAL LEARNING

One example of how learning science research has impacted Clark's undergraduate experience is illustrated by Clark's approach to learning beyond the classroom. Clark's undergraduate program has been designed to emphasize multigenerational learning, where students engage with a wide variety of others at different developmental stages, including peers and those who are more experienced.

We do this through what we call *Communities of Effective Practice*. Building on the familiar concept of "Communities of Practice" (Wenger, 1998), we understand *Communities of Effective Practice* as settings in which faculty members and students from many levels (graduate and undergraduate) engage mutually in common activities aimed at genuine engagement with pressing problems, seeking new insights into enduring questions, or creating new artistic works as well as new interpretations of those works.

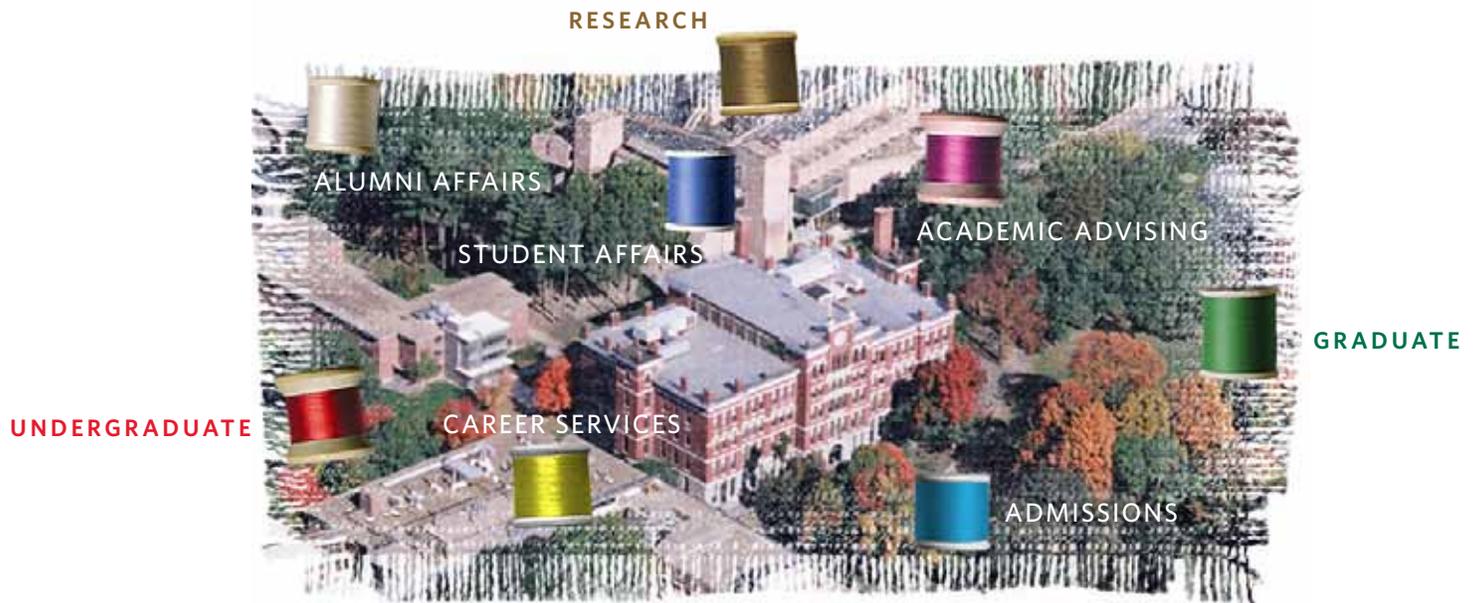
### 5 Principles from Learning Science Research Guided Clark's Liberal Education Reform

1. **Deep Learning**—Students learn best when new knowledge explicitly builds upon prior knowledge, enhanced by processes of student reflection.
2. **Integration**—Deep learning depends on integrating knowledge and experience from diverse sources across a variety of settings.
3. **Situated Learning**—Students must cultivate the ability to translate and apply knowledge in diverse situations and contexts (what has been called direct application [Bransford et al., 2006] or cognition in the wild [Hutchins, 1995]).
4. **Adaptive Expertise**—Adaptive experts are learners who have the capacity to flexibly build new knowledge in part through effectively using resources to facilitate future learning.
5. **Learning Communities**—Teaching and learning are social activities; the most effective learning comes from participation in a network with other novices and experts who act as resources in different ways.

The relationships in such a community are both formal and informal and they can extend beyond a single course or academic year. The complexity of such communities makes them rich and durable. Each creates a repertoire of shared resources and practices often tied to communities that extend beyond the university. Participation in such communities increases a student's repertoire of knowledge and skills, but it also provides opportunities to acquire the tacit knowledge that arises only through extended working with others. It provides opportunities for not knowing, for self-reflection, and for compromise and building on the ideas of others—for growth in many of the capacities of effective practice. Multigenerational learning and communities of effective practice are designed to take advantage of Clark's graduate and research efforts in ways that enhance undergraduate learning.

### QUESTION 3:

How should Clark organize the entire institution to support the LEARNING OBJECTIVES of a 21st century liberal education?



For students to successfully meet the ambitious learning outcomes of a Clark education, the entirety of the university will need to be engaged in a coordinated fashion. Although this seems intuitively obvious, most institutions of higher education are not optimally organized in this way. We refer to this as *Networked Organizational Alignment*. All of Clark's multiple departments and units will work together to provide a coherent framework for undergraduate educational experiences. The Liberal Education and Effective Practice initiative not only will guide the organization of student learning in the classroom, but also in other areas. Each unit on campus needs to focus their efforts to contribute to student attainment of the five fundamental learning outcomes, and doing so in ways that link up with LEEP's developmental framework.

Currently Clark capitalizes on three different ways Clark students can draw upon the entire institutional strengths for enhancing student learning.

#### AT THE UNDERGRADUATE LEVEL

Clark is in the process of taking stock of all the typical touch points and services available to undergraduates, auditing their contributions to the undergraduate experience in light of the three-phase

developmental model and learning science-informed approach to learning communities. How will undergraduate programs and services be aligned? Clark's LEEP Institute will draw together many student support services in a new way to better support undergraduate learning. And Clark's Program of Liberal Studies and academic majors will be better aligned to support a single developmental arc of learning. The academic resources will be enhanced by explicit consideration of the alignment of student services support teams. It is critical that all of these undergraduate units support the rigorous, integrative and collaborative learning experiences that are characteristic of Clark's LEEP initiative.

#### THE ROLE OF GRADUATE EDUCATION AND CLARK'S STRENGTH AS A RESEARCH UNIVERSITY

As a small urban liberal arts research university, Clark has a distinct advantage in connecting undergraduates with elements of the university either unavailable at typical liberal arts colleges, or administratively removed at typical research universities. A second way Clark has drawn on the entire university includes explicitly linking Clark's graduate and research efforts to Clark's LEEP initiative. Undergraduates have the opportunity to take courses and conduct research with master's level and doctoral students. Undergraduate students also work as part of larger communities of effective

practice with multigenerational teams on cutting edge research and scholarly activity. Clark's innovative accelerated degree program is an example of how Clark's graduate profile enhances Clark's undergraduate experience. In contrast to many research universities, Clark's research mission becomes a central context for undergraduate learning, rather than deterring from the undergraduate experience. From Clark's partnerships with its Worcester Main South Neighbors to work by faculty members around the globe, Clark's focus on work with diverse communities beyond campus, provides students broader contexts for their education.

#### BEYOND ACADEMIC AFFAIRS

Clark will also examine how other units on campus will come together into what has been called a "Networked Improvement Community" (see Bryk, Gomez, and Grunow, 2011) that purposefully and through collective action works to support educational outcomes (see also Ferren and Stanton, 2004). In this new model, alumni and partner organizations, for instance, have a distinctive role to play. Linking Clark's organizational structure into coordinated networks in support of student achievement is a significant resource for Clark that can be leveraged in powerful ways to improve the learning outcomes of Clark undergraduates.

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