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David Burrows

Lawrence University, david.burrows@lawrence.edu

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Liberal Education and Effective Action

It is the tradition at presentations like this to begin with some advice. Kurt Vonnegut allegedly started a commencement address by saying, “Wear Sunscreen.” Many say that technology is removing the need for human face to face learning—just like motor assisted bikes make it easy to coast through life relying on externally supplied power. My advice is this—You can coast, but you will get there faster if you pedal.

The essence of our humanity is the power of the mind to analyze, understand, plan, and create. To release and nurture that power, we invented liberal Education, 2500 years ago.

Liberal education is the development of intellectual and social abilities that enable us to transcend specific knowledge, seek after
truth and liberate us from narrow biases and interpretations in order to understand the world, love ideas, and lead lives of fulfillment and social responsibility.

Never before have we needed so badly the power of liberal education to help us combat ignorance, banish biases, and find solutions to poverty, war and disease. In a recent PEW Research Center survey, persons with a post-graduate degree could answer 9 of 11 questions about such critical topics as whether coal is a fossil fuel. For those with a high school degree or less education, the average was 5 out of 11. We need to get everyone up to at least 9 out of 11 and we need to get everyone to the point of knowing how to use information critically and effectively. If we believe that knowing something about such things as energy, or poverty, or human aggression is vital for our future, clearly education will made a difference.

In thinking about this talk, I wondered whether to go big, like the author of the Hitchhiker’s Guide to the Galaxy. In that book, one
of the characters wanted to know the answer to the question of Life, the Universe and Everything. That is big. That’s even more than we try to do in Freshman Studies. The approach did not work out. The answer is 42, but that was not satisfying. Among other things, that answer shows the folly of using numbers that are not attached to anything meaningful.

Going big is NOT this talk. We could go small but deep.

Let us look at the question of how reaction time for retrieval from memory grows with the amount of information in memory. Is the function curvilinear or double linear? That was important to two young faculty members a long time ago. The other young faculty member is my friend and colleague of over 50 years, Ron Okada. But going deep is not the scale of this talk either. The big vs. deep question is important for liberal education, but that is a talk for another day. Rather, I want to take a middle road. I want to talk about some modest thoughts
on how we can make liberal education effective and sustain a trajectory that will benefit us all for the indefinite future.

Liberal education has enjoyed a long history of success and is the foundation of our great colleges and universities. But there are problems. Recent attacks on liberal education have criticized it for being irrelevant, elitist, and expensive. It is characterized as not preparing students for attractive careers. Shakespeare’s King Lear felt stuck on a wheel of fire.

Defenders of liberal education may be in a worse place. We may be on a rapidly spinning broken disc that will throw us into deep space with no way to stop its rotation.

But we will be all right. Liberal education will continue to sustain us in the future. Three aspects of liberal education are relevant to its continued strength:

- There has always been criticism of liberal education, and these criticisms have always been answered.
• Liberal education has always been situated in the context of its times, and has always aimed to address pressing contemporary concerns. From Plato’s concern with civic virtue to recent demands that students learn the latest technologies, liberal learning has always prepared students to make meaningful contributions to their respective worlds.

• The goals of effective contribution to the world and the life of the individual have always been served by the development of the powers of the mind at the highest levels, including the ability to think, to understand, to adapt, and to create what is new.

Two straightforward ideas can help us construct sustainable versions of liberal education. I will call them Big Idea 1 and Big Idea 2. Big idea 1 is that we emphasize the relationship between thinking and effective action.
A liberal education for our time can merge traditional ideas with current calls for reform by advancing a simple idea: Emphasize the transformation of thought into action. Continue to develop the power of thinking, but link it to the construction of effective action.

Some examples of the transformation of thought into action include making connections between understanding economic systems and creating anti-poverty programs or between learning about the physics of sunlight and creating sustainable sources of energy. Later I will claim that students like making these connections and that making connections will help them learn ideas more quickly and thoroughly. To make Big Idea 1 work, we must develop the capacity for thought at a high level. We then need to be adept at turning our thoughts into effective action.

Big Idea #2 is that we accomplish the construction of a connection between thought and action by emphasizing the enhancement of a core set of human characteristics that are part of our biological and
social structure. These are capacities for: abstract thought, planning and creating goals for ourselves, creating social relationships, and using language.

**Human Characteristics**

Taken together, these four characteristics define us as individuals capable of complex, creative thought AND as individuals who are motivated to act. They are the foundation for thought, action and the transfer of thought into action.

The concept here is to view the entire liberal education program as the enhancement of holistic cognitive and emotional capacities that define humanity at its best. We will still have major programs, but general education should start with the idea of having students reach their full potential as humans. Some of the details I leave to the curriculum committee, for which I do not aspire to be a member. Today, I focus on the four critical human capacities mentioned above. I choose these for three reasons. First, students come to higher education with these capacities starting to unfold,
providing opportunities for personal growth. Second, the development of these capacities can empower students to think with intelligence and grace and act effectively. Third, although these characteristics are fundamental, their full development is not automatic and the academy can do students a great service by enhancing them.

To set the stage for a program of enhancement, it is useful to look at the history of liberal education.

**The Foundation of Liberal Education**

An important starting point for liberal education is the educational program of Plato.

In *The Republic*, Plato describes learning as the development of the soul (or mind) with an emphasis on intellectual powers, notably the power of reason. Rational thought should be used to focus on higher order questions such as the nature of virtue. It does not involve filling the mind with information, but rather with eliciting
abilities for analysis and understanding. Plato was interested in the power of ideas but he also thought ideas should be used for social good. He emphasized education for civic virtue. It is the role of the educated to engage with society and provide leadership. The dual nature of this quest, learning how to think and reason and using the powers of reason to address the issues of society, is critical. Plato identified the distinction between thought and action in his conception of the soul as including a rational component that could decide what is best, and a courage component whose function is to carry out the plans created by the rational component. So, the thought into action stage was set.

**Change**

Much has changed since Plato’s time, but several characteristics remain after 25 centuries. Liberal education still entails the transformation of the individual, based on the development of high level conceptual thought. It continues to have the goal of preparing
individuals to become effective citizens who address the needs of the larger society.

Plato’s ideas led to the Quadrivium and the Trivium, the first known distribution model for general education. Included is instruction in geometry.

(Image of medieval instruction in geometry)

You will note that the geometry class is being taught by a woman. You will also note the unfortunate evidence of math anxiety.

Seminars have continued to be emphasized.

The idea of a capstone was developed at the end of the 18th century, and generally involved courses that emphasized moral philosophy, typically taught by a college president.

I mention this not to insist that our president teach a course, but because I want to emphasize that the idea of a course that integrates knowledge and tries to use it to advance good works is not new—It is part of a continuous line of enhancing the powers of
the mind while addressing social concerns. I think our President could teach a course and would do an excellent job. This is provided the Provost agrees to put it on the schedule. Most recently, we have added interactive classrooms. This has accented the idea of developing cognitive skill through the progression of give and take action

A recent example of liberal education in the service of social goals is the development of the Contemporary Civilization course at Columbia University in 1919. The course involves developing high-level cognitive skill, but its origins are definitely pragmatic. After the end of the First World War, there was concern that we did not know how to prevent wars and maintain peace. The Contemporary Civilization course was introduced with the goal of using education to eradicate war—certainly an example of promoting intellectual development to address an urgent social need.
We recognize several emerging needs of our time that education should address such as the development of innovative strategies and new technologies. The twin characteristics of the development of the individual and the orientation of the individual toward effective citizenship remain the eternal constants.

**Criticism**

Today, liberal education is criticized as irrelevant. Why not forget about discussions of abstract ideas and focus on useful knowledge? There are several reasons for cautious optimism in the face of this criticism. First, criticisms of liberal education are not new. At one time, the faculty of Yale University felt the need to defend part of their liberal learning curriculum when it was attacked as outmoded. The faculty created a manifesto defending the curriculum and sought to incorporate new disciplinary needs without eliminating existing ones. That manifesto was published in 1828. Second, there is a strong belief among educational theorists that connecting the development of the mind to actions that address social needs is a
powerful force for learning. John Dewey, an early advocate of this idea, felt that learning takes place in the context of thinking about and trying to solve real life problems.

His position is summed up in the quotation shown here: “The real process of education is the process of learning to think through the application of real problems.”

Dewey’s ideas are a century old, but his emphasis on “learning by doing” is still common practice and claims for its effectiveness have empirical support. Third, many individuals who are famous for world-changing innovation have argued that liberal education is the foundation of creative action and effective technology. One has stated, “…technology alone is not enough—it’s technology married with liberal arts, married with the humanities, that yields us the results that make our heart sing.” He said this in the context of creating new, high profile, profit-making products. His name is Steve Jobs.
The criticisms are not new and the concept of transforming thought into action is not new.

**Liberal Education and Human Nature**

We can address the future of liberal education by thinking about the distinctly human characteristics mentioned earlier.

**Abstract thought: Connection Making.**

The essence of abstract thought is the ability to make connections. By doing so, we move from concrete examples to abstractions. As we form concepts, we engage in abstractions of our experiences. For example, the ability to recognize different chairs and use the concept of chair depends upon making connections among our experiences of chairs. Such a simple concept as that of chair transcends individual experiences and enables us to understand the big picture.

The importance of connection-making has been emphasized in many analyses of human cognitive processes, including problem
solving and remembering. There are arguments that the very foundation of our cognitive life involves the making of new connections. Jacob Bronowski presents the thesis that imagination is the key source of new ideas and new discoveries, and that imagination depends upon connection making:

“Every act of imagination is the discovery of likenesses between two things which were thought unlike.”

Bronowski was inspired by the example of Isaac Newton who made a connection between the motion of an apple thrown near the surface of the earth and the motion of the moon across the sky. What emerged was the theory of gravity.

Note that by connecting two relatively concrete ideas, the visible motion of objects in the earth and objects in the sky, Newton constructed an abstract concept, that of gravity.

Other examples of connections leading to key advances are the airplane and open-heart bypass surgery.
When people connect two ideas and compare them, they are learning the skills of analysis, comparison, understanding complexity, and making decisions. The ability to engage in analysis results from making repeated connections between ideas, trying to figure out their similarities and differences, making comparisons, and arriving at some sophisticated understanding of the matter at hand.

In summary, the primary cognitive processes are based on a foundation of making connections between ideas. This is something we should deliberately and emphatically emphasize.

**Self-direction.** Humans are motivated to plan for the future, often with a focus on personal goals and sense of self. We have a drive to decide what we want to do and what we want to become. There is evidence that self-reference can be a powerful force for both learning and decision making. I assert today that learning to make decisions about one’s own future is good training for learning to
make decisions about anything. Deciding what to do, how to evaluate alternatives and choose one is a wonderful way to break out of a passive approach to life where things simply pass you by and you do not try to exert an influence on the future. It is a force for thought and action. It is peddling instead of coasting.

**Social Relationships.** Humans are social organisms. This idea was famously stated by Aristotle, who asserted: “Man is by nature a social animal” We communicate with each other, build relationships with each other, and are influenced by each other. E.O. Wilson and others have argued that our social nature has a genetic basis and that there is an evolutionary advantage to being social. The specific expression of social behaviors is culturally determined but built on a genetic foundation. This means that social behaviors can be shaped by the values we encourage through education. There is obviously a dark side to our nature. For example, there is evidence that aggression is built into our biology.
But so too, according to Wilson and others, is altruism. We have a biologically based tendency to help others. Humans can be encouraged to engage in activities that benefit others and lead to improvements in the world outside of ourselves. It is our job, as suggested by Martin Luther King, Jr., to help that tendency to emerge. In short, the basis of positive social engagement is part of our biological makeup and can be developed through learning.

Language. Our ability to use language for the creation and communication of new ideas is a distinctive part of our humanity. Some have argued that productive language, the ability to construct novel utterances, is unique to humans. We use language to generate and describe new ideas with richness and precision. Language also plays a role in the construction of the self. When we articulate an idea we solidify that idea and enhance its potential effectiveness. In summary, language is a tool for describing ideas, planning action and defining the self.
Human Characteristics and Liberal Education

The characteristics of abstract thought, planning and self-direction, social relationships and language define much of what makes us human. If the purpose of liberal education is to develop our highest human capabilities, this list of capacities can fill in a great deal of the human canvas.

Although these characteristics are part of our human nature, they do not develop automatically. The ability to think abstractly is often hampered by a compartmentalization in which we do not examine the connections between ideas. Similarly, we cannot assume persons will develop a sense of self without experiencing success, or that individuals will automatically develop positive social interactions, or effective communication skills. These characteristics require extensive experience, and it is our obligation to provide that experience.

A Generic Framework for Liberal Education
We can sketch out some ideas for how liberal education experiences can enhance the characteristics mentioned above.

**Experience with using ideas to develop intellectual skills:**

**Connection.** Courses in the liberal learning tradition involve ideas. These ideas can be themes ranging from the paintings of Chagall, to the theory of quantum mechanics. We must emphasize the relationship between acquiring the specific ideas of any course and developing intellectual ability by connecting ideas with each other.

We want to become skilled practitioners of Bronowski’s acts of imagination. Whatever curriculum we devise, it must stress the theme of developing intellectual skill through acquiring ideas and connecting them to other ideas.

Learning to connect ideas can happen in the context of a single course. For example, in an introductory psychology course, the idea that positive reinforcement strengthens behavior can be connected to ideas for using incentives to encourage cooperative behavior in problem solving. Another example of connecting
within a course is from the Freshman Studies program. Plato’s ideas of justice can be connected to the theme of justice in the poems in Natasha Trethewey’s Native Guard. The process of adding the deliberate connecting of ideas to a course can be called infusion.

It is also possible to connect ideas from separate courses. There can be paired courses that students take together with an emphasis on common themes or issues. The theme of protecting the environment can connect ideas from science courses with those in courses on politics.

Making connections should be introduced explicitly throughout the curriculum.

**Engagement: Addressing Big Problems or Issues**

If we want to enhance our ability to address social issues in a positive and thoughtful way, we need to have some experience
with big problems and actions that address these problems.

Students can quickly engage such questions as eliminating poverty, using science to help save the environment, how literature can enhance one’s quality of life, or how art can help us understand the human experience.

Social issues can be connected to coursework within a single course, as when a student who is using ideas from a psychology course to address poverty could start with a plan based on psychological principles. Connections can also be embedded in internships, such as the extensive work on Preschool development supported by friends of the University. At least two of those friends, Dr. John Mielke and Sally Mielke, are in this room. The preschool development work has been carried out by several of my faculty colleagues and involves many students. There are other community based activities, such as having music students perform at local community gatherings, or even in such venues as prisons. Members of our faculty have engaged students in both of these
forms of community music. One version of engagement is to have groups of students devise an action plan for addressing an issue and produce a presentation on the issue and the plan. For example humanities students can produce a library exhibit on an historical problem or physics students can do a project on the sun as renewable energy.

**Self-Direction: Making Choices**

An effective liberal education should provide opportunities for students to choose and plan their own arc of development. Students should be able to choose what they want to do, what courses they want to take, and what problems they want to work on. We already do these things through our advising program and our Senior Experience program. Two suggestions are to have this process begin right away- in the first year- and setting up opportunities for student choice in defining problems to address. Many Senior Experience programs involves choosing problems to study. We should not wait for the senior year. We can inject into the
curriculum a process of defining projects at several points of students’ development, with the expectation that their work will show increasing levels of sophistication. We need to have students thinking of their own future and developing skills for that future from the beginning.

**Use of language** - The primacy of language in the human experience bids fair to make it a focus of education. This is not a new idea. Most of us encourage writing in every course where it is feasible and advances the goals of the course. This should continue. One specific idea (also not new) is that each major program have a minimum of one course that is designated as writing intensive.

In addition to writing, we should require students to practice the public presentation of ideas. Every student should be able to present their ideas in an open setting. A brief, succinct presentation is a good way of making certain an individual understands the essence of their project. Conveying what you have done to someone else is a powerful way to learn it yourself. This might be
called “Learning by Presenting.” The skill of giving an effective presentation also has clear value for a person entering the world of work, in addition to being a good way of solidifying one’s understanding of the material being presented.

**Elements of a specific Proposal: Getting Down to Details**

The ideas outlined here do not require pulling apart our programs of general education and introducing something totally new. They do require a student growth mindset emphasizing the full realization of the distinctive qualities that make us human. Ideally students who are constructing the arc of their lives and careers will make good choices of courses that fit into their planned goals. If we want courses in certain areas to be taken, it is our responsibility to show students why they are valuable. The abilities described here can be developed within the context of courses that already exist, in great part by changing the way they are taught.

**How then to do it?**
Infusion: We can enhance the four basic qualities by introducing activities directly into existing courses. Insisting that students make connections among ideas in an existing course structure is a matter of infusing connection-making activities within single courses. This is regularly part of our Freshman Studies course. As suggested before, students are encouraged to make connections between the ideas of justice presented in Plato’s Republic and the quest for equity and justice in Natasha Trethewey’s poems in Native Guard. They can also make connections between the psychological difficulties of loss of family social support described in Marilynne Robinson’s Housekeeping and a similar loss of social support in Sidney Mintz’ Sweetness and Power. An emphasis on human planning for the future, the conflict between the individual and social structure, using knowledge to address big issues, and extensive writing are all activities that can be infused into courses in the curriculum. Writing is a good model for the use
of infusion as it is already included in many courses in college curricula.

Infusion can also be used across courses. If there are themes shared by two courses, these can be a powerful tool for generating new levels of understanding. A course in cognitive psychology that includes a section on our limited ability to think rationally can be connected with a bridge to a literature course where the students read Dostoevsky’s *Underground Man*. Since connection-making is a skill that must be practiced, I leave it to you to create the bridge.

**Issues Courses.** A more extensive reform can be added to a program of infusion by creating a course or courses on major issues or problems. This can be done through a first year program for all students. During their first or second academic year, students would choose a problem from a menu of options. The menu would consist of categories of issue, rather than specific issues. Once students have made these choices, they would be grouped according to interest area. The students in each grouping
would be expected to research an important question, write a proposal for addressing that question, and present that proposal publicly.

**Individualized Student Planning.** Student self-direction can be enhanced by having students plan a trajectory for themselves early on. They can be encouraged to work with advisors to determine a set of ideas or themes that interest them in particular. This plan would have a different focus than the traditional major. The starting might be in the sophomore year. In a sense, this is akin to a senior experience program, with the primary difference being that the development starts at an earlier time. Such plans would help guide the selection of courses taken by individual students. It would not eliminate or replace major programs, and many courses taken in the major could also be part of the plan.

The type of conceptual advising involved in such planning would be labor intensive. Some program of incentives would need to be
worked out so that faculty have both the time and the inclination to involve themselves in this sort of intentional, holistic advising. I leave the details of such incentives to our senior leadership.

**Internships.** We already encourage students to seek out internships in which they work in some business or community group. Internships are often seen as opportunities to learn about a particular profession or to get a head-start on a job search. As valuable as these experiences can be, there are ways to expand on their usefulness. Students could use their background and local expertise to create new projects that advance the goals of the institution in which they are placed. This makes the internship a two-way street. The advantage of this is that students are learning about putting thought into action in a “laboratory of life.”

Internships that give students some latitude to develop ideas into programs do exist. The suggestion here is that we make them more common and become more intentional about the benefits to learning that can result from them.
The intent of these programmatic ideas is to create a menu of options that range from enhancements of existing programs to the creation of more extensive curricular reconstructions. A program based entirely on infusion would maintain traditional sets of courses but would add some new elements into each one. The introduction of an issues course or courses is a step beyond infusion that would highlight the importance of translating thought into action. Individualized student planning would add the step of involving students in self-direction. Enhanced internships would be vehicles for converting thought into action, developing interests and sharpening language skills.

**Thought into Action: Good Preparation for Life After College**

Does Thought into Action Work? The ideas described here have several characteristics. First, they present a holistic notion of the goals of education. These contrast with the development of specific skills, such as being a good computer programmer, a VCR repair person or a switchboard operator. Second, they argue for an active
view of humans. Students who can be intentional about their goals and work to achieve them are very different from passive individuals who let things happen to them, focusing only on the ideas of others. Third, persons with the characteristics mentioned above are likely to be sensitive to the social structures in which they exist, and are good at communicating their ideas to others.

Is this good career preparation? One piece of evidence is to ask CEO’s what they look for in new recruits. The overwhelming response from CEO’s is that they want personal qualities such as curiosity, collaboration, and the “desire and drive to accomplish something great.” They often state that they are not looking for specific expertise in an area. Statements such as, “We can teach just about any skills they need,” are typical. In many ways, these attitudes take us back to the original goals of liberal education: Learning how to think and developing values that benefit others. It suggests that basic human characteristics, effectively nourished,
are the basis for a life of personal fulfillment and civic effectiveness.

Do these concepts lead to the elimination of ideas for their own sake? I think not. It is possible to stand in awe of the beauty of ideas and to love them while still putting them to work. Thought into Action does not eliminate the tradition of liberal learning. It simply extends it.

We have every reason to be proud of liberal education. It has emphasized the great importance of developing our distinctive human capacities. Liberal education has always existed in the context of addressing the issues of its time. We should never forget that the powers of the human mind are the best way to address these issues.

Education is not a quick fix, but it is part of a long process that will improve the qualities of our lives. We need education to understand and preserve democracy. We need education to divert us from violence. We need education to help improve social
interactions. We need education to help us understand and respect science. We need education to fully enjoy the wonders of the arts and literature. We need education to use our powers of thinking in the service of better lives. We need education to help us pedal through life and actively enjoy it, rather than coasting along and passively taking it in.

The gift of our humanity is the potential for learning, thinking and acting. The realization of our humanity is the fulfillment of that potential.