A University Uses Transactional Lean to Improve Process Efficiency

By Karen Kusler, transactional lean facilitator, University of Central Oklahoma

The Spelling Report criticized the education system for not meeting the public’s needs. Accreditation and regulatory agencies cause conflict with “good intentions” of being efficient educational institutions. Traditions of an institution can be stumbling blocks for processes to be improved. How can an educational institution overcome these barriers to improve the efficiency and sustainability of services and programs?

The University of Central Oklahoma (UCO) uses transactional lean principles to improve efficiency of processes by eliminating wasteful actions that do not add value. An environment of continuous improvement efforts—namely lean thinking—has evolved through the application of transactional lean principles.

Defining lean

So, what is transactional lean? The process improvement method originated in the manufacturing world and is now being applied in areas of healthcare, military and education. One definition of lean, according to the National Institute of Standards and Technology, is a systematic approach to identifying and eliminating waste through continuous improvement by flowing the product or service at the demand of a customer in pursuit of perfection. This definition is easily applied to manufacturing but often is not considered applicable to education settings.

Lean is an approach that looks at processes across functional and discipline areas. Typically, the process is for a product or service; in the education world, this might mean hiring quality employees to meet the institution’s mission, producing accurate travel documentation or structuring an inventory record system to address annual audit requirements. In an education setting, the term customer is not always viewed as appropriate. Lean’s definition is the person or people who receive the final service or product. Customers are either internal, such as the Inventory Department staff who code records for the Accounting staff to prepare annual audit reports, or external, like university donors who provide documentation of a gift.

The pull of your customer is the demand for the product or service. Inventory that has to be stored somewhere is a result of producing more of an item than the customer needs or can handle at the time. In a service situation, when insufficient staffing is available to address the customer’s needs, then the pull of the customer is not balanced.
When the process is not balanced to meet customer demand, then waste is a cause. Lean uses tools to look at processes to identify nonvalued action and eliminate unnecessary steps in the process. The goal is to have a process that flows smoothly from the starting point to the final product or service provided to the customer.

**UCO's use of lean**

UCO originally applied transactional lean to administrative services, such as the physical plant work orders, key access control distribution, inventory records, accounting coding, check disbursement, travel requests and adjunct faculty payroll. However, the process improvement method has been implemented in other areas of the campus, including academic affairs budget requests, information technology access, enrollment management organization and foundation gift records. In addition to crossing departmental boundaries, UCO uses processes that fall under the responsibility of multiple vice presidents to resolve issues in the process.

This culture change is due primarily to the leadership of UCO, president Roger Webb and executive vice president Steve Kreidler. Kreidler brought the concept of transactional lean to campus in 2002, when he struggled to balance a limited budget and fund quality programs.

“It was, and remains, clear to me that UCO would not succeed in meeting our internal quality measures with existing resources,” Kreidler said. “I knew from experience that there was a way to extract useless and nonvalue added steps from any kind of process. We could find a way to give our valued employees more time to solve higher level challenges and work on excellence if we could extract many of the bureaucratic steps that had layered in over the decades.”

Administrators can fix the process by applying transactional lean instead of stopping the bleeding with Band-Aids. The beauty of transactional lean is the speed at which processes are reviewed and changes defined and deployed. At UCO, depending on the scope of the process, changes are made not in years, but in a week to three months.

**Identifying and eliminating waste**

The purpose of transactional lean is to identify and eliminate waste. The waste causes downtime in a process. The acronym DOWNTIME represents the eight areas of waste:
- **Defects:** Corrections of errors in forms, documents or communication.
- **Overproduction:** Meetings or communication with no value, reports not used or read, or the production of more documents than needed.
- **Waiting:** Time is wasted waiting to use copiers and for meetings to start, approval on forms, or projects or reports to be completed.
- **Not utilizing people:** Inadequate business tools; not being empowered to make job related decisions.
- **Transportation or travel:** Storerooms in remote locations; unnecessary approvals; filing documents that will not be accessed in the future.
- **Inventory:** Excess office supplies stored; full e-mail and desk inboxes; required meetings to attend.
- **Motion:** Storing electronic files in too many layers; looking for desk tools; sorting through paper stacks to find document
- **Extra Processing:** Unclear communication; excess copies of reports produced; poor filing systems; reviewing mail multiple times.

Employees become lean thinkers and develop the ability to recognize waste in processes and identify ways to eliminate the waste. It might mean reducing inventory of materials or cutting nonvalue added steps in a paper process. A lean thinking employee asks “why” in the work place and explores ways to improve the process. Through transactional lean, UCO has improved communication channels, educated staff on their role in a process, reduced expense ($14,000 in the first lean process) and developed eco-friendly partnerships.

UCO has proved that transactional lean can work in a university setting. Secondary and higher education systems are similar in that they both maintain facilities, purchase supplies, hire and train staff, educate students, generate reports for external audiences, maintain records, provide technology tools and coordinate fundraisers. The actual process might look different, but improvement can be made with the application of transactional lean principles.

To start the journey of transactional lean, an institution needs leadership commitment and training. Certification courses and a library of lean books for change agents in an organization will start the evolution of process improvement. As transactional lean is applied to processes, a culture of lean thinkers will emerge. The
institution can sustain the journey and culture change through continuous review of processes.

Can an educational institution overcome the barriers of regulatory agencies, traditions and budgetary limitations to provide efficient education? Manufacturing companies struggling with profit issues have applied lean principles, and they were able to overcome similar barriers. By taking action, educational institutions can improve processes and show that an efficient education is attainable.

Karen Kusler has worked in the Oklahoma higher education system since 1981. She currently facilitates transactional lean at the University of Central Oklahoma campus and coordinates transactional lean facilitator certification training through the Center for Strategic Improvement.

To learn more about UCO’s transactional lean program, contact Kusler at 405-974-2540, kkusler@ucok.edu, or visit the website at www.ucocsi.com for information on upcoming events and recommended reading.