

# The Higher Learning Commission Action Project Directory

## Baker College

Project Details			
<b>Title</b>	Lean/Six Sigma Training	<b>Status</b>	COMPLETED
<b>Category</b>	8-Planning Continuous Improvement	<b>Updated</b>	08-08-2013
<b>Timeline</b>		<b>Reviewed</b>	09-13-2013
	<b>Planned Project Kickoff</b> 02-01-2012	<b>Created</b>	09-04-2012
	<b>Actual Completion</b> 03-29-2014	<b>Version</b>	1

### 1: Project Goal

**A:** The primary goal of this project is to educate a group of college leaders about lean/six sigma models and tools so that lean/six sigma can be used as a model to further develop the quality culture of the college. It is anticipated that the project will raise awareness, skills, and test a training approach. If successful, consideration will be given to continuing the process with additional personnel.

### 2: Reasons For Project

**A:** Baker College made a commitment at the start of the 2011-2012 school year to continuous quality improvement by adding CQI to a list of guiding principles that drive decision-making within the organization. At that time, it was determined that to be successful, a more sophisticated approach to understanding, managing, and maintaining quality improvement would be beneficial. After exploring work undertaken by other colleges, as well as service businesses outside of higher education, it was determined that the lean/six sigma model was a tested and proven approach to quality. The timing of the project is particularly appropriate because the college has made strides in quality improvement but there are indications that we have matured to a point where previous models are no longer serving us to our capacity.

### 3: Organizational Areas Affected

**A:** Initially, the areas most impacted will be those that are directly represented among the targeted group for training. This is primarily leaders from the academic division including senior leadership (VP Academics), program areas (System Director of CIS & Technology), Teaching and Learning (Director) and campus operations. In addition, Career Services is represented as well as the Associate VP of Institutional Effectiveness. The System President will also participate, extending the impact to planning at the highest levels.

### 4: Key Organizational Process(es)

**A:** The intent of the project is to develop skills and knowledge that will impact planning, assessment and implementation throughout the college. Additionally, it is anticipated that the project will impact the manner in which projects are selected, managed, and evaluated. At implementation, the project was not targeting specific processes but rather knowledge and skills.

As part of the training process, three lean/six sigma projects will be undertaken. These training projects are secondary to the overall project, but will play a critical role in helping participants develop the skills and abilities necessary to be successful advocates for and users of lean/six processes. These three projects are"

- Revision of the process of loading courses into the Blackboard LMS
- Implementation of a standardized model of academic advising
- Roll-out of a new faculty evaluation and mentoring process

As a result of these training projects, the processes associated with each of these activities will be impacted. Assessment in each area is planned.

### 5: Project Time Frame Rationale

**A:** This project is being undertaken with assistance from a contracted consultant who is a Lean/Six Sigma Master Black Belt. With her assistance, the project timeline was developed to allow for successful development of skills, while also ensuring that adequate time is available to complete the lean/six training projects. The intent is to balance the educational needs of those being trained, while also maintaining the forward momentum that is part of the lean/six sigma model. The timeline agreed upon will allow a series of monthly meetings for training across the basic steps of the lean/six process, will allow meetings to complete the training projects and collect assessment data, and will allow the entire group to convene and share their achievements.

## **6: Project Success Monitoring**

**A:** The Master Black Belt Consultant that is being worked with is helping the college implement a system of "control gates". This process creates milestones for each step in the lean/six process that must be met. The training group will meet to review each step and complete appropriate documentation of achievement for each gate. The consultant will help the group review the material and ensure we are on track. The training group includes all members of the AQIP council so additional oversight by the council is not planned.

## **7: Project Outcome Measures**

**A:** The primary outcome measure will be the knowledge obtained and the satisfaction of the individuals involved in the training. If the group is satisfied with their learning and able to implement new skills in the workplace, then the project will be identified as a success. There are specific indicators built into the process that will help individuals assess their learning. The Blackboard Learning Management System is being used as a tool to support the training process. Quizzes will be used within Blackboard that provide feedback to the facilitator about the knowledge and understanding of the participants and to the participants themselves. Additionally, each participant will assist in leading/co-leading a lean/six sigma project. These projects will be demonstrations of the learning that occurs. Each project has built-in assessment steps that will indicate the project's success. The level of success achieved on each training project will help to indicate the level of success of the overall project. As noted above, there are also documentation steps along the way referred to as gate reviews. The documents supplied at each gate review will be assessed by the consultant and feedback provided. The ability of participants to accomplish the intended steps at each gate review will be an additional indicator of success.

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## **Project Update**

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### **1: Project Accomplishments and Status**

**A:** This project has been highly successful. After the first round of training for 10 leaders, a second round of training was instituted for an additional 9 leaders. Between the two training cadres, 6 Lean Six Sigma improvement projects have been completed. The philosophy of Lean Six Sigma has become quite well known and prominent in the Baker College system. In response to demand from other groups, Lean Six Sigma projects have been launched at the campus level as well as department level (inter-campus). Additional training was provided to all campus presidents, and a third round of greenbelt level training has started with all campus academic vice presidents and system directors. One project which focused on the text approval and ordering process was estimated to save well over \$100,000 annually as a result of changes in internal processes. Additional projects have shown significant savings in terms of man hours, or improved customer service. In terms of impact on college culture and behavior, this project has been the single most impactful project undertaken to date.

### **2: Institution Involvement**

**A:** Greenbelt Training Teams were set up of 9 or 10 people. Training was then conducted by a master black belt consultant. Each greenbelt trainee participated with 2 other trainees to manage a specific project. Each project in turn created a committee of experts. The role of the greenbelt was to manage and guide the experts. But the expert teams did the work. In the process, these teams worked to solve existing known problems within the institution while simultaneously learning about the Lean Six Sigma Process from the greenbelt trainees. The first group of greenbelt trainees were so enthusiastic that they became mentors for the second round of training. This process meant that at any time we had numerous people involved from across the system in varying roles. It also meant that we had to find ways to support the expert teams (with little knowledge), the greenbelt teams (with novice knowledge) and the mentors (with a higher level of knowledge).

we have started a second level of training (as a separate project) to reach a broader base with the recognition that their knowledge will initially be limited by the briefer training and constraint objectives.

### 3: Next Steps

**A:** This project is ready to be closed as an action project. The work accomplished has been quite successful. At this time, the need is no longer to learn how to provide greenbelt training. The need at this stage is to determine how to support the greenbelt practitioners that have been trained, and how to broaden the ability of others to participate at a less intense level. This will involve launching new projects to meet specific support and training needs.

### 4: Resulting Effective Practices

**A:** The training model that has been used was to work over a period of 6 months in full-day training sessions. These long, intense sessions provided trainees with the opportunity to really focus and interact. Simultaneously, trainees were expected to conduct a Lean Six Sigma Improvement project. This required a high level of commitment and energy between training sessions where the actual work was done. Trainees were then able to return to the training session with specific experience of application, as well as questions about next steps. In this fashion theory and practice were well integrated. We do not believe that knowledge acquisition nor enthusiasm would have been as high had these two components been divorced.

An additional effective practice has been the use of mandated control gates. All of our Lean Six Sigma projects have been divided into 5 phases. At the end of each phase, teams must demonstrate and document their achievement during the previous phase. Unless that is done, the teams are not allowed to progress to the next phase of the project. Teams have been anxious to meet this requirement and gain the approval to continue their work. Importantly, each of these control gates was pre-planned and teams knew in advance the deadline they were working towards. These deadlines were critical in keeping teams on target and ensuring that they completed the work in a timely fashion. At times this meant one or more members were unavailable for a specific meeting, but the remaining project team members completed the work. These non-negotiable deadlines have been very good in forcing teams to maintain scope and to find a way to get the work done.

### 5: Project Challenges

**A:** The project has left us with a couple of large challenges. The first of these is related to data. Lean Six Sigma is an approach that is heavily data driven. Unfortunately, we remain relatively immature in our use of data. Therefore, projects start without the baseline data that would be helpful for decision making and to direct success. As we continue to collect and store more useful data, projects will increasingly emerge from existent data rather than from a belief or sense of a need.

A second challenge is one of management. The Lean Six Sigma philosophy has been widely endorsed. Larger numbers of employees are requesting training than we have the capacity to provide. In a vacuum, employees are creating their own Lean Six Projects, learning on their own, and pushing forward with what they believe is best. There is a potential for a number of projects to fail because they don't have the oversight and support necessary to ensure success. If there are a number of failures, the enthusiasm for the work could quickly wane and the college will find itself battling not to control but to revive the approach.

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## Update Review

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### 1: Project Accomplishments and Status

**A:** The action project, designed to educate a core group of college leaders about lean/six sigma models and tools so that they can help further develop a quality culture at the college, is consistent with AQIP Category 6: Supporting Institutional Operations and AQIP Category 8: Planning Continuous Improvement. It is an outstanding accomplishment that, over the course of the past year, your team has demonstrated success through the training of 16 Six Sigma leaders and cost savings realized through at least one project. Your response to Question 3 indicates that the project is (or will soon be) closed; based on review of the action project plan, it appears that the goal of training leaders in lean/six sigma management have been achieved.

## 2: Institution Involvement

A: The lean/six sigma education project appears to have involved many people, including college leaders who participated in the training as well as committees of experts appointed to each project. Such involvement is consistent with AQIP Category 4: Valuing People and AQIP Category 9: Building Collaborative Relationships. What would be helpful in the update would be more description of the composition of the panels of experts. While your team appears to have been successful in training the initial group of college leaders, the institution might consider a new project that expands the training to other faculty and staff in the institution. This would solidify the results of the lean/six sigma training and infuse quality culture to other areas of the institution.

## 3: Next Steps

A: The reviewer commends the institution for bringing this successful action project to a close. This reviewer suggests continuing on the enthusiasm for this success with related action projects that will help to reinforce the current training, extend its reach, and continue to establish the culture of quality at the institution. One suggestion for such a project is to select a subset of the lean/six sigma projects and complete a comprehensive assessment and evaluation of their success; such a project would be consistent with AQIP Category 6: Supporting Institutional Operations and AQIP Category 7: Measuring Effectiveness.

## 4: Resulting Effective Practices

A: There are two effective practices identified as a result of this project: (1) the training model; and (2) the use of mandated control gates. Both are important and excellent results from the project. The reviewer recommends clearly articulating both and presenting them to leaders who seek ways to bring quality initiatives to their organizations. Given the long history of lean/six sigma approaches, the institution could (and should) share how such an approach can be used to bring clarity to the broader management and education audiences regarding implementation in academic institutions. What is also impressive is the exploration of the “mandated control gates” as a way to track project initiatives; a phased approach to projects can support project evaluation and continuous improvement initiatives, consistent with AQIP Category 7: Measuring Effectiveness and AQIP Category 8: Planning Continuous Improvement.

## 5: Project Challenges

A: The institution has identified 2 very important challenges, both of which would make excellent action projects. Data collection, management, and analysis are indeed typically challenging for most institutions. Many institutions find that SharePoint, for example, provides a data management solution that is easy to use and is accessible to multiple stakeholders. An action project focused on data would be consistent with AQIP Category 7: Measuring Effectiveness. In addition, this action project would likely involve the collaboration among multiple stakeholders in many departments who create and use data; such collaboration would be consistent with AQIP Category 9: Building Collaborative Relationships. The second potential project would be to take the lean/six sigma management to the next level in terms of operationalizing it into the institutional leadership infrastructure; this would focus less on training and more on how to create a quality model that will sustain over time. Such a project would be consistent with AQIP Category 6: Supporting Institutional Operations; AQIP Category 8: Planning Continuous Improvement; and AQIP Category 9: Building Collaborative relationships. The work excellent work completed to date related to quality culture creates a wonderful foundation for future action projects.

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## Project Outcome

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### 1: REASON FOR COMPLETION

A: Over the course of the two years that this project ran, Baker College provided training to over 60 leaders in Lean Six Sigma theory and practice. The project was originally intended to train 1 small group (about 10) of leaders at Lean Six Sigma Greenbelts. However, the work was so well received that the trainer was retained and additional training was undertaken. At this time, the Lean Six Sigma work of the College is institutionalized. Trained Green Belt leaders exist across the system on every campus. Tools and supports are in place to help project teams accomplish their objectives. While the use of the Lean Six Sigma approach will continue, the College has achieved a state of readiness that no longer requires extensive on-going training of leaders or the specific focus provided by this project.

### 2: SUCCESS FACTORS

**A:** The project intended to train leaders and build capacity for Lean Six Sigma work through the completion of 3 specific Lean Six Sigma Projects. Each of these projects were completed and have successfully contributed to College operations. Because so many individuals wanted to be a part of this effort, additional projects were launched and additional training was scheduled. As more leaders became trained, the Presidents/Executive Committee became aware that they need training to provide support and oversight, so additional training was provided for this group. As a result, training extended well beyond what was originally anticipated. Additionally, the Lean Six Sigma approach has proven successful for the College and has been readily adopted across units and campuses. As a result, we do not have a small cadre involved in Lean Six Sigma efforts, but have involved a large number of employees at every level and on every campus. The project has been successful not only in the three projects initially started, but in changing our understanding of how to approach continuous quality improvement.

### **3: UNSUCCESSFUL FACTORS**

**A:** Lean Six Sigma has spread rapidly as an approach to addressing gaps identified across the Baker College System. The College has not successfully created a single structure to oversee efforts, or to ensure adequate support. As a result, there may be Lean Six Sigma efforts in the future that fail to achieve their objectives because project teams do not have the same level of support that past teams enjoyed. Similarly, as this approach spreads, more individuals bring their own knowledge and variations on tools into the work. As a result, we may find that some teams are more successful than others because they are better able to maintain an approach that is well adapted to College needs. Therefore, the College's inability to control and potentially the College's inability to support this rapid adoption may prove to be problematic.