MADISON

How TQM Helped Change an Admissions Process

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It was a runaway admissions process. Top graduate students were deciding to go elsewhere. Departmental faculty were complaining. It was taking much too long to get admission decisions to the applicants. Adding seasonal help and increasing overtime didn’t help. In October of 1990, with support from all levels of administration, cooperation from the admissions staff, and implementation of Total Quality Management techniques, the UW-Madison Graduate School took action to restructure the admissions process. This effort was recommended by a Graduate School Quality Improvement Steering Team that previously had been organized to define the essential mission of the Graduate School and to lead a comprehensive planning and quality improvement effort.

We implemented a pilot effort to address the complexities of the admissions process and, in doing so, to reduce the time from application to admission decision. To initiate this effort the Graduate School appointed a team consisting of its dean, the assistant dean for admissions and academic student services, the director of domestic admissions, the director of the office of fellowships, a Graduate School transcript examiner, an admissions coordinator from the Department of Sociology, and an experienced quality improvement (QI) facilitator from our office of QI.

The team’s mission was to:

- Assess the needs of departments/programs for information to be included on the domestic examiner’s report and recommend changes to meet their needs.
- Recommend a process for getting the examiner’s report delivered as quickly as possible.
- Recommend ongoing practices that incorporate the principles of continuous improvement.

The Graduate School receives more than 15,000 applications annually, three-fourths of which arrive during the peak admissions season of December through March. In the old admissions process, departments to which students were applying had to wait for the Graduate School to process complete files before they could recommend an admission decision, nominate a student for a fellowship, or offer an assistantship. Graduate School examiners were instructed not to evaluate anything other than an official transcript and not to start the evaluation until the file was complete with all transcripts from all academic work since high school. Completed application records were filed and evaluated alphabetically, but in chronological order according to the date of completion.

When the department received the examiner’s report, its admissions committee made an admission recommendation, noted its recommendation on the report, and returned it to the Graduate School. The Graduate School, in turn, reviewed the recommendation to ensure that the applicant met the Graduate School’s minimum requirements. If that was the case, the Graduate School then sent out the appropriate decision letter.

Over an 18-month period, beginning in the 1991–92 admissions season, the project team gathered baseline data on how long it took the Graduate School to process examiner’s reports, how long they were in the department awaiting an admissions recommendation, and, ultimately, how long it took to make an admissions decision. Later analysis showed that the Graduate School contributed 20 of the average 99 days required in 1991, and three of the average 59 days in 1992.

As noted earlier, the admissions process up to this point had been extremely complex and was made more so by the extensive scrutiny given to each applicant file by
the Graduate School. At each step of the process one staff member would check another staff member’s data entry work and another staff member would check that. Then the examiner would check to see that the correct information had been entered on the examiner’s report. The checking continued until the Graduate School mailed the official letter of admission.

We decided to look at the data entry process since we could change that process without consulting departments. The team first looked at a sample of 527 applicant files and examiner’s reports. Within that sample, data entry errors totaling 226 were found in 158 of the files (30 percent). At least two-to-five days were being lost to accuracy checks averaging a half-hour per application. An additional two-to-three days were necessary to make the corrections.

The team learned that the errors occurred most frequently when the applications were coded for the names of institutions previously attended by the student when the transcripts were missing (that is, when the name of the institution came from the student’s application form rather than an official transcript). For example, if a student indicated he or she went to school at “San Diego,” the data entry clerk had to determine whether the student went to San Diego State or the University of California at San Diego. Instead of guessing, data entry staff are now encouraged to leave that information blank until more information is received.

Furthermore, in talking with the data entry staff we learned how cumbersome it was to use the vintage 1975 data entry screen. The creation of a new data entry screen, an easily accessible database for institution names, and data entry codes decreased errors and thereby the need for so much scrutiny.

To find out whether a better process existed elsewhere, each team member contacted three or four peer institutions. Questions ranged from “Does your graduate school review transcripts and act as a clearinghouse, or do the departments do this themselves?” to “How long does it take to get an admissions decision to an applicant?” One institution told the dean that its admissions processing was similar to UW-Madison’s but that it had recently implemented changes that enabled cooperating departments to turn around an admission decision within five days. As a result of this startling information, a goal of five days or less was unofficially (but immediately) established. In TQM terms, this “best prac-
Table 1
Key Causes of Delays in Admissions Decisions and Suggested Recommendations

<table>
<thead>
<tr>
<th>Key Causes*</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admissions receives too many applications and transcripts.</td>
<td>Redefine “complete” file.</td>
</tr>
<tr>
<td>Admissions examiners are calculating UGPAs on all files, including applications for whom the departments reject immediately upon receipt – between 40-50% of the applicant pool.</td>
<td>Redefine “complete” file. Have departments prioritize applications. Encourage immediate refusals. Empower the departments to forego Graduate School evaluations or cumulative UGPAs. Ask applicants to provide a self-reported UGPA on a 4-point scale.</td>
</tr>
<tr>
<td>January 15 deadline creates a “bottleneck.”</td>
<td>Spread out application deadlines and eliminate Graduate School fellowship deadline.</td>
</tr>
<tr>
<td>Data entry screen very unwieldy.</td>
<td>Redesign the data entry screen.</td>
</tr>
<tr>
<td>Coding institutions from transcripts time consuming and probability for error is high.</td>
<td>Develop an easily accessible data base of institution codes.</td>
</tr>
<tr>
<td>Poor application instructions.</td>
<td>Redesign a new application form and simplify instructions. Provide applicants with checklists and return envelopes.</td>
</tr>
</tbody>
</table>

*A cause-and-effect diagram was used as a tool in determining the causes for our delay in making admissions decisions. The list shown here is a result of that exercise and is the team’s agreed-upon listing of what the key causes were underlying the current situation.

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through identification of the long-standing misconception about the cumulative UGPA requirement, the Graduate School realized that layers of rules, procedures, and traditions might be peeled away if the root causes behind the complexity of the process were examined. With the early assumption that the solution was simply to speed up the delivery of the examiner’s report, the team quickly realized that its original mission statement was based on a myth. As shown in Table 1, a detailed analysis of the admissions process led the team to redefine what was meant by a “complete” file. As a result, it became possible to offer departments an opportunity to prioritize their applications needing evaluations, present them with the autonomy to forgo the Graduate School evaluation or the cumulative GPA, abolish the Graduate School imposed deadline of Jan. 15, and spread out the application and fellowship deadlines according to departmental needs. Meanwhile, the Graduate School developed a new data entry screen, a new database for institution codes, and a re-designed admissions application.

The recommended changes were presented to the departments at a series of admissions forums in June of 1991, eight months after the project began. Because the team had unoffically established as a baseline measure of success a five-day period to complete the process, a day-by-day flowchart of the proposed process was used to present what could happen if the suggested recommendations were implemented. The five days included:

On day one
The department and the Graduate School receive application. The Graduate School enters the appropriate data into the central computing system, making it possible for a department to access applicant information immediately.

On day two
The Graduate School receives the recommendation form (formerly the examiner’s report) that was generated from the information entered the previous day. The form is checked for accuracy and immediately forwarded to the department.
TO FIND OUT WHETHER A BETTER PROCESS EXISTED ELSEWHERE, EACH TEAM MEMBER CONTACTED THREE OR FOUR PEER INSTITUTIONS.

88 percent said that the plan might work.

In September of 1991 the new process was put to the test. Departments that felt unable or were unwilling to make the change were told they could continue the “old” process by returning a “recommendation form” with “Priority Three” checked. Departments were reminded in a newly instituted admissions newsletter that the best way to expedite the process was to alleviate the need for the Graduate School evaluation. To enable departments to evaluate international applicants, the Office of International Admissions developed an International Directory containing detailed information about the top 250 international feeder institutions, which was provided to each departmental admissions committee.

Departments were further reminded that they no longer needed an “official” Graduate School-calculated GPA noted on an “official” examiner’s report, and that they no longer had to wait for the Graduate School to evaluate transcripts of applicants who were, for various reasons, denied admission immediately. Departments would no longer have to obtain a final GPA on all academic work completed since high school before the applicant could be nominated for a fellowship or given an assistantship, and the Graduate School would not hold departments back from expediting an admission recommendation.

In the first year (1991–92), approximately 70 percent of departments used the new process to recommend students for admission without an “official” Graduate School evaluation. In reviewing the time saved, it became apparent that most departments did not change their admissions process significantly enough to lower the time for departmental processing of applications. Delay has been deemed necessary by some departments for various good reasons (e.g., one department told us that among their peer institutions there is an agreed-upon date on which everyone can begin to offer admission).

On day three
The department receives the recommendation form and upon review responds to the following questions:
1) Should this applicant be denied admission? If yes, the recommendation form can be signed and returned to the Graduate School. The department is responsible for sending the letter of rejection. If no or maybe, continue questioning.
2) Should the department evaluate the transcripts and make an admissions recommendation? If yes, the department is responsible for determining whether or not the student meets minimum Graduate School requirements (bachelor’s degree or equivalent from an accredited school, 2.75 UGPA on the equivalent of the last 60 semester hours).

If the applicant meets the department’s and the Graduate School’s minimum admission requirements, the department simply signs the recommendation form and returns it to the Graduate School. If the department’s decision is to recommend admission for a student who has not met the Graduate School minimum requirements, the recommendation is reviewed by a Graduate School dean.

If no, the department must indicate a priority on the recommendation form and return the form to the Graduate School. The priority helps the Graduate School decide when it must complete the evaluation. (Priority One = a probable fellowship nomination. The evaluation is guaranteed to be done within two days if the file is complete enough to evaluate. Priority Two = a probable admit. The evaluation should be done within three days if the file is complete enough to evaluate. Priority Three = a possible admit. The evaluation will be done in chronological order according to when the request was received.)

If the department wants more than the minimum evaluation (e.g., all past work or only undergraduate work), it must be indicated on the recommendation form.

It is possible by day three for the department to send a decision letter to an applicant indicating that the department has recommended the applicant for admission to the Graduate School.

On day four
The Graduate School receives the recommendation form with either a priority category checked or with a recommendation for admission. Depending on the priority and the Graduate School admissions office workload, an evaluation is completed and returned to the department. If a recommendation is made, a state residency check is completed (depending on the workload in the registrar’s residence office, a state residency check for tuition purposes may take several days). A decision code is entered in the central computer after the residency check is completed.

On day five
A letter of admission (generated automatically upon entry of the decision code) is mailed to the applicant from the Graduate School.

We asked the attendees at the forum what they thought about the proposed changes in the admissions process. Of those who responded to our question,
Consequently, the overall campus response time will always be considerably longer than the three-day capability. What the changes made by the Graduate School mean is that departments now have the capability to have their best students admitted immediately.

Also during this first year the admissions office experienced no backlog in data entry (compared with a six-week backlog a year earlier) and processed more applications with fewer people in less time. A steep reduction in the number of students admitted on probation may indicate that departments were able to recruit a larger fraction of their top choices.

By the end of February, 1992 the admissions office had made 28 percent of the admission decisions for applications they would eventually receive for fall, 1992-93 compared with 12 percent made at the same time the previous year. In mid-August the Graduate School sent an applicant survey to all students admitted to the Graduate School for fall, 1992-93 and for whom we still had an active file. Approximately 4,000 surveys were mailed, 13 percent were returned (applicants were expected to provide their own postage). The survey yielded approval ratings of 63 percent to 82 percent on seven different aspects of the process. Admitted applicants for fall, 1993-94 are being sent a business-reply survey card with their letter of admission.

Comments received from the applicants have been one of the most gratifying measures of how the process is perceived and working. Here are three particularly powerful examples:

"I greatly appreciate the rapid response to my application. Because Wisconsin was my first choice, the quick turnaround saved time and money that would have been spent applying to alternative schools."

"I applied to several schools, and UW-Madison was the most organized and human—surprising for a school of this size!"

"After applying to many of the nation's best graduate schools, I can easily rate UW-Madison's admissions process and responsiveness to inquiry as the most simple and most attentive to the students' needs!!"

There are 15 permanent staff members in the domestic and international admissions offices. Professional staff include an assistant dean, a director of each office, and three examiners. Historically, we hired 15-to-20 temporary employees to help process applications during the peak admissions season. Seasonal workers were previously hired on an as-needed—as long as needed—basis. To process the fall, 1990-91 applications (prior to implementing the new process), additional workers were employed in the admissions office from November through May. For fall of 1991-92, additional help was needed December through March.

Overtime hours for all staff, including the temporary help, had also been used as needed and as long as needed. In 1991 staff worked overtime from December through April. In 1992 overtime was used only in January. The 1991 (old process) and 1992 data are shown in Table 2.

The data in Table 2 illustrate some of the benefits to our customers. To obtain detailed feedback on areas needing further improvement, we instituted annual admissions forums for departments (the second forum was held in September, 1992) and, as a follow-up to the forum, a series of workshops were offered to help departments on the technical aspects of admissions. A graduate admissions manual was created and distributed at the September forum and a new application package, with improved forms and instructions, was available for the 1992-93 recruiting season. Other standardizing efforts include ongoing sessions with the admissions offices in which staff members are given the opportunity to bring suggested changes to the group and, upon reaching a consensus, implement changes on a trial basis.

The admissions office is now a place where plants sit on windowills instead of stacks of hundreds of unalphabetized applicant files and transcripts; where cases of calculator tape (ordered in bulk two years ago for GPA calculations) are now used as a footrest under the domestic examiner's desk; where staff meetings are now 45-minute exchanges instead of two-hour complaint sessions; where staff had fun in January of 1993 re-enacting the chaos of two years ago for a "before and after" photo session. Staff morale has never been higher.

It's amazing to go back to that original mission statement and acknowledge that we thought the problem was just speeding up the examiner's report. It was a tough lesson, but we no longer say we are doing something because it has always been done that way. Instead, we ask ourselves what might be the worst consequence of changing a process, or part of a process. Most often, the consequences that we identify are not as great as the risk of doing nothing. By far the most dramatic results were found in learning that conventional wisdom and tradition were not to be trusted and that to simplify the admissions process would not undermine the academic impact of our work. With this as reassurance, the admissions staff continues to question and improve the process.

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### Table 2

**Measured Improvement Due to New Admissions Process**

<table>
<thead>
<tr>
<th>Measured Quality</th>
<th>Fall 1991-92</th>
<th>Fall 1992-93</th>
<th>Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applications received</td>
<td>14592</td>
<td>15106</td>
<td>-</td>
</tr>
<tr>
<td>Maximum backlog (weeks)</td>
<td>6</td>
<td>NONE</td>
<td>100%</td>
</tr>
<tr>
<td>Avg. Time to Admission (days)</td>
<td>99</td>
<td>60</td>
<td>39%</td>
</tr>
<tr>
<td>Avg. Dept. Processing Time (days)</td>
<td>73</td>
<td>57</td>
<td>22%</td>
</tr>
<tr>
<td>Avg. Grad School Processing Time (days)</td>
<td>26</td>
<td>3</td>
<td>88%</td>
</tr>
<tr>
<td>Temporary Helpers Hired for Season</td>
<td>15</td>
<td>9</td>
<td>40%</td>
</tr>
<tr>
<td>Temporary Help Term (months)</td>
<td>5</td>
<td>3</td>
<td>40%</td>
</tr>
<tr>
<td>Temporary Help Costs</td>
<td>$93,694</td>
<td>$58,709</td>
<td>37%</td>
</tr>
<tr>
<td>Total Extra Seasonal Staff Costs</td>
<td>$108,843</td>
<td>$67,381</td>
<td>36%</td>
</tr>
<tr>
<td>Number of Probationary Admissions</td>
<td>258 (4.5%)</td>
<td>151 (2.8%)</td>
<td>42%</td>
</tr>
</tbody>
</table>