Enhancements to the Training Bureau

A Project Conducted for the

Alabama Department of Transportation

By

Tom Wingenter, Donna Keene, Tom Harris and Jim Rowell
College of Continuing Studies
and
Daniel S. Turner
Department of Civil and Environmental Engineering
The University of Alabama
Tuscaloosa, Alabama

UTCA
University Transportation Center for Alabama
The University of Alabama, The University of Alabama at Birmingham,
And The University of Alabama in Huntsville

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The Alabama Department of Transportation (ALDOT) engaged The University of Alabama (UA) to examine, evaluate and recommend enhancements to ALDOT’s Training Bureau and training program. With 4,500 employees, a central office in Montgomery, and over 50 Division/District offices across the state, training encompasses a wide range of topics, approaches, and needs.

The analysis was conducted by a team of UA researchers familiar with industrial and agency training programs and needs, and with ALDOT policies and practices. The team conducted interviews; participated in group discussions; held focus sessions with trainers, supervisors, and employees; conducted surveys; evaluated written and automated records; and otherwise gathered information. The team noted that the various sources of information each provided insight and individual conclusions that merged with and supported conclusions drawn from other sources. This allowed team members to form comprehensive conclusions about the strengths and challenges of prior training efforts, and to make recommendations for enhancements.

The recommendations include rolling out a new, energized ALDOT Training Bureau. Is also includes addressing and enhancing a wide range of topics like training administration, training coordinators, Training Bureau employees, supervisor involvement, certificate programs, trainer/facilitator selection and development, training assessment, training scheduling, training delivery, a training website, the PeopleSoft records system, and regional collaboration. In addition, the report provides a series of steps for implementation of the proposed new system, and hints for increasing its success.
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Executive Summary

The Alabama Department of Transportation (ALDOT) engaged The University of Alabama (UA) to examine, evaluate and recommend enhancements to ALDOT’s Training Bureau and training program. With 4,500 employees, a central office in Montgomery, and over 50 Division/District offices across the state, training encompasses a wide range of topics, approaches, and needs.

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Section 1
Introduction

The Alabama Department of Transportation (ALDOT) engaged The University of Alabama (UA) to examine, evaluate and recommend enhancements to ALDOT’s Training Bureau. With 4,500 employees, training encompasses a wide range of topics, approaches, and needs. The significance of the training program is underlined by the breadth of coverage for ALDOT, encompassing every county in Alabama with responsibilities ranging from planning and design to maintaining roadways.

To provide this service, ALDOT is divided into nine Construction and Maintenance Divisions within the state. In addition, several of the central office Bureaus in Montgomery have statewide responsibilities. Recognizing the critical importance of an effective and successful training program, ALDOT’s top administrators encouraged a broad evaluation of the entire training effort. Mr. Lamar Woodman, Assistant Chief Engineer-Administration, was assigned as ALDOT’s primary liaison and provided full access to all necessary training documents, materials, and personnel. A five person UA team was formed to complete this task.

The initial briefings with ALDOT’s leadership provided a broad scope for this analysis. As a knowledge-based organization, ALDOT has, and still does, place a high value on training. For the last several years, however, ALDOT training has been focused primarily on one program, the Accelerated University (AU). This was a court ordered training mandate which resulted from a long running case, and was intended to help minority ALDOT employees enhance their opportunities within the agency. Most of ALDOT’s training resources in recent years were dedicated to this effort.

ALDOT initiated the Employee Development Program (EDP) in 2002, which was designed to aid employees in obtaining the skills and knowledge necessary for reaching the next level within their professional progression. There are currently around 160 active EDP programs for ALDOT classifications. Within each program, there may be from one to six modules, comprised of both classroom and on-the-job (OJT) training. The importance of EDP is underscored by the impending retirement of numerous long term ALDOT employees. EDP and other training programs must equip members of the workforce to replace those broad skills and abilities that will be exiting ALDOT in the next several years.

During the initial portion of the project, the UA team noted that the intense emphasis on AU and EDP had restricted the overall training program, and that a broad assessment could be very helpful to both ALDOT and its employees. For example, although ALDOT had expended considerable resources to provide training, it lacked any clear means for evaluating training results. Initial findings of this type lead the team to believe that the examination should include a review of the recent history of ALDOT’s training programs, procedures and organization. A parallel analysis would be a comprehensive needs assessment including the use of focus groups and surveys, and the results would be used to identify areas for enhancement.
Section 2
Background and History

The UA team conducted extensive interviews with a wide variety of Training Bureau personnel, bureau and division based training coordinators, and others who are knowledgeable of ALDOT’s training activities in Montgomery and throughout the state. In addition, ALDOT training program documents and “PeopleSoft” database information were carefully examined.

Both the interviews and documents supported the opening observation that, over the past few years, ALDOT’s training had focused on educational opportunities through the AU. Conducting this needed training for the targeted group provided some good records, but inadvertently fostered some undesirable results since it diverted the Training Bureau’s attention from its broader training mission and created some knowledge gaps and leadership voids throughout the organization.

The interviews and data examination allowed the UA team to identify six important issues that need attention.

1. Training Bureau leadership and staff have been reluctant to make decisions and have viewed themselves more as a detail-and-paperwork group rather than a creative, proactive, cutting edge training organization.

2. Division and bureau training coordinators have typically expected the Training Bureau to set up programming and the Training Bureau, in many instances, has waited for the coordinators to take the initiative.

3. Program waiting lists were extremely large. Initially, the team thought this might be due to financial issues in ALDOT, but quickly learned that it was the lack of clear goals, indecisive leadership and the confused state of the organization that caused the problem.

4. The Employee Development Program (EDP) and other important non AU programming were marginalized.

5. ALDOT supervisors have been left out of the decision loop as to training topics and scheduling for their subordinates. This clearly was an issue with the supervisors as indicated by our survey results which will be reported later in this analysis. Training has become a top down rather then a bottom up activity.

6. Communication within ALDOT’s training infrastructure appeared awkward and often less than acceptable.

These six issues underscore the unintentional misdirection which occurred within ALDOT’s training organization largely due to leadership inconsistencies and weak or missing
implementation procedures. Further studies of the data and information highlighted additional areas of concern within the organization and management of the training unit. First, Training Bureau personnel and field based training coordinators have not been trained in how to develop and administer a successful training and development program. For example, many individuals in training positions transferred into them from other areas within ALDOT. In addition, many have technical and engineering backgrounds which do not provide the needed skills for training and development.

Second, there is a lack of an ongoing, organized method for assessing training needs. Just as a road builder would not begin a project without a blueprint or set of plans, a training program should not simply provide courses without a comprehensive needs analysis and a specific implementation program. EDP has begun the needs analysis component, but needs more attention and more must be done to clarify the process. At this point, neither ALDOT’s Training Bureau nor the field coordinators are responsible for this key activity. The customer or client service components performed through ALDOT’s training positions are compromised because of this lack of systematic information gathering and utilization. A stronger orientation is needed toward servicing customer or in-house clients.

Third, performance and quality standards for training programs are not in place and no uniform program evaluation techniques exist. The UA team could not identify any systematic collection of evaluation information either immediately following the actual training or as a quality control follow-up to determine whether the training provided effective learning. Evaluation of training programs typically includes gathering feedback from participants (and ideally supervisors) and in some cases, testing. When appropriate, it is not unusual to request that an immediate supervisor provide some evaluation concerning learning transfer from the training. Lacking immediate or long term evaluation, the Training Bureau has no means for correcting or adjusting ineffective training.

Fourth, ALDOT has numerous assets, such as distance education equipment and facilities, in-house expertise, and the ALDOT Skillsource online learning program, that are not being employed to their full potential to provide needed training to employees. One important element of enhancement would be to identify the best practices for using distance education technology and other program delivery systems to enhance effectiveness of knowledge transfer.

Fifth, vendor selection appears to have been haphazard and has not been guided by needs assessment results or evaluated by quality standards. External training contracting needs have been filled sporadically rather than centralized within the Training Bureau.

Sixth, the DROP Program and pending retirements will have serious affects on ALDOT operations in the near future with 25-30% of engineering managerial personnel leaving. However, state and federal laws limit succession planning and place “training” in a less than desirable position to help. This important challenge cannot be met without a careful reevaluation of training.
Seventh, managing “PeopleSoft,” the record keeping software, is an issue. Currently data is entered by both field based coordinators and the Training Bureau. It is not clear that quality control is exercised for overall data entry and data use. It is important that someone be responsible for this system since the usefulness of the system can be severely limited by the quality and timeliness of the data (garbage in, garbage out). The credibility of the Training Bureau System is dependent upon the successful administration of this system. Users and other employees must believe in the integrity of the system.
Section 3
Needs Assessment

While the historical analysis provided important information and direction, the UA team also utilized focus groups and surveys to collect current information. Focus groups provide rich data that can be used to obtain a deeper understanding of issues and to develop survey questions. Surveys provide a quantified analysis concerning attitudes and, in the case of the surveys used in this study, examine comments solicited at the end of the surveys.

Focus Groups

The UA team decided to conduct focus groups in five of the nine ALDOT Construction and Maintenance Divisions. Initially, focus groups were considered for all divisions and other ALDOT entities. However, after conducting the initial focus groups, it became apparent to the UA team that it was unnecessary to visit all sites. Instead, an effort was made to be geographically diverse in coverage.

All focus groups were asked for information and insights regarding ALDOT training with a future focus. In other words, the facilitators began each session by outlining the information seeking function of the groups. This approach avoided, in most cases, comments based solely on past training experiences. Instead, participants were asked to provide information that would assist in creating future successful training practices and administration.

At each site, three separate one-hour sessions were conducted by a skilled trainer and facilitator. In order to obtain a broad cross section, the three meetings were divided into: (1) non-management/non-administrative; (2) management/administrative employees; and (3) a combination of management/administrative and non-management/non-administrative employees. Groups averaged 20-25 and participants were very responsive. In total, the focus groups involved between 300 and 400 ALDOT employees and administrative staff. The initial focus group was conducted at Division 5 with both facilitators participating in order to guarantee consistency with the remaining four focus group sessions in Divisions 2, 4, 6 and 9 which were chosen to guarantee geographic distribution and a representative sampling of ALDOT employees. Upon the completion of these five sessions, the facilitators combined their findings and provided a summary for the UA team. While different divisions emphasized certain training issues, the consensus between these five divisions regarding the key issues satisfied the facilitators that the initial decision not to visit all nine divisions was correct. The findings from these sessions are incorporated in the conclusions and recommendations section including training planning and scheduling issues, supervisor input for training content, use of internal experts as training facilitators, localizing control of training, and varied course content delivery methods.

Summary of Focus Groups Issues

1. Orientation – At this point, orientation seems very inconsistent in terms of delivery and content. The key question is straightforward–does orientation function effectively? Specific issues included: the importance of ALDOT terminology and working processes;
job specific terminology; and the required courses or materials. The orientation training materials need to be updated and courses such as sexual harassment need to be placed in a broader context. Finally, orientation needs to be more dynamic and immediately useful.

2. Cross Training - Key functions need to be cross trained since individuals responsible for certain activities may not be readily available. There was not a request for most employees to be exposed to different divisions or bureaus. This set of comments referred specifically to important tasks that needed completion but were hampered because substitute employees were not trained for the tasks. For example, in some cases individuals responsible for payroll have no viable replacement in case of illness or other absence from the job. Other examples would include specific activities that an employee might be asked to do on an interim basis such as surveying, CDL, or other equipment. Focus group attendees would like to see more cross training. At the least, there should be “back up buddies” to fill in when employees are not available.

3. Course Topics Concentrations

All fifteen (three sessions at five divisions) focus groups expressed an interest in both technical and people skills training. No attempt was made during the sessions to discuss specific content or the context for the course suggestions. Asked to look to the future, the focus group members provided a useful broad view of training needs. The following course examples were reported in the majority of the focus group sessions. No suggestion is made that this list is comprehensive or that it should be the guide for all future training.

<table>
<thead>
<tr>
<th>Technical</th>
<th>People Skills</th>
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<td>Math</td>
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4. Develop WIIFM (What’s In It For Me) for all training for employees and supervisors.

One line of popular questions during the focus group sessions were of the form, “How does training link to performance appraisals, advancement, job application or other ALDOT issues?” “How does it benefit a supervisor to release an employee for training when important work depends on the employee’s presence?” This area of discussion points to the importance of using customer or client centered training in order to maximize positive participation and learning.
The information received during the focus group sessions informed the UA team of critical issues and helped to guide the on-going investigation. In addition the responses were utilized to formulate a portion of the survey questions.

**Surveys of Employees and Supervisors**

The focus groups provided rich data which was extremely useful in developing the recommendations; the team also employed two surveys to determine, in a more quantitative methodology, the ALDOT users evaluation of current training. Surveys were administered to ALDOT supervisors (96) via intranet and directly to ALDOT employees (385) prior to a training program. Supervisor surveys included 13 positive statements and employee surveys included 18 statements. A four point Likert scale (strongly agree, agree, disagree, strongly disagree) was provided along with a fifth choice (not applicable). The scale was used for both surveys, allowing a useful comparison of similar statements appearing on the two surveys. Figures A-1 and A-2 in the appendix contains the survey instruments.

**Questionnaire Responses**

*Agreement with Questionnaire Statements* The responses were tabulated and analyzed. Table A-1 in the Appendix contains simplified versions of the survey statements, along with the mean scores of both employees and supervisors for each statement.

The first trend noted was that employee and supervisor responses followed the same pattern among the 11 common questions. However, for each question the employees’ scores were higher that the supervisors’ score, on average the employees’ scores were 0.58 points higher. In other words, the employees thought more highly of ALDOT training system than did supervisors.

For employees the mean overall score was 3.16 for the 11 common questions. This meant that on average, employees more than agreed with this group of statements. On the other hand the average supervisor score was 2.50, which fell exactly half way between “agree” and “disagree” with the survey statements. Although averaging responses across multiple questions was not the most accurate way to analyze respondents’ feelings, in this case the pattern was so pronounced that the conclusion is valid.

*Responses that Were Most Positive* Several additional conclusions can be drawn from Table A-1 and Figure A-3. First, employees gave four of the common statements average response scores above the “agree” level (3.00):

- Training is important to work success (statement 1)
- ALDOT sponsored training enhanced productivity (statement 2)
- EDP enhanced productivity (statement 3)
- Employees want more ALDOT training (statement 7)
There was only one statement for which supervisors’ average scores were higher than “agree.” This was question one, “training is important to work success.” One other response, statement 9 indicating the training records were up to date, was almost to the “agree” level. All other supervisor scores fell below the “agree” level.

**Least Positive Response** Three employee response average scores were less than “agree.” These were that training substituted for experience (statement 4), ALDOT sponsored training enhanced communication and harmony (statement 5), and EDP training enhanced communication and harmony (statement 6). Supervisors least supported statements, in order, were that the EDP promoted communication and harmony (statement 6), that the EDP enhanced productivity (statement 3), and that the training organization was effective (statement 10). All of these scored less that 2.3, which is close to “disagree.”

**Comparison of Employees and Supervisors** The question that received the most agreement from employees and supervisors was “training records are OK” (statement 9). Both groups felt good about this, and their average responses were close together.

The statement with the least agreement between employees and supervisors involved whether the EDP enhanced productivity (statement 3). The average scores of the two groups was almost one complete point apart, indicating strong disagreement between the two groups. Employees felt that the EDP enhanced productivity while supervisors scores fell close to the “not agree” point. The second most disagreement was statement 2, which involved whether ALDOT sponsored training improved employee productivity. It followed the same pattern as that of statement 3, except the difference between the two groups was not as pronounced.

**Written Comments from Respondents**

The employee survey requested feedback on two topics and the supervisor survey requested feedback on one topic, but they did not require feedback. In other words, the written comments were unstructured and voluntary. Direct analysis is difficult, so UA researchers grouped the responses into general categories to draw conclusions. These are reflected in Table A-2.

The employee questionnaire used the following statements to solicit feedback:

- My top three training needs are:
- Please share any thoughts you have on strategic changes in ALDOT’s training organization that would benefit your job performance.

The statements on the supervisor questionnaire were similar, but dealt with the supervisors’ departmental needs.

**Employees** The most-requested training need was for hands-on training on computers, plan reading and technology (29% of respondents). The fact that 109 people requested these topics in response to an unstructured open request strengthens its impact. The second and third most
requested training was for math and surveying (10% each). Two other topics were requested by 30 or more people. Employees’ comments were widely scattered on strategic changes to training. The top response involved orienting training to fit specific jobs.

Supervisors The supervisors’ thoughts about needed strategic changes in ALDOT’s training organization were scattered. Only one comment was found on 10 percent or more of the completed questionnaires – that employees be trained in their areas of expertise rather than sending them to pre-scheduled or pre-selected courses (25% of respondents). This top request corresponded closely to the employees’ top request for strategic changes. Only two other supervisor comments were found on 8 percent or more of the returned questionnaires. These were increasing supervisor input into course selection, and improving scheduling so that classes did not overlap or conflict.

Summary of Needs Assessment

UA researchers found one overwhelming fact – employees and supervisors feel differently about the existing training program. Employees feel, on average, slightly better than “agree” about the survey’s positive statements about the training program. Supervisors feel less positive about the training program, with the average response falling exactly midway between “agree” and “not agree” with the same statements.

In addition, researchers were able to draw other conclusions (addressed in the preceding paragraphs) that support conclusions drawn from other sources as outlined elsewhere in this report. Overall, the survey produced a wealth of information.
Section 4
Recommendations

By becoming a proactive, professional training operation, the Training Bureau can quickly achieve important improvements. All ALDOT stakeholders—administration, management, supervisors and employees—view training in a positive light, so the key is to provide a clean break from the past policies and issues.

Early in the analysis, both ALDOT administrators and the UA team recognized the need for new leadership. During the examination portion of this project, ALDOT appointed Ms. Maxine Wheeler as the Training & Employee Program Development Manager which provides the ideal platform for the following recommendations. The UA team recommends that the initial steps of the roll out start in a reasonably period, maybe six months, and that the entire re-invention occur over a two year period. Other recommendations, discussed in the following paragraphs, include the following topics: administration, training coordinator, supervisor involvement, certificate programs, trainer/facilitator selection and development, training assessment, training scheduling, training delivery, training website, PeopleSoft, and regional collaboration.

Administration

The administrative processes can be enhanced through change. The training “shell” is in place but the topics and structure need to be updated and clarified as will be explained later under the Certificate Programs (CP) section.

Several administrative issues need to be addressed. First, the process must allow everyone efficient access to training through better utilization of training opportunities and assessment of training needs. Second, training needs to focus on both current needs and future needs. This proactive approach will enhance ALDOT’s ability to utilize personnel. Policies and procedures need to be standardized.

Training Coordinators

Training Coordinators (TCs) are one key to the future of the training program. After the initial interviews with TCs, the UA team concluded that the vast majority of administrative functions should be localized to the TCs and others involved. During the course of this study, Mr. Lamar Woodham took the first steps in empowering TCs to more actively administer training functions. The UA team concluded that the Training Coordinators in the divisions and bureaus should be more closely aligned with the Training Bureau staff, being part of Training Bureau meetings and other communication.

At the current time, TCs have not developed a customer or client service orientation. Our research indicated that TCs have functioned more as record keepers and planners for training functions than as actual training professionals responsible for a broad scope of training activities. TC should be involved in activities in training sessions, not just handing out materials and
monitoring. Presently, this position is a personnel clerk position. To be effective, these functions should be upgraded and training should be provided to educate them in the field of Training & Development.

**Training Bureau Employees**

Additionally, the employees that work within the Training Bureau should revise work systems to operate in a customer-oriented, demand driven environment. This group of employees should also receive training in their field.

A critical first step is to provide a customized Training and Development Certificate program for ALDOT Training Coordinators and the Training Bureau employees. This educational program will serve to provide the team with the basic knowledge and skills necessary to operate a Training & Development organization and will enhance the team concept within the work group.

**Supervisor Involvement**

Supervisors may be the most critical link in the training process. As was indicated by the UA team survey, supervisors do not hold the training process in high esteem. Currently, supervisors feel removed from the decision making aspects of training ranging from scheduling of subordinates to designation of course content. Clearly, supervisors must be more involved in employee training scheduling so they can become part of the solution, not the problem. In the survey, supervisors agreed that training was important but objected to how it has been done in the past.

Supervisors should drive the training process, and several pertinent recommendations emerged from this project. First, supervisors must be involved in the training scheduling. Whenever practical, supervisors should be in a decision making role on who needs training and what type of training within performance based limitations. Second, they should be involved in developing course content.

Third, once supervisors are part of the training planning process, they will be able to clarify to employees what training expectations are and letting them know they will be evaluated after training is completed. In conjunction with this, supervisors should be involved in a six month follow up of certificate graduates. This will increase supervisors’ involvement and allow dynamic content changes as needed.

**Certificate Programs**

The current EDP program does not have the support of supervisors. Part of the problem lies in a failure to link current training with actual on-the-job competency or success. In addition, supervisors have been caught between getting their assigned work completed through the effective use of their available employees and the top down administrative practices of past training including EDP. Because EDP has provided key background job related information, future training must focus on simplifying and clarifying the training process.
The Training Bureau can initiate Certificate Programs (CP) as a means for organizing course offerings. The certificates can be designed from ALDOT’s point of view based on ALDOT’s body of knowledge. Rather than use external generic programs designed to be delivered to a vast variety of organizations, CP can be customized to specific ALDOT needs and expectations for each position. In addition, CP can allow a building block approach that provides a clearer training progression process. For example, the EDP has almost 160 programs with hundreds of supporting modules which increasing the likelihood for confusion rather than clarity. EDP provides a first step in understanding specific job requirements and can be used to design CP.

The sequential set of CP can allow clearer organization of courses reducing duplication, providing a clear progression, and signifying closure at the end of CP. The CP can consider the core competencies for positions—what ALDOT personnel should know in order to be competent at a given position. Remember that supervisors are important to the content selection phase. CP could be used to:

1. Provide specific skills such as effective managing;
2. Offer support for possible promotion;
3. Limit what is taught to ALDOT specific needs,
4. Better organize the current ALDOT training buffet, and
5. Allow participants to identify success and more clearly understand the role of training.

Three specific examples should clarify CP. First, math courses are fundamental to ALDOT’s mission as indicated in Engineering Assistant positions. Second, courses covering sexual harassment, violence in the workplace and diversity carry similar training goals and would fit under a single umbrella course based on the common principles existing in these topics. Finally, a variety of existing supervisory sessions could be linked into a powerful ALDOT training tool. All of these are hypothetical examples meant to clarify CP and should not be construed as specific CP concentrations.

CP can allow ALDOT to identify who the learners are; what they are trying to achieve with the training; what knowledge, skills, and attitudes are needed; and what type of content would be included. Primary to this process is careful job and task analysis which determines the tasks each job function needs to perform and the standards to which he or she must perform them. Essentially, the Training Bureau would identify training goals.

**Trainer/Facilitator Selection and Development**

Three opportunities exist to improve the delivery of quality training—internal experts, on-the-job training, and external facilitators. As part of this, training delivery functions should be
improved. First, there needs to be a group of core facilitators who are *internal experts* on ALDOT subject matter. Over the history of ALDOT’s training program, internal experts in specific functions or operations have successfully conducted training for other ALDOT employees. This internal asset can be used more extensively. At the same time, the Training Bureau needs to make certain that these experts are also skilled at facilitating training. A train-the-trainers course should be made available internally to assist highly knowledgeable ALDOT professionals to become skilled trainers.

Another important group of *internal experts* are the numerous individuals who provide *On-the-Job Training (OJT)*. These trainers, spread throughout ALDOT, can be offered opportunities to develop effective OJT skills. In the past, organizations have assumed that a person proficient at a work task can also provide OJT. ALDOT can enhance this process by providing training in how to conduct effective OJT to individuals expected to carry out the task. As OJT is examined, ALDOT can enhance the process by simplifying the involved paperwork. For current OJT training, records of the process are often incomplete or not available.

A set of *external facilitators* familiar with ALDOT issues should be identified and used on a systematic basis. This would increase the likelihood that courses would be relevant and useful. Rather than an extensive and ever changing set of external facilitators, a shorter list of facilitators known to be effective would allow increased quality control for both facilitators and the course content. Higher standards, systematization, and follow-up will increase quality.

Focusing on these three groups of trainers would enhance the Training Bureau’s capacity to identify key training opportunities, reduce duplication and uncertainty, and make the best use of resources.

**Training Assessment**

As has already been discussed, there is no current assessment methodology. The Training Bureau needs to be confident that it has developed successful training processes that lead to actual improvement and development. Highly effective training programs concentrate on four levels for assessment. Level 1 is reaction, or determining how participants responded to the training experience. Level 2 provides follow-up after the training by asking if participants learned any new knowledge or skills, or if they became more competent. Level 3 asks if trainees behaved any differently after the training and Level 4 attempts to measure actual results created by the training.

Clearly, levels 1 and 2 are critical to achieving a high performing Training Bureau and the responses obtained can guide the training effort. Levels 3 and 4 will be easier to measure after the initial implementation stages, and they are important components of an effective long term improvement process.

Assessment of training success includes competency testing. At the highest level, ALDOT can conduct a thorough assessment using a pretest of an employee’s competency, a post test skill or knowledge acquisition at the end of the training, and a three month follow-up (did they retain the
There appears to have been no systematic ALDOT collection or examination of course or instructor evaluations for a wide variety of course offerings. It is important to assess future training programs and instructors, and to respond quickly to needs. For example, there should be some conditions of performance regarding what employees must demonstrate in practice or in tests after training. Can the employee perform the task(s) or does the employee understand the content? By establishing some criterion measures, the degree of learning can be assessed. In doing this, the overriding question is does the training benefit the employees and ALDOT? Lacking any consistent assessment processes, this question cannot be answered.

Training Scheduling

The focus groups and interviews indicated dissatisfaction by supervisors regarding past scheduling and delivery processes. First, supervisors suggested that training be scheduled primarily during the months when the least amount of weather sensitive work is conducted. Practically, this would mean more training during winter months and less during spring, summer and fall months. Second, supervisors requested that training be designed so that some programs or program segments can be provided during inclement weather. For example, if a highway crew cannot work, why not have training segments prepared and waiting for them? Finally, supervisors questioned the importance of two or three days of training in succession. Scheduling work would be simplified if employees could routinely attend one day or a half day per month, for example. The UA team’s earlier recommendations in this report respond to these concerns. CP could be provided in one day or half day segments as long as the certificate was completed within a designated time span. Otherwise, continuity would be sacrificed. In addition, during the CP development process, segments could be designated to offer during rainy day periods. Finally, internal experts could be utilized during these rainy day periods if they were also available.

Training Delivery

ALDOT has a variety of options for delivering training including an excellent distant learning system, computer based courses, videos, films, CDs, OJT and classrooms. Properly utilized, these offer an excellent buffet approach for efficient and effective training.

Traditional facilitator based training will continue to be useful for specific courses and subjects. As already discussed, this approach can be fine tuned through effective facilitator selection. Distant learning provides an efficient means for reaching a large audience with a consistent program. Travel time is diminished and the cost for the delivery of training is reduced. As the training coordinators develop facilitation skills through their own training and development program, distant learning will be able to combine many of the benefits of facilitator based training with distant learning. The TC will be able to add the interactions often needed to increase training effectiveness. ALDOT currently operates an excellent computer based program which can augment the training delivery system. Finally, some advanced computer courses can
be taught online while the basic computer courses can be offered through the community college system.

Not all learners adapt well to all delivery systems, and ALDOT will need to provide alternative opportunities. For example, the distant learning programs can be videotaped for participant review or for participants who are unable to attend the session. In all likelihood, some employees will find computer based learning difficult. Recognizing this important caveat is a trait of the best training programs.

Training Website

Effective development and utilization of a website is important. The website will serve as a marketing tool to provide course offerings and other related information. In addition, it can be used to distribute examples of successful programs based on course evaluations, registrations, number of sections and content. Rather than depend on uncertain distribution of information concerning training, the website can become the central clearinghouse for information for all the ALDOT stakeholders. Enrollment or registration, attendance, course and certificate completion and other records should be managed online.

PeopleSoft

Accurate records are vital to the new training program. PeopleSoft, or some other program, should be used for record keeping. For example, OJT is not being well documented in all cases currently. In some cases, OJT is provided but the actual documentation is not completed. This process must be simplified for the users so record keeping is current and accurate. As mentioned earlier, the PeopleSoft program needs to be administered through the Training Bureau with designated personnel managing the process. TC, and others, should be responsible for data entry, correction, and updates.

Regional Collaboration

ALDOT should utilize regional and national departments of transportation for materials and insights regarding training. Through collaboration, training materials development costs could be shared, common course content could be combined, and new ideas could be developed.
Section 5
Implementation Planning

ALDOT is in an excellent position for this training initiative. Effective training is accepted as an important goal by all stakeholders, upper management it committed to it, ALDOT is completing the AU program, training coordinators are interested in supporting major changes, and UA has completed its comprehensive analysis of ALDOT’s training programs. The following guidelines should be considered.

First, the roll out should occur within a reasonably short period, say six months, after this report is accepted. This initial roll out should be considered an overview and not a comprehensive plan. In other words, the Training Bureau should decide what elements are essential to: (1) clearly provide a demarcation from the old training approaches to the new plan; (2) create a readiness for change through a sense of excitement and interest by demonstrating the likelihood that the changes will benefit all stakeholders; (3) provide a skeletal or broad understanding of the upcoming improvements; and (4) provide any additional information to achieve buy-in. The entire change process should be completed within two years. At that point, fine tuning can continue.

Before the actual implementation process, the Training Bureau should have a vision that describes its core ideology and allows stakeholders to focus on the future. The core ideology explains ALDOT’s commitment to effective training and employee development. As a knowledge organization, developing its human resources is the key to increased success. Focusing on the future should include what, in a general sense, can be expected from the changes. These two concepts lead to six specific issues.

First, in the past organizations have made serious mistakes by rolling out the entire change at one time. This caused misunderstandings and confusion. Once that occurred, rumors and reasons for not changing quickly emerged. A much more viable approach is to provide the key bullet points for the changes and allow the details to emerge as they are needed for particular aspects of the change process. For example, certificate programs need not be explained in full detail. However, the concept can be announced and explained in a manner that enhances understanding by the stakeholders. In organization wide change situations, it is axiomatic that it is better to promise little and deliver a lot.

Second, the Training Bureau should focus on the future not the past. There is nothing to be gained by dwelling on past successes or failures since this will misdirect stakeholders’ attention. Instead, a vision for the future is needed.

Third, the transition should provide enough structure, guidance, confidence, and trust to encourage alignment and endorsement. The Training Bureau should look for opportunities to make symbolic decisions that send clear signals that a change is occurring. Earlier this report recommended increased supervisory involvement in training decisions. Involving this group in these decisions will make a dramatic symbolic statement regarding the sincerity driving the changes. In addition, this will help the supervisors be part of the solutions which will enhance
their willingness to become champions of the new training process.

Fourth, carefully select certain training initiatives and begin immediately. Normally, it is better to start small and work through the changes. When the inevitable breakdowns occur, they can be quickly resolved leading to immediate recovery. The Training Bureau should look for opportunities for short-term wins. This should include planning for visible improvement in the training bureau’s performance. When the wins occur, those individuals involved in the wins should be recognized. The training website should be used to announce these wins.

Once the process starts, more difficult changes can be addressed. One error of failed change attempt in organizations has been to try to accomplish all changes simultaneously. This change strategy is in line with the first recommendation above. The Training Bureau will want to retain control of the change process and this can best be accomplished through incremental approaches.

Fifth, avoid a bureaucratic response to training issues. To whatever extent possible, empower the front line individuals, such as training coordinators, to resolve issues. Try to make the training process people driven not paper driven. Regardless of how well the new training approaches are considered, important and unforeseen issues will arise. These should be dealt with as much speed as possible.

Even the worst situation becomes a working habit for some individuals and they spend a great deal of energy learning to cope. The Training Bureau must be alert to the natural tendency to revert to old practices. This tendency can be mitigated by a careful, human-driven implementation.
Section 6
Conclusion

Clearly, the need is to act now, act boldly, and act consistently or ALDOT training will return to its current state. We firmly believe that the time is ideal for a major initiative. In implementing these necessary changes, ALDOT’s Training Bureau will move toward becoming a team of skilled training professionals operating in a demand-driven, customer oriented environment. These changes will benefit all of the employees of ALDOT and will result in a significantly higher level of confidence in the training provided to ALDOT employees.
Appendix
Information from Employee and Supervisor Surveys
Figure A-1: Employee survey questionnaire (page 1 of 2)

Alabama Department of Transportation Employee Training Survey  The University of Alabama College of Continuing Studies, at the request of the Alabama Department of Transportation (ALDOT), is conducting an extensive training review covering ALDOT’s effectiveness and organization of the training function. This survey is part of the study and will attempt to measure quality and productive contribution of training. Your help in providing needed information is vital and will contribute to enhancing the efficiency and effectiveness of the ALDOT training efforts. Your response is anonymous. The survey will only be shared in aggregate formats.

Please answer the following questions using a scale ranging from "Strongly Agree" to "Strongly Disagree".

<table>
<thead>
<tr>
<th>Question</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I view training as important to the success of my work.</td>
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<tr>
<td>2. ALDOT sponsored training that I attended has enhanced my productivity and job performance.</td>
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<tr>
<td>3. Training that I attended through ALDOT’s Employee Development Program has enhanced my productivity and job performance.</td>
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<td>4. I believe quality training can substitute for basic experience.</td>
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<tr>
<td>5. ALDOT sponsored training has improved internal communication, harmony, and employee motivation.</td>
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<tr>
<td>6. Training offered through ALDOT’s Employee Development Program has improved internal communication, harmony, and employee motivation in my unit.</td>
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<td>7. I would like to participate in more ALDOT sponsored training.</td>
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<td>8. The Employee Development Program, “On-the-Job” training component has been beneficial to my job performance.</td>
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<td>9. The process of getting enrolled in ALDOT training programs is efficient and effective.</td>
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<tr>
<td>10. I have adequate and timely information regarding the details of training programs in which I have been enrolled.</td>
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<td>11. My training records are up to date and accurate.</td>
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<tr>
<td>12. Overall, ALDOT’s training organization is effective and efficient.</td>
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<tr>
<td>13. Materials including videos, films, and printed materials provided during training that I’ve attended have been useful to understanding the course content and objectives.</td>
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<td>14. My supervisor expects me to use the knowledge and/or skills learned during training.</td>
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<td>15. I am able to apply the knowledge and skills acquired during training.</td>
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<tr>
<td>16. My supervisor and I periodically discuss my training activities.</td>
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<tr>
<td>17. I am encouraged to identify my job training needs.</td>
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<tr>
<td>18. My training prepares me for future job opportunities.</td>
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<tr>
<td>19. New employees receive adequate orientation to their job duties and responsibilities.</td>
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</tbody>
</table>
20. My top THREE training needs are:

1.

2.

3.

21. Please Share any thoughts you have on strategic changes in ALDOT's training organization that would benefit your job performance.
The URL of this survey: http://CTLSilhouette.wsu.edu/surveys/ZS36700

Alabama Department of Transportation - Supervisor Training Survey. The University of Alabama College of Continuing Studies, at the request of the Alabama Department of Transportation (ALDOT), is conducting an extensive training review covering ALDOT’s effectiveness and organization of the training function. This survey is part of the study and will attempt to measure quality and productive contribution of training conducted during the time frame of January 1, 2003 to December 31, 2004. You are being asked to complete this survey from the role of supervisor or manager of employees who have attended ALDOT sponsored training from January 1, 2003 to December 31, 2004. Your help in providing needed information is vital and will contribute to enhancing the efficiency and effectiveness of the ALDOT training efforts. Your response is anonymous and the results of the data will only be shared in aggregate formats. Please complete the survey online and follow instructions for submission. Please complete and submit by July 7, 2005.

1. From January 1, 2003 to December 31, 2004, did any employees who you directly or indirectly supervise participate in ALDOT provided training? (If No, please stop here and submit the survey.)
   □ Yes  □ No

Please answer the following questions using a scale ranging from Strongly Agree to Strongly Disagree.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. I view employee training as important to the success of my work unit.</td>
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<tr>
<td>3. Generally, ALDOT sponsored training provided for my employees has significantly enhanced their productivity and job performance.</td>
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<tr>
<td>4. Training offered through ALDOT’s Employee Development Program has significantly enhanced productivity and job performance of the employees who participated in the training.</td>
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<td></td>
</tr>
<tr>
<td>5. I believe quality training can substitute for basic experience.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Generally, ALDOT sponsored training provided for my employees has significantly improved internal communication, harmony, and employee motivation.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Training offered through ALDOT’s Employee Development Programs has significantly improved internal communication, harmony, and employee motivation in my unit.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. I would like to involve more of my employees in ALDOT sponsored training.</td>
<td></td>
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</tr>
<tr>
<td>9. I, as a supervisor, have sufficient input into topics and the type of training provided by ALDOT for my employees.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. The process of getting employees enrolled in ALDOT training programs is efficient and effective.</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>11. I, as a supervisor, have influence into the timing of training provided by ALDOT for my employees.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Both I and my employees have adequate and timely information regarding the details of training programs in which we have been enrolled.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Training records for my employees are up to date and accurate.</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Overall, ALDOT’s training organization is effective and efficient.</td>
<td></td>
<td></td>
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</tbody>
</table>
15. Please share any thoughts you have on strategic changes in ALDOT's training organization that would benefit your department.

Table A-1: Mean scores for employee and supervisor surveys

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>1. Training = work success</td>
<td>3.56</td>
<td>3.27</td>
<td>-0.29</td>
</tr>
<tr>
<td>2. ALDOT sponsored training enhanced productivity</td>
<td>3.16</td>
<td>2.48</td>
<td>-0.68</td>
</tr>
<tr>
<td>3. EDP training enhanced productivity</td>
<td>3.12</td>
<td>2.27</td>
<td>-0.85</td>
</tr>
<tr>
<td>4. Training substitutes for experience</td>
<td>2.69</td>
<td>2.33</td>
<td>-0.36</td>
</tr>
<tr>
<td>5. ALDOT sponsored training = communication, harmony</td>
<td>2.76</td>
<td>2.31</td>
<td>-0.45</td>
</tr>
<tr>
<td>6. EDP training = communication, harmony</td>
<td>2.73</td>
<td>2.23</td>
<td>-0.50</td>
</tr>
<tr>
<td>7. Want more ALDOT training</td>
<td>3.29</td>
<td>2.66</td>
<td>-0.63</td>
</tr>
<tr>
<td>8. Enrollment process is efficient</td>
<td>2.99</td>
<td>2.34</td>
<td>-0.65</td>
</tr>
<tr>
<td>9. Training records up to date</td>
<td>3.00</td>
<td>2.88</td>
<td>-0.12</td>
</tr>
<tr>
<td>10. Training organization is effective</td>
<td>2.94</td>
<td>2.27</td>
<td>-0.67</td>
</tr>
<tr>
<td>11. Have adequate info on enrollment</td>
<td>2.97</td>
<td>2.41</td>
<td>-0.66</td>
</tr>
<tr>
<td>12. Training materials were useful</td>
<td>3.15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Supervisor expects me to use training knowledge</td>
<td>3.09</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. I can apply skills from training</td>
<td>3.09</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Periodically discus with supervisor</td>
<td>2.67</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. Asked to identify training needs</td>
<td>2.77</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. Training prepares for future job</td>
<td>3.04</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. New employees get adequate orientation</td>
<td>2.70</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19. EDP, OJT training benefits me</td>
<td>3.13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20. Supervisor has input to training</td>
<td></td>
<td>1.95</td>
<td></td>
</tr>
<tr>
<td>21. Supervisor influences training timing</td>
<td></td>
<td>1.88</td>
<td></td>
</tr>
<tr>
<td>Mean score, all questions =</td>
<td>2.99</td>
<td>2.41</td>
<td>-0.58</td>
</tr>
</tbody>
</table>

Table A-2: Most prevalent respondent comments

<table>
<thead>
<tr>
<th>Employees Comments</th>
<th>% Replies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top training needs</td>
<td></td>
</tr>
<tr>
<td>Computers, plan reading, stay current with technology</td>
<td>29%</td>
</tr>
<tr>
<td>Math</td>
<td>10%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Supervisors Comments</th>
<th>% Replies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top training needs</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Surveying</th>
<th>10%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Related to field for engineer testing, new employees</td>
<td>8%</td>
</tr>
<tr>
<td>Understanding, helping, communicating</td>
<td>8%</td>
</tr>
</tbody>
</table>

**Strategic changes to training organization**

| Job oriented training for specified job | 6% |

- Train in area of expertise rather than sending employees to prescheduled/pre-selected courses. Give them what they need. 25%
- Increase supervisor input into courses to enhance employee’s career training. 8%
- Improve scheduling; lots of classes overlapping/conflicts 8%

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**Figure A-3: Comparison of employee and supervisor mean scores for common questions**

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24