2015

FAA Training Assessment of On-The-Job Training

Darendia McCauley

Follow this and additional works at: https://corescholar.libraries.wright.edu/isap_2015

Part of the Other Psychiatry and Psychology Commons

Repository Citation
https://corescholar.libraries.wright.edu/isap_2015/43

This Article is brought to you for free and open access by the International Symposium on Aviation Psychology at CORE Scholar. It has been accepted for inclusion in International Symposium on Aviation Psychology - 2015 by an authorized administrator of CORE Scholar. For more information, please contact corescholar@www.libraries.wright.edu, library-corescholar@wright.edu.
The field training administered to air traffic controllers is provided by instructors who are also controllers but have undergone training to become on-the-job training instructors (OJTIs). The training of these field OJTIs is under revision based on a training needs assessment conducted in 2011. Controllers who were not successful in training at their first facility can be reassigned to another facility, where they receive field training specific to that facility. The controllers who did not succeed in training initially and requested reassignment may have a useful perspective on the training they received. This perspective may aid in revising the training provided to OJTIs, in addition to and in conjunction with the earlier training needs assessment.

Field training occurs through on-the-job familiarization (OJF) and on-the-job training (OJT). OJF consists of classroom and scenario training provided to familiarize students with the specific airspace, procedures, and processes unique to a given facility. OJT can occur in a local lab environment, but it predominantly occurs on position while working live traffic. OJT is administered to all air traffic control (ATC) trainees new to the facility, regardless of whether it is their first facility assignment, they already certified at another facility, or they requested reassignment (called ERR, for Employee-Requested Reassignment) from another facility before completing their training. The OJTI must possess the knowledge to teach, coach, and demonstrate techniques for safely and efficiently controlling air traffic using a specific set of procedures. The local airspace and conditions surrounding it are taught both through OJF and OJT. OJT instruction is based on ATC procedures and must also provide guidance on control judgment (when to intervene on position). The OJTI role is critical to the success of training.

FAA completed a field needs assessment of the training (Lacroix, Shelly, Lake, & Brodie, 2011b) required by OJTIs. This assessment documented several areas of OJTI training that needed to be updated or enhanced. In addition, an independent review panel (Barr, Brady, Koleszar, New, & Pound, 2011) had specific recommendations for updates and revision for both initial and recurring OJTI training. There was some overlap in these recommendations. However, the needs assessment targeted specific training areas necessary for training success in need of improvement, while the independent review panel identified more organizational or policy changes needed. The recommendations that came from the training needs assessment identified the need for more OJT experience with simulators, improvement in OJTI training skills and tools, and better communication skills, especially in safety critical areas like developing air traffic situations and remediating personality issues between the OJTI and the trainee. There were also specific concerns identified related to student preparation for the OJT experience and overall training provided for OJTIs.

Trainees who requested reassignment before completing field training at their first facilities (ERR) return to the FAA Academy as a part of their training for a new field assignment. They
are required to take Academy training appropriate to the type of facility to which they have been assigned if they had not previously received it. For example, students who had failed training at large radar facilities (either En Route or TRACON) are usually reassigned to a smaller tower or tower/TRACON facility. Those students return to the Academy for initial tower training if they did not take it previously. As a part of all Academy training, controller developmentals also receive training about fatigue. For those who return for tower training after having previously attended Academy training for radar facilities, the fatigue lesson was modified to accommodate their prior exposure.

Controllers who failed training at their first facility were unsuccessful in their initial participation in OJT. Their perceptions of OJT and the OJTIs providing it may provide useful information that can be used to revise the way OJTIs are trained. It also provides an opportunity to compare their insights with already identified training needs.

The FAA’s Office of Safety and Technical Training identified three OJTI training projects. The first project, Supplemental OJTI training, was developed for existing OJTIs in FY14, and will be launched in FY15. The second project is a revision of OJTI initial training, which is currently underway. OJTI initial training is usually conducted at field locations for prospective OJTIs. That training project involves a rebuilding of initial OJTI training based on several recommendation sources, including the previously conducted training needs assessment. The third OJTI training project is a CADRE course for training instructors to deliver the OJTI initial course to candidate OJTIs at their facilities. The CADRE course will be developed shortly following the initial course and using the same concepts. The purpose of this research is to use information from trainees who were unsuccessful in field training to validate OJTI training needs identified in the prior needs analysis.

Method

Participants

Eighteen employee-requested reassignment (ERR) students volunteered to answer questions about the fatigue lesson as well as some questions about their OJT experience and their OJTIs. The focus of this paper is on the information from the second part of the survey, which focused on ERR perceptions of OJTIs and OJT issues.

Tools and Procedures

We asked students if OJTIs provided any input concerning scheduling and dealing with fatigue issues. In addition, we asked students about access to and experience with simulators, as well as how OJTIs responded to other OJT issues previously identified as needing inclusion or revision to OJTI instruction. We obtained these questions from a training needs assessment for the OJTI course conducted in 2011.

We asked students to indicate from strongly disagree (1) to strongly agree (6) about statements relative to the OJT experience. The questions were extracted from the earlier training needs
Results

Survey Responses

Student survey responses to OJT questions are indicated in Table 1. While there was some variability, responses were generally reflected toward disagreement with statements. On average, survey respondents indicated that the needs previously identified by the training needs analysis were also needs perceived by those who had recently had unsuccessful field training experiences.

Table 1. ERR Student Responses to OJT Questions.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to and experience with simulators was adequate</td>
<td>3</td>
<td>1.7</td>
</tr>
<tr>
<td>OJTIs used past experience to enhance instruction</td>
<td>3.1</td>
<td>1.5</td>
</tr>
<tr>
<td>OJTIs provided adequate emphasis on training</td>
<td>3.2</td>
<td>1.4</td>
</tr>
<tr>
<td>OJTIs adequately communicated developing situations</td>
<td>3.4</td>
<td>1.7</td>
</tr>
<tr>
<td>OJTIs were an adequate match for me</td>
<td>2.4</td>
<td>1.6</td>
</tr>
<tr>
<td>OJTI instructors were adequately trained</td>
<td>2.8</td>
<td>1.6</td>
</tr>
<tr>
<td>Adequate preparation for the OJT experience was provided</td>
<td>3.2</td>
<td>1.6</td>
</tr>
</tbody>
</table>

Limitations

The sample size was small (n=18). It should also be noted that as trainees for whom training was not successful, ERR students have a unique perspective of OJT and the OJTIs they have experienced. Comparable data were not collected from CPCs who successfully completed training and those who did not request reassignment to a different facility. Therefore, the outcomes presented here came from a very small and a very specific group of students.

Discussion

Support for OJTI Training Revisions

On average, ERR students indicated that the training received did not provide some of the experiences necessary for successful training. This supports the needs for OJTI training revision previously identified by FAA OJTI workgroups and specific recommendations from the OJTI training needs assessment identifying those experiences necessary for successful OJT. Student responses indicated a need for an increased focus on simulation experiences. This would include using simulation equipment for terminal or radar exercises, where students and OJTIs can work together to better develop needed skills without the pressure and risk of controlling live traffic.
OJTIs can also be encouraged to provide their own past ATC experiences to provide a personalized reality and enhance instruction. Communication skills are critical for an OJTI. The OJTI must be able to respond appropriately and quickly in critical situations to maintain safety in developing situations to make the trainee aware of the situation and why intervention was needed. Effective communication must be able to cross personalities and learning styles. There is also a need for providing improved OJT expectations to the trainees. This could result in improved OJF as well as improved OJT. The need for improvement in OJTI preparation and training is evident.

Acknowledgments

Research reported in this paper was conducted under the Air Traffic Program Directive / Level of Effort Agreement between the Human Factors Research and Engineering Group (ANG-C1), FAA Headquarters, and the Aerospace Human Factors Research Division (AAM-500) of the Civil Aerospace Medical Institute.

References
