

**Study
Report
2009-02**

**Best Practices for Using Mobile
Training Teams to Deliver
Noncommissioned Officer
Education Courses**

**John C. Morey, Michael D. Bush,
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**United States Army Research Institute
For the Behavioral and Social Sciences**

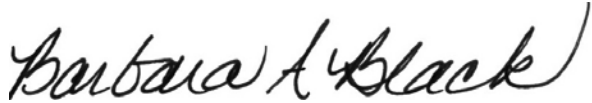
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BEST PRACTICES FOR USING MOBILE TRAINING TEAMS TO DELIVER NONCOMMISSIONED OFFICER EDUCATION COURSES

EXECUTIVE SUMMARY

Research Requirement:

In view of the growing use of mobile training teams (MTT) to deliver Basic Noncommissioned Officer Courses (BNCOC) to Soldiers at their home units, the U.S. Army Training and Doctrine Command (TRADOC) has identified a need to develop guidelines and policies for the development, management, and delivery these MTT. The purpose of this analysis was to identify best practices for delivery of BNCOC via MTT. The work was performed as an element of a set of Noncommissioned Officer Education System (NCOES) analyses performed by the U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) as part of the FY 2008 Training Research and Analysis Program.

Procedure:

The TRADOC proponent identified four elements of analysis: (a) best practices for developing and delivering MTT training, (b) NCO performance gaps due to MTT training, (c) MTT effectiveness, and (d) MTT efficiency. Data were gathered using focus groups, structured inter-views, and surveys from a variety of MTT end-user, training manager, and supervisory perspectives.

Findings:

Current and proposed best practices lie in three general areas: close coordination between the MTT and the supported units, assurance of availability of training resources at the receiving unit's site, and maintenance of alignment between the MTT and the residential versions of the BNCOC program of instruction (POI).

Any NCO performance gaps due to MTT training were attributed to equipment non-availability for performing hands-on training on site. The proponent schools expressed the opinion that MTT students are better motivated and more focused to learn than resident course students, and perform as effectively as resident course graduates. With respect to efficiency, MTT-delivered courses were found to project cost savings ranging from 7% to 74%.

Utilization and Dissemination of Findings:

These results can be used as input to develop TRADOC policy for developing, managing, and delivering MTT-based BNCOC Phase 2 training. The results were previously briefed to the TRADOC G-3/5/7 Leader Development and Education Directorate, to the G-3/5/7 Training Programs Analysis and Evaluations Directorate, and to the ARI TRADOC Scientific Coordination Office in September 2008.

BEST PRACTICES FOR USING MOBILE TRAINING TEAMS TO DELIVER
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Introduction

Development of the Army's noncommissioned officer (NCO) corps is structured with respect to three pillars of education and experience: Institutional Training and Education, Operational Assignments, and Self-Development (Department of the Army, 2002). As an element of the Institutional Training and Education pillar, the Noncommissioned Officer Education System (NCOES) provides the academic portions of the NCO's leadership development. The four primary courses of the NCOES are the Warrior Leader Course (formerly the Primary Leadership Development Course), the Basic Noncommissioned Officer Course (BNCOC, which will be renamed the Advanced Leaders Course), the Advanced Noncommissioned Officer Course (AN-COC, which will be renamed the Senior Leaders Course) and the Sergeants Major Course. The BNCOC course provides common core subjects in Phase 1 and technical training specific to the NCO's military occupational specialty (MOS) in Phase 2.

Traditionally, all the NCOES courses have been provided to NCOs in an institutional setting at major installations, primarily branch specific Centers and Schools. However, as a result of the Army's recent tempo of operations, the Centers and Schools have experienced difficulty in offering courses in sufficient numbers and at appropriate times. A recently adopted solution for delivering BNCOC courses outside the institutional setting is the use of mobile training teams (MTTs). The MTT provides a means for the Army to bring training to students where they are deployed and work, and historically has been a staple for new system training and skill upgrades for both Soldiers and their leaders. The objective of the MTT delivery method for BNCOC was to decrease the backlog of qualified and eligible BNCOC candidates who could not attend a resident course because of operational requirements. The increase in BNCOC throughput with the MTT also had the benefit of supporting the skill development of a junior NCO during a point in the Army Force Generation (ARFORGEN) cycle after the NCO's unit has returned from the combat zone. The MTT approach enables the NCO to train at home station while reestablishing ties with family.

Heretofore, ARFORGEN has placed restrictions on NCO training by reducing the opportunities for which NCOs can complete residential NCOES courses at the desired points in their career. This has created conditions where promotions may be held in abeyance when courses required for promotion have not been completed, negatively impacting force readiness and NCO retention.

In response to these issues, the Training and Doctrine Command (TRADOC) initiated the use of MTTs for providing the Warrior Leader Course (WLC) and BNCOC. Leaders and trainers at each proponent school assemble MTTs concurrent with the training needs of operational units, and then coordinate with active units to receive the courses from MTTs at home station.

Under the assumption that MTTs will continue to be routinely employed as an alternative to BNCOC institutional training, TRADOC identified a need to establish guidelines and policies for MTT delivery. Because these guidelines and policies should be based on current best practices and training solutions that address emerging problems and issues, TRADOC requested ARI, as part of the Training Research and Analysis Program, to determine the current best practices

and policies being carried out by proponent schools and sponsoring units (US Army Training and Doctrine Command, 2007; U.S. Army Research Institute, 11 December 2007).

This report is in response to TRADOC's request. The sources for understanding the positive and negative features of MTT BNCOC training are the developers of the training, the instructional cadre, BNCOC-trained students, and the leadership of operational units. Because what works and what doesn't is captured in the experiences of these target sources, a significant portion of the empirical basis for describing best practices was gained from interviews with key developers, instructors, a representative sample of students who have taken either the MTT or resident BNCOC courses, and unit leaders.

Analysis Objectives and Design

The purpose of this analysis was to identify the best practices for the development, management, and delivery of BNCOC Phase 2 courses offered by MTTs. This purpose was achieved by specifying the objective as identifying MTT training issues for selected MOSs with respect to four elements of analysis:

1. Best practices for developing and delivering MTT training
2. NCO performance gaps due to MTT training
3. MTT effectiveness
4. MTT efficiency

The overall approach to achieving the analysis objective consisted of two steps:

1. Gather data using focus groups, structured interviews, and surveys from a variety of MTT end-user, training manager, and supervisory perspectives:
 - a. Resident and MTT-trained BNCOC graduates
 - b. Proponent school training managers, curriculum developers, and instructors
 - c. Field commanders and senior noncommissioned officers who supervise BNCOC graduates
2. Develop best practices and other recommendations to improve MTT courses based on subject matter expert (SME) analysis of interview and survey results.

Method

Participants

BNCOC Graduates. The first group of participants consisted of 46 NCOs, graduates of either a Phase 2 BNCOC resident or MTT course in MOS 11B, 11C, 23U, 63B, 92A, 92F, or 92Y. Participants were recruited by contacts with command staffs at the 1st Cavalry Division, Ft. Hood, TX and the 82nd Airborne Division, Ft. Bragg, NC. Units were requested to non-systematically select a sample of BNCOC Phase 2 graduates from the various MOSs for inclusion in the analysis.

Twenty-seven male and two female NCOs participated at Ft. Hood. Most (73%) were Staff Sergeants with the remainder Sergeants (24%) and Sergeants First Class (3%). Fifteen male and two female NCOs participated at Ft. Bragg. The largest number were Staff Sergeants (71%) followed by Sergeants (12%) and Sergeants First Class (18%). The number of NCOs in each MOS and other demographic features are shown in Table 1.

Table 1
BNCOC Graduates' Demographics (means in years)

MOS	N	Age	Total Time in Service	Time in Rank
Ft. Bragg				
11C	5	29.6	11.1	2.7
25U	3	35.0	14.8	3.3
63B	5	29.4	11.2	2.4
92A	2	30.5	11.4	1.4
92Y	2	31.5	9.1	0.3
Ft. Hood				
11B	5	28.6	6.5	1.0
11C	4	32.0	11.5	1.8
25U	1	31.0	5.3	0.8
63B	4	31.5	11.3	3.3
92A	1	31.0	7.3	2.5
92F	6	31.7	11.4	3.7
92Y	8	32.3	10.4	2.1

NCOA Personnel. The second group consisted of 24 civilian and military personnel assigned to the Noncommissioned Officer Academy (NCOA) in command, management and staff positions at the Infantry Center, Ft. Benning, GA; the Ordnance Center, Aberdeen Proving Ground, MD; the Signal Center, Ft. Gordon, GA; and the Transportation Center, Ft. Lee, VA. The analysis project coordinator contacted the NCOA at each Center and requested interviews with personnel having various responsibilities for the development and delivery of MTT training. The duty positions or roles of these participants are shown in Table 2.

Table 2
Demographic Data on NCOA Participants

Center	Position	Number	Time in Position (yrs)	Number of MTT classes taught	Number of resident classes taught
Infantry Center	Assistant Branch Chief	1	2.8	1	
	Branch Chief	1	1.5	8	5
	Chief of Training	1	3.8		
	Operations Specialist	1	0.7		
	Senior Instructor	1	2.5	1	2
	Small Group Leader	1	2.1	8	10
	Senior Small Group Leader	1	3.3	9	4
	Supr Supply Tech	1	6.6		
Ordnance Center	Course Manager	1	2.5		
	Instructor	1	1.3	3	25
	Instructor/Writer	1	1.3	5	20
	Senior Small Group Leader	2	1.6	2.5	11
Signal Center	Budget Analyst	1	27.5		
	Chief of Training	1	0.7		
	Chief, Training Development	1	10.3		
	Commandant	1	2.2		
	MTT NCOIC	1	1.8		
	Senior Small Group Leader	1	2.8	2	8
Transportation Center	BNCOC MTT NCOIC	1	0.3	5	2
	Instructor	1	1.7	4	5
	Small Group Leader	1	1.1	3	1
	Senior Small Group Leader	2	1.3	4.5	6

Unit-level Leaders. The third group of participants consisted of 11 company-level commanders and senior NCOs who provided comments about BNCOC graduates under their command. The duty positions of these leaders are shown in Table 3 and demographic features are shown in Table 4.

Table 3

Duty Positions of Unit Leadership who Commented on BNCOC Graduates

Duty Position	Location	
	Ft. Bragg (n)	Ft. Hood (n)
Acting First Sergeant	0	1
Commander	1	1
First Sergeant	1	1
Operations NCO	1	0
Platoon Sergeant	3	2
Total	6	5

Table 4

Demographic Features of Leadership who Commented on BNCOC Graduates

Feature	N	Minimum	Maximum	Mean
Age (yrs)	11	28.0	44.0	35.3
Total time in service (yrs)	11	5.3	20.0	13.7
Time in current duty position (yrs)	11	0.2	2.5	1.4
Number of MTT course graduates supervised	11	0.0	14.0	4.0
Number of resident course graduates supervised	10	0.0	7.0	2.4

Materials and Procedures

Focus Groups. Questions for the BNCOC graduate focus groups consisted of key questions that guided the flow of the group discussion. Key questions were defined as questions that would initiate an open-ended discussion of features of the MTT and resident course from a student's perspective. Three SMEs individually proposed and then reached consensus on five key questions that focused on (a) instructors, (b) what was learned in the course, (c) curriculum content, (d) distractions, and (e) recommended improvements. The five questions are listed in Appendix A. Based on facilitation training described below, the focus group facilitator posed additional questions to the focus group participants on specific details of issues, observations, or opinions within each of the five question areas based on the developing discussion.

The same process was carried out to develop the key focus group questions for the unit commanders and noncommissioned officers who provided comments on BNCOC graduates. Individual questions were developed to ask the respondents to compare MTT and resident-trained NCOs with respect to (a) training outcomes, (b) training deficiencies, (c) overall course advantages and disadvantages, and (d) mission effectiveness of graduates. The key questions are listed in Appendix A. The focus group process emphasized the development of detailed observations based on the more general key questions.

Two primary facilitators and one alternate were designated to conduct focus groups. All facilitators were retired, senior noncommissioned officers who had broad experience in training development and training management. In addition, they had been students in MTT classes and have served as MTT instructors. The three facilitators read selections from the book *Focus Groups: A Practical Guide for Applied Research* by Krueger and Casey (2000). The facilitators then engaged in a guided discussion led by the principal investigator to highlight critical features of the focus group methodology, arrive at a common understanding of focus group techniques, and determine the specific approach for recording and collecting data. A strategy for asking the key questions of each target group, and using backup and drill-down questions as necessary, was also developed during these discussions.

The project coordinator contacted the supporting Army field organizations at Ft. Hood, TX and Ft. Bragg, NC, and (a) communicated with these organizations the required MOSs, positions or roles that defined the target audience groups to be interviewed, (b) specified that two hours should be allocated for each focus group, (c) requested that a suitable room with a conference table and chairs be reserved in a quiet, uninterrupted environment for the interviews, and (d) confirmed a date, time, and location for each interview. The analysis coordinator requested that the sponsoring organization communicate to each selected interviewee the purpose of the interview and the time and place for the interview.

Separate focus groups were conducted with (a) mixed groups of resident and MTT-trained BNCOC graduates and (b) field commanders and senior noncommissioned officers who provided comments on BNCOC graduates. A focus group was conducted for each MOS separately at each location. However, individual interviews were conducted with one MOS 25U NCO and one MOS 92A NCO at Ft. Hood because of the limited availability of personnel in these two MOSs. The number of NCOs in each MOS-specific focus group is shown in Table 1. Six unit leaders at Ft. Bragg and five at Ft. Hood participated in the unit leader focus groups.

The focus group session began with an introduction by the facilitators, a description of the analysis project, and an explanation of why the participants were selected for the focus group. Informed consent to participate in the analysis project was obtained via a signed consent form. The demographic survey was then distributed to each participant. BNCOC graduates completed the survey in Appendix B. This survey included 22 questions that asked for evaluations of the BNCOC Phase 2 course the respondent had completed. This portion of the survey consisted of 5-point Likert scale items. Unit commanders and noncommissioned officers who provided comments on BNCOC graduates completed the demographic survey in Appendix C.

The interviewer began the session with opening questions and then proceeded to the key questions appropriate for that target audience. At the completion of the key questions, the facilitator asked if the focus group members had any other information that they wished to share that was not covered in the session. The interviewer then closed out the focus group and thanked the participants for their cooperation.

Structured Interviews. Questions for structured interviews with NCOA command and staff personnel were developed through a brainstorming process involving three SMEs. Each expert was asked to develop questions to explore details of (a) best practices for developing and

delivering MTT training, (b) NCO performance gaps due to MTT training, and (c) MTT effectiveness. Question development considered the various target audiences at the proponent schools so that questions addressing their specific areas of responsibility or expertise were included. The question lists from the three subject matter experts were then consolidated by the senior SME into a single list. The consolidated list was reviewed by the other two SMEs and a final list developed by consensus. The final list is shown in Appendix D.

Structured interviews were conducted with training managers, curriculum developers, and instructors at each of the proponent sites. The senior SME conducted the interview sessions which began with an introduction, a description of the analysis project background and goal, and an explanation of why the interviewees were selected for the interview. Informed consent to participate in the analysis project was obtained via a signed consent form. The interviewee was then asked to complete a demographic survey. Appendix E provides the demographic survey for the NCOA command and staff personnel.

The interviewer proceeded with the sequence of questions shown on the interview form (Appendix D). The interviewer read the question as printed and made notes of the respondent answers. The interviewer asked for details and limited the scope of the respondent's answers as necessary, and otherwise ensured that relevant information was obtained at a sufficient level of detail and specificity. All interviews were recorded.

At the completion of the fixed set of questions, the interviewer asked if the respondent had any other information to share that was not covered in the interview. The interviewer closed the interview and thanked the respondent.

Course Cost Information. The MTT efficiency measures were derived from a combination of actual and projected costs for each MOS Phase 2 course. Actual MTT course costs were provided for MOS 25U. Estimated MTT course costs were provided by the respective NCOAs for MOS 11B/C and 25U. TRADOC Resource Management (G-8) Manpower and Force Analysis Directorate Force Development Division (M.D. Rathmann, personal communication, August 26, 2008) provided projected cost data for MOS 63B and 92A/F/Y BNCOC MTTs and for all the resident BNCOCs. From these data, average number of students per class, average cost per class, and average cost per student were computed for each resident and MTT course.

An additional analysis, outlined below, was completed to determine the minimum number of students required for the MTT to be cost effective. These data computations assume the student who attends the resident course is lodged on the installation at \$12 a day, and not in a hotel off the installation at a higher per diem cost.

First, total resident course costs per course, including total temporary duty (TDY) costs and airfare, were divided by the total number of students trained to determine the average cost per student. This average cost per student was then divided by the number of TDY days to find the average resident course cost per day.

Second, total MTT costs per course were calculated from the number of supporting instructors and proponent school personnel (small group leaders, senior instructors, and other per-

sonnel such as the Commandant, Assistant Branch Chief, or Coordinator/NCOIC) plus associated costs including airfare, TDY, rental car, printing, and shipping. This total was divided by the number of day of TDY required to conduct each MTT course to determine the cost per day per instructor.

Finally, a simple algorithm was developed to compare the total cost of a resident course (by using total student count as a variable multiplied by the number of resident days and then this result multiplied by the average cost per day) with the MTT course (by using the number of instructors multiplied by the number of MTT days and then this result multiplied by the average MTT cost per day). Each comparison was initially based on the same amount of students. Since the resident course cost changes as a function of the number of students in the resident course, for each MTT, the number of students was systematically varied to find the threshold at which the number of students for the MTT would provide a cost advantage.

Results

The results from the survey of BNCOC graduates are presented first. The focus group and structured interview results are presented next, followed by the course cost analyses. The areas identified as training issues with respect to the MTT mode of delivery from the interviews are highlighted.

BNCOC Graduate Survey Results

All BNCOC graduates completed the survey (Appendix B). The responses from one respondent who did not comply with the survey instructions were eliminated. The count of responses of each question using a 5-point Likert scale, cross-tabulated by MOS and mode of Phase 2 training (resident course or MTT), is shown in Appendix F. A summary of the responses for the MTT graduates is shown in Table 5. For this summary, for each question, the two values on the agree side of the scale were combined, the two values on the disagree side combined, and the neutral value left unchanged. The entries in the table indicate which questions achieved at least a 67% agreement for the MTT-trained respondents by MOS. Blanks indicate questions with less than 67% agreement.

Table 5
Summary of MTT Graduates Survey Responses

Survey Item	MOS						
	11B	11C	25U	63B	92A	92F	92Y
Items with 67% or more respondents in agreement with a positive statement							
1. The course met my expectations with respect to knowledge I gained	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. The course met my expectations with respect to skills I gained	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>
3. I was sent to the course at the right point in my career	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>
4. The instructors were knowledgeable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. The instructors were well organized		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. The right books and resource materials were available		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
7. I had enough time to study		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
8. I had a quiet place to study	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
9. I had the opportunity to learn from others through class discussions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. The skills I learned were applicable back in the unit	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. The knowledge I gained was applicable back in the unit	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. I took the phases of the course in the right order			<input type="checkbox"/>				<input type="checkbox"/>
13. I had adequate hands-on training when necessary in the course	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
14. The classroom space was adequate	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
16. All topics were covered thoroughly in the course							
17. Computer support was adequate		<input type="checkbox"/>		<input type="checkbox"/>			<input type="checkbox"/>
18. The morale of the students taking the course with me was high	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. Everybody who took the course with me was qualified to be there	<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>
22. The course helped me to become a better NCO	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Items with 67% or more respondents in agreement with a negative statement							
15. Some topics that I expected to be taught in the course were missing		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	
20. The Army needs to improve the course	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
21. The course seemed rushed to complete all the topics covered		<input type="checkbox"/>					

Note: = Meets criterion Blank = Does not meet criterion

Eleven of the questions showed a high level of agreement concurrence across the seven MOS groups. That is, at least five of the MOS groups were shown to have at least 67% of their respondents agreeing with the survey items. These results indicate a high level of satisfaction with the knowledge and organization of the instructors (Items 4 and 5), adequacy of the conditions for study (Items 7 and 8), supportive classroom environment involving other students (Items 9 and 18), adequacy of the classroom space (Item 14), acceptability of hands-on training resources (Item 13), and applicability of coursework to on-the-job performance (Items 10, 11 and 22).

Ten questions evidenced mixed reviews on the adequacy of the MTTs. These questions were identified as those with four or fewer MOS groups in agreement with positive statements or four or more MOS groups in agreement with negative statements. Expectations of knowledge (Item 1) and skill (Item 2) achievement for the 11C, 25U, 63B, and 92A MOS groups were not fully met. This may have been due to the perception that topics were not adequately covered in the course (Item 16) or missing entirely (Item 15). Classroom computer resources (Item 17) emerged as an area of dissatisfaction for the 11B, 25U, 92A, and 92F MOS groups. Three MOS groups (25U, 63B, and 92F) reported that they were not sent to the Phase 2 course at the right point in their career whereas most groups reported that they were sent to the Phase 2 course without having completed Phase 1. The qualification of classmates selected to attend the MTT course (Item 19) was an issue for the 25U, 63B, and 92A MOS groups. The general suggestion to improve the MTT course (Item 20) was shared by the MOS 11B, 11C, 25U and 63B NCOs.

MTT Best Practices: Focus Group and Structured Interview Results

Data sheets with individual responses to each question asked during the structured interviews were reviewed for completeness. The written comments were augmented with reviews of the digital recordings of the meetings. Field notes from the focus group interviews were likewise reviewed and checked for completeness and augmented by reviews of the digital recordings.

Comments were assigned to categories within each of the elements of analysis by the senior SME (a retired command sergeant major) and reviewed by two SMEs independently. Disputed categorization was resolved by consensus. Comments were then reviewed to discern (a) consensus, (b) unique positions, and (c) mixed views on practices and issues within each category. In Figure 1, the six question categories used for the analysis of the first element of analysis—MTT best practices—are shown. The number of questions ranged from 3 to 14 within the categories.

The practices, plans, and issues related to MTTs were summarized across the proponent schools responsible for the MOSs included in this project, together with the consistencies and contradictions in practices, to arrive at current best practices for each category. As shown in Figure 1, the six proponent sub-analysis categories provided some of the input to the current best practices. In addition, the focus group summaries from the field and the BNCOC graduate questionnaire results were added to the MTT current best practices. In the following we provide an analysis of current MTT best practices for each sub-analysis category.

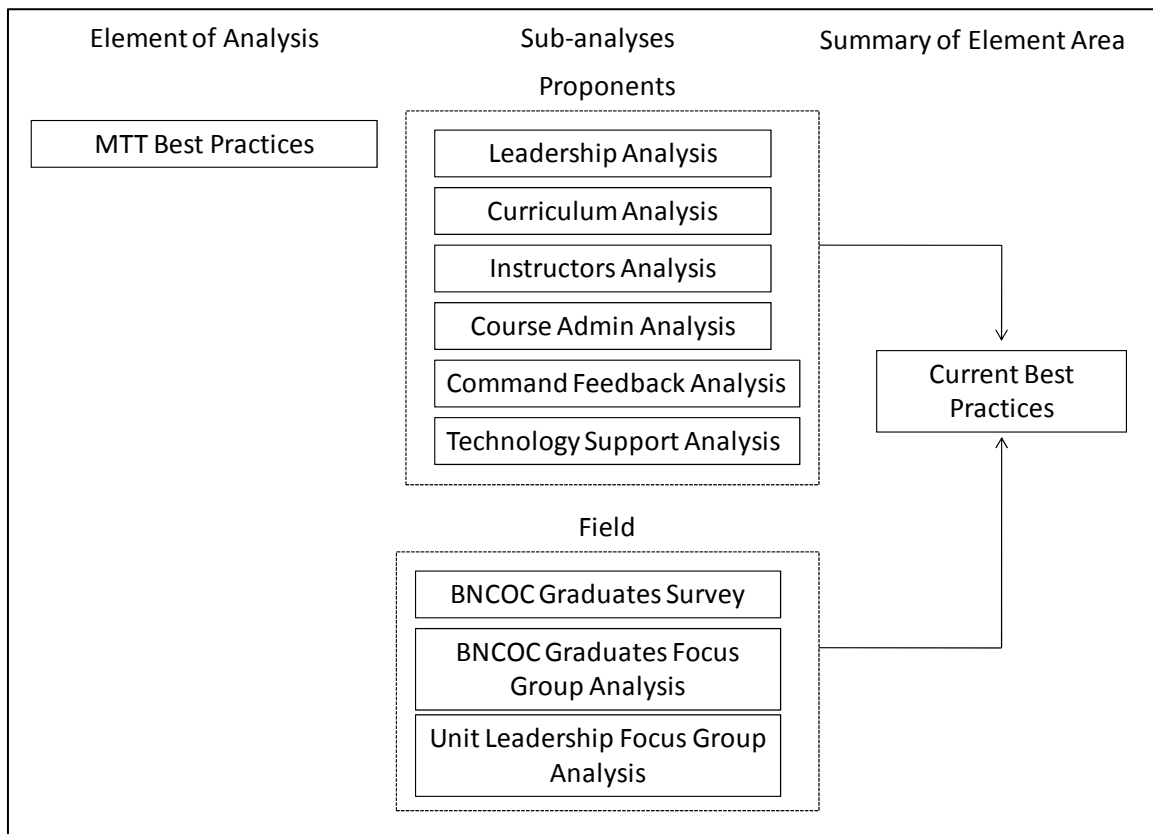


Figure 1. Analysis approach for MTT current best practices interview responses.

Leadership Analysis: The Commandant is ultimately responsible for the training of the MTT team. Each of the proponents had a different response as to who is actually responsible for training: the Senior Small Group Leader (SSGL), the course manager, the chief of training, the MTT NCOIC, or a CW5 (63B).

Across the majority of the proponent schools, coordination prior to and during an MTT was the responsibility of the MTT NCOIC/MTT Coordinator. The position of MTT NCOIC/MTT Coordinator is assigned as an additional duty. One of the proponent schools' MTT NCOIC is also the S-3 NCOIC. This individual had not been able to perform his job as the S-3 NCOIC to standard because of the time consumed with MTT coordination requirements. One of the recommendations was to hire a civilian whose responsibility would be to coordinate the MTTs and be the continuity at the proponent school for MTT coordination.

All but one of the proponent schools employ the practice of having the Commandant accompany the MTT at start up or visit the MTT as the course is being conducted. Two of the schools always have an MTT NCOIC on the ground; this helped facilitate any support issues that existed. The participation of the Commandant in the MTT seems to have a direct influence on the MTT's success.

Curriculum Analysis. The majority of the proponent schools agreed with the practice of having an MTT section that focuses only on MTT coordination and execution. This would relieve the burden on instructors of having to focus on teaching and coordinating two separate courses of instruction as currently exists.

All critical tasks for a particular Phase 2 course, as determined by the proponent school, are taught. Some of the Phase 2 MTT courses are exactly the same as a resident phase courses, while others have been modified and shortened because of the units' wartime experience. MTT POIs (programs of instruction) have been modified because NCOs had performed some of the Phase 2 tasks successfully for over a year in combat. The commandant approves all MTT POIs.

There were multiple improvements reported on curriculum contents and course delivery methods used during MTTs across all the proponent schools. Reported changes included adding a zero day for in-processing and counseling of students, and changing the old "stand behind the podium and teach" method to roaming around the classroom which improved perceived instructor effectiveness. Specific changes included increasing the length of the sanitation class to facilitate certification for the students, and implementing Infantry Mortar Leaders Course (IMLC) certification into the 11C MTT since the IMLC course content is almost identical to that of the MTT.

The BNCOC graduate focus groups had varying opinions on the curriculum. The majority felt that the POIs needed to be updated to reflect current equipment used and current operations in the war on terrorism. They also felt that the training was at too low a skill level, since many of the students had already been in positions that required them to perform the tasks that they were just now being taught. On the MTT courses that were shorter in length than the resident phase, former students felt the MTT course should be extended to the same length of time as the resident course.

The leader focus group opinions were in line with the thoughts of the BNCOC graduates: the MTT courses should be extended and include the same POI contents as the resident course. Many leaders felt it was a "check the block course," in that students left the course without an understanding of the Army training management system (FM 7-0, *Training the Force* and FM 7-1, *Battle Focused Training*). A recommendation by one of the leaders in the focus groups was to revamp the POIs in the resident course by looking at current operations, tactics, and equipment, and then making the MTT course exactly the same as the resident course.

Instructor Analysis. Selection criteria for MTT instructors are the same across all proponent schools. Certification as instructors is the same for both resident and MTT instructors. The MTT instructor must be fully certified and have successful experience teaching the resident course first. Additionally, MTT instructors must be highly motivated with good critiques from the students in the resident course, look good in uniform, operate with minimal supervision, have heavy and light operations experience, and be very flexible in adapting to changes.

At present, all the MTT instructors are dual-hatted, teaching both the resident course and MTT courses. This causes problems in proponent schools whose instructor fill is below 80%. In

some cases, instructors are finishing a resident class in the morning and boarding a plane in the afternoon to the MTT location leaving them little preparation time for their MTT classes.

The only additional training required for MTT instructors appears to be administrative in nature: government credit card use and understanding the Defense Travel System (DTS) travel system. The exception to this finding is the technical instructors for the 63B course who have an Army Physical Fitness Test (APFT) train up session to assist in administering the physical training test.

Each proponent school stated it needed additional instructors for MTTs. One proponent school has hired civilian contractors to teach the resident course to free up NCOs to man the MTTs, and another takes civilian instructors from the IMLC course to teach the 11C MTT. One proponent school reported its use of a temporary Training Requirement Arbitration Panel (TRAP) for MTT instructors. Temporary TRAP is a process used to capture the number of students attending a specific course. These numbers are used by each NCOA to determine the number of instructors needed to train the student load. The temporary TRAP also is a factor in budgeting for training costs.

The school using the temporary TRAP reported that by the time the instructors were available, they were not able to be trained and certified as instructors, or to get the experience needed as instructors before the MTT occurred. Three of the proponent schools reported no knowledge of a temporary TRAP for MTT instructors. All schools would like to see the resident and MTT instructor TRAPs combined to keep the instructor fill percentages, so that they could accommodate both resident and MTT courses.

The student focus groups all agreed that the instructors were very knowledgeable, professional, and knew the MTT course material well.

Course Administration Analysis. All proponent schools have improved course delivery to include adding classes on new equipment, developing relevant hip pocket training to use when there are equipment shortages for student hands-on training, modifying the original resident course test to make it more challenging, removing the boring slideshows and adding interactive videos to keep the students' attention, and adding a zero day for student in-processing.

The MTT receives an Army Training Requirements and Resources System (ATTRS) attendance roster that is anywhere from 40% to 90% correct with the average being about 80% correct. Considerable time and energy is expended by both the MTT coordinator and the instructors on the ground to try to get the attendance roster straight. This requirement was so time consuming that one proponent school now requires the supported brigade to provide an attendance roster (Order of Merit List, OML) 30 days out, and again at 15 days out. This forces the supported brigade to identify all of the NCOs that need to attend the BNCOC MTT. If the numbers are lower than originally estimated, this allows the Commandant to contact the U.S. Army Forces Command (FORSCOM) for assistance in filling the class with eligible NCOs from other units. All proponent schools allow walk-ons (i.e., last minute enrollments) if seats are available.

Each proponent school reported a minimum and a maximum number of students they would train for both the resident and MTT course, but they would train any number of students that showed up that did not exceed the maximum. The instructor- to-student ratio varied at each proponent school but the numbers varied minimally from the resident course to the MTT within each proponent school.

All proponent schools reported that they were resourced with enough instructors to be able to run a resident course and an MTT course simultaneously. All but one proponent school said they would have a problem running a second simultaneous MTT with a resident course ongoing. A shortage of instructors was the reason for this problem. The one proponent school that reported it would not have this problem has a current instructor fill of 115%.

All proponent schools do allow NCOs to attend a BNCOC Phase 2 before attending Phase 1. They were in agreement that a NCO attending Phase 2 before Phase 1 was not at a disadvantage. This was due to the fact that the Phase 1 course is all common core tasks and the Phase 2 is technical in nature, specific to the MOS. There are no linked sequential training requirements between Phase 1 and Phase 2.

Command Feedback Analysis. All academies used end-of-course critiques and after action reviews (AARs) to review and implement lessons learned from MTTs. All proponent schools receive feedback during and at the end of the course from the unit's chain of command on the effectiveness of the MTT. However, this feedback is sporadic in that the MTT will note comments made by the supported unit's leadership, but no formal feedback system is in place that requires unit feedback. One proponent school recommended formal feedback by automatically generating e-mail surveys to the NCO's leaders to provide data on the effectiveness of the course.

Technology Support Analysis. Three of the four proponent schools support the use of laptop computers by instructors and students for conducting the MTT. One proponent school has problems with its laptops because the Directorate of Information Management (DOIM) wipes all of the hard drives clean upon return from the MTT causing the instructors to have to reload all of the course content again. Another proponent school has solved this problem by taking external hard drives with the course materials loaded on them and attaching them to the unit's laptop computers.

Interviews revealed that video teleconferencing would only be effective if augmented by small group leaders (SGL) on the ground, and should never be used with hands-on training. Only one proponent school is using computer-based modules to supplement the course material; two other proponent schools would like to use this technique.

None of the proponent schools have enough computers on hand to conduct two MTTs simultaneously. Only one school has computers on hand and another has external hard drives that its instructors take to the MTT site. Three of the four schools rely on the installation or unit to provide computers for classes. A recommendation from one of the proponent schools was to have a Computer Learning Lab established at each installation so that the MTTs could use this resource to support its classes.

NCO performance gaps due to MTT training

Figure 2 shows the analysis approach for the NCO performance gaps due to MTT element of analysis. This follows the same strategy as MTT best practices to organize the review of the interview and survey results to yield recommended future best practices.

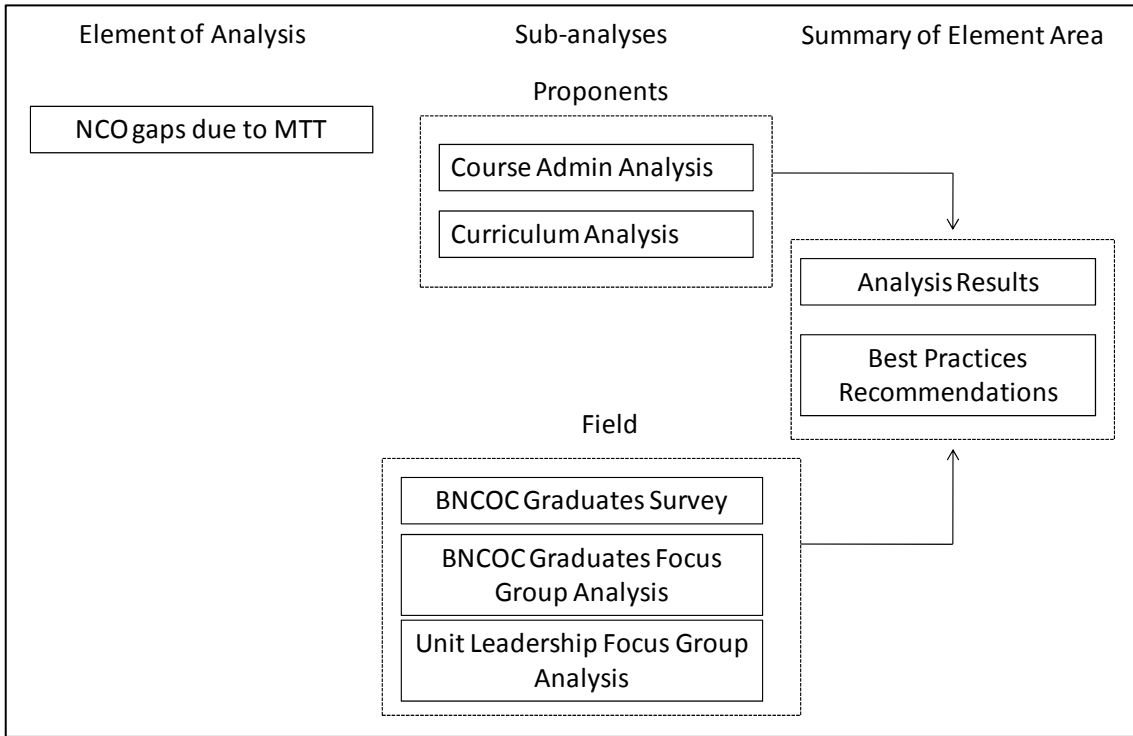


Figure 2. Analysis approach for NCO gaps due to MTT interview and survey responses.

Course Administration Analysis. There was a consistent theme throughout the proponent schools that indicated operational equipment shortages is a problem. This problem was noted by the schools; BNCOC graduates generally did not report hands-on training as a problem. Not having the right type and proper amount of equipment on hand adversely affected the ability of the students to perform hands-on training.

Another thread was issues with classrooms ranging from their being not large enough to having to move from one classroom to another in the middle of a training day because another MTT had reserved it for the afternoon. The student focus groups echoed the proponent schools' comments on equipment shortages, lack of classroom support, and the effect of these factors on their training.

The proponent schools felt that these two issues could be avoided if there was more command influence on the part of the supported units with respect to the course. This problem is related to the selection of the unit liaison officers (LNO), who may be an NCO newly assigned to the unit or clearing the unit for permanent change of station.

Each proponent school had a different timeline for the steps it takes to coordinate support from an installation for the MTT. A common thread seems to be that an in-progress review (IPR) is conducted about two months out followed by continuing telephonic interface/IPRs. Close to the scheduled time for the MTT course, the instructors show up on the ground one week early to confirm equipment, classroom, and training area availability.

All proponent schools reported that MTT students have a better attitude, are more focused and ready to learn, and are more motivated than resident course students. These features may be a result of the NCOs knowing or working with one another for the previous 16 months in combat.

Each proponent school had comments on training objectives that were enhanced by using MTTs. One proponent school reported that its MTT teams received all three types of mortar ammunition to fire during the course in contrast to the resident course which had only one type of ammunition allocated. Another proponent uses laptops in the training process for students in contrast to the resident course which still uses paper manuals. Another proponent reported the equipment at the MTT site was better and newer than that used at the resident course.

All proponent schools said that all training objectives were met for their MTTs. All stated they have a built-in re-training time on evenings and weekends. This is an indicator that the proponent schools are maintaining the course standards, even if it takes time away from the NCO and his family. Family time is one of the benefits of MTTs which may be impacted by the requirement to maintain training standards.

The leader focus group recommended that unit commanders familiarize themselves with the MTT POI courseware to better prepare future students for attendance. This would also help the leaders to assist students with any academic questions while the course was ongoing. The unit leaders also made the comment that they were available to the MTT cadre to assist with students concerning additional training or disciplinary problems.

Curriculum Analysis. With the exception of the Infantry NCOA (11B MTT), all proponent schools had to modify or remove non-critical tasks from the resident course POI to create the MTT POI. This was done to shorten the length of the course and to remove the tasks NCOs had already performed in a combat environment.

All tasks and training objectives in the MTT POI are taught to standard, contingent on the availability of equipment. MTT POIs can be modified easily to accommodate command directed training, but in most cases, it is not recommended by the proponent school. NCOs are required to have both heavy and light unit equipment training during BNCOC Phase 2 for future assignments. The exception was for MTTs conducted at Fort Bragg, a light unit installation, where there is no heavy equipment available for training purposes.

No standards exist currently to guide development of an MTT curriculum. Each NCOA determines and approves its own critical tasks and course content. All MTT courses are developed using the baseline resident course and critical tasks are analyzed for possible inclusion in

the MTT. Additionally, the operational experience of the units that receive the MTT training is factored into the final MTT POI. This process needs to be formalized, so the MTT is relevant with ongoing combat operations.

The student focus groups stated that there were classes in both the resident course and the MTT that were outdated and needed to be updated. The leader focus groups echoed the students' concerns. A recommendation from one of the leaders was to reevaluate the resident course POI to make changes to include new equipment, tactics, and current operations; adjust the course length; and then make the resident POI identical to the MTT POI.

MTT Effectiveness

Figure 3 shows the analysis approach for the MTT effectiveness element of analysis. This follows the same strategy as used for earlier analyses to organize the review of the interview and survey results to yield recommended future best practices.

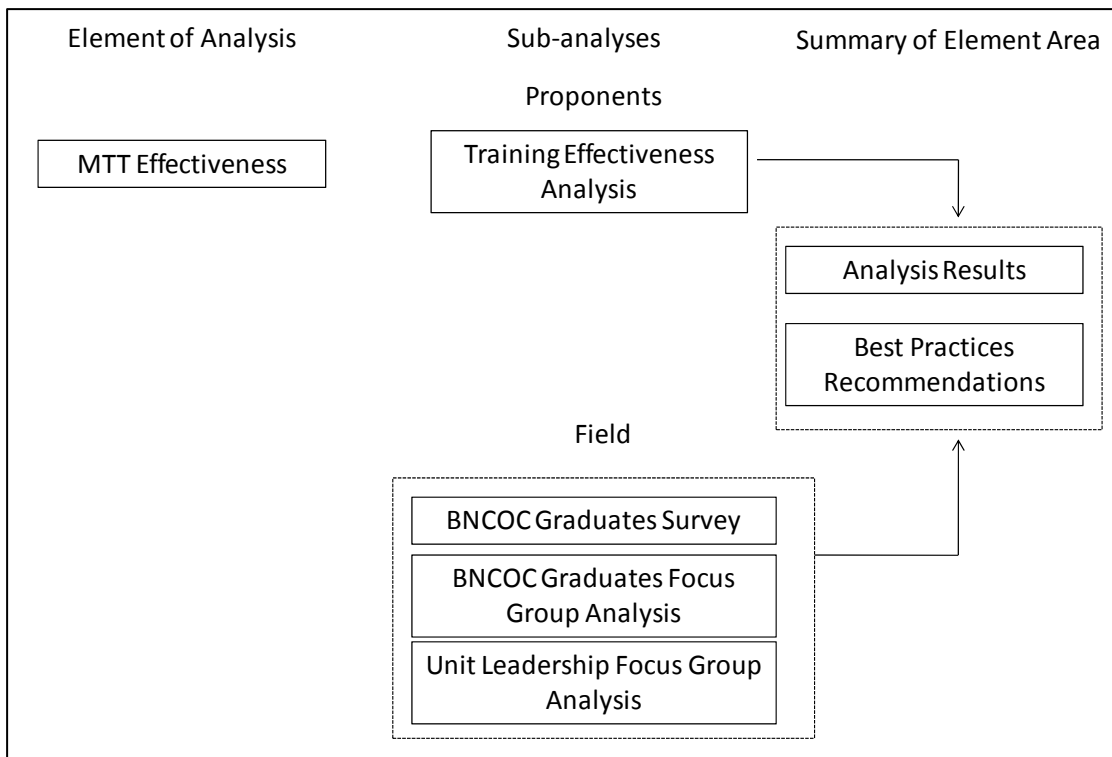


Figure 3. Analysis approach for MTT effectiveness interview and survey responses.

Training Effectiveness. Most of the proponent schools reported that NCOs trained through an MTT are as effective as NCOs trained at the resident course. This is the schools' opinion of effectiveness, and they may be biased in their opinion. The only school that disagreed also reported the highest rate of unit-provided equipment shortfalls.

Some of the unit advantages of supporting MTT courses are: (a) the NCO gets to stay at home with his family, (b) cost savings, (c) the training time is usually shorter, thus getting the NCO back to the unit faster, and (d) more sergeants get trained since staff sergeants are usually trained through the resident course.

Some of the disadvantages of MTT instruction are: (a) no Army-wide peer-to-peer interaction since MTT students are all from the same brigade, (b) chain of command or family interference, (c) not enough NCOs to fill the class to maximum capacity because only one brigade is notified of the scheduled MTT, and (d) the inability of units to provide adequate equipment support.

Proponent schools consistently emphasized that the MTT is just as effective as the resident course (depending on equipment availability). Some proponent schools reported that the end of course results were higher than the comparable resident course while others reported end of course results were lower. Even within proponent schools, staff answers were mixed on grade point averages (GPAs). Some said they were higher, some said they were lower, and some said they were the same (no evidence was available). There were interesting comments from two of the proponent schools with respect to GPAs. One said the GPAs were higher because the MTT students used computers with manuals loaded on them, making them easier to reference. The resident course still uses paper manuals, making referencing more time consuming. The other proponent school said the higher GPAs were attributed to the lower student-to-instructor ratio.

The proponent schools reported that the students were just as satisfied with MTT training as resident course students. In their view, the reduced timeframe of an MTT did not seem to affect the retention or understanding of information given in the classes.

The proponent schools stated that no studies had been conducted to evaluate the effectiveness of MTTs. There are no formal processes for determining the units' perception of MTT training effectiveness or whether the unit was able to notice significant differences between MTT and resident course graduates. One proponent school recommended formalizing the unit feedback process by e-mails generated to the students' leadership asking for judgments on MTT training effectiveness.

The student focus groups had mixed feelings on the effectiveness of the MTT: some thought it was a waste of time, and others thought it was as good as the resident course. The leader focus groups thought that the resident course student received better training, because the MTT was not as long or as in-depth as the resident course.

MTT Efficiency

Table 6 shows the resident and MTT costs for the Phase 2 courses provided to the seven MOS groups included in the analysis. Resident cost includes temporary duty (TDY, lodging and per diem) and airfare. MTT costs include TDY (lodging and per diem), travel, rental car, and printing and shipping of course materials. Number of students shown is the average class size for the eight month period studied, and costs are the average for the same period. The cost savings for the MTT version of the course is shown in the right-hand column of Table 6. MTT savings ranged from 7% to 73% with three courses yielding savings above 50%. Table 7 shows that four MTT courses achieve cost savings over resident courses with 15 or fewer students. The Infantryman BNCOC requires 50 students as a minimum to be cost effective relative to the comparable resident course.

Table 6
Cost Comparisons between Resident and MTT BNCOC Courses (Averages)

Course Number	Course Title	Number of Students in Resident Class	Cost Per Student per Resident Class*	Total Cost of Resident Course	Total MTT Cost with Same # of Students as Resident Course**	Cost Per Student Per MTT Class	Savings for MTT Compared to Resident Course
010-11B30/11C	Infantryman BNCOC	60	\$ 1,395.21	\$ 83,712.85	\$ 68,032.89	\$ 1,133.88	\$ 15,679.96
101-25U30	Signal Support Systems Specialist BNCOC	40	\$ 1,422.69	\$ 56,907.76	\$ 19,941.09	\$ 498.53	\$ 36,966.67
610-63B30	Wheeled Vehicle Mechanic BNCOC	30	\$ 1,596.88	\$ 47,906.29	\$ 44,722.89	\$ 1,490.76	\$ 3,183.40
551-92A30	Automated Logistical Specialist	20	\$ 1,495.32	\$ 29,906.49	\$ 8,719.92	\$ 436.00	\$ 21,186.57
821-92F30	Petroleum Supply Specialist BNCOC	20	\$ 1,631.00	\$ 32,619.98	\$ 8,719.92	\$ 436.00	\$ 23,900.06
551-92Y30	Unit Supply Specialist BNCOC	20	\$ 1,504.30	\$ 30,086.03	\$ 19,779.46	\$ 988.97	\$ 10,306.57

* Resident Cost includes: TDY (Lodging and Per Diem) and Airfare. ** MTT Cost includes: TDY (lodging and per diem), travel, rental car, printing and shipping).
 Note: Printing and shipping based on actual costs from receipts. Resident courses based on 2008 ARFORGEN Model.

Table 7
Minimum Number of Students Where Cost Advantage is MTT

Course Number	Title	Minimum Student Class Size for MTT Advantage
010-11B30/11C	Infantryman BNCOC	50
101-25U30	Signal Support Systems Specialist BNCOC	13
610-63B30	Wheeled Vehicle Mechanic BNCOC	28
551-92A30	Automated Logistical Specialist	6
821-92F30	Petroleum Supply Specialist BNCOC	5
551-92Y30	Unit Supply Specialist BNCOC	14

Discussion

A set of three critical best practices issues emerged from the structured interviews, focus groups, and survey results. These are discussed in the next section. The discussion then continues with a description of current best practices and proposed future best practices. The cost savings that results from MTT courses surveyed are discussed in the section on MTT efficiency. The discussion concludes with a proposed checklist that should be of value to proponent schools in managing the pre-execution phase of MTT course delivery.

Best Practices Analysis

The top three critical management and training issues that need to be addressed are the coordination between the MTT and the supported unit, availability of training resources at the supported unit, and alignment of the resident course and the MTT course.

Coordination. The coordination between the MTT proponent and the supported unit is the most important issue that needs to be addressed, since this has the most impact on the success of the MTT. The MTT coordinator at the proponent school is experienced in the coordination and execution of MTTs. However, the LNO at the supported unit is usually conducting this coordination for the first time. The inexperience of the LNO sometimes causes inconsistencies in meeting classroom and training area requirements, and providing training resources.

An associated item is managing the class fill. Classes are being short filled routinely. This problem seems to be multifaceted. The proponent schools reported that the ATTRS roster is, on average, approximately 80% correct ranging from a high of 90% to a low of 40%. One proponent school has tried to fix this problem by requiring an OML at 30 days before class start date, and again at 15 days. This serves as a forcing function for the supported brigade to provide the names of NCOs who will actually attend the course. If with the 15-day OML the class is still short-filled, the Commandant contacts the FORSCOM G-3 SGM for assistance in filling the class to its maximum capacity. The proponent schools understand that a particular brigade is in an AR-FORGEN cycle and has priority for the MTT course. There have been multiple incidents where instructors have run into a Soldier, whom they knew from a past unit, who is leaving to attend the resident course at the same time they were providing an MTT class at that NCO's home station.

A second associated item is the timing of the MTT in reference to the ARFORGEN cycle. There have been multiple cases of NCOs who were on the ATTRS roster who did not show up for class, because they were in a PCS status and were in the process of clearing the installation. This situation could be attributed to the supported unit not understanding the deferment process for school attendance.

Resources. The second issue is the availability of training resources at the supported unit. Lack of adequate resources can be caused by an inexperienced LNO, a unit's equipment set that has not returned from the combat zone, or a unit's leadership that does not understand the importance of having all of the requested equipment on hand for training (i.e., providing only part of an equipment required list). These limitations in equipment available for training can cause skill

gaps and performance deficiencies that are contrary to the goals of the noncommissioned officer education system. In general, NCOs who do not receive the proper hands-on training and evaluation during the MTT are not as technically proficient as their peers who attended the resident course where the equipment is available for training.

Availability and suitability of equipment is, in some cases, a major factor in the successful presentation of an MTT course. If there is a shortage of equipment, NCOs do not receive the hands-on training required to meet the course standards. One academy is using relevant hip pocket training to try to keep the students busy while they wait their turn to perform hands-on tasks on the equipment that is available. Another option that the schools are using is to recover students back to the classroom and show slides or video clips of how they would have performed the tasks on the equipment, or should have performed the tasks. In all cases reported in the interviews, the instructors try to locate and borrow as much of the equipment as possible using their networking contacts on the installation. In some cases, MTT instructors have asked the students to find and bring to class some of the missing equipment.

TRADOC can address the above coordination and resource issues by instituting a policy that would assure MTT acceptance and support by the FORSCOM Commander through a memorandum of agreement. This agreement would standardize a MTT planning and execution timeline, emphasize LNO selection criteria, and provide equipment requirements that the units would have to follow. Additionally, the agreement would emphasize the importance that the MTTs have in the education of the noncommissioned officers. The policy would be used as a reference for all parties involved and serve as a forcing function for FORSCOM unit Commanders to insure they have provided all the necessary training equipment and set the conditions for the MTT to be successful.

Course Alignment. The third issue is the alignment of the resident and MTT course. From interviews with the proponent school staffs, and focus group interviews with students and leaders, it was learned that some MTT courses were not as complete as resident courses and seemed to be shortchanging the students because they were rushed to complete the material in the allotted time. This finding is only for MTT courses that had been reduced in length by 50% or more, and is not applicable to the courses that are close to the same duration and content as their resident course counterparts. There were also reports that the MTT course was out of date because it did not include the equipment that was then currently being used in combat zones. This can be resolved by the proponent schools' reevaluating their resident course POIs to ensure that they are up to date and relevant to today's combat environment and include current equipment training. The revised course could then be shortened or lengthened as required with the resident course and the counterpart MTT version delivering identical content.

Identification of Current and Future Best Practices

The current best practices list is based on analysis of information taken from the proponent school structured interviews and individual conversations with each of the school Commandants. These interviews specifically asked questions to elicit current best practices related to a number of course development, delivery, and management issues.

Likewise, the proposed future best practices list is based on analysis of information provided by these same sources together with comments from BNCOC graduates and their unit leaders. In the overall analysis of these data, the senior SME first identified common threads of problems, and then used his prior thirty five year military career experience to develop proposed future best practices. These problem areas and future best practices then were independently reviewed by two other SMEs for concurrence that the problems had been satisfactorily represented and the proposed future best practices were sound. The senior SME then prepared the final list of future best practices.

Table 8 lists the key current best practices based on the field interviews and survey data. Table 9 lists the key future best practices for MTT development and delivery based on the same sources.

Table 8

Current Best Practices

Current Best Practices
<ul style="list-style-type: none"> • Commandant sends a detailed MTT Memorandum of Agreement to the Division Commander and Division Command Sergeant Major for signature. • Order of merit lists (OML) are required to be sent to the proponent school 30 days and again at 15 days before class start date (a forcing function). If the 15 day OML does not fill the class, the Commandant contacts FORSCOM for assistance in filling the class from other units on post. • An instructor arrives at the MTT site one week in advance to accept the required paperwork from the students, to further identify short fills in the class, and to check on the unit-provided equipment, classrooms, training areas, and ranges. • Relevant hip pocket training is planned and used when there is an equipment shortage for hands-on training at the MTT's location.

Table 9
Proposed Future Best Practices

Best Practices	Rationale
<ul style="list-style-type: none"> • A detailed list of all costs incurred during MTTs is tracked by the proponent schools. 	<ul style="list-style-type: none"> • Currently a proponent school is spending money out of their fixed budget to purchase equipment such as additional cell phones and air-cards that are required for the MTT.
<ul style="list-style-type: none"> • Delivery of the BNCOC Phase 1 distance learning (DL) course must be accelerated. 	<ul style="list-style-type: none"> • NCOs who have completed Phase 2 thru MTT sometimes still have to wait a year or more before being able to complete Phase 1. The students lack closure that they have fully completed BNCOC until they complete Phase 1.
<ul style="list-style-type: none"> • Adopt a system that informs all NCOs on post that need a Phase 2 BNCOC course of planned MTT courses . 	<ul style="list-style-type: none"> • Ensures the MTT class can be filled at maximum capacity. At present, usually only the supported brigade knows that the class is occurring with the result that most classes are short filled.
<ul style="list-style-type: none"> • Designate an installation MTT coordinator. 	<ul style="list-style-type: none"> • The installation MTT coordinator has to have administrative authority. The coordinator must be able to de-conflict multiple MTTs for the supported unit. (The battalion LNO can be unaware there are multiple MTTs for the same brigade occurring simultaneously, so training resources, such as classrooms, are often in contention. No one de-conflicts at higher headquarters).
<ul style="list-style-type: none"> • TRAP the MTT students to justify increasing the number of instructors at the Proponent school. 	<ul style="list-style-type: none"> • One proponent school has 62% of its authorized instructors. If the number of students taught per year is captured, both resident and MTT, it would support increasing the number of instructors at the proponent school, giving the school the ability to teach both MTT and resident courses simultaneously.
<ul style="list-style-type: none"> • Institute a policy at TRADOC and a Memorandum of Understanding between TRADOC and FORSCOM that lays out a complete checklist (Meetings, IPRs, recons, OML turn in/verification, equipment on hand verification, classroom lists, training areas, transportation, ammunition confirmed, etc.) and an equipment annex for each proponent school. 	<ul style="list-style-type: none"> • If this policy is followed exactly, the MTT will be successful
<ul style="list-style-type: none"> • Provide every student, in advance, a CD (or accessible website) with all of the course material. 	<ul style="list-style-type: none"> • Allows the NCO to prepare for the course
<ul style="list-style-type: none"> • For courses such as 63B Phase 2, provide a transportable set of training equipment, such as a semi -trailer with all of the equipment needed, (engine stand, transmission, x-coded Humvee, air-conditioning equipment) that can be driven or shipped to the MTT site. 	<ul style="list-style-type: none"> • Solve the problem of unavailability or unsuitability of equipment on site to support the MTT course
<ul style="list-style-type: none"> • Use the Reserve Component Regional Maintenance Training sites. 	<ul style="list-style-type: none"> • This is an untapped resource that could assist in some of the instructor and equipment shortages.

Table 9
Proposed Future Best Practices (continued)

Best Practices	Rationale
<ul style="list-style-type: none"> Each post train and certify all students on Standard Army Maintenance System-Enhanced (SAMS-E) prior to the MTT. 	<ul style="list-style-type: none"> Currently the MTTs cover SAMS-E in 1-2 days, but each post has the capability to train and certify NCOs on SAMS-E. If SAMS-E training is supplied by the post, the MTTs can provide up to two more days to train additional tasks.
<ul style="list-style-type: none"> Establish a permanent MTT coordinator at each Proponent school. 	<ul style="list-style-type: none"> Put the position on the school's TDA. A civilian GS position is first choice to provide continuity; a contractor position would be second choice.
<ul style="list-style-type: none"> Use WLC/ANCOC instructors from other posts to fill the MTT instructor requirements as required 	<ul style="list-style-type: none"> This resourcing would make it possible to train more NCOs.
<ul style="list-style-type: none"> For each installation hosting MTTs that has a resource learning center, use the center's computer lab 	<ul style="list-style-type: none"> Reduce costs of maintaining and shipping computers for the MTT.
<ul style="list-style-type: none"> Hire more civilian instructors to augment the resident course. 	<ul style="list-style-type: none"> Releases military instructors to provide more MTTs.
<ul style="list-style-type: none"> Authorize more personnel to help in the course development/POI updating arena. 	<ul style="list-style-type: none"> Ensure courses are up to date and relevant.
<ul style="list-style-type: none"> Realistically coordinate timing of the MTT with the unit ARFORGEN cycle. 	<ul style="list-style-type: none"> MTTs are being offered as eligible NCOs are being processed for permanent change of station.
<ul style="list-style-type: none"> Ensure resident and MTT courses are relevant for the current operations and in the future. 	<ul style="list-style-type: none"> Relook all the resident course POIs, shorten or lengthen the course as necessary, then teach the exact same POI during MTTs.

MTT Efficiency

Using FY08 data, an analysis of the costs for MTT-delivered training compared to residential training counterparts showed consistent savings for the Phase 2 MTT courses. The savings were modest for the Wheeled Vehicle Mechanic MTT BNCOC course (7%) and substantial for the Signal Support Systems Specialist MTT BNCOC (65%), Automated Logistical Specialist (71%), and the Petroleum Supply Specialist MTT BNCOC (73%) courses. Other courses showed intermediate levels of savings. These savings were based on a combination of actual and projected costs incurred to train students, and, as such, should be considered as estimates.

An additional analysis was performed for each MTT to determine the minimum number of students required to make the MTT more cost effective than the resident version. In developing this analysis, a breakpoint was computed showing the minimum number of students required to effect a cost savings by training NCOs with an MTT version of the Phase 2 course. Four of the seven courses surveyed showed that with 14 students or in one case 5 students, the MTT was a significant source of training budget savings. Other courses needed a minimum of 28 or 50 students to show MTT savings over the resident course. Again, these results are based on a combination of actual and projected costs and should be considered as estimates.

This analysis is limited by the small number of MOSs included and by the lack of actual cost data. MTT course cost can be expected to increase if training equipment and computer resources are allocated to overcome some of the deficits identified in this report. An implicit assumption is that the MTT-delivered course is as effective with respect to training outcomes as its comparable resident course. Until improvements are made in determining the training effectiveness of the MTT-delivered courses, a more thorough cost-benefit analysis cannot be conducted. Therefore, the conclusion of a cost savings for the MTT-delivered courses is a provisional finding but is very suggestive of a benefit for MTT courses now being conducted.

MTT Checklist

A MTT Checklist with Timeline was created to assist the proponent schools in managing pre-execution course administration. The current system of preparation for the MTT is to use best recollections, notes, and a few typed critical task lists referencing what the MTT coordinator had done the last time. The need for a checklist was apparent because only one proponent school had any type of detailed written checklist; the other proponent schools were executing a similar sequence of events, but nothing was detailed in writing. All the proponent schools that did not have a detailed written checklist reported that they were working on one. The checklist provided in Figure 4 is a combination of the Ft. Benning NCOA checklist with additional items inserted from notes taken during proponent school interviews.

Conclusions

As a response to current Army commitments in various theaters of operations, TRADOC schools have brought NCOES training to NCOs in their units through MTTs. This analysis of MTT Phase 2 BNCOC training revealed students are generally satisfied with the training, but they would benefit from improved alignment of MTT and resident course curricula, improved availability of training equipment, better computer support where appropriate, and improved scheduling and planning practices. While the proponent schools perceive that MTT students are better motivated than their resident course counterparts and comparably trained, empirical evidence for the training effectiveness of the MTT-delivered courses has not yet been developed. With improved evidence of training effectiveness, a cost-benefit analysis could be conducted to establish the cost savings of the MTT courses. However, current course cost data is suggestive of a range of cost savings for MTT courses. TRADOC can improve the management, planning, and delivery of Phase 2 MTT courses through continuation of its current best practices and establishment of MTT policies that would promote proposed future best practices.

60-90 DAYS OUT

- Provide supported unit with a training requirements/equipment/resource annex, in correct order format
- Check post lodging for availability during MTT and obtain phone number
- If post lodging is not available, ask for recommended off- post hotel/motel
- Set dates for initial site survey
- Establish POC's with phone numbers and e-mail addresses
- Lock in exact dates of the course

30 DAYS OUT

- Complete cost estimate using DTS
- Initial IPR/site recon (with LNO)
- Request class OML from supported unit
- E-mail cost estimate to host unit with NCOA S4 contact info (phone number and e-mail)
- Contact unit LNO to confirm all resources are locked in
- Draft training schedule with dates
- Notify SGL's assigned to the MTT
- Start DTS (orders/travel)
- Check which SGL's have GOVCC, and who needs them. Determine who is enrolled in DTS
- Coordinate for tests both in both hard copy and electronic, also scan cards and stamp
- Check to see if any equipment needs to be shipped
- Coordinate transportation to airport

2 WEEKS OUT

- Turn in test control memo
- Request a second OML from supported unit (if class is short filled contact FORSCOM for assistance in filling class to max capacity)
- Turn in training schedules to 1SG/CSM
- Produce TCO memo for SSGL's
- Prep equipment that needs to be shipped
- Make CD's with specific MTT course information
- Contact post lodging for statements on non availability, if staying off post

1 WEEK OUT

- Double check transportation
- Ship equipment as need
- Print DTS orders
- Check with S-1 to have GOVCC turned on and increase limits as needed
- Make copies of signed training schedule's
- Final meeting with all SGL/SSGL
- One instructor departs to MTT location to confirm training resources and to collect pre-requisites packets from the students/unit.

Figure 4. Proponent school MTT Check List with Timeline.

References

- US Army Research Institute. (11 December 2007). Memorandum for record. Subject: Execution of FY2008 best practices for using mobile training teams (MTTs) to deliver NCO education courses. Ft. Benning, GA: Army Research Institute - Fort Benning Research Unit.
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- Krueger, R., & Casey, M. A. (2000). *Focus groups: A practical guide for applied research*. (3rd ed). Newbury Park, CA: Sage.
- U.S. Army Training and Doctrine Command (2007). Study and Analysis Request for ARI research-based personnel and training study or analysis. Subject: Evaluating the best practices for using Mobile Training Teams to deliver NCO Education courses. Ft. Monroe, VA: Headquarters, U. S. Army Training and Doctrine Command.

Appendix A

Key Questions Used During Focus Groups

BNCOC Graduates Focus Group Key Questions

1. What can you tell us about the instructors?
2. What can you tell us about what you learned in the course?
3. What was lacking in the course? What should be deleted from the course?
4. What were the distractions that you experienced while taking the course?
5. What does the Army need to do to improve the course?

Unit Leadership Focus Group Key Questions

1. Which group of soldiers do you feel were better trained, the Resident course or MTT course? Why?
2. What training deficiencies, if any, do you see with a resident course student when they return to the unit?
3. What training deficiencies, if any, do you see with a soldier who attends an MTT course?
4. What advantages, if any, are there for a soldier to attend an MTT course versus a resident course?
5. What disadvantages, if any, are there for a soldier to attend an MTT course versus a resident course?
6. Does the soldier who attends an MTT course seem more in tune with the unit's missions and how they translate from what he learned in the classroom than a soldier who attends a resident course? Why?
7. Is the soldier who attends an MTT course better able to see connections between course content and the unit's missions than the soldier who attends the resident course? Why?
8. What benefits as leaders do you receive by sending a soldier to an MTT course versus a resident course?
9. Are there any other areas of concern that might be mitigated by sending soldiers to an MTT course versus a resident course?

Appendix B

Survey for Basic Noncommissioned Officer Course Graduates

NCOES Mobile Training Teams Study Survey for BNCOC Resident and MTT Trained Participants

Instructions

The Training and Doctrine Command (TRADOC) has asked the Army Research Institute and Dynamics Research Corporation to examine training practices associated with mobile training teams (MTTs) that deliver NCOES courses. The results of this research will provide a foundation upon which TRADOC can make decisions about guidelines and policies regarding MTT course development and execution.

The purpose of this survey is to collect background information in order to describe the participants in this study. Some of the background statements ask you to write in information. Please print clearly.

We will also ask you to rate a series of statements about your BNCOC experience. This part of the survey contains statements for which there are no “right” or “wrong” answers. We are simply asking for your honest opinion about each statement. Please read each statement carefully. Be thoughtful and truthful with your answers.

This survey should take approximately 10 minutes to complete. Completion of this survey is voluntary. You are not required to complete this survey. If you do not wish to answer any particular question or statement, leave the answer space blank.

IMPORTANT

The information you provide in this survey is confidential and will be used for research purposes only. Your answers will not be attributed to you personally.

Please go on to the next page

Background Information

1. Unit: _____
2. Current duty position: _____
3. MOS: _____
4. Time in current duty position: Years _____ Months _____
5. Military rank: _____
6. Time in current rank: Years _____ Months _____
7. Total time on active duty: Years _____ Months _____
8. Age: _____
9. Gender: Male _____ Female _____
10. How did you take BNCOC?

	Resident course – Phase 1	<input type="checkbox"/>
<i>(check all that apply)</i>	Resident course – Phase 2	<input type="checkbox"/>
	Mobile training team (MTT) – Phase 1	<input type="checkbox"/>
	Mobile training team (MTT) – Phase 2	<input type="checkbox"/>
	I am currently taking BNCOC locally from an MTT*	<input type="checkbox"/>
	I have not completed BNCOC PH II*	<input type="checkbox"/>

* If you are currently taking or have not completed BNCOC, please notify the group facilitator

11. At which Army post, facility, or location did you take BNCOC (either resident or MTT)?

Phase 1 _____

Phase 2 _____

12. When did you graduate from BNCOC?

Phase 1: Year _____ Month _____

Phase 2: Year _____ Month _____

Please go on to the next page.

The following statements ask you to rate your experience as a BNCOC student. If you have taken both phases of BNCOC, use your most recent phase in BNCOC when considering these statements.

There are no right or wrong answers. Please rate each feature of your BNCOC course by putting a ✓ or X in the appropriate column. If a question does not apply to you, place a mark in the Does Not Apply column. If you change your answer, completely cross out the response you are changing and clearly mark your new response.

Question	Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree	Does Not Apply
1. The course met my expectations with respect to knowledge I gained						
2. The course met my expectations with respect to skills I gained						
3. I was sent to the course at the right point in my career						
4. The instructors were knowledgeable						
5. The instructors were well organized						
6. The right books and resource materials were available						
7. I had enough time to study						
8. I had a quiet place to study						
9. I had the opportunity to learn from others through class discussions						
10. The skills I learned were applicable back in the unit						
11. The knowledge I gained was applicable back in the unit						
12. I took the phases of the course in the wrong order						
13. I had adequate hands-on training when necessary in the course						
14. The classroom space was adequate						
15. Some topics that I expected to be taught in the course were missing						
16. All topics were covered thoroughly in the course						
17. Computer support was adequate						
18. The morale of the students taking the course with me was high						
19. Everybody who took the course with me was qualified to be there						
20. The Army needs to improve the course						
21. The course seemed rushed to complete all the topics covered						
22. The course helped me to become a better NCO						

THANK YOU FOR YOUR PARTICIPATION

Appendix C

Demographic Survey for Unit Commanders and Noncommissioned Officers Who Supervise BNCOC Graduates

NCOES Mobile Training Teams Study Survey for Leaders of Resident and MTT Trained Noncommissioned Officer

Instructions

The Training and Doctrine Command (TRADOC) has asked the Army Research Institute and Dynamics Research Corporation to examine training practices associated with mobile training teams (MTTs) that deliver NCOES courses. The results of this research will provide a foundation upon which TRADOC can make decisions about guidelines and policies regarding MTT course development and execution.

The purpose of this survey is to collect background information in order to describe the participants in this study. Some of the background statements ask you to write in information. Please print clearly.

This survey should take approximately 5 minutes to complete. Completion of this survey is voluntary. You are not required to complete this survey. If you do not wish to answer any particular question or statement, leave the answer space blank.

IMPORTANT

The information you provide in this survey is confidential and will be used for research purposes only. Your answers will not be attributed to you personally.

Please go on to the next page

Background Information

1. Unit: _____
2. Current duty position: _____
3. MOS/Branch: _____
4. Time in current duty position: Years _____ Months _____
5. Military rank: _____
6. Time in current rank: Years _____ Months _____
7. Total time on active duty: Years _____ Months _____
8. Age: _____
9. Gender: Male _____ Female _____
10. How many Soldiers that you supervise have attended a BNCOC (Phase II) MTT course? _____.
11. How many Soldiers that you supervise have attended a BNCOC (Phase II) Resident course? _____.

THANK YOU FOR YOUR PARTICIPATION

Appendix D

Questions Used for Structured Interviews with Proponent School Personnel

Proponent School Structured Interview Questions

The study element of analysis that the question addresses is shown in the parenthesis at the end of the question.

Leadership

- L1. What level of leadership is responsible for the training of an MTT? (MTT Best Practices)
- L2. Who is in charge of the coordination prior to and during an MTT? (MTT Best Practices)
- L3. What level of leadership accompanies an MTT? (MTT Best Practices)

Instructors

- I1. What are the selection criteria for MTT instructors? (MTT Best Practices). Are the selection criteria different for MTT and resident course instructors? (MTT Best Practices)
- I2. What additional selection criteria are needed to effectively select quality instructors for MTTs? (MTT Best Practices)
- I3. Are resident and MTT instructor certifications the same? (MTT Best Practices)
- I4. What additional training is given to instructors prior to an MTT to prepare them to conduct an MTT? (MTT Best Practices)
- I5. MTT's require personnel in addition to the residential cadre? (MTT Best Practices)

Feedback from Commands

- F1. How does your Academy collect, review and implement lessons learned from MTTs? (MTT Best Practices)
- F2. Do you receive feedback from unit leaders on the effectiveness of the MTT course? (MTT Best Practices)

Curriculum Development and Contents

- C1. Would an MTT “division” better facilitate management and delivery of an MTT POI? (MTT Best Practices)
- C2. Are the required courses taught in the resident course, but not taught in the MTT course, trained at the soldiers unit? If so, how is this verified and tracked? (MTT Best Practices)

- C3. Who determines the MTT POI? (MTT Best Practices).
- C4. What curriculum contents and course delivery methods have you improved on since starting the MTTs? (MTT Best Practices).
- C5. How is the course curriculum for an MTT different from the resident course curriculum? (NCO Gaps Due to MTT)
- C6. What tasks in your POI are not taught to standard during an MTT? Why? (NCO Gaps Due to MTT)
- C7. What training objectives are not met because of the reduced training time or reduced resources for an MTT? (NCO Gaps Due to MTT)
- C8. Can an MTT POI be modified easily to accommodate command-directed training? (NCO Gaps Due to MTT)
- C9. Are MTT POIs modified based on FORSCOM unit Commanders suggestions or the Academy Commandant? (NCO Gaps Due to MTT)
- C10. Are MTT courses developed from resident courses? If Yes, how is this done? If No, what process is used to develop the MTTs?

Technology Support of Training

- T1. Are you using computers or distance learning technologies to support MTT courses? (MTT Best Practices)
- T2. Would teleconferencing be an effective alternative to MTTs? (MTT Best Practices)
- T3. Would computer-based modules be an effective tool to supplement the lesson material? (MTT Best Practices)
- T4. Do you have sufficient computers/software to conduct multiple MTTs simultaneously? (MTT Best Practices)
- T5. What technology innovations have you used or are considering to deliver MTT training? (MTT Best Practices)

Course Administration

- A1. What course delivery processes have you improved on since starting the MTTs? (MTT Best Practices).
- A2. Does an MTT know how many soldiers by name will be attending their course prior to departure? (MTT Best Practices)

- A3. Do MTT's allow walk-on students as does the resident course (if slots are available)? (MTT Best Practices)
- A4. What is the minimum number of students required before you will send an MTT? What is the minimum number of students required for the comparable resident course? (MTT Best Practices)
- A5. What is the instructor student ratio for an MTT? What is the instructor-student ratio for the comparable resident course? (MTT Best Practices)
- A6. Do you have problems running a resident phase and MTT course at the same time? Would an increase in MTT courses affect the resident phase instruction? (MTT Best Practices).
- A7. Do you allow students to take the phase II MTT course before taking phase I?. Why? (MTT Best Practices)
- A8. Are soldiers who do not complete phase I before phase II at a disadvantage while in phase II? (MTT Best Practices)
- A9. Are there any MTT support issues that consistently fall short of expectations? (NCO Gaps Due to MTT)
- A10. What steps are taken at the school to coordinate for MTT support from an installation? (NCO Gaps Due to MTT).
- A11. Do instructors feel the students attending the MTT course have the same attitude as students attending the resident course? (NCO Gaps Due to MTT)
- A12. What is the typical timeline for delivering an MTT course? (From notification that you are providing an MTT to completion of all paperwork upon return to your home station). (MTT Best Practices)
- A13. What training objectives are enhanced by using MTT's? (NCO Gaps Due to MTT)
- A14. How are any un-met MTT training objectives subsequently trained? (NCO Gaps Due to MTT)

Training Effectiveness

- E1. Compared to the resident course, are soldiers trained through an MTT as effective after course completion? (MTT Effectiveness)
- E2. In your opinion, what are the pro's of MTTs? What are the cons? (MTT Effectiveness)

- E3. What concerns do you have about soldiers being trained through MTTs instead of resident courses? (MTT Effectiveness)
- E4. Do you think MTTs are just as effective at training the required curriculum as the resident course is? (MTT Effectiveness)
- E5. What differences have you noticed from the End Of Course results? (MTT Effectiveness)
- E6. Are students as satisfied with their MTT training as resident course students? (MTT Effectiveness)
- E7. Does the reduced time frame of an MTT have an effect on the retention and /or understanding of information given in the classes? If so, how do you know this? (MTT Effectiveness)
- E8. What studies or surveys have already been conducted to evaluate the effectiveness of MTTs? (MTT Effectiveness)
- E9. Do units perceive that MTT training is effective? (MTT Effectiveness)
- E10. Do units perceive significant differences between MTT and residential course graduates? (MTT Effectiveness)

Course Costs

- CC1. What is the cost per student for the resident and MTT versions of a course? (phase II only) (travel, per diem, equipment shipping (MTT), additional unit costs such as transportation, ammunition, photo copying, etc.) (MTT Efficiency)
- CC2. Do hosting units/installations fund the TDY for the MTTs? (personnel, equipment, and per diem) (MTT Efficiency)
- CC3. Who tracks the cost of the MTT course? The Resident course? (MTT Efficiency)
- CC4. What are the actual resource requirements of residential training and of MTT training?(equipment, personnel, expendables, training support (transportation, sanitation, ammunition, OPFOR personnel, classrooms, Class 1,etc.) (MTT Efficiency)
- CC5. How do you express the cost of residential and MTT training? (per class, per individual) (MTT Efficiency)
- CC6. How do you express the cost of residential and MTT training? (per class, per individual) (MTT Efficiency)

Appendix E

Demographic Survey for Noncommissioned Officer Academy Personnel

NCOES Mobile Training Teams Study Background Information Survey for Structured Interview Participants

Instructions

The Training and Doctrine Command (TRADOC) has asked the Army Research Institute to examine training practices associated with mobile training teams (MTTs) that deliver NCOES courses. The results of this research will provide a foundation upon which TRADOC can make decisions about guidelines and policies regarding MTT course development and execution.

The purpose of this survey is to collect demographic information and ask a series of questions about your professional experience in order to describe the participants in this study. This survey should take approximately 5 minutes to complete.

You are not required to complete this survey. If you do not wish to answer any particular question or statement, leave the answer space blank.

THANK YOU FOR YOUR PARTICIPATION

IMPORTANT

The information you provide in this survey is confidential and will be used for research purposes only. Your answers will not be attributed to you personally.

Please go on to the next page

Demographic Information

1. Center or School: _____

2. Organization within Center or School: _____

3. Current Position/Job Title: _____

4. Time in current position: Years _____ Months _____

5. Status:

Military	<input type="checkbox"/>
DA Civilian	<input type="checkbox"/>
Contractor	<input type="checkbox"/>

6. Military Rank: _____ 7. Civilian GS Level _____

8. Contractor Job Title and Employer: _____

9. BNCOC Responsibilities (other than instructor): _____

10. Have you ever been a BNCOC mobile training team (MTT) instructor? Yes No
(If Yes, go on to Question 11. If No, go on to Question 15)

11. Dates served as an MTT instructor: From _____ To: _____
Month Year Month Year

12. How many MTT classes have you taught? _____

13. In what locations have you taught MTT courses? _____

14. What is the range of class sizes that you have taught? Smallest _____ Largest _____

15. Have you been a BNCOC resident course instructor? Yes No *(If Yes, go on the Question 16)*

16. Dates served as an resident instructor: From _____ To: _____
Month Year Month Year

17. How many resident classes have you taught? _____

Thank you.

Appendix F

BNCOC Graduate Survey Responses

1. The course met my expectations with respect to knowledge I gained

		Strongly Agree	Agree	Neither Agree or Disagree	Disagree	No Response	Row Total
11B	MTT		5				5
11C	Resident		1	2			3
	MTT	1	2	1	2		6
25U	Resident		2				2
	MTT				2		2
63B	Resident		1		2	1	4
	MTT	1	2		1		4
92A	Resident	1					1
	MTT	1	1				2
92F	MTT		6				6
92Y	Resident	1	2				3
	MTT	2	3	2			7
Scale Total		7	25	5	7	1	45

Cell entries are counts of responses

2. The course met my expectations with respect to the skills I gained

		Strongly Agree	Agree	Neither Agree or Disagree	Disagree	No Response	Row Total
11B	MTT		4	1			5
11C	Resident		1	2			3
	MTT	2		2	1	1	6
25U	Resident		1	1			2
	MTT			1	1		2
63B	Resident			1	2	1	4
	MTT	1	1	1	1		4
92A	Resident	1					1
	MTT	1		1			2
92F	MTT		6				6
92Y	Resident	1	2				3
	MTT	1	4	2			7
Scale Total		7	19	12	5	2	45

Cell entries are counts of responses

3. I was sent to the course at the right point in my career

		Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree	No Response	Row Total
11B	MTT		4	1				5
11C	Resident		2	1				3
	MTT	2	2	1	1			6
25U	Resident			1	1			2
	MTT	1		1				2
63B	Resident		2	1			1	4
	MTT	1		1	1	1		4
92A	Resident	1						1
	MTT	1	1					2
92F	MTT		2	1	3			6
92Y	Resident	1	1			1		3
	MTT	1	4	1		1		7
Scale Total		8	18	9	6	3	1	45

Cell entries are counts of responses

4. The instructors were knowledgeable

		Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Row Total
11B	MTT		4		1	5
11C	Resident	1	2			3
	MTT	2	2		2	6
25U	Resident		2			2
	MTT	1	1			2
63B	Resident	1	2	1		4
	MTT	1	3			4
92A	Resident		1			1
	MTT	2				2
92F	MTT	2	4			6
92Y	Resident	1	2			3
	MTT	2	4	1		7
Scale Total		13	27	2	3	45

Cell entries are counts of responses

5. The instructors were well organized

		Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Row Total
11B	MTT		2	1	2	5
11C	Resident	1	2			3
	MTT	2	3	1		6
25U	Resident		2			2
	MTT		1	1		2
63B	Resident	1	3			4
	MTT	1	2	1		4
92A	Resident		1			1
	MTT	1	1			2
92F	MTT	2	4			6
92Y	Resident	1	2			3
	MTT	2	3	1	1	7
Scale Total		11	26	5	3	45

Cell entries are counts of responses

6. The right books and resource materials were available

		Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree	Row Total
11B	MTT		3	1		1	5
11C	Resident	1	1		1		3
	MTT	2	2	1	1		6
25U	Resident		2				2
	MTT				1	1	2
63B	Resident	1	3				4
	MTT	1	2		1		4
92A	Resident		1				1
	MTT	1		1			2
92F	MTT	2	4				6
92Y	Resident		2	1			3
	MTT	2	5				7
Scale Total		10	25	4	4	2	45

Cell entries are counts of responses

7. I had enough time to study

		Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Row Total
11B	MTT		3	1	1	5
11C	Resident	1	1	1		3
	MTT	2	4			6
25U	Resident		2			2
	MTT		2			2
63B	Resident	1	2	1		4
	MTT	1	2	1		4
92A	Resident	1				1
	MTT	1		1		2
92F	MTT	1	5			6
92Y	Resident	1	2			3
	MTT	2	5			7
Scale Total		11	28	5	1	45

Cell entries are counts of responses

8. I had a quiet place to study

		Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Does not Apply	No Response	Row Total
11B	MTT	1	3		1			5
11C	Resident	1	1		1			3
	MTT	2	3				1	6
25U	Resident		2					2
	MTT		2					2
63B	Resident	1	1	1			1	4
	MTT	1	2			1		4
92A	Resident	1						1
	MTT	1		1				2
92F	MTT	1	5					6
92Y	Resident	1	1	1				3
	MTT	2	4			1		7
Scale Total		12	24	3	2	2	2	45

Cell entries are counts of responses

9. I had the opportunity to learn from others through class discussions

		Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Row Total
11B	MTT	1	4			5
11C	Resident		3			3
	MTT	3	3			6
25U	Resident	1	1			2
	MTT	1	1			2
63B	Resident	1	3			4
	MTT	1	3			4
92A	Resident	1				1
	MTT	1	1			2
92F	MTT	1	4	1		6
92Y	Resident	1	1		1	3
	MTT	2	4	1		7
Scale Total		14	28	2	1	45

Cell entries are counts of responses

10. The skills I learned were applicable back in the unit

		Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree	Row Total
11B	MTT	1	3	1			5
11C	Resident	1	1	1			3
	MTT		4	2			6
25U	Resident			2			2
	MTT			1		1	2
63B	Resident		1	2	1		4
	MTT	1	3				4
92A	Resident		1				1
	MTT		2				2
92F	MTT	1	5				6
92Y	Resident	1	1	1			3
	MTT	1	4	2			7
Scale Total		6	25	12	1	1	45

Cell entries are counts of responses

11. The knowledge I gained was applicable back in the unit

		Strongly Agree	Agree	Neither Agree or Disagree	Disagree	No Response	Row Total
11B	MTT	1	4				5
11C	Resident	1	1	1			3
	MTT		5	1			6
25U	Resident			2			2
	MTT			1	1		2
63B	Resident		1	2	1		4
	MTT	1	3				4
92A	Resident		1				1
	MTT		1			1	2
92F	MTT	1	5				6
92Y	Resident	1	1	1			3
	MTT	1	4	2			7
Scale Total		6	26	10	2	1	45

Cell entries are counts of responses

12. I took the phases of the course in the right order

		Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree	Does not Apply	Row Total
11B	MTT		3	1	1			5
11C	Resident	1	2					3
	MTT		3	1	2			6
25U	Resident	1	1					2
	MTT		2					2
63B	Resident		3			1		4
	MTT	1	1	2				4
92A	Resident		1					1
	MTT				2			2
92F	MTT		3	1	1		1	6
92Y	Resident	1	2					3
	MTT	1	4		2			7
Scale Total		5	25	5	8	1	1	45

Cell entries are counts of responses

13. I had adequate hands-on training when necessary in the course

		Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree	Does not Apply	Row Total
11B	MTT		4	1				5
11C	Resident	1	2					3
	MTT		4	1	1			6
25U	Resident	1			1			2
	MTT		1			1		2
63B	Resident		1	3				4
	MTT		3	1				4
92A	Resident	1						1
	MTT		1		1			2
92F	MTT		5		1			6
92Y	Resident	1	2					3
	MTT	2	4				1	7
Scale Total		6	27	6	4	1	1	45

Cell entries are counts of responses

14. The classroom space was adequate

		Strongly Agree	Agree	Disagree	Strongly Disagree	Row Total
11B	MTT	1	3	1		5
11C	Resident	1	2			3
	MTT	1	4	1		6
25U	Resident	1	1			2
	MTT		1	1		2
63B	Resident		4			4
	MTT	1	2		1	4
92A	Resident		1			1
	MTT		2			2
92F	MTT		2	2	2	6
92Y	Resident	1	1	1		3
	MTT	2	5			7
Scale Total		8	28	6	3	45

Cell entries are counts of responses

15. Some topics that I expected to be taught in the course were missing

		Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree	Row Total
11B	MTT		3	2			5
11C	Resident			2		1	3
	MTT		4		2		6
25U	Resident	1			1		2
	MTT		2				2
63B	Resident	1	3				4
	MTT		3		1		4
92A	Resident				1		1
	MTT		1		1		2
92F	MTT		4	1	1		6
92Y	Resident		2	1			3
	MTT	1	1	1	4		7
Scale Total		3	23	7	11	1	45

Cell entries are counts of responses

16. All topics were covered thoroughly in the course

		Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Does not Apply	Row Total
11B	MTT		2	1	2		5
11C	Resident		1	2			3
	MTT	1	2	2		1	6
25U	Resident		1		1		2
	MTT		1	1			2
63B	Resident		2	1	1		4
	MTT		2		2		4
92A	Resident		1				1
	MTT		1		1		2
92F	MTT	1	2	1	2		6
92Y	Resident	1		2			3
	MTT	2	2	2	1		7
Scale Total		5	17	12	10	1	45

Cell entries are counts of responses

17. Computer support was adequate

		Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree	Row Total
11B	MTT		1	2	2		5
11C	Resident		1	1		1	3
	MTT	1	5				6
25U	Resident	1	1				2
	MTT		1	1			2
63B	Resident	1	1	2			4
	MTT		3			1	4
92A	Resident		1				1
	MTT			1	1		2
92F	MTT			1	3	2	6
92Y	Resident	1	1	1			3
	MTT	3	3	1			7
Scale Total		7	18	10	6	4	45

Cell entries are counts of responses

18. The morale of the students taking the course with me was high

		Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Row Total
11B	MTT		4	1		5
11C	Resident	2	1			3
	MTT	1	5			6
25U	Resident	2				2
	MTT	1	1			2
63B	Resident		2	2		4
	MTT	1	3			4
92A	Resident	1				1
	MTT	1	1			2
92F	MTT	1	3	1	1	6
92Y	Resident	1	1	1		3
	MTT	3	3	1		7
Scale Total		14	24	6	1	45

Cell entries are counts of responses

19. Everybody who took the course with me was qualified to be there

		Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree	Row Total
11B	MTT		5				5
11C	Resident	1	1	1			3
	MTT	1	5				6
25U	Resident	2					2
	MTT		1			1	2
63B	Resident		2		2		4
	MTT		2	1		1	4
92A	Resident		1				1
	MTT		1		1		2
92F	MTT	1	4		1		6
92Y	Resident	1	2				3
	MTT	2	5				7
Scale Total		8	29	2	4	2	45

Cell entries are counts of responses

20. The Army needs to improve the course

		Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Row Total
11B	MTT		4	1		5
11C	Resident	1		2		3
	MTT	1	4	1		6
25U	Resident		1	1		2
	MTT	1	1			2
63B	Resident	2	2			4
	MTT		3	1		4
92A	Resident			1		1
	MTT	1		1		2
92F	MTT	1	2	3		6
92Y	Resident	1	1	1		3
	MTT	1	2	2	2	7
Scale Total		9	20	14	2	45

Cell entries are counts of responses

21. The course seemed rushed to complete all the topics covered

		Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree	Row Total
11B	MTT	1	2		2		5
11C	Resident			2	1		3
	MTT	3	1		2		6
25U	Resident				1	1	2
	MTT	1		1			2
63B	Resident		2	1	1		4
	MTT		2		2		4
92A	Resident				1		1
	MTT		1	1			2
92F	MTT		3	1	2		6
92Y	Resident			1	2		3
	MTT	1	2	1	3		7
Scale Total		6	13	8	17	1	45

Cell entries are counts of responses

22. The course helped me to become a better NCO

		Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Row Total
11B	MTT	1	3	1		5
11C	Resident			3		3
	MTT	1	3	1	1	6
25U	Resident			2		2
	MTT			1	1	2
63B	Resident		3	1		4
	MTT	1	2	1		4
92A	Resident		1			1
	MTT		2			2
92F	MTT		4	2		6
92Y	Resident	1	1	1		3
	MTT	2	3	2		7
Scale Total		6	22	15	2	45

Cell entries are counts of responses