

Research Report 1455

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76C Transitional Performance Aid: An Examination of Classroom Use

J. Douglas Dressel

Logistics Training Technologies Technical Area
Training Research Laboratory

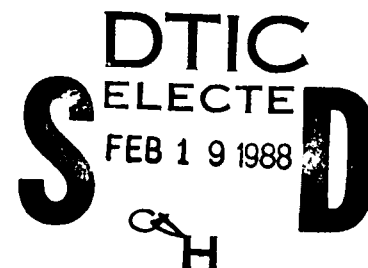


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20. Abstract (Continued)

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FOREWORD

The Maintenance and Logistics Training Research Technical Area of the U.S. Army Research Institute for the Behavioral and Social Sciences conducts research into the influence of training techniques, devices, and delivery systems on individual soldier job performance. In support of this mission, the Transitional Performance Aid (TPA), a job aid, was examined in terms of user acceptance and performance enhancement before its introduction into the classroom.

This research was conducted in the context of the Training Technology Field Activity (TTFA) at the Quartermaster School in Fort Lee, Virginia. This TTFA site and others located at Fort Knox, Kentucky, Fort Rucker, Alabama, and Gowen Field, Idaho serve as test beds for application of the latest in training technology and for research to identify promising new training methods. The results of the research reported here indicate that students can easily apply the TPA in the classroom and would embrace its use as a job aid. On the basis of this research, the TPA has been implemented in the classroom with the intention of training the students in its application as a job aid.



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The author would like to express his appreciation to those individuals who made this research effort possible. Mrs. Marcia Connor developed the TPA instructional material, administered it during Phase I, and taught the instructors its application for Phase II. Dr. Stephen Cormier developed, administered, and analyzed the data from the multiple choice test employed in Phase II. Dr. Bruce Knerr coordinated all aspects of the evaluation and shaped this, the ensuing report.

76C TRANSITIONAL PERFORMANCE AID: AN EXAMINATION OF CLASSROOM USE

EXECUTIVE SUMMARY

Requirement:

Determine the adequacy of the Transitional Performance Aid (TPA) jointly developed to aid the soldier in the field by three U.S. Army organizations: the Army Research Institute for the Behavioral and Social Sciences (ARI), the Quartermaster School (QMS), and the Training and Doctrine Command Training Technology Agency (TTA). Areas of evaluation include the format, the sufficiency of the accompanying instructional materials, and the reaction of the users following a preliminary classroom introduction.

Procedure:

The research was conducted in two phases; in each phase, students of the Equipment Records and Parts Specialist, Advance Individual Training Course, 76C10 served as participants.

In Phase I, 10 students received brief instructions on the structure, format, and application of the TPA. Following this instruction, they used the TPA to complete a test on technical subject matter for which they had received no training.

In Phase II, four classes (totaling 122 students) participated. Two classes of students were instructed on the use of the TPA. The TPA was an available resource to be used by the student on a voluntary basis for one segment (11 days) of the course. The performance of these classes was compared to that of two standard classes (No TPA) conducted concurrently with the TPA classes.

Findings:

Phase I revealed that students understood the TPA's format and accurately applied it and that the TPA instructional materials were adequate. In addition, Phase II indicated that students voluntarily applied the TPA, wanted to use it throughout the course, and wanted to use it in the field. Additionally, TPA usage in the classroom does not adversely affect test performance and can reasonably be associated with improved performance.

Utilization of Findings:

On the basis of these findings, the school has initiated the implementation of the TPA in the classroom. The principal intent of this classroom implementation is to have the students become familiar with and accustomed to

using the TPA so that it will be recognized as a resource to be applied in the field.

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76C TRANSITIONAL PERFORMANCE AID: AN EXAMINATION OF CLASSROOM USE

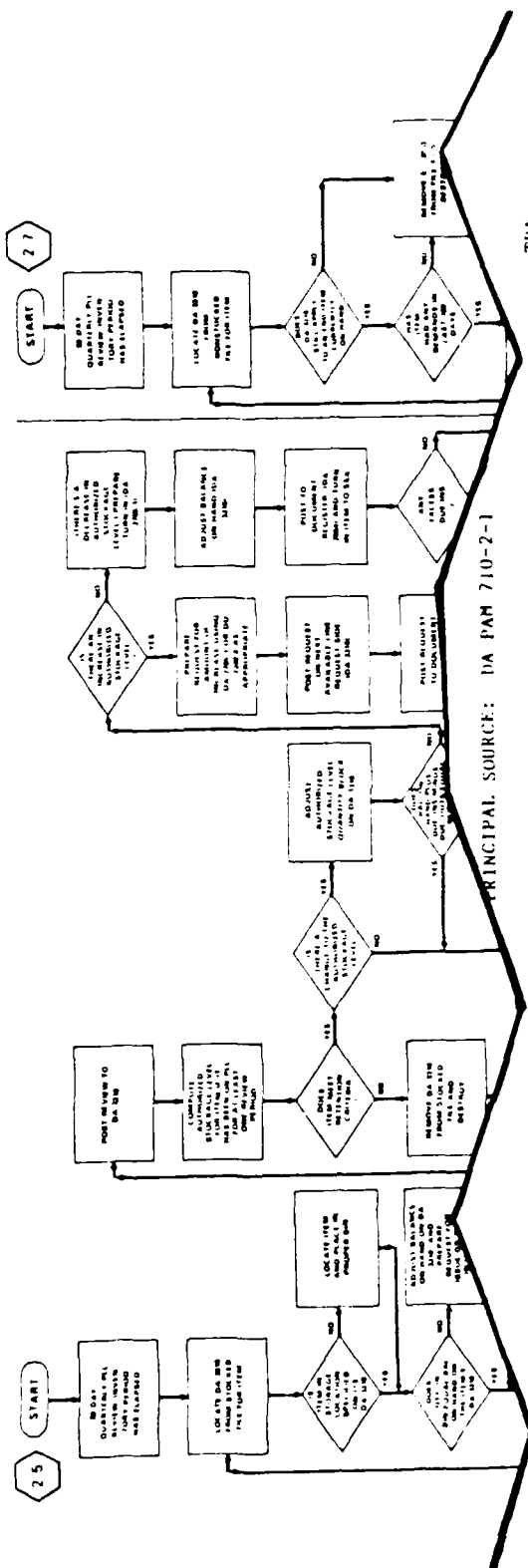
BACKGROUND

The U.S. Army Research Institute (ARI), in conjunction with the TRADOC Training Technology Agency is engaged in research and development to increase Army training effectiveness through the implementation of improved instructional methods and, where appropriate, advanced technologies. The four Army Training Technology Field Activities (TTFA) currently participating in this program are: Quartermaster School (QMS), Fort Lee, VA; Armor School, Fort Knox, KY; Aviation School, Fort Rucker, AL; and Gowen Field, ID. The Transitional Performance Aid (TPA), a job aid, examined here was developed under the Fort Lee TTFA Program for the Equipment Records and Parts Specialist, 76C Military Occupational Specialty (MOS). From QMS, education specialists from the Directorate of Training and Doctrine, and subject matter experts from the Enlisted Supply Department worked together with research psychologists from ARI to create the TPA. The scope, content and format was a result of this joint effort.

The necessity for the TPA is a function of the variety of duty positions and the working conditions at the duty site. In training the 76C, a principal difficulty is the integration of the large number of distinct actions which must be performed for each of the four duty positions. Moreover, once at the duty site, the 76C often has no technical supervisor to ask for advice while operating in a key position in a complex, highly proceduralized supply system. The TPA integrates and organizes information from the official publications which, although useful and necessary as references, do not provide an integrated picture of the decisions and actions required to execute the jobs. The TPA provides this integration by depicting an overall view of the full set of required procedures and doctrinal references in a single document. It consists of flowcharts keyed to a reference matrix. The flowchart shows the sequence of actions to be performed, while the reference matrix directs the user to the Army publication which states exactly how the action is performed. Figure 1. illustrates these features of the two sections. A more complete description of the TPA and its development is presented in Dressel, Tremont, and Kessler (1986).

It was intended that the TPA would be introduced into the program of instruction (POI) primarily to allow the students the opportunity to become familiar with it and to practice using it in a variety of situations. Training the students to use the job aid while in school would

STOCKED ITEMS



PLC CLERK TASKS (MANUAL) (SUBJECT AREA 2)	REFERENCE (PARAGRAPH)	FIGURE	FORM	CHART (PAGE)	IPA
(2-1) PREPARE AND MAINTAIN A DOCUMENT REGISTER	2-19 : : :	2-6 : : :	10A 2064	5	
(2-5) CONDUCT A REVIEW AND INVENTORY OF DEMAND-SUPPORTED RECORD OF DEMANDS - TITLE INSERT FILE	8-19 8-22, 23 TBLS 8-3 THRU 7 : : :	8-3, 4 - - : : :	DA 3318 - -	10	
(2-7) ADD A NONSTOCKED ITEM TO THE PLL	8-20 8-21 TBLS 8-3 THRU 7 : : :	8-5 - - : : :	DA 3318 -	10, 11	

Figure 1. Two section composite from TPA.

increase the probability of its use and the utility of the TPA in the field. In this sense the TPA is comparable to other job resources such as technical manuals (TM), Updates and microfiche; to be used in the field, it must be taught in the school.

In concept, students would receive the TPA early in the 9 week 4 day course and have it as a resource to use throughout the course. The soldiers would then take the TPA to their initial duty assignment upon graduation. There, they would use it as a job aid until mastering their respective jobs.

However, before a decision could be made to incorporate the TPA into the classroom and send it with the students to the field, it was necessary to:

- 1) develop and evaluate training materials concerning the format and application of the TPA, and
- 2) determine students' response to and use of the TPA after familiarization conducted during a typical segment of the course.

These activities were conducted in Phases I and II respectively of the current research.

PHASE I APPLICABILITY DEMONSTRATION

ARI researchers trained and tested a group of ten 76C10 students to determine if they could use the TPA. The randomly selected students had been in the course from 2-6 weeks. They received a single 45 minute session of platform instruction consisting of overhead transparencies, lecture, and question probes. This instructional approach is very similar to the procedure followed in the standard classroom. The instruction focused on the format of the TPA, the interpretation of flowcharts and how to use the TPA. Following this instruction, which included applied problems, the students received a 15 item multiple choice test which is found in Appendix A. Successful completion of this test required: understanding of the TPA structure in order to answer questions specific to the TPA; and knowledge of TPA application, sufficient to answer questions concerning technical subject matter to which the students had not been exposed in either the training session or the course.

The students required approximately one hour to complete the test. The test required the students to use the TPA in conjunction with the Maintenance Management Update to answer questions regarding the performance of procedures from The Army Maintenance Management System (TAMMS).

TAMMS is the system which directs the preparation and management of forms and records required to sustain maintenance activities. TAMMS was selected since its subject matter represents a series of activities which are not dependent upon, and therefore not likely to be influenced by, prior course instruction concerning the other interdependent duty positions within the MOS. The Maintenance Management Update is a document published semi-annually which is a current compilation of those technical manuals and regulations which direct the actions of TAMMS and indicate any changes in procedure since the previous publication.

The test results indicated that the students could answer questions specific to the TPA and questions concerning TAMMS actions. Students responded correctly to 92% of the test items. The majority of the students (70%) committed one error or less. Students also reported having no trouble interpreting the flowcharts or finding the task in the reference section of the TPA. All students responded favorably when queried informally by the researchers on the possible use of the TPA in the course and in the field.

PHASE II CLASSROOM FAMILIARIZATION

Following the applicability demonstration, it was necessary to determine:

- a) the extent to which students would use the TPA in the standard classroom situation;
- b) student reaction to the TPA; and
- c) the influence of TPA usage on classroom performance measures.

It should be remembered that the TPA was designed as a job aid. Its introduction into the classroom was necessary in order that the students could become familiar with it and become proficient in its use prior to the time they graduate and take it with them to the job. Demonstrated or reported use in the classroom environment and the lack of impaired classroom performance as a result of TPA use, in conjunction with the positive results Phase I concerning ease of use, would provide support for a decision to make the TPA a standard component of the course. Evidence that the use of the TPA improves performance in the classroom, perhaps by acting as an advance organizer, would provide an additional reason for using the TPA. However the failure to find such evidence would not argue against its use; instructors were given no guidance to actively use the TPA either as an advance organizer or in any way depart from the standard program of instruction.

PROCEDURE

To make these determinations, two classes of students, had access to the TPA during a typical segment (or annex) early in the course. As a control, standard classes were conducted concurrently with each TPA class. The two TPA classes totaled 60 students, while the control classes totaled 62 students. Background data to be discussed later, was gathered for all students. The annex employed for Phase II was B Annex which is an 11 day (79 course hours) period of instruction on tasks required to maintain a prescribed load list (PLL). A PLL represents the inventory of essential repair parts that a unit needs in order to maintain the readiness of its equipment; the requisite number of these parts should either be on hand or on order at all times.

The usual instructional protocol has the instructor (one of three assigned to the class) lecturing the class, frequently using an overhead projector, on how to perform a given task. The class then applies and practices the task by completing hand-out problems called a practical exercise (PE). The standard procedure is for each student to work individually and independently to complete the PE. Upon completion, the student takes the PE to the instructor who quickly inspects it and discusses any errors with the student. After all PEs have been inspected, the instructor stands before the class and clarifies any area in which the students had difficulty. This cycle is repeated for each block of instruction within the annex. The annex concludes with a written test which the student must pass (either initially or upon retesting) in order to proceed to the next annex of instruction where the lecture-PE cycle is continued. This protocol was not modified to accommodate the use of the TPA. The TPA was simply an available resource for students in the TPA treatment classes.

ARI researchers provided training for the randomly selected classroom instructors on the intent, format and use the TPA immediately prior to the beginning of each TPA class. This training was very similar to the training given the students in Phase I. The instructors now employed these training materials to instruct their students on the TPA. This instruction required approximately one-half hour. Each student received a copy of the TPA for his or her voluntary use during the annex. Throughout the annex, the students had the opportunity to become familiar with the TPA and employ it as they chose. The instructors neither forced the use of the TPA nor stressed its application. The classes were conducted as usual.

All training activities of the 76C course are directed to prepare the students for the duties and responsibilities which await them in the unit. Here, they are expected to follow the doctrine and procedures prescribed

by numerous technical manuals and other regulating documents. Throughout the course, the students are trained to use these same technical materials for all classwork including examinations. All examinations are therefore "open book tests"; the TPA was available as one of these "books" for the TPA treatment classes.

At the conclusion of B Annex, students took three performance tests. The first was a 35 item multiple choice test (MCT) developed by ARI for QMS as part of the TTFA. This test systematically examined the student's understanding of the content of the B Annex (see Cormier, 1987, for developmental details). The second measure was the standard comprehensive practical exercise (CPE). This is a series of problem solving exercises involving PLL actions. The final measure was the end of annex test (EOAT) which while similar in format and content to the CPE, was used to determine whether the student would be allowed to proceed in the course.

ARI researchers administered the 60 minute MCT to all classes and monitored the TPA usage during it. Following the MCT, the students of the TPA classes were given a short seven item questionnaire concerning their usage and ease of application of the TPA. The questionnaire is shown in Appendix B. Next, all classes received the six hour CPE which the classroom instructors administered and ARI monitored.

This monitoring activity during the MCT and CPE was simple and straightforward. The researcher, having the seating plan of the classroom and the instructor's assurance that all students were in their assigned seat, annotated the seating plan during the MCT and the CPE once the student was seen referring to the TPA. No attempt was made to measure the relative degree of TPA application, either between students or between technical documents. The question being considered was whether students recognized the TPA as a source of information and demonstrated this recognition by using it when needed.

The following day the instructors reviewed the CPE with students. After collecting the CPE, QMS test officials administered the EOAT which the school allows four hours to complete. ARI researchers were not onsite during the EOAT.

RESULTS AND DISCUSSION

Background Data. Background data were collected on the participating 122 students from the four classes and analysed to determine both the characteristics of these students, and the comparability of the treatment groups.

The data included the students' general technical (GT) score on the Armed Services Vocational Aptitude Battery (ASVAB), clerical (CL) score on the ASVAB and service component.

The GT score means for the TPA group and the control group were 109.03 (SD=10.40) and 106.94 (SD=14.82) respectively; the difference was not significant ($p>.05$). The CL scores were also comparable with the mean for the TPA group being 109.60 (SD=11.98), while the control group was 110.37 (SD=11.21).

A chi square test however, indicated the two groups were not comparable ($p<.05$) in terms of service component. Overall 58% of the TPA group were regular army, while 65% of the control group were reserves or national guard. Closer examination of these data indicated that the imbalance was created by the second control class which was 93% reserves/national guard. When this class was deleted, the chi square test indicated the groups to be comparable, $p>.05$.

This creates somewhat of a dilemma. While intact groups were comparable in terms of ASVAB components (aptitude measures) they were not equivalent in terms of service component (possible experiential and motivational differences). Due to the emphasis of this effort being on the user reaction to the TPA rather than performance gains, the imprecision of the treatment, and the finding that the discrepant class was in the control group (no TPA exposure therefore no reaction), it was determined to include the data from all four classes. The performance of this second control class will be noted as appropriate in the analyses.

Observations and Usage. Most students (80%) in the TPA classes were observed using the TPA during the MCT. The TPA was employed less often during the CPE when 66% of the students referred to it.

The increased application of the TPA for the MCT may be due to the nature of the test. The MCT consists of discrete items whose solutions are largely unrelated to those of adjacent test items. This influences how the students search for item solutions; the solution for adjacent test items may be pages apart in the same technical manual or in different manuals. This creates more opportunities to refer to the TPA. On the other hand, the CPE presents a series of task scenarios for completion; here once the student locates the appropriate section of the TM, many of the solutions are found, thereby reducing the number of information seeking opportunities.

It should also be recalled that the TPA does not offer unique information, i.e. information not available from other resource documents. The TPA does organize the sequence of task events and directs the user to the specific paragraphs of the other technical documents for guidance. Therefore, it was not necessary for any student to use the TPA in order to perform satisfactorily on the tests. However, the students' perceived utility of the TPA application is evident in their high rate of TPA usage.

Questionnaire data collected at the conclusion of the MCT, also indicated the students' acceptance of the TPA. Generally, the students found the TPA easy to understand and apply. They used it in the classroom in various ways including practical exercises (PEs) and examinations. The overwhelming majority would like to use the TPA throughout the course (92%) and in the field (90%). Additionally, of those students who were observed not to have used the TPA during the MCT, 75% reported accordingly on the questionnaire. This convergence of observed and reported usage can be viewed as an indication of the veracity or accuracy of the students' questionnaire responses. The full compilation of student responses and questionnaire items appears as Appendix B.

PERFORMANCE DATA

CPE

It was originally intended that the CPE data be compared between the two treatment groups. However, due to test administration and scoring inconsistencies, these data were unreliable and therefore not analysed. As previously noted, the CPE is a series of job scenario-based problem solving exercises involving PLL actions. The CPE consists of a 37 page test booklet. Six hours are allowed for completion. Normally, when the students complete the CPE, the booklet is reviewed by the instructors to provide feedback to the students rather than given a numerical score. For purposes of this evaluation only, instructors were asked to score each CPE. After scoring differences were noted in the first pair of classes, the school staff prepared a scoring template to be used with the second pair of classes. However in both sets of these classes, not all of the students finished the CPE in class. Since the instructors viewed it as valuable training to complete the CPE and also considered the CPE to be a good study aid for the next day's EOAT, students were allowed to complete the CPE in the barracks. The students were instructed to mark the place in their test booklet where their classroom effort ceased. The research intent then was to analyse the percent correct of those items completed in class. However, it was possible for students while in the barracks to receive help and alter their previously completed classwork. Since the MCT and EOAT provided objective and uniformly scored datum sets, no purpose would be served by considering the CPE data.

MCT

A nested analysis of variance (ANOVA) having students within classes within levels of treatment (TPA versus standard) was performed on the percent correct of those items attempted. For some unknown reasons, nearly one-half of the students in the second TPA class failed to complete the final items of the MCT. Rather than unduly jeopardize the impact of the data from this class, this less stringent dependent measure (as compared to percentage correct of total number of test items) was applied to all four classes. Although this ANOVA revealed no treatment effect ($F < 1$), a great deal of variability was attributed to classes within treatment. To examine this variability between classes, a one-way ANOVA was performed on the data from the four classes. This analysis indicated a significant ($p < .05$, $F = 5.67$, $df = 3, 118$) difference between classes. Subsequent tests (Student-Newman-Keuls procedure) and non-pooled contrasts showed the second TPA class (the noncompleting class) scored lower than the three remaining classes which did not differ from one another. The mean percentage correct for each class is shown in Table 1.

The nested/one-way ANOVA sequence was performed again selecting only those cases in which the students had been observed using the TPA. The only additional finding, from this series, was that the first TPA class performed significantly better than its control class.

A final analysis on the MCT data, using only TPA classes, was conducted. This analysis considered only those students who completed the test. The performance of observed TPA users was compared to the performance of non-users. A simple t-test, adapted to accommodate large differences in sample size (McGuigan, 1964) indicated that TPA users performed significantly better ($p < .01$, $df = 52$, $t = 3.04$) than their non-user classmates (81.1 percent correct vs. 71.9 percent correct, respectively). Examination of the aptitude measures show that users and non-users were comparable ($p > .40$) in terms of GT and CL scores with groups means of: 110.12, and 107.47 respectively for GT; 110.68 and 107.46 respectively for CL. While TPA users were not inherently "smarter" than their non-user peers, TPA usage is associated with improved MCT performance.

EOAT

The nested ANOVA was performed on the percentage of test items correct (all students in all classes completed this test). The ANOVA revealed no treatment effects but considerable variability within groups. A one-way ANOVA indicated significant differences between classes ($p < .05$, $F = 9.11$, $df = 3, 118$). Subsequent tests and contrasts indicated a mixed

Table 1. Mutiple Choice Test (MCT): Mean Percentage Correct for Each Class

FULL CLASS				TPA USERS Only		
<u>CLASS</u>	<u>N</u>	<u>MEAN</u>	<u>SD</u>	<u>N</u>	<u>MEAN</u>	<u>SD</u>
TPA 1	26	82.27	9.37	22	84.97	5.56
CTL 1	24	80.05	9.69	-	-	-
TPA 2	34	74.92	8.50	24	75.33	9.66
CTL 2	38	82.58	7.39	-	-	-

Table 2. End of Annex Test (EOAT): Mean Percentage Correct for Each Class

Full Class				TPA Users Only		
<u>Class</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>
TPA 1	26	91.50	6.03	22	92.61	5.15
CTL 1	24	91.96	6.00	-	-	-
TPA 2	34	95.70	3.92	24	95.83	3.79
CTL 2	38	96.70	3.45	-	-	-

performance. The second TPA class and the second control class (mean scores of 95.70 and 96.70 respectively), each performed significantly better than the first TPA and control class pair (mean scores of 91.50 and 91.96 respectively). The performance within each pair of classes (TPA vs control) did not differ. Consequently, as shown in the nested ANOVA, the combined performance of the TPA classes did not differ from the combined performance of the control classes. The mean percentage correct for each class is shown in Table 2.

The same nested ANOVA was performed comparing the performance of the observed users of the TPA (i.e. those students who had used the TPA during the MCT) to performance of the control classes. This restriction, to previously observed users, did not alter the findings. Again, the one-way ANOVA was applied to the class data and again the findings did not differ from those found for the full class.

Performance Summary

In summary, no significant treatment effects were found between the TPA and control conditions when using the EOAT scores as the dependent measure. However, significant treatment effects were found when using the MCT scores. Here, there was lower performance in the second TPA class (and therefore reduced performance for the TPA condition overall); when considering only the TPA classes, there was higher performance for users of the TPA than for their non-user classmates.

It is not surprising that the MCT should be more sensitive than the EOAT to TPA effects. First, the mean scores on the EOAT are so high, with class means ranging from 91.50 to 96.70, that ceiling effects reduce the likelihood of demonstrating differences due to other causes. The MCT was clearly more difficult, with class means ranging from 74.92 to 82.58. Second, the MCT includes job-related material that may not have been stressed in class. The EOAT (and the CPE, as well) includes only material which has been stressed to the students. It would be expected that students would be more likely to use the TPA during the MCT than during the EOAT, and that its effects would be more readily observable on MCT scores.

While this cannot be checked directly, because observations of TPA use were not taken during the EOAT, it should be noted that more students were observed using the TPA during the MCT (80%), than during the CPE (66%), which is highly similar to the EOAT.

The data also clearly indicate the large variability among classrooms independent of the treatment applied. Classes TPA 1 and TPA 2 differed by 7.35 points on the MCT and 4.20 points on the EOAT. Classes Control 1 and Control 2 differed by 2.53 and 4.74 points on the same measures. Yet the classes did not differ in aptitude. While the difference in terms of class composition by service component may account for part of this variability, much of it could be attributed to differences in facilities and instructors. Consequently, it is logical to give somewhat more weight to results in which these differences would be minimized by making within class comparisons. By this logic, use of the TPA improved classroom performance (within the TPA classes) since user performance on the MCT was superior to that of non-users. However, the use of the TPA was an individual choice, not under experimental control. While the users were not superior to the non-users in terms of GT or CL scores, it may be that they differ in other unmeasured ways. For example, perhaps a characteristic of "good" students is their ability to use all the aids available to them, such as the TPA. Given the small sample available and the variability of the data, this issue cannot be resolved at this time.

The safest conclusion that can be drawn from the performance measure data, therefore, is that no consistent effect of TPA use was obtained.

DISCUSSION AND CONCLUSIONS

The classroom evaluation indicated that students have little difficulty using the TPA. The students do voluntarily use the TPA for class work and examinations. They indicated a desire to use it both in training and in the field. Additionally the performance measures obtained indicate that actual TPA use in an unaltered program of instruction does not adversely influence performance.

On the basis of these findings, the Quartermaster School incorporated the TPA into the classroom at the start of the fiscal year 1987. Initially, the TPA will be employed throughout the entire course on the same available resource basis as was used for Phase II. This utilization of the TPA requires no modification of the POI.

However, a more active and extensive classroom implementation of the TPA by the instructors would function to enhance both its utility in the classroom and its perceived importance by the students. A more active TPA

usage could include its use as a review/summary tool before annex and end of course testing. The instructors could also employ the TPA when critiqueing the student's work. Although, neither of these applications would greatly alter the POI, each would function to promote classroom usage and concurrently increase the visibility of the TPA. The increased classroom visibility may lead the student to place a higher value on the TPA as a job resource. Consequently, the student would exert greater efforts to maintain possession of this valued item and take it to the field where it is applied as intended.

A field evaluation of TPA usage by the 76C and supervisor reaction has been initiated.

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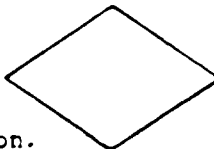
APPENDIX A



TRANSITIONAL PERFORMANCE AID APPLICATION TEST

NAME: _____
Last, First

TRANSITIONAL PERFORMANCE AID

TAMMS TEST

1. What is the last action you take when a dispatched vehicle is returned.
 - a. Return vehicle to assigned parking area.
 - b. Transfer all needed information to a new DD 1970.
 - c. Receive equipment record folder from operator.
 - d. Enter the time of return on the DA 2401.
2. Which reference figure is used when performing the TAMMS task entitled "Maintain oil analysis records"?
 - a. 4-4.
 - b. 5-10.
 - c. 2-1.
 - d. 3-11.
3. Your unit gains a new vehicle. Which people receive copies of the Gain Report?
 - a. Those specified in DA PAM 738-750.
 - b. Those specified in AR 710-2.
 - c. The unit commanders.
 - d. The property book officers.
4. What does a  represent on a flow chart?
 - a. Decision.
 - b. Task action.
 - c. Connector.
 - d. Stop.

5. Which task does the code  represent?
- a. Maintain PLL.
 - b. Receive repair parts.
 - c. Initiate follow-up action.
 - d. Initiate cancellation action.
6. Which form is used to request DSU maintenance?
- a. DA 2404.
 - b. DD 314.
 - c. DA 2408-10.
 - d. DA 2407.
7. As a TAMMS clerk, what do you do with the dispatch form DA 2401?
- a. Destroy one month after last entry in column 1 has been closed out.
 - b. Destroy two months after last entry in column 1 has been closed out.
 - c. Destroy three months after last entry in column 1 has been closed out.
 - d. Destroy four months after last entry in column 1 has been closed out.
8. You are the TAMMS clerk about to dispatch a vehicle. There are no uncorrected faults listed on the DA 2404. What action do you now take?
- a. Send the PMCS DA 2404 to the maintenance supervisor.
 - b. Send the PMCS DA 2404 for dispatch approval.
 - c. Prepare DD 1970.
 - d. Dispatch the vehicle.
9. When performing task  which references are used?
- a. DA PAM 738-750 and TM 38-L09-11.
 - b. DA PAM 738-750 and TB 43-0210.
 - c. TM 38-L09-11 and DA PAM 710-2-2,
 - d. TM 38-L09-11 and AR 18-10,
10. What symbol would be entered on the DD 314 when scheduling a rotation of tires?
- a. T.
 - b. E.
 - c. H.
 - d. R.

11. As a TAMMS clerk, when preparing a materiel condition status report, what would the code "A" mean in block 3?

- a. Army Intelligence.
- b. Active Component.
- c. Army National Guard.
- d. Army Reserve units.

12. What does "ERF" mean to a TAMMS clerk?

- a. Emergency Record File.
- b. Equipment Register Format.
- c. Equipment Record Folder.
- d. Emergency Response File.

13. As a TAMMS clerk you must post the DA 2401 when dispatching equipment. What information do you enter in column h?

- a. Type of equipment.
- b. Requestor's phone number.
- c. Expected time of return.
- d. Registration number.

14. In preparing DA 2406 (monthly MCSR), which form do you need to extract information from?

- a. DD 314.
- b. DD 2026.
- c. DA 2408-20.
- d. DA 2404.

15. DA form 2408-5 is used in which TAMMS task?

- a. Prepare a materiel condition status report.
- b. Maintain a consolidated equipment log.
- c. Maintain oil analysis records.
- d. Request repair or modification of equipment.

APPENDIX B

TRANSITIONAL PERFORMANCE AID USER SURVEY

NAME: _____
Last, First

TRANSITIONAL PERFORMANCE AID USER SURVEY

1. How often did you use the TPA during this PLL Manual Annex? (Check only one).

2% Never
13 Once or twice
52 Sometimes but not everyday
8 Once a day
27 Several times a day

2. Check all the ways you used the TPA:

91% PEs
36 Studying
63 Testing
5 Did not use

3. How easy or difficult was it for you to understand the flowcharts?

41% Quite easy to understand
38 Fairly easy to understand
16 Borderline
5 Fairly difficult to understand
2 Quite difficult to understand

4. How easy or difficult was it for you to find the task reference in the back of the TPA?

47% Quite easy to find
31 Fairly easy to find
19 Borderline
2 Fairly difficult to find
2 Quite difficult to find

5. How easy or difficult was it for you to locate the reference paragraphs in the Update after reading the TPA?

<u>45%</u>	Quite easy to locate
<u>38</u>	Fairly easy to locate
<u>14</u>	Borderline
<u>3</u>	Fairly difficult to locate
<u>0</u>	Quite difficult to locate

6. Would you like to use the TPA for the rest of the course?

92% Yes

8 No

7. Would you like to take the TPA with you after you complete the course?

91% Yes

9 No