FINAL PROJECT

PROGRAM EVALUATION: ARMY BASIC INSTRUCTOR COURSE

Indiana University

R561: Evaluation in the Instructional Development Process
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Summer 2013

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Introduction

This project evaluated a training program of the U.S. Army Aviation School. The final project for Indiana University's R561 course, *Evaluation in the Instructional Development Process*, is described as a capstone project to display the student's ability to apply learning to a real life organization.   The project took place during the span of the summer 2013 course and included the application of Kirkpatrick's Four Levels of Evaluation to a U.S. Army Aviation School training program.

Kirkpatrick's Four Levels of Evaluation consists of a layered approach to finding the value of a program. Kirkpatrick's model has been labeled as "one of the most dominant evaluation frameworks for training" (Cho et al, 2009, p. 699). The model consists of the following four stages as described in, *Evaluating Training Programs: The Four Levels (3rd Edition,* 2006*)*:

Level 1 (Reaction): measures trainee satisfaction
Level 2 (Learning): measures a change in attitude, knowledge, and/or skill
Level 3 (Behavior or Performance): measures improvement of behavior on the job
Level 4 (Results): measures business results achieved

The Project

The project evaluated the Army Basic Instructor Course (ABIC), a 2-week mandatory course created and governed by the Army Training Support Command (ATSC) for all military and civilian instructors who will teach in an Army Proponent School. The US Army Aviation Center of Excellence (USAACE), located at Fort Rucker, Alabama, is the designated school for Army Aviation training. The Staff & Faculty Development office at Fort Rucker, conducts the ATSC instructor and training developer courses, including the ABIC.

The Staff & Faculty Development office is found in the USAACE in the Directorate of Training and Doctrine, specifically in the Education & Technologies Branch of the Training Division. Permission for the project was obtained from Mr. Danny Flowers, Education & Technologies Branch Chief, and from Mr. Henry Spohrer, the ABIC Manager.

Graduation from ABIC awards military personnel with an Additional Skill Identifier (ASI). An ASI is a code that is placed in a soldier's personnel folder which details all certifications and qualifications the soldier possesses. In addition, all military and civilian instructors must have the ABIC certificate in their Instructor Training Record (ITR). The ITR is a folder that is maintained for each individual Army instructor and contains the certification paperwork on any lessons the individual is qualified to teach. The requirement for this certification is found in numerous military regulations and support pamphlets. Most notably is the TRADOC Pamphlet (TP) 350-70-3, Training and Education, Staff and Faculty Development, dated February 4, 2013, as cited in 4-2 d below.

4-2 d. U.S. Army military instructors/facilitators must satisfy the following requirements:
(1) Possess required military occupational specialty (MOS), additional skill identifier (ASI), SQI, and subject matter expert qualifications for courses to be taught.

(2) Successfully complete the current foundational, CAC-T, ATSC-provided instructor/facilitator course or CAC-T, ATSC-approved equivalent course.

Two ABIC sessions took place during the early summer, allowing for study by this project. Course session #13-014 was conducted from May 28 to June 7 of this year, and session #13-015 was conducted from June 15 to June 21 of this year. Additional data was collected from graduates and supervisors of four past ABIC courses.

Training Issues and Concerns

- Given the time span for this class project we did not have enough time to gather all data for a single specific group. Since ABIC is an ongoing course offered continuously we were able to obtain current, as well as, historical data.

- The R561 Evaluation Team chose not to gather historical data prior to January 2013 because the ABIC was changed substantially in January 2013, therefore the data would not be comparable.

Objectives

1. Assess ABIC student perceptions of their own instructional knowledge and ability.
2. Assess supervisors' perception of ABIC graduates' instructional knowledge and ability.
3. Determine the cost-benefit of using in-house ABIC instructors.

The Process of Data Collection

Data was collected through a variety of survey instruments (see Table 1.1), two of which are regularly administered by the Army as part of the ABIC course and three which were constructed by the evaluators specifically for this project. Three instruments were used at the time of the course and two were used as follow-up survey instruments several months after the class was over. Techniques included self-reporting and observation. Instruments were both qualitative and quantitative.

The instruments are explained briefly here by level, summarized in the chart below (see Table 1.1), and included in the Appendices. Level 4 data is based on a set of assumptions discussed

below. As reported in the Training Issues and Concerns section above, the evaluators were unable, within the allotted time span, to follow a single set of students through all four levels.

Level 1: End of Course Critiques (EOCC) were completed by ABIC students on the last day of their course. These were gathered from the past six ABIC sessions.

Level 2: The Pre-Post-Course survey was administered to two ABIC sessions in May and June of this year.   Fifteen students completed this survey on their learning.

In addition, the Practical Exercise Checklist (PEC) which records observations of the ABIC students on their three required presentations, were collected for the same six ABIC sessions as mentioned in Level 1.

Level 3: A total of 45 Post Graduate surveys were sent to ABIC graduates from the last six months. The survey asked the ABIC graduates questions concerning their application or utilization of skills or knowledge acquired during the ABIC. Eight of the 45 surveys were completed and returned to the evaluation team.

Level 3: A Supervisor Report survey was sent to five supervisors and training managers of past ABIC graduates. Many of the supervisors of ABIC graduates do not actually evaluate their teaching abilities. Rather, a training manager often conducts the instructor evaluations. Each respondent answered the questions for a number of ABIC graduates rather than for a single graduate.

Level 4: It was determined by the R561 evaluation team that a true Level 4 Return on Investment (ROI) could be accomplished by comparing the use of soldiers as instructors at the Aviation School versus the use of outside, contract instructors. However, given the extreme secrecy of the various Army helicopters and their equipment, it would be next to impossible to find personnel outside the military who could teach these courses.

Another study possibility could be to compare the cost of teaching military personnel to be instructors through ABIC versus pairing the military SME's with outside contract instructors for them to co-teach the Aviation School courses. This was also deemed to be beyond the ability of the evaluation team's timeline for this project, as on any given day there are approximately 100 courses in session throughout the Aviation School. These vary from teaching various levels of flying different helicopters, air traffic control courses, different mechanic courses to repair the various helicopters, professional development courses, and many more. To calculate the cost for pairing a contract instructor with the military SME's for all the possible courses conducted at the Aviation School would be difficult at best.
However, for this project, in an effort to demonstrate a form of Level 4 monetary comparison, the evaluation team took a micro approach by examining the cost for an internal ABIC instructor versus an outside instructor. This was accomplished by

comparing the salaries of internal instructors who are Army employees with the cost of using outside contract instructors. The assumption is that if the Staff and Faculty office did not exist, then the Army mandated ABIC would have to be conducted by outside contract instructors.

Table 1.1 Summary of Survey Instruments

Instrument	Level	Respondents	Type	Developer
EOCC (End Of Course Critique)	Level 1 Level 2	Students in ABIC #13-006 #13-007 #13-008 #13-009 #13-014 #13-015	Self-reporting, Likert scale, at end of course	Army
Pre/Post Course Survey	Level 2	#13-014 #13-015	Self-reporting, Likert scale, at start and end of course	R561 Evaluation Team
Practical Exercise Checklist	Level 2	#13-006 #13-007 #13-008 #13-009 #13-014 #13-015	Pass/Fail rating sheet	Army
Post Graduate Survey	Level 3	#13-006 #13-007 #13-008 #13-009	Self-reporting, Likert scale and free form text, 2-6 months post course	R561 Evaluation Team
Supervisor report on behavior change	Level 3	#13-006 #13-007 #13-008 #13-009	Free form observation survey	R561 Evaluation Team
Cost Benefit Analysis	Level 4	See full explanation	See full explanation	R561 Evaluation Team

Analysis of Data

A.) End Of Course Critique (EOCC) - see Appendix A for survey

This survey data is from six courses and represent 61 respondents. The survey covers typical Level 1 reaction areas such as room conditions, course materials and objectives, instructor performance, feedback, course length and pacing. In addition, 12 Course Unique Questions (CUQ) ask the respondents about their learning and confidence with the material and should be considered Level 2 learning assessment.

While collating the data into a single spreadsheet a clear pattern emerged. Most respondents (>90%) answered Strongly Agree or Agree. The extremely favorable response on this survey is tempered by written comments on this and the Post Graduate Survey. Questions where the percent of negative responses was greater than 10% indicate data points where further investigation might be considered. A number of these are listed below.

Table 1.2 EOCC Reactions

The learning objective for each lesson was **clearly stated**.	12% chose Disagree or Strongly Disagree
Instructions provided were clear and **easy to follow**.	16% chose Disagree or Strongly Disagree
The course was **well paced**.	13% chose Disagree or Strongly Disagree
Individual Lessons were either **too short or long** for amount of material provided	18% chose Too Long
In regards to course length, was this course **too long, too short, or just right**?	25% chose Too Long

On the Course specific questions where respondents were asked about their understanding, knowledge, and performance on such things as questioning skills, formal assessment, adult learning and communication skills, the pattern again showed >90% answering Strongly Agree or Agree.

Table 1.3 EOCC – Course Unique Questions

This course enhanced my understanding of the **principles of adult learning.**	97% chose Strongly Agree or Agree
This course has enhanced effective **communication skills**.	95% chose Strongly Agree or Agree
This course has improved my **questioning techniques**.	97% chose Strongly Agree or Agree
After taking this course, I better understand **types of formal assessment**.	94% chose Strongly Agree or Agree

The course appears to offer some challenge (64% rated the challenge level between 5-8 on a scale of 1-10). But respondents felt confident in their ability to perform the tasks studied in this course (92% rated their confidence level between 8-10 on a scale of 1-10). And on the overall course rating 52% said it was excellent and 38% said it was good.

Table 1.4 EOCC - Overall Reactions

On a scale of 1-10, how **challenging** was the course?	64% rated between 5-8
On a scale of 1-10, how much **confidence** do you have that you can perform to standard all the tasks studied in this course?	92% rated between 8-10
Overall, I consider my training to have been:	52% rated as excellent 38% rated as good

An optional written portion of this survey gave the opportunity for respondents to elaborate. Roughly 15-20% of any given course group used this opportunity. Comments centered around course length, materials, prep time for the demonstration, and quality of instruction. By far, the most comments were about the graded demonstration students conducted at the end of the course and the lack of standards. Sample comments follow.

- "student should know exactly what is expected of them prior to evaluation"
- "the instructors used an "eye of the beholder" way to grade student performance, not a standard"
- "there was a lot of confusion on the second presentation, as to what was required"
- "the demonstration section of the course was awkward"
- "using pre-planned lessons is not conducive to learning, just your ability to read -no interest being sparked"

B.) Pre/Post Course Survey - see Appendix B for survey

The Pre/Post-Course Survey for the ABIC revealed that students increased their knowledge and skill in each objective. The most gain was made for both courses, 13-014 and 13-015 in the objective, "how comfortable do you feel in the ADDIE process?" combining the two course totals for the ADDIE objective, the point increase from pre-to post-survey averaged 2.25 points.

The next objective with the most gain was, "How comfortable do you feel in your knowledge of correctly writing a learning objective?" The average increase for the two classes was 1.4 points on writing a learning objective. The least amount of increase was found in the objective, "How comfortable do you feel in what is required to facilitate a class discussion?" The average increase on facilitating a class discussion was 1.1 point. Although this was the least amount of increase, it was still an increase in learning. All objectives in each course showed an increase in how the student felt about their ability as an instructor.

C.) Observation by ABIC Instructors of student presentations - see Appendix C for checklist

Each student was observed by an ABIC instructor on three different presentations using a practical exercise checklist. In both courses, ABIC 13-014 and ABIC 13-015, all evaluations received an overall score of "Go."   In ABIC 13-014, there were two "No Go" scores on one student's evaluation. Both of the "No Go" scores were on the *Practical Exercise Checklist for 30-35 Minute Demonstration and Practical Exercise Presentation evaluation.* The student received a "No Go" on the following indicators: Emphasize Safety and Emphasize Environmental Considerations. Both of these items are non-bolded items, thus not required to receive a "Go" score. The trainer was still well above standard by performing a "Go" on 12 out of 14 items because the requirement is 8 out of 14. It is interesting to point out that in both courses a total of 48 observations were conducted, and all students, on all observations, received a "Go."

D.) Post Graduate Survey - see Appendix D for survey

This follow-up survey offered an opportunity for respondents to self-report on behavior change in the way they approach their instructional performance. Between 2-6 months had passed since they attended ABIC. Though it was sent to 45 ABIC graduates only 8 responded (17.7% response rate). This survey included questions with a forced rating scale and questions allowing free form answers. Respondents were given the opportunity to indicate that no change was necessary rather than no change occurred.

The greatest change reported was in drafting a lesson plan where 5 of 8 reported a great deal of change. On preparing the training environment, half reported moderate change. On the use of questioning techniques, 3 of 8 reported a great deal of change and on facilitating a guided discussion, 3 of 8 also reported a great deal of change.

Surprisingly, half or more reported no change in use of questioning techniques, establishing credibility, communicating class rules and procedures, facilitating a guided discussion, delivering instruction using the Conference method of instruction, or delivering instruction using the Demonstration and PE methods of instruction. These might be areas for further investigation. Comments included:

- ○ This was a new experience, everything was new and exciting
- ○ I never drafted a lesson plan before but I had used many of the techniques before. I learned more structured approach.
- ○ I have not changed the material so I have not changed the way I teach.
- ○ I think about which questions I will ask before I show up that day.
- ○ I'm using the same techniques taught in the course.
- ○ Have been teaching for 7 years so was already familiar; lesson plan development was new.

E.) Supervisor report on behavior change - see Appendix E for survey

The purpose of ABIC is to enhance the skills of Army instructors. When these instructors are enrolled in ABIC they are referred to as ABIC students and graduates or instructors once they have completed ABIC. The instructional improvement survey reports the behavior change, if any, of the ABIC graduates when they return to their instructor role. These ABIC graduates are observed by supervisors or training managers who completed the survey.

Supervisors reported that in observing these graduates back on the job of instruction, they come to class more prepared to teach. They use teaching materials more effectively and have a better understanding of the structure of a lesson plan. Supervisors indicated that instructors are better able to handle students in their own classrooms after attending. There is also improvement in attending to administrative requirements such as training records.

Supervisors also indicated deficiencies that are present after students attend ABIC.   One supervisor noted that there is no significant change in ABIC graduates and that they lack the skills to effectively present a class. The supervisor further expressed that many graduates fall back into old comfortable habits. There is little emphasis in the course on why certain techniques are important. A number of supervisors suggested that upon the ABIC graduates return to their unit, there is a need for support, from unit leaders, to engage and assist them in understanding the relevance of the course content on their instructional skill. This support is not always available.

The overall observation by supervisors indicated that instructors do have more confidence, increased preparation, better performance which is more fluid and natural, better use of presentation tools, and increased ability to engage students in a more conversational manner. One area where little change was observed by supervisors was in the area of preparation of new instructors.

F.) Cost Benefit Analysis - see Appendix F for details

The hourly rate of two Army civilian ABIC instructors were compared to an estimate of the corresponding hourly rate for two contract instructors. A single, averaged salary was used for the cost of contract instructors. This average was obtained from hourly rates of five past contract employees used at the Aviation School.

There is a cost associated with the certification process to be qualified to teach ABIC. To complete this certification an individual would have to attend the course, then observe a complete course, and finally teach every block of instruction while being evaluated by a senior instructor. Since all instructors of ABIC, internal and contract, need to be certified we did not consider these costs as part of our analysis.

The cost benefit analysis shows a cost savings of $2,379 per ABIC. The Aviation School conducts an ABIC once each month for an annual savings of $28,551. There are 16 Army Proponent Schools teaching ABIC on the average of once per month, which equates to a cost savings of $456,817 per year across the Army.

Conclusion

Overall the survey data indicated that ABIC graduates were satisfied with their training when surveyed at the end of the course (Level 1).   The post-class survey also indicated that learning did occur (Level 2). When surveyed 2-6 months later, the ABIC graduates reported their teaching practices changed positively (Level 3). Supervisors reported many of the graduates display more confidence on the platform and a stronger understanding of facilitation skills (Level 3). The cost benefit analysis indicates a cost savings of $2,379 per ABIC iteration when using civilian instructors over contract instructors (Level 4).

Intangible benefits were also considered. The internal staff who are ABIC instructors would most likely work for longer periods of time - years, not hours - and would gain much more in-depth knowledge and understanding of the Aviation School. They would be able to more easily use analogies and examples relating to the aviation field when teaching. The internal instructors' credibility could be enhanced with an increased understanding of aviation.

Another intangible benefit of retaining internal ABIC staff is the relationships which form between teaching staff, ABIC graduates, managers, and supervisors. These relationships enhance the training program and instructional systems throughout the Army. Having instructional staff on grounds provides a continuum of services and availability that would unlikely be attainable with contract instructors. The R561 evaluation team was able to gather the data needed for this project in a short timeframe because of the relationships and rapport that the staff had with the other departments, which is highly valuable and irreplaceable.

An additional advantage favoring internal staff is in the area of staffing flexibility. In the event of an emergency, it is much easier to call in a staff member who is on base than to call at the last minute for an external, contract instructor.

References

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Appendix A1 – EOCC (End of Course Critique) Survey Data

ABIC Sessions

ABIC #	Course Dates	Respondents
13-006	2/13/2013	10
13-007	3/1/2013	12
13-008	3/15/2013	12
13-009	3/29/2013	12
13-014	6/7/2013	9
13-015	6/21/2013	6
Total		61

Course materials were appropriate for the required learning?

Strongly agree	35	57%
Agree	22	36%
Disagree	3	5%
Strongly disagree	1	2%
Not applicable	0	0%
Total	61	

The SEP told me what I had to do and the standard of performance I had to achieve to complete the course.

Strongly agree	36	59%
Agree	21	34%
Disagree	1	2%
Strongly disagree	1	2%
Not applicable	2	3%
Total	61	

Course objectives were clearly identified.

Strongly agree	36	59%
Agree	22	36%
Disagree	2	3%
Strongly disagree	1	2%
Total	61	

The learning objective for each lesson was clearly stated. I knew precisely what I had to learn to do. I knew how well I had to do what I learned.

Strongly agree	35	57%
Agree	19	31%
Disagree	6	10%
Strongly disagree	1	2%
Total	61	

The importance of the material presented was explained.

Strongly agree	36	59%
Agree	23	38%
Disagree	1	2%
Strongly disagree	1	2%
Total	61	

Instructions provided were clear and easy to follow.

Strongly agree	31	51%
Agree	20	33%
Disagree	8	13%
Strongly disagree	2	3%
Total	61	

References required to complete the education/training were readily available by either digital or hard copy.

Strongly agree	38	62%
Agree	21	34%
Disagree	1	2%
Strongly disagree	1	2%
Total	61	

Effective feedback (negative and positive) was provided to help you learn.

Strongly agree	39	64%
Agree	20	33%
Disagree	1	2%
Strongly disagree	1	2%
Total	61	

It was relatively easy to get my questions answered.

Strongly agree	33	54%
Agree	24	39%
Disagree	2	3%
Strongly disagree	2	3%
Not applicable	0	0%
Total	61	

Practical exercises helped me learn to perform the TLOs.

Strongly agree	33	54%
Agree	27	44%
Disagree	0	0%
Strongly disagree	1	2%
Not applicable	0	0%
Total	61	

Individual Lessons were either too short or long for amount of material provided (identify the specific lesson(s) in the remarks).

Too short	1	2%
Just right	49	80%
Too Long	11	18%
Total	61	

The course was well paced.

Strongly agree	29	48%
Agree	24	39%
Disagree	8	13%
Strongly disagree	0	0%
Total	61	

I was given the opportunity to practice performing each learning objective.

Strongly agree	36	59%
Agree	25	41%
Disagree	0	0%
Strongly disagree	0	0%
Total	61	100%

Mistakes in performance testing were explained.

Strongly Agree	34	56%
Agree	25	41%
Disagree	0	0%
Strongly disagree	0	0%
Not applicable	2	3%
Total	61	

Academic/developmental written counseling was provided (If needed).

Strongly agree	24	39%
Agree	18	30%
Disagree	0	0%
Strongly disagree	0	0%
Not applicable	19	31%
Total	61	

Academic/developmental written counseling was effective (If provided).

Strongly Agree	23	38%
Agree	17	28%
Disagree	1	2%
Strongly disagree	0	0%
Not applicable	20	33%
Total	61	

Instructors served as mentors and displayed subject matter expertise by relating relevant examples and experiences.

Strongly agree	40	66%
Agree	18	30%
Disagree	3	5%
Strongly disagree	0	0%
Total	61	

Instructors were available and allotted time to answer questions.

Strongly agree	39	64%
Agree	22	36%
Disagree	0	0%
Strongly disagree	0	0%
Total	61	

Instructors motivated me to do my best.

Strongly agree	25	41%
Agree	33	54%
Disagree	3	5%
Strongly disagree	0	0%
Total	61	

The training aids used in class enhanced my learning experience.

Strongly Agree	31	51%
Agree	29	48%
Disagree	1	2%
Strongly Disagree	0	0%
Total	61	

The learning facilities were conducive to learning.

Strongly agree	37	61%
Agree	24	39%
Disagree	0	0%
Strongly disagree	0	0%
Total	61	

Visuals were easy to see and read.

Strongly agree	36	59%
Agree	25	41%
Disagree	0	0%
Strongly disagree	0	0%
Not applicable	0	0%
Total	61	

On a scale of 1-10 (10 being the hardest), how challenging was the course?

10	1	2%
9	2	3%
8	10	16%
7	12	20%
6	6	10%
5	11	18%
4	8	13%
3	4	7%
2	4	7%
1	3	5%
Total	61	

On a scale of 1-10 (10 being the Most), how much confidence do you have that you can perform to standard all the tasks studied in this course when you get to your unit?

10	31	51%
9	15	25%
8	10	16%
7	2	3%
6	0	0%
5	1	2%
4	0	0%
3	2	3%
2	0	0%
1	0	0%
Total	61	

In regards to course length, was this course too long, too short, or just right?

Too Long	15	25%
Too Short	1	2%
Just Right	45	74%
Total	61	

Course Unique Question (CUQ): This course enhanced my understanding of the principles of adult learning.

Strongly agree	29	48%
Agree	30	49%
Disagree	1	2%
Strongly disagree	0	0%
Not applicable	1	2%
Total	61	

CUQ: This course has increased my knowledge of the Operational Environment (OE) as it relates to my role as an instructor.

Strongly agree	29	48%
Agree	27	44%
Disagree	5	8%
Strongly disagree	0	0%
Not applicable	0	0%
Total	61	

CUQ: This course provided me with the familiarity to the Army Training and Education Development Process.

Strongly agree	29	48%
Agree	28	46%
Disagree	4	7%
Strongly disagree	0	0%
Not applicable	0	0%
Total	61	

CUQ: This course has enhanced effective communication skills.

Strongly agree	31	51%
Agree	27	44%
Disagree	3	5%
Strongly disagree	0	0%
Not applicable	0	0%
Total	61	

CUQ: This course has improved my questioning techniques.

Strongly agree	31	51%
Agree	28	46%
Disagree	2	3%
Strongly disagree	0	0%
Not applicable	0	0%
Total	61	

CUQ: After taking this course, I better understand types of formal assessment.

Strongly agree	28	46%
Agree	29	48%
Disagree	3	5%
Strongly disagree	0	0%
Not applicable	1	2%
Total	61	

CUQ: This course has provided me with a better understanding of the processes and procedures for managing the assessment environment.

Strongly agree	24	39%
Agree	34	56%
Disagree	2	3%
Strongly disagree	0	0%
Not applicable	1	2%
Total	61	

CUQ: This course has provided me with an understanding of how to use assessment results to improve learning.

Strongly agree	24	39%
Agree	34	56%
Disagree	2	3%
Strongly disagree	0	0%
Not applicable	1	2%
Total	61	

CUQ: This course has provided me with the skills and knowledge I need to present a lesson using the conference method of instruction.

Strongly agree	32	52%
Agree	27	44%
Disagree	2	3%
Strongly disagree	0	0%
Not applicable	0	0%
Total	61	

CUQ: This course has provided me with the skills and knowledge I need to present a lesson using the demonstration/PE method of Instruction.

Strongly agree	32	52%
Agree	27	44%
Disagree	2	3%
Strongly disagree	0	0%
Not applicable	0	0%
Total	61	

CUQ: The Practical Exercises (PEs) prepared me to accomplish course performance requirements or course objectives.

Strongly agree	24	39%
Agree	35	57%
Disagree	2	3%
Strongly disagree	0	0%
Not applicable	0	0%
Total	61	

CUQ: I am confident I can perform the Instructor skills I have been taught.

Strongly Agree	39	64%
Agree	22	36%
Disagree	0	0%
Strongly Disagree	0	0%
Total	61	

CUQ: Currently there is a course called Systems Approach to Training Basic Course (SATBC), and in the near future, this course will change to the Foundation Training Developer Course. During my ABIC course I was informed of how important that course is to understanding the overall training development process.

Strongly Agree	27	44%
Agree	20	33%
Disagree	11	18%
Strongly Disagree	3	5%
Total	61	

Do you plan to attend the Systems Approach to Training Basic Course or the Foundation Training Developer Course? If you select No, please explain why.

YES	44	72%
NO	17	28%
Total	61	

Overall, I consider my training to have been:

Excellent	32	52%
Good	23	38%
Fair	5	8%
Poor	1	2%
Total	61	

Appendix A2 - EOCC (End of Course Critique) Written Responses by Theme

Time

- "some of the material covered, could have been left out"
- "there were instructions that were unnecessary and should be removed"
- "the course should be shortened to a week"

Materials/Course Objectives

- "students should not have to work extra hard to get materials corrected for their practicum"
- "this is a professional course so all materials should be in professional order"
- "slides and lesson plans for the exercises need to be revised before given out"
- "I think that the MOI portion of the class is a huge review of the IPC MOI and should be looked at for change when it comes to IPs going through this course"
- "I found it quite unnecessary to be trained on the development of a course, the full understanding of the lesson plan can be achieved without this bit of information"

Demonstrations/Evaluations
- "the demonstration section of the course was awkward"
- "the conference and the demo did not flow together"
- "using preplanned lessons is not conducive to learning, just your ability to read -no interest being sparked"
- "course needs to give adequate time to accomplish the tasks"
- "I would have liked to have more time to prepare for the individual tasks"
- "the facilitation session is something that I would be able to utilize in the future"
- "the lessons we are assigned to teach should all be linked from beginning to end to become more familiar with the content, especially if it is on a subject we have no experience with"
- "had NO direction provided for the "rehearsal" time"

Standards
- "student should know exactly what is expected of them prior to evaluation"
- "standards- PUBLISH set standards for a go/no-go.
- "the instructors used an "eye of the beholder" way to grade student performance, not a standard"
- "why are students given NO GO's for reading slides while instructors do the same?"
- "we were cautioned constantly not to read the slides when instructing but yet most if not all instructors from the ABIC course read the slides when instructing us. What then is the standard?"
- "there were three instances, during student's evaluated presentations, where the instructor walked out of the room. Once, again IN THE MIDDLE of the student's evaluated presentation, to answer their cell phone. Army Basic Instructor Course = OK to leave in the middle of an evaluation. Unacceptable."
- "there was a lot of confusion on the second presentation, as to what was required"

- "most of the Show and Tell portions were done in a few minutes, leaving the students entirely too much time to fill"
- "allow the ability to challenge (test out of) the course"
- "this course should contain the option to challenge and test out. Some people have been instructing for years and have college based off of this subject. It is a great course but is at the very basic level"

Prep time

- "there was also, too little time to confidently, sufficiently prepare for this demonstration exercise"
- "the Demonstration PE has entirely too much time allotted, and is itself too long.

General

- "all students should have a computer account before enrolling"
- "some of us need a little help on computer skills. This course seems to center on computer skills"
- "the class was great all the instructors where very helpful"
- "the class was awesome"

Quality of instruction/delivery

- "the instructors express timeliness at the beginning of the course, but every day we started late"
- "I get that the Army ELM 2015 model is newly instituted in ABIC but instructors should uphold the standards set forth and train students by example"
- "once the do's/don'ts of teaching an adult learner was complete, the instruction following was 2 hours of exactly what they had just taught us NOT to do"
- "give clear instructions"

Appendix B1 – Pre-Assessment Survey Forms

Pre-Assessment Survey

Army Basic Instructor Course (ABIC)

Last 4 of your SSN:_____

Participation in this survey is completely voluntary. The results are only being used for a comparative study, for a school project. The surveys will be kept totally confidential and only the overall comparison of pre- and post- assessments ranges will be documented.

Please circle the appropriate rating for how you perceive your abilities and knowledge prior to attending ABIC. Use the key below to determine your response.

5	4	3	2	1
Very High	High	Average	Low	Very Low

1. How comfortable do you feel in what is required to
conduct a Conference class: 5   4   3   2   1

2. How comfortable do you feel in what is required to
conduct a Demonstration/PE class: 5   4   3   2   1

3. How comfortable do you feel in what is required to
facilitate a class discussion: 5   4   3   2   1

4. How comfortable do you feel in your knowledge
of correctly writing a learning objective: 5   4   3   2   1

5. How comfortable do you feel in your knowledge
of the ADDIE process: 5   4   3   2   1

Appendix B2 – Post-Assessment Survey Form

Post-Assessment Survey

Army Basic Instructor Course (ABIC)

Last 4 of your SSN:_____

Participation in this survey is completely voluntary. The results are only being used for a comparative study, for a school project. The surveys will be kept totally confidential and only the overall comparison of pre- and post- assessments ranges will be documented.

Please circle the appropriate rating for how you perceive your abilities and knowledge after attending ABIC. Use the key below to determine your response.

5	4	3	2	1
Very High	High	Average	Low	Very Low

1. How comfortable do you feel in what is required to
conduct a Conference class: 5   4   3   2   1

2. How comfortable do you feel in what is required to
conduct a Demonstration/PE class: 5   4   3   2   1

3. How comfortable to you feel in what is required to
facilitate a class discussion: 5   4   3   2   1

4. How comfortable to you feel in your knowledge
of correctly writing a learning objective: 5   4   3   2   1

5. How comfortable do you feel in your knowledge
of the ADDIE process: 5   4   3   2   1

Do you feel any block of instruction should be removed from ABIC? If so, which one(s)?

Do you feel any block of instruction should be added to ABIC? If so, what?

Appendix B3 - Pre/Post-Assessment Survey Data

ABIC Pre and Post-Assessment Survey Average Scores
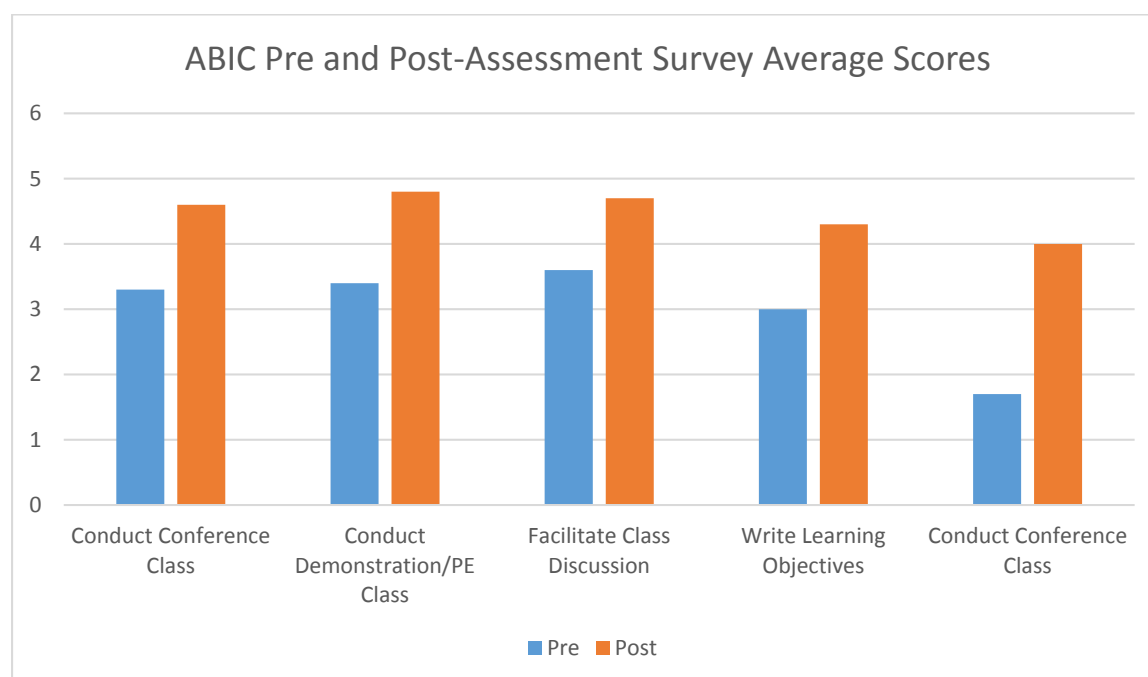
13-014 Each Objective Average Score for Pre and Post

	Pre	Post	Increase
Conduct Conference Class	2.8	4.8	2.0
Conduct Demonstration/PE Class	3.1	4.8	1.7
Facilitate Class Discussion	3.1	4.8	1.7
Write Learning Objectives	2.6	4.3	1.8
ADDIE Process Knowledge	1.2	3.9	2.7

13-015 Each Objective Average Score for Pre and Post

	Pre	Post	Increase
Conduct Conference Class	3.7	4.4	0.7
Conduct Demonstration/PE Class	3.7	4.7	1.0
Facilitate Class Discussion	4.0	4.5	0.5
Write Learning Objectives	3.3	4.3	1.0
ADDIE Process Knowledge	2.2	4.0	1.8

Pre-Score of Each Objective by Learner

	Conduct Conference Class	Conduct Demonstration/PE	Facilitate Class Discussion	Write Learning Objectives	ADDIE Process Knowledge
Course 13-014: 3121	5	5	5	3	1
2517	3	4	3	2	1
9402	1	2	3	1	1
6651	4	4	4	3	1
9019	4	3	5	4	1
1218	3	3	2	3	2
2345	3	3	3	3	2
3542	1	3	2	3	1
9049	1	1	1	1	1
Course 13-015: 7478	5	5	5	3	3
4426	4	4	5	3	2
7375	4	3	4	2	2
6384	4	4	4	4	2
0737	2	3	3	4	2
7393	3	3	3	4	2

Post-Score of Each Objective by Learner

	Conduct Conference Class	Conduct Demonstration/PE	Facilitate Class Discussion	Write Learning Objectives	ADDIE Process Knowledge
Course 13-014: 3121	5	5	5	5	3
2517	5	5	5	3	5
9402	5	5	5	5	3
6651	5	5	5	5	4
9019	5	5	5	5	5
1218	5	5	5	4	4
2345	4	4	4	4	4
3542	5	5	5	5	4
9049	4	4	4	3	3
Course 13-015: 7478	5	5	5	5	4
4426	5	5	5	5	5
7375	4	5	4	4	4
6384	4	4	4	3	3
0737	4	4	4	5	4
7393	4	5	5	4	4

Appendix C1 - Practical Exercise Checklists (Conference Presentation)

Practical Exercise Checklist for 20-25 Minute Conference Presentation

Instructions: The 20-25 Minute Presentation is a Graded Go / No Go Evaluation.
Must perform all bolded items and receive a Go on 10 of 15 non-bolded items

Name: _____   Topic: Develop Sub.   Date: 17 Jun 13

		Go	No Go	Written Comments
Introduction Section				(4:49)
1.	Motivator Must have Attention Getter, Self Introduction, Motivate students to learn	✓		- Very good motivator excellent story (use of OE) to start topic.
2.	Terminal Learning Objective Must state clearly the Action Condition Standard	✓		
3.	Safety	✓		
4.	Risk Assessment	✓		
5.	Environmental Considerations	✓		
6.	Classroom Protocols	✓		
7.	Evaluation Statement	✓		
8.	Instructional Lead in Must have Key Points and a Transition to first Teaching Point	✓		
Presentation Section				(19:52)
9.	Knowledge of Subject	✓		
10.	Relationship of training to job performance. OE was incorporated.	✓		
11.	Professional instructor to student relationship maintained at all times	✓		- Excellent topic, good use of time
12.	Positive and professional attitude	✓		
13.	Student involvement was at least every 3-6 minutes	✓		
14.	Effective questioning techniques. Used Ask-Pause-Call-Evaluate Method	✓		- Good transitions between topics, class flowed smooth
15.	Used effective Training Aids/Media	✓		
16.	Natural gestures	✓		
17.	Relaxed and professional posture	✓		
18.	Maintained eye contact	✓		
19.	Distracting mannerisms avoided	✓		
20.	Formal Check on Learning after each Learning Step Activity	✓		-"Ah" is your crutch word but wasn't distracting
21.	Verbal distracters (crutch words)	✓		
22.	Used Transition Statements between topics	✓		
23.	Classroom Management was maintained at all times	✓		
Summary Section				
24.	Ask for student questions	✓		
25.	Check on Learning Questions	✓		
26.	Review and Summary	✓		
27.	Transition to Next Lesson	✓		
Timing				
28.	Internal times were appropriate for lesson, student understanding, practice, ect.	✓		
29.	Overall time was met	✓		

Appendix C2 - Practical Exercise Checklists (Demonstration/PE Presentation)

Practical Exercise Checklist for 30-35 Minute Demonstration and Practical Exercise Presentation

Instructions: The 30-35 Minute Presentation is a Graded Go / No Go Evaluation.
Must perform all bolded items and receive a Go on 8 of 14 non-bolded items

Name: ▉▉▉▉▉   Topic: Boot Cleaning   Date: 18 Jun 13

		Go	No Go	Written Comments
Introduction Section				
1.	Motivator Must have Attention Getter, Self Introduction, Motivate students to learn	✓		−Very Good Story to introduce your topic, good use of OE.
2.	Terminal Learning Objective Must state clearly the Action Condition Standard	✓		
3.	Safety	✓		
4.	Risk Assessment	✓		
5.	Environmental Considerations	✓		
6.	Classroom Protocols	✓		
7.	Evaluation Statement	✓		
8.	Instructional Lead in Must have Key Points and a Transition to the Demonstration	✓		
Presentation Section				
	Demonstration Method of Instruction			− Need to involve Students more during the "Show + tell" portion
9.	Set up Demonstration Area	✓		
10.	Emphasize Safety	✓		
11.	Emphasize Environmental Considerations	✓		
12.	Perform "Show" portion	✓		
13.	Answer student questions about the "Show"	✓		
14.	Perform the "Show and Tell" portion	✓		
15.	Explained each step	✓		−Good job recovering to the show + tell portion.
16.	Emphasized key points	✓		
17.	Students were involved	✓		
18.	Asked questions	✓		
19.	Maintained eye contact	✓		
20.	Used effective Training Aids	✓		
21.	Formal Check on Learning conducted at the end of the Demonstration	✓		− Try to transition a little more smoothly.
22.	Transition with safety notes and any logistical issues	✓		
	Practical Exercise Method of Instruction			
23.	Restate the Action and Standard the students will be performing	✓		
24.	Give instructions to the students on what they will do to perform the task	✓		−Try to have training aid ready instead of using your own boot.
25.	Observe students as they perform task	✓		
26.	Stop and correct mistakes	✓		
27.	Stop if there are safety violations	✓		
28.	Ask students questions during performance of the task	✓		
29.	Give feedback, on-the-spot corrections and praises	✓		
30.	Review students performance of the task	✓		
31.	Formal Check on Learning conducted at the end of the Practical Exercise	✓		
32.	Transition to Summary Section	✓		

Appendix C3 - Practical Exercise Checklists (Facilitation Lesson)

Facilitation Lesson Practical Exercise Checklist

Instructions: The 25-35 Minute Presentation is a Graded (Go)/ No Go Evaluation.
Must perform all bolded items and receive a Go on 7 of 10 non-bolded items

Student name [REDACTED] Topic: *Effective Communication* Date: *20 Jun 17*

		Go	No Go
1.	**Introduction Section**		
a.	Motivator	X	
b.	**Learning Objective**	X	
c.	Safety	X	
d.	Risk Assessment	X	
e.	Environmental Considerations	X	
f.	Evaluation	X	
g.	**Instructional Lead-in**	X	
2.	**Presentation Section**		
a.	**Demonstrated subject knowledge**	X	
b.	**Socratic Questioning Method**	X	
c.	Training Aids matched topic	X	
d.	Posture appropriate to topic presentation	X	
e.	**Students shared learning ownership and experience**	X	
f.	**Guided discussion to group consensus**	X	
g.	Professional attitude	X	
h.	Verbal distracters	X	
i.	Final Thoughts	X	
j.	**Transition**	X	
3.	**Summary Section**		
a.	**Concluding Questions**	X	
b.	**Review/Summary**	X	
c.	**Transition to Next Lesson**	X	
4.	**Additional Requirements** **Must receive a Go on bolded items**		
a.	Internal time	X	
b.	**Total time:**	X	

Additional Comments

– Excellent discussions created, ensured the learning was definetly owned
and obtained by the stu[REDACTED]

[REDACTED]
Student Signature

27:34
Time

Appendix D1 – Post Graduate Survey Form

ABIC Post Class Survey

Please take a few minutes to answer the following questions concerning the Army Basic Instructor Course you recently attended. Your participation would provide useful information as we strive to make the course the best it can be. The intent is to see if what you learned in ABIC has effected a change in your teaching. Please return the survey by completing, saving, and underline forwarding to: suzanne.a.vaughan2.civ@mail.mil or suzanne.vaughan@us.army.mil (a "Reply" will strip the attachment).

The ABIC is designed to help improve several aspects of instruction. For each major topic in the ABIC please place an X in the box which most closely corresponds to the level of change in the way you now approach these instructional activities.

	No change	Moderate change	Great deal of change	No change required
Drafting a lesson plan				
Identifying question types and questioning techniques				
Identifying activities that prepare the learning environment				
Establishing credibility				
Communicating class rules and procedures				
Managing media effectively				
Facilitating a guided discussion				
Delivering instruction using the Conference method of instruction				
Delivering instruction using the Demonstration and PE methods of instruction				

Please continue to the other side.

Now, please take a minute to discuss *how* you have changed in any of these areas. Just a few comments would be helpful.

Preparing for a course: (e.g., drafting a lesson plan, identifying question types and questioning techniques, identifying activities that prepare the learning environment)

_____

_____

_____

_____

_____

Leading a course: (e.g., establishing credibility, communicating class rules and procedures, managing media effectively, facilitating a guided discussion, delivering instruction using the Conference method of instruction, delivering instruction using the Demonstration and PE methods of instruction)

_____

_____

_____

_____

_____

For any area where change was difficult, can you speculate why it was difficult to change.

_____

_____

_____

_____

_____

Appendix D2 – Post Graduate Survey Responses

	No change	Moderate change	Great deal of change	No change required
Drafting a lesson plan	2	0	5	1
Identifying question types and questioning techniques	4	1	3	0
Identifying activities that prepare the learning environment	3	4	1	0
Establishing credibility	4	2	1	1
Communicating class rules and procedures	4	2	1	1
Managing media effectively	3	3	2	0
Facilitating a guided discussion	5	0	3	0
Delivering instruction using the Conference method of instruction	5	1	2	0
Delivering instruction using the Demonstration and PE methods of instruction	4	2	1	0

N=8

Comments	Number of Participants
new experience , everything new and exciting	1
never drafted lesson plan before; had used many of the techniques before; learned more structured approach	2
not an instructor but important to know standard army way; facilitation skills may be useful in my work	3
I have not changed the material so I have not changed the way I teach. I prefer to use the components of materials as teaching aids.	4
I think about which questions I will ask before I show up that day.	5
I'm using the same techniques taught in the course	6
cut back on how to develop lesson plans since we get them already developed; other components of class useful	7
lesson plan development was new	8

Appendix E1 – Supervisor Report on Behavior Form

Instructional Improvement Survey

Please comment on your observations of instructors who are graduates of the ABIC. Your comments will help us improve the course.

What do instructors do differently in preparing for their classes after they attend ABIC?

_____

_____

_____

_____

_____

How do instructors handle their classroom differently after they attend ABIC?

_____

_____

_____

_____

_____

What other changes do you observe in instructors after they attend ABIC?

_____

_____

_____

_____

_____

Thank you for your participation!

Appendix E2 – Supervisor Report on Behavior Form Responses

N=5 (breaks separate comments of each respondent)

What do instructors do differently in preparing for their classes after they attend ABIC?

- they use teaching materials (computers, PowerPoint, Elmo) more effectively rather than relying on own knowledge as prep
- they come more prepared
- make the class their own without straying from standards

- more preparation due to better understanding of the lesson plan structure

----

- better understanding of instructor guide
- ABIC does not prepare students to handle content questions
- ABIC does not prepare students to handle discussion format

- more attention paid to administrative requirements (visitor books, training records)

How do instructors handle their classroom differently after they attend ABIC?

- less timid, better able to handle authority role
- they come better prepared to handle students
- they own the classroom more

- use more student interactions
- more confidence displayed in handling student interactions
- don't shut students down so fast

- instructors lack skills to effectively present a class
- no tangible difference in instructors after attending ABIC

- I don't think there is significant change in the way instructors handle their classrooms
- many instructors fall back into old, comfortable habits
- instructors often do not see the relevance of the course and therefore principles addressed are disregarded
- little emphasis in course on why certain techniques are important and the relevance to the instructors

- units need to "support and revere" their instructors
- staff, faculty and leadership need to engage with the students, filling in the "why"

What other changes do you observe in instructors after they attend ABIC?

- confidence is improved
- more preparation
- better performance, more fluid and natural
- better use of presentation tools
- instructors engage students in more conversational manner

- most improvement in confidence is among instructors teaching peers (same grade)

- does not prepare instructors to teach unless they have never been in front of a class before
- provides little to instructor development
- does not prepare instructor to facilitate training

- increased confidence in public speaking
- increased awareness of ALM 2015
- increase in how to implement questioning

Appendix F - Cost Benefit Analysis

This cost benefit analysis assumes a micro approach and examines the cost for internal, government instructors for ABIC versus outside, contract instructors.

Assumptions:

1. Instructors teaching aviation content (e.g., piloting helicopters, air traffic control, mechanics) need to be skilled instructors as well as being grounded in their content.

2. The Army Basic Instructor Course (ABIC) is designed to enhance instructional skills and is mandated for all army content instructors.

3. If the Staff & Faculty office did not exist to provide instructors of ABIC, then the ABIC would have to be conducted by outside contract instructors.

It was determined that the best way to approach this analysis was to compare the salaries of internal instructors to contract instructors. The factors used in the calculations were: hourly salary, teaching time, academic preparation time, and physical preparation, such as making copies, gathering equipment for practical exercises, and starting and troubleshooting the computer and AV systems.

The two current Department of the Army Civilian instructor salaries were used for the comparison:
- One is a GS-12 (Senior). Yearly salary of $71,102; hourly salary of $34.18
- One is a GS-11 (Novice). Yearly salary of $57,408; hourly salary of $27.60

The amount of Academic Preparation time can vary. A senior instructor (one who has been completely certified in all lessons and has taught for a minimum of one year) will need less time studying and preparing to teach. A novice, or journeyman level will require more preparation time.
- Senior Instructor: roughly 1 hour per week
- Novice Instructor: roughly 4 hours per week

When the students are practicing or presenting, both instructors are required to run 2 groups simultaneously. When teaching, only a single instructor is necessary. However, Senior Instructors may be required to conduct certification evaluations of Novice Instructors. For comparison purposes, we will assume two teachers are required per class at varying amounts of time during the 80 hours of class time.

The cost estimate chart for internal, government ABIC instructors is as follows:

Internal Instructor	Hourly Salary	Teaching Time*	Academic Prep	Physical Prep	Total
Senior	$34.18	60 hours	2 hours	3 hours	65 hours x $34.18 = $2,221.70
Novice	$27.60	55 hours	8 hours	3 hours	66 hours x $27.60 = $1821.60

* All figures are for a two week span, the length of ABIC.

For the outside, contract option a single, averaged salary was used for the salary cost estimate factor. Salaries from five past contract employees at the Aviation School were obtained. The range of the five contractor salaries was $85,000 to $110,000 per year. The highest and lowest salaries were averaged to obtain a base yearly salary of $97,500, equating to a hourly rate of $46.88.

The time factors for Teaching Time and Physical Preparation Time remained the same for the contract instructors.

Since contract instructors would most likely be novice level for the ABIC, 8 hours for the Academic Preparation factor were calculated.

The cost estimate chart for outside, contract ABIC instructors is as follows:

Contract Instructor	Hourly Salary	Teaching Time	Academic Prep	Physical Prep	Total
Instructor 1	$46.88	60 hours	8 hours	3 hours	71 hours x $46.88= $3,328.48
Instructor 2	$46.88	55 hours	8 hours	3 hours	66 hours x $46.88= $3094.08

This comparison is a cost savings of $2,379.26 for a single iteration of ABIC ($6,422.56 - $4,043.30).

Every school in the Army conducts 12 to 27 iterations of ABIC every year. Using the most conservative number of 12 sessions per year and multiplying by the single iteration savings of $2,379.26 represents a savings for each Aviation School of $28,551.12. With sixteen Army Proponent Schools teaching 12 ABIC sessions per year a minimum savings of $456,817.92 is realized each year across the Army.