Evaluation Blueprint [Final 1-28-13]

Project: Food Protection Manager Certification training test security

Client:ANSI, FPMCC, CFP

Key Stakeholders: _All the above, plus members of Security Evaluation Workgroup and constituencies they represent (food industry, food regulatory agencies, certification bodies, etc.)

Selected Interventions Description: Recommended solutions to address test security issues – 1) Professional Credibility and training of Proctors 2) Handling of exam packages/shipping irregularities 3) Handling location/site Irregularities 4) Breach of provider's test administration requirements 5) Provider's quality assurance for test Administration & test administrators (These were chosen as the most cost effective and easiest to implement.)

Steps to Evaluation Planning

1. **Establish the evaluation baseline**.

A. Organization Goal: Improve Food Manager Certification test security by reducing the percentage and impact of test security breaches.

B. Organization Measures: percentage (calculated from raw data provided by each provider) of documented test security breaches occurring annually in 2009-10 as a baseline year and estimate of their negative impact on integrity of food protection testing (using NRA scale of High & Mid severity)

Data Source: certification providers, ANSI

✓ Existing measures ☐ New measure

Performance Goal One: Proctors/Test Administrators receive initial training and retraining every 3 years

Performance Measures: __1. percentage of proctors/test administrators trained/retrained in 2009-10 vs. 2012-13. 2. number of proctor violations of standard (by category) and number/types of disciplinary action in 09-10 vs. 12-13. 3. Number of Revocations by category in 09-10 vs. 12-13. 4. Change in content of training from 09 to 12.

Data Source: _certification providers_____

√ Existing measures (violations, revocations) √ New measure (training)

Performance Goal Two: Reduce exam packaging and shipping irregularities

Performance Measures: Number of lost exam booklets, # of lost completed answer sheets, causes of losses/missing items by category

Data Source: certification providers

√ Existing measures ☐ New measures

Performance Goal Three: Reduce test site irregularities

Performance Measure: Percentage of test site irregularities, causes of test site irregularities broken down by test administration type (onsite, online, test center, etc.)

Data Sources: certification providers, test examinee survey, internal audit results, exam location checklists (from proctor)

√ Existing measure (location checklist) √ New measures (survey, internal audit)

Performance Goal Four: Reduce test administration irregularities

Performance Measures: 1. Percentage of violations related to test administration irregularities (breach of protocols, cheating), 2.causes of violations by category, 3. # exam versions available at any one time, 4. frequency of exam form revisions

Data Sources: certification providers, ANSI assessors, test examinees (hotline for # of violations, surveys)

√ Existing measures ☐ New measures

Performance Goal Five: Improve test administration and administrator quality assurance

Performance Measures: 1. Number of documented management quality assurance systems and the components of the systems in place, 2. number of breaches of quality assurance system, 3. qualitative measures of what has been implemented as of 2013 4. what corrective actions have been identified and implemented as a result of internal audits.

Data Sources: certification providers (internal audit), ANSI assessors, document review of internal audit reports

☐ Existing measure √ New measures

2. Create the evaluation design.

A. Evaluation question for organization goal: Do the five interventions adopted by FPMCC improve Food Manager certification test security as measured by the percentage and negative impact of test security breaches? (Executive summary – have we had a positive impact on test security?, which of the 5 interventions worked best/worst and recommendations for what else should be done to improve test security.)

B. Evaluation questions for performance goals:

1) Do Proctors/Test Administrators receive training and retraining every 3 years as measured by the percentage of Proctors and test administrators who attend training and retraining and successfully pass.

2) Is the number of exam packaging and shipping irregularities reduced as measured by the percentage and causes of lost and missing exams/completed answer sheets?

3) Is the percentage of test site irregularities reduced as reported by certification providers and test examinees?

4) Is the percentage of test administration irregularities reduced as reported by certification providers, test examinees and ANSI assessors?

5) Does having a management quality assurance system help to identify and implement corrective actions to improve test security?

C. Evaluation Design Model: Pre-Post Single Group Design. Pre will be based on July 1, 2009-June 30, 2010 as a baseline. Post will

be based on July 1, 2013-June 30, 2014 reporting. Pilot data to test the tools will be collected based on July 1, 2012-June 30, 2013. All data will be aggregated and reported as a single group summary, with no between-group (certification providers) analysis to avoid anti-trust problems.

M(measurement)1=7/2009-6/2010 Baseline, M2=7/2012-6/2013 Pilot Results, M3=7/2013-6/2014

T(treatments)=security interventions 1-5 M1 → M2 → T → M3 Final pre-post evaluation compares M1 to M3. M2 used for formative evaluation (fine-tune tools and data collection process).

D. Data collection methods: surveys of providers and test examinees, existing documentation of test security compiled by ANSI and certification providers

E. Evaluation tools – for M1, M2 and M3

X Surveys 1. Certification providers to report on baseline 2009-10 data and implementation of the 5 interventions (on ANSI-provided form to report 2012 results), 2. test examinees to report on test administration and test sites (generic survey incorporated into provider's current survey – Don to produce questions, each provider to implement in their own way, sample of 100 responses per provider for pilot data.)

☐ Focus group No

☐ Interview No

X Observation No new observation, but will access ANSI Assessor & Mystery Shopper observation data

X Document examination ANSI assessor reports of test security problems and their causes, Certification Bodies' reports/self-assessment of test security breaches and their causes

X Test/Assessment Data forensics Certification bodies' reports of item exposure, regional differences in security trends, misuse of items, response pattern analysis, cheat detection. Corrective actions taken to address documented cases of cheating.

3. Specify Data Analysis

(Details will be included in appendices for reference)

A. Quantitative Analysis Methods: Survey data: descriptive statistics (means, modes, standard deviation) correlations (5 interventions & organization/performance goals), statistical significance of interventions (inferential – Analysis of Variance (ANOVA), within-group comparison of pre-post data)

B. Qualitative Analysis Methods: Document analysis: thematic, comparative (M1, M2 and M3). We should keep in mind that there may be an initial increase in reported security breaches due to greater attention to the problem – corrective actions and root cause analysis of breaches is very important to report.

4. Specify resource requirements

Resource requirements needed to conduct an evaluation include:

Evaluator labor – Dr. Ford will devote approximately 12-15 days to this project

Provider labor – Certification Bodies will devote approximately 1-2 days to provide survey data

Examinee labor – Test examinees will devote approximately 5-10 minutes to provide post-exam survey data

FPMCC labor – Committee members will spend approximately 4-5 days in meetings and reviews of evaluation work

Computing resources – Dr. Ford will use his existing computer and software.

5. Create evaluation schedule

- Schedule covers planning the evaluation, designing and developing it, implementing it, and conveying its results (see the following page for details).

Evaluation Phases	Steps	Data Source	Data Collection Method	Stakeholders Who Need This Information	Person Responsible	Due By
Evaluation Planning (Part I)	1. Establish the evaluation design 2. Specify data analysis 3. Identify resource requirements 4. Create evaluation schedule	FPMCC SEW	Document Examination	FPMCC, ANSI	Don Ford FPMCC SEW	12/18/12 √ 12/18/12 √
Formative Evaluation (Part II)	1. Root cause evaluation 2. Establish the evaluation baseline (09-10 data) 3. Initial debugging of tools 4. Expert/Don review 5. Present to FPMCC 6. FPMCC approval 7. FPMCC meeting 8. Pilot testing 9. Isolate intervention's effects 10. Report to FPMCC	FPMCC, ANSI, Providers FPMCC SEW	Surveys Document examination	FPMCC, ANSI	FPMCC SEW Providers Don Ford Providers/Don Don/ SEW FPMCC FPMCC SEW Providers Don Ford FPMCC SEW	2012(complete)√ 4/30/13 1/14/13 √ 1/28/13 √ 1/31/13 3/1/13 5/15-5/16/2013 7/2012-6/2013 Data by 9/2013 9/2013 10/2013
Summative Evaluation (Part III)	1. Collect summative data 2. Isolate intervention's effects 3. Report to FPMCC	Providers, Examinees, ANSI	Surveys Document examination	ALL	Providers/ANSI Don Ford FPMCC SEW	7/2013 - 6/2014 7/2014 9/2014

√ denotes completion

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