Assessment of Learning

a Pre and Post-Testing Plan

for

Wisconsin Crisis Intervention Team (CIT) Training

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February 2015

Executive Summary

The Wisconsin model of CIT training entirely adopts the themes and "best practices" of the widely recognized "best practices" model of the "Memphis Model" of CIT training. To support this claim, this document will first depict the program goals of the "Memphis Mode" and then do a side-by-side comparison of those with the Wisconsin Model. The comparison will highlight how and where within the Wisconsin Model operationalizes training of the "Memphis Model's" two main program goals. This ensures top-down vertical alignment of and affinity with the Wisconsin Model to the "Memphis Model."

The document will next discuss what academic assessment is and how it connects the identified and the vertically aligned program goals of the Wisconsin Model to the "Memphis Model of CIT training. The document will then discuss an academic assessment technique referred to as pre and post testing.

The document will explain how the Wisconsin Model of CIT for assessment of learning purposes, has developed specific and quantitatively measureable program learning objectives by way of a pre and post-testing instrument. The document will explain how measureable program learning objectives were developed directly from the program goals of the Wisconsin Model of CIT training.

The document will explain the process of how the Wisconsin Model developed a pre and post-test. This pre and post-test instrument incorporates a quantitative metric that is also vertically aligned to the learning objectives and goals of the Wisconsin Model. Accordingly, each question in the pre and post-test can be mapped to the program learning objectives, which are derived from the Wisconsin CIT model which is aligned to the "Memphis Model" of CIT training.

The document will explain a procedure on how to calculate a gain score for pre and post-test examinations. Lastly, it will recommend some qualitative measures to be considered in the future to incorporate "triangulation," or a way in which to make holistic the academic assessment for future program review purposes.

Affinity Mapping
Alignment of Program Goals of the Memphis Model of CIT
to the Program Goals of Wisconsin Crisis Intervention Training
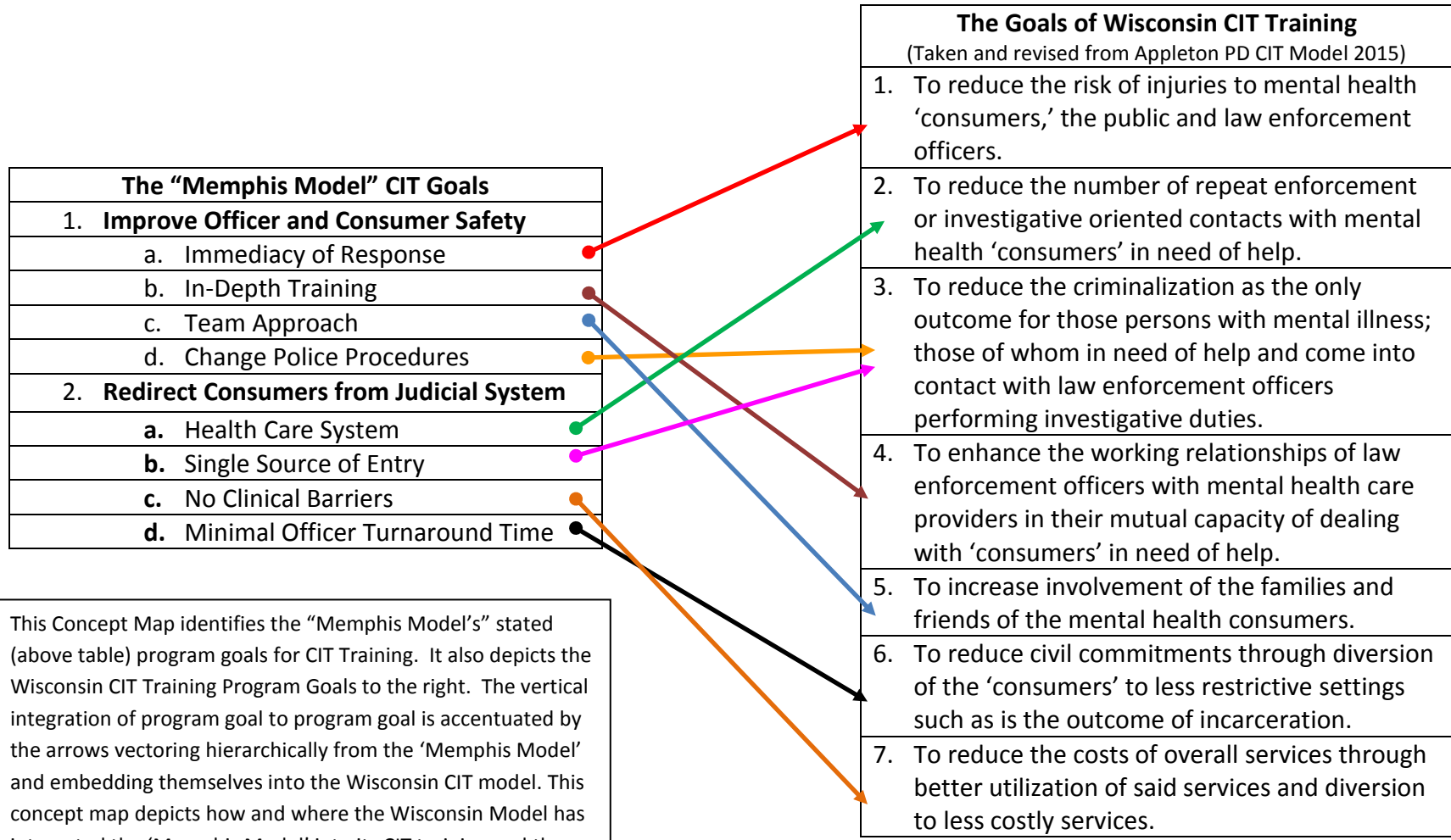
The "Memphis Model" Goals

1. **Improve Officer and Consumer Safety**
   a. Immediacy of Response
   b. In-Depth Training
   c. Team Approach
   d. Change Police Procedures

2. **Redirect Consumers from Judicial System**
   a. Health Care System
   b. Single Source of Entry
   c. No Clinical Barriers
   d. Minimal Officer Turnaround Time

The Goals of Wisconsin Crisis Intervention Training
(Taken and revised from Appleton PD CIT Model 2015)

1. To reduce the risk of injuries to mental health 'consumers,' the public and law enforcement officers.
2. To reduce the number of repeat enforcement or investigative oriented contacts with mental health 'consumers' in need of help.
3. To reduce the criminalization as the only outcome for those persons with mental illness; those of whom in need of help and come into contact with law enforcement officers performing investigative duties.
4. To enhance the working relationships of law enforcement officers with mental health care providers in their mutual capacity of dealing with 'consumers' in need of help.
5. To increase involvement of the families and friends of the mental health consumers.
6. To reduce civil commitments through diversion of the 'consumers' to less restrictive settings such as is the outcome of incarceration.
7. To reduce the costs of overall services through better utilization of said services and diversion to less costly services.

Figure 1: Goals of the "Memphis Model"

and the Wisconsin CIT Training Model

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This Concept Map identifies the "Memphis Model's" stated (above table) program goals for CIT Training. It also depicts the Wisconsin CIT Training Program Goals to the right. The vertical integration of program goal to program goal is accentuated by the arrows vectoring hierarchically from the 'Memphis Model' and embedding themselves into the Wisconsin CIT model. This concept map depicts how and where the Wisconsin Model has integrated the 'Memphis Model' into its CIT training and thus maintains affinity with the 'Memphis Model.'

Goal-to-Goal Vertical Alignment
The Wisconsin Model of CIT Affinity with
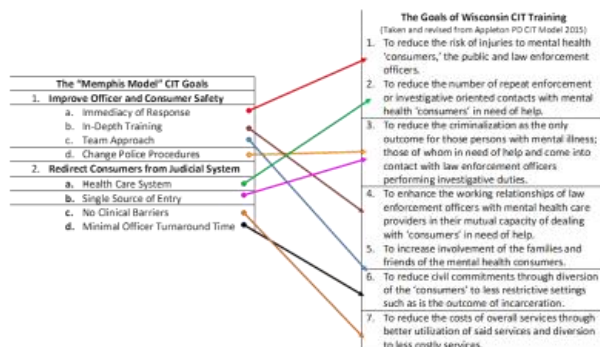**The "Memphis Model"**

Program Goals to Program Goals

"Memphis Model" Goal: Improve Officer and Consumer Safety (1,a) Immediacy of Response	Wisconsin CIT Training Goal 1. To reduce the risk of injuries to mental health 'consumers,' the public and law enforcement officers.
• A Crisis Intervention Team program consists of law enforcement officers who have received intensive specialized training on dealing with individuals in the community who have a mental illness or other behavioral disability. CIT team trained officers provide an immediate response to calls involving a mental health or other behavioral crisis situation.	• With embedding the first goal of MM into Wisconsin CIT model, we believe that this training changes nature of intervention with proscriptions that clarify the lines of responsibility (immediately) and reduces injuries for all concerned. It will affect the way in which law enforcement opts to escalate the use of force (Dupont & Cochran, 2000) inasmuch as it first changes attitudes/perception (Borum et al, 1998) and then later as a result later lowers arrest rates (Steadman et al, 2000) by increasing healthcare referrals (Dupont & Cochran, 2000)
• This means that when the situation calls for the de-escalation of a mental illness based crisis arises, the "officer on patrol" is prepared to manage it as part of their normal repertoire of order maintenance skill set.	
• Ultimately, the long term goal for CIT team training is to have the entire staff of officers trained in "Memphis Modeled" CIT. However, the short term reality is for each participating law enforcement agency to have at least one CIT officer available on each shift, but these officers also perform their regular duty assignments. This is not envisioned as a call-out situation such as "tactical or SWAT" response, since immediacy of response is what makes the program successful along with application of viable interaction techniques.	• The "first responder model" of excellent immediacy of response (Deane et al, 1997) means that we believe that specially trained patrol officers provide these services to individuals with mental illness and their families in times of crisis – 24 hours a day, seven days a week. Because law enforcement officers are generally the first ones called to work with a consumer in crisis, it is imperative that the officer understand issues that the consumer may be experiencing as a result of his/her mental illness.
Goals of the "Memphis Model" and the Wisconsin CIT Training Model Concept Map	• Our CIT training consists of a one-week, 40-hour block of instruction. Our aim is to improve officer and consumer safety with training that expedites the need for immediacy of response by way of a team (law enforcement, social services, NAMI and health services) approach. Lastly, we strive to affect attitudes to eventually change law enforcement standard procedures

"Memphis Model" Goal: Improve Officer and Consumer Safety (1,b) In-depth Training	Wisconsin CIT Training Goal 4: To enhance the working relationships of law enforcement officers with mental health care providers in their mutual capacity of dealing with 'consumers' in need of help.
1. The CIT program is a four phase program, of 40 hours in which case, phase one provides in-depth coverage of the types, severity signs and symptoms of chronic mental illnesses, and the medications used to control the illness with their sometimes devastating side-effects. • Second, the officers will be instructed to locally available social service and medical resources they have at hand to divert the mentally ill away from the criminal justice system. • Thirdly, the officers will spend a half -day visiting various local mental health facilities so that the officers and consumers (persons with mental illness) can interact one-on-one or in-group discussion when neither is in a crisis situation. Last and fourth, are a full day of training in de-escalation and the scenario based training in which the officers will participate in the acting out of real-life situations either by role playing actors. Most importantly, scenario based training lends itself to debrief and critiquing and sharing of techniques to learn the most effective ones.	• Wisconsin CIT training acquaints the officers with the observational and recognition skills to alert the officer of mental illness and the proposition that officer safety tactics that do not necessarily require an automatic escalation of the use of force as a singular solution. Rather, training for safety in situations that requires only 'dialogue and persuasion' that formerly provoked a use of force response in officers are stressed as not always the best solution for dealing with the mentally ill. • Rather, skills, knowledge and understandings of approaches such as active listening and de-escalation techniques are promoted. In which case, mental illness, learning and developmental disorders and substance abuse, psychotropic medications, family perspectives and community resources, legal issues relating to emergency commitments and emergency detention are presented. The use of role play scenarios – active listening, de-escalation techniques specific to the mentally ill experiencing a crisis entail the Wisconsin approach to CIT Training.

"Memphis Model" Goal (1,c): Improve Officer and Consumer Safety: Team Approach	Wisconsin CIT Training Goal 5: To increase involvement of the families and friends of the mental health consumers.

The MM advocates that law enforcement makes partners of local mental health professionals, school districts, advocacy and community members and volunteers of all kinds to present and provide role play experience.	• Wisconsin CIT's training adopts the "Memphis Model" with instruction geared to enable the officers to recognize and remove barriers transforms community crisis services. Officers will gain the understanding that success in dealing with the mentally entails a collaboration of law enforcement professionals, community mental health providers and local stakeholders.
	
	 • Wisconsin CIT training encourages the interaction of law enforcement with the behavioral health system—and this dialogue is helping to reshape crisis systems and save lives. CIT-trained law enforcement officers as such are better able to de-escalate crisis situations, resulting in fewer injuries to the officers and to the people in crisis.
	
	 • These first responders understand community behavioral health resources. The behavioral health system understands officers' needs. Building a community safety net engaging the community in problem solving produces coordinated services and expanded access to treatment through a web of resources and follow-up services. Key stakeholders collaborate to improve the crisis system.
	
	 • This includes but is not limited to:
	    ○ Adult service recipients and family members
	    ○ Law enforcement and Fire departments
	    ○ Behavioral health and Social Services crisis providers
	    ○ Hospitals
	    ○ State and local governments
	
	 • As a result, the "team" of first responders, behavioral health practitioners, service recipients and families interact effectively with each other. A transformed crisis system benefits the entire community.

"Memphis Model" Goal: (1,d) Improve Officer and Consumer Safety: Change Police Procedures	Wisconsin CIT Training Goal 3: To reduce the criminalization as the only outcome for those persons with mental illness; those of whom in need of help and come into contact with law enforcement officers performing investigative duties.

• It should also be emphasized that the safety of police officers is recognized as a fundamental concern. No responsible citizen expects a police officer to risk his or her life unnecessarily or foolishly. And no police chief worthy of the responsibility would adopt policies or practices that expose officers to undue risk. However, reverence for all human life and safeguarding the guarantees of the Constitution and laws of the United States are also important values in policing.
 	
    • The conventional wisdom is that police agencies must exercise strict control over their police officers. As policing has become more complex there has been a tendency to over-regulate police officer actions.
 	
    • Creating complex policies, procedures, and rules has become the customary method of controlling the discretion of police officers. Authorizing some discretion is better than strictly controlling police officer behavior. There are no philosophies or practices that will anticipate the entire range of human behavior that officers might encounter in the course of police work. It is also understood that, ultimately, the police officer's judgment will be the deciding factor in most cases. However, enough relevant experience and information exist that officers can be given practical guidance which, in many instances, will help to avoid situations escalating to violence.
	• Two premises underlie the Wisconsin CIT training goal concerning approaches to policing. One is that the police, by virtue of the authority that society vests in them, have overarching responsibility for the outcome of encounters with citizens. This in no way ignores the fact that the police must deal with such groups as the mentally ill impaired. The second and main premise is that good policing must take into consideration two equally important factors: the values on which a police department operates, as well as the practices it follows.
	
	    • CIT provides officers discretionary tools for responding more safely and compassionately to people with serious mental illness. CIT gives officers options other than arrest and incarceration when they encounter people with mental illness. It improves public safety and reduces officer injuries, while reducing the amount of time officers spend dealing with mental disturbance calls. CIT officers report that they are more satisfied with CIT than with other jail diversion approaches.
	
	    • By diverting people with serious mental illness from jails, CIT helps ensure that jails are used to incarcerate criminals, not people who require treatment. CIT also saves public resources by preventing people from deteriorating to the point they are incarcerated or require costly emergency services. Finally, CIT saves police time and money by creating an efficient system for transferring people from law enforcement custody to mental health treatment.

"Memphis Model" Goal (2,a) Redirect Consumers from Judicial System Goal: Health Care System	Wisconsin CIT Training Goal: 2.To reduce the number of repeat enforcement or investigative oriented contacts with mental health 'consumers' in need of help.
• With increasing regularity officers throughout the United States are finding themselves confronted by people who are mentally disturbed. Too often in the past, those confrontations have led to incarceration, violence and even lethal force. • A key element of the C.I.T. process is working hand in hand with local mental health professionals. Working closely with the mental health community will enable an officer to bring disturbed subjects to appropriate facilities for appropriate evaluation and treatment rather than "warehousing" them in jails.	• After CIT training, officers in the field will be able to recognize abnormal behavior, or behavior that is indicative of mental illness and that is potentially dangerous to themselves and/or others. Officers already understand they should not rule out other causes of abnormal behavior such as drugs, alcohol or temporary emotional disturbances. • Furthermore, the officers also understand that their role in mental illness crisis is that they should lead by example. Thoughts and emotions on both sides are to be kept under control. • The CIT officer' s goal is to-- with safety in mind, is trained to establish a rapport and credibility and then restore subject to pre-crisis level of functioning. The officer by way of de-escalation training will know how to get the subject to evaluate his/her position, outlining the options and consequences of each action. In doing so, the officer gains acceptance of notion of compliance without casualty. • Therefore, the emphasis of CIT training is not directed at making social workers of cops, but rather of giving them the skills and qualifications to determine whether the subject should be incarcerated and the discretion to see to the person be assisted by way of a mental health system outcome instead, where they can get help.

"Memphis Model" Goal (2,b) Single Source of Entry	Wisconsin CIT Training Goal: 3. To reduce the criminalization as the only outcome for those persons with mental illness; those of whom in need of help and come into contact with law enforcement officers performing investigative duties.
• Responders (police, firefighters and EMTs) encounter people with mental illness in many different types of situations, in roles that include criminal offenders, disorderly persons, missing persons, complainants, victims, and persons in need of care. According to one study, (Peck, 2003) the five most frequent scenarios are as follows: 1. A family member, friend, or other concerned person calls the police for help during a psychiatric emergency. 2. A person with mental illness feels suicidal and calls the police as a cry for help. 3. Police officers encounter a person with mental illness behaving inappropriately in public. 4. Citizens call the police because they feel threatened by the unusual behavior or the mere presence of a person with mental illness. 5. A person with mental illness calls the police for help because of imagined threats. These are the most common situations in which responders encounter people with mental illness. It is important to realize, though, that when police officers handle some of these situations they do not always realize that mental illness is involved (such as a shoplifting or a disorderly person).	• In CIT training, officers will be instructed to learn that the most important decisions are made by the officer who responds to the request for service. S/he must assess the situation and identify appropriate responses. If mental health care is one of the options, the officer needs to know when a referral is available or appropriate. • It is also desirable to have access to someone who can inform that judgment such as social welfare and mental health professionals. • In many cases, information from the citizen or his family or friends can turn involuntary care into a voluntary referral. But sometimes, not always an involuntary referral must be made and emergency mental health care initiated.

"Memphis Model" Goal (2,c) No Clinical Barriers	Wisconsin CIT Training Goal 7. To reduce the costs of overall services through better utilization of said services and diversion to less costly services.

• Law Enforcement Referral Policies
  • The policies in place should allow for a wide range of inpatient and outpatient referral sources in order to accommodate law enforcement agencies with a CIT program.
  • Policies should be in place should also promote actions taken by law enforcement officers should be streamlined to promote officers acting to divert mentally ill people away from a criminal justice system solution to mental illness crises.
	• Officers and administrators should be edified to the organizational or systemic barriers that prevent officers from accessing immediate mental healthcare for an individual with mental illness should be eliminated. This should be a priority as important as any other in the CIT process.
	• In addition, policies should be set to ensure minimal turnaround time for the CIT Officers, so that it is less than or equivalent to the turnaround time in jail.

"Memphis Model" Goal (2,d) Minimal Officer Turnaround Time	Wisconsin CIT Training Goal 7. To reduce the costs of overall services through better utilization of said services and diversion to less costly services.
• Police officers routinely provide the first line of crisis response for situations involving persons with mental illnesses. These calls for service are common they constitute between seven and 10 percent of all police contacts. But they pose operational problems for officers and managers and can significantly alter the lives of persons with mental illnesses and their families. • Law enforcement officers encounter people with mental illnesses in five general situations: as a victim of a crime, as a witness to a crime, as the subject of a nuisance call, as a possible offender, and as a danger to themselves or others. • It is also true that a person with a mental illness may fall into more than one category at a time. It is critical for the officer who responds to the scene to recognize whether mental illness may be a factor in the incident, and to what extent, before deciding which response is best. This process can be difficult given the complexity of mental illness	• On-scene officers must learn to recognize signs or symptoms of mental illness; then know how to stabilize and de-escalate the scene. • Once the scene is stabilized, they next must determine whether a serious crime has been committed (if any); then consult with mental health personnel; and determine whether the person might meet the criteria for emergency evaluation. • Once these determinations have been made, the responders must decide what, if any, action to take next. • Whatever the next step, law enforcement should not overlook the opportunity to provide services and resources to victims, given the cost involved in obligating their time and the dwindling of public resources to do so. • Law enforcement officers in CIT training become more informed about the complexities of working with persons who have mental illness by collaborating with their mental health partners. These professionals can help law enforcement officers sort out these issues and thereby improve case outcomes not to mention minimizing the time, attention and resources expended in doing this work time and time again with the same individuals.

What is Assessment?

Assessment of learning is not grading! Students should not receive a grade from assessment. Assessment is the internal and administrative process of collecting and analyzing data pertaining to student learning in a programmic sense. It is a part of ongoing program review and quality control.

Assessment is a process that is purposeful, anonymous and public and is aimed at understanding and improving student learning. Assessment results are used to inform decision-making. Assessment is the process of documenting, usually in measurable terms, skills, knowledge, understandings, (SKUs) attitudes, and beliefs. Assessment can focus on the individual learner, the learning community (class, workshop, or other organized group of learners), the institution, or the educational system as a whole.

Developing an effective assessment plan begins with being clear about what program CIT faculty are trying to accomplish. For instance, a clear statement of learning goals and objectives serves as the foundation for the entire plan – i.e. the shaping the kinds of questions you will ask, the assessment methods you will employ, and determining how useful your assessment results are for making programmatic changes.

In the case the "Memphis Model" (i.e. the best practices model) Wisconsin CIT first cited the "Memphis Model) program goals and then fixed its affinity to the best practices model by way of demonstrating congruence to the program goals of the "Memphis Model." This affinity drove the creation of the assessment plan.

Just like the term "assessment," there are varying definitions of "goals." For consistency and ease of understanding, the following terms will be used as defined: Goals describe broad learning outcomes and concepts (what you want students to learn) expressed in general terms (e.g., clear communication, problem-solving skills, etc.).

Objectives broaden goals (e.g., for students in a writing course, this might be "students are able to develop a cogent argument to support a position. The Wisconsin CIT assessment plan only takes into account learning goals, for the time being goals will suffice. It may come in time objectives not specified in this plan may emerge so as to become necessary to be dealt with. The key to understanding the difference between a goal and an objective is –that goals are normally broad sweeping and abstract expressions, whereas objectives are normally measurable statements that explain how or to what extent the broad goals are being met.

Pre and Post-Testing

Pre and Post- Testing is an assessment of learning instrument at its most simple. It is measurement of the learning received during the class as a result of comparing what the student knew before in a pre-test and after the class experience in a post-test.

Why use it? To quantify the knowledge attained in the class from a group of students with diverse learning styles and educational backgrounds. More specifically, the tests indicate how the students are learning in the course. The data can be used also to target what the students need in terms of extra concentration during the program identify teaching and learning methods that need to be changed or developed. Reasons for using a pre-test:

- To measure a base level or the amount of pre-existing knowledge on the course topic and then to compare that knowledge end level with a post-test
- To inform the instructor about topics that are/are not needed to cover in the course based on student's previous knowledge
- To indicate to the student the learning level they have of the course topic
- To analyze the appropriateness of the learning objectives
- To recognize students who need additional help

- To target any instructional needs to improve the course

The Wisconsin CIT initiative has developed a pre- and post-test instrument to be used to measure knowledge gained from participating in a training course. This instrument is a True/False examination to be given at the beginning of the program and at the end. The test will be the same on both occasions. The difference in test scores (presumed to be better at the end) will serve for the time being as a measurement or assessment of learning to be used for internal program evaluation and program change purposes.

The pre-test is a set of questions given to participants before the training begins in order to determine their knowledge level of the course content. After the completion of the course, participants are given a post-test to answer the same set of questions. Afterwards by comparing participants' post-test scores to their pre-test scores enables one can see whether the training was successful in increasing participant knowledge of the training content.

Pre- and post-test scores assume a correlation on whether or not participants have learned from the training. In addition, a well-designed pre- and posttest can help trainers understand which concepts or competencies were well taught during the training and which ones need additional time, or need to be covered using alternative methods.

Pre- and post-tests may not be the best tools to be used for assessment. They can be frustrating with external validity concerns. For instance, it can be argued that pre and post-tests measure the students' ability to learn from the first test; hence, they score better on the second. This is something the CIT initiative in the State of Wisconsin should consider, in time and after it has become comfortable with assessment as a strategy.

Also, it should be noted that very short courses, may not merit the time requirements of administering and analyzing pre- and post-test data. In addition, pre- and post-tests for trainings focused on relationship-building skills, e.g., training on effective crisis intervention skills, may be difficult to create and score. An alternate method of evaluating learning, such as the observation of skills demonstrated in a role play, might be more appropriate in this situation. However, this is qualitative and takes much time to develop, administer, observe, and analyze. When deciding whether or not to take the time to do both a pre- and a post-test, consider first what you most want to learn about your training. For the time being, if one wants to understand exactly what knowledge can be credited to the training itself, using a pre- and post-test methodology is important.

Developing a Pre- and Post-Test

Any test(s) are instruments or tools used to measure change. If the instrument itself is faulty, it cannot accurately measure changes in knowledge. A valid and reliable pre- and post-test must be made up of well-written and clear questions.

The following are the process used by the Wisconsin CIT initiative for creating good pre and post-test questions:

1. Pre and post-test questions were ultimately created that focused on the primary program goals
   a. It was from them quantitative and measurable learning objectives were derived.
2. A learning objective is a skill, a bit of knowledge or an understanding (SKU) that should describe what students should know or be able to do at the end of the course that they couldn't do before.
3. To be a learning objective, you must answer the answer the following three questions:
   a. What do you want to accomplish?
   b. How are you going to accomplish it? (What steps will you take to accomplish your objective? What activities will you do? How will you acquire the learning? Under what conditions will the learning occur?)
   c. How you will measure your objective? (What evidence will you have to demonstrate that learning has taken place? What criteria will be used to evaluate your evidence? Who will do the evaluation?
4. Therefore, a learning objective is a set of SKUs that support the overarching program goals of the CIT course, that is, the common denominator that unites all the topics that are to be covered and all the skills students should have mastered by the end of the course
5. Learning objectives are specific, measurable, attainable, results-focused and time-focused SKUs.
6. Five Program Learning Objectives for the Wisconsin CIT Training Program were identified:

   i. Knowledge Acquisition
   ii. Effective Communication
   iii. Critical Thinking
   iv. Global Perspective
   v. Professionally Responsible Action

7. To do this a curriculum map was created that "vertically integrated the program learning objectives to the program goals of the Wisconsin CIT initiative.
8. In which case the program goals of the Wisconsin CIT initiative being subordinate were previously matched to the "Memphis Model" best practices model.
9. Once program objectives were identified, two measurable learning outcomes for each were derived for each goal.
10. Next, the congruence between the Wisconsin CIT program was consummated and depicted by correlating Wisconsin CIT to the five the learning objectives and goals of the Wisconsin CIT training program. Those are depicted next:

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Vertical Integration of Wisconsin CIT Training Goals and the Program Learning Objectives

The Goals of Wisconsin CIT Training (Taken and revised from Appleton PD CIT Model 2015)	***Knowledge Acquisition*** *Objectives*: 1. There is measurable evidence the student has acquired knowledge of and accepts the physiological or medical model of mental illness. 2. There is measurable evidence the student recognizes the signs and symptoms of mental illness when they observe them it.
1. To reduce the risk of injuries to mental health 'consumers,' the public and law enforcement officers.	***Effective Communication*** *Objectives:* 1. There is measurable evidence that the student understands that there is much peer and professional help concerning the mentally ill in the community and available to law enforcers—and, is able to more effectively deal with the mentally ill by seeking this assistance and then enlisting it in a team fashion.
2. To reduce the number of repeat enforcement or investigative oriented contacts with mental health 'consumers' in need of help.	*2.* There is measurable evidence the student will now communicate and otherwise collaborate with non-enforcement oriented i.e. family, social and local health agencies as a resource in dealing with the mentally ill in their community, in a shared holistic and humane solution.
3. To reduce the criminalization as the only outcome for those persons with mental illness; those of whom in need of help and come into contact with law enforcement officers performing investigative duties.	***Critical Thinking*** *Objectives:* 1. There is measurable evidence that the student now bears witness to his or her biases and attitudes toward the automatic 'criminal profiling' of the mentally ill, as this being legal; however, a functional and moral equivalent to 'racial profiling' when unnecessarily opted for.
4. To enhance the working relationships of law enforcement officers with mental health care providers in their mutual capacity of dealing with 'consumers' in need of help.	2. There is measurable evidence the student now understands his or her role in the CJ System's trained incapacity to only 'criminalize- to- control' the mentally ill as an being an effective outcome.
5. To increase involvement of the families and friends of the mental health consumers.	***Global Perspective*** *Objectives:* 1. There is measurable evidence the student has gained a measure of empathy and/or sensitivity for mentally ill people as a very large and diverse group of 'countless-so-affected' others.
6. To reduce civil commitments through diversion of the 'consumers' to less restrictive settings such as is the outcome of incarceration.	2. There is measurable evidence that the student now views the mentally ill as people who are not to be automatically profiled and treated as a criminal class-- but rather as sick people who need courteous and professional help from law enforcers and not certain incarceration when their paths cross.
7. To reduce the costs of overall services through better utilization of said services and diversion to less costly services.	***Professionally Responsible Action*** *Objectives:* 1. There is measurable evidence to which the student knows the limitations of the 'use of force continuum' model in the de-escalation of mental illness related crisis, especially when used exclusively, as this option is something that will typically lead to a negative outcome for everyone involved.
This Concept Map identifies where and how the Wisconsin CIT Training program embeds its goals into the CIT Training Program Learning Goals. Whereas the Wisconsin CIT Training Program has affinity with the "Memphis Model" the Wisconsin CIT Learning Goals so do its learning goals. Hence, the measureable Learning Objectives of each goal have affinity with the 'Memphis Model' also.	2. There is measurable evidence that the student accepts the tenets of the "Memphis Model" as a positive form of de-escalation of mental illness related crisis and—will seek this as their first problem solving option.

11. The learning goals guided the development of test questions that highlighted each CIT course. This ensures that we are asking participants to demonstrate their knowledge of what course developers determined are the most important concepts to learn across the entire program.
12. The learning goals conceptually established what the CIT student should have acquired from training after completion. Hence, given Wisconsin CIT training engenders knowledge and understanding of these matters, the pre and post-test questions need to reflect the learning themes: Those learning themes are listed below:

Pre and Post-Test Questions

In summary, we have created questions to which there were clear answers provided during the course. We intend to not test participants on concepts or knowledge that were not sufficiently covered in the course. Only important concepts we believe covered in the course are tested for. We have developed a test that will take between 10-25 minutes to complete. Given, the amount of time spent on pre- and post-tests should vary depending on the length of the overall training course and the type of questions asked.   Because open-ended essay or short-answer questions will take longer than True/False or multiple-choice tests with the same number of questions, we have opted for True/False approach for the time being.

CIT Pre and Post-Test Questions

	Pre and Post-Test Question	Linkage to Learning Goal and Objective (Page 16)	True or False
1	Research finds a connection between mental illness and the use of addictive substances such as street drugs, alcohol and tobacco. Individuals with an existing mental illness consume roughly 38 percent of all alcohol, 44 percent of all cocaine, and 40 percent of all cigarettes. One may assume that addictive substance use somehow causes mental illness.	Knowledge Acquisition Linkage: Objective 1	False
2	De-escalation means getting the mentally ill person who is acting bizarrely under control ASAP. This means they get one warning and then my physical control must begin.	Professionally Responsible Action Linkage: Objective 1	False
3	I am confident in my ability to recognize the signs and symptoms of mental illness in people. From my perspective it is threatening and likely dangerous. Accordingly, it is always proper to adjust 'presence and dialogue' up the use of force continuum and to prepare for a heightened level of danger.	Critical Thinking Objective 1	False
4	I am fully trained to de-escalate a mental illness induced crisis situation. This training is best accomplished by me using the approved use of force measures. Consulting with social services or other non-police officers only slows the problem solving process for me and my backup.	Effective Communication Linkage: Objective 1	False

5	I must be on-guard and anticipate a greater threat or greater danger at any moment with a mentally ill person. Therefore, using verbal commands, or perhaps even threatening greater uses of force will make my point.	Global Perspectives Linkage: Objective 2	False
6	I noticed that mentally ill people seem to be obese, unkempt and slovenly. If they would have some pride in themselves, get in shape, clean themselves up and get a job, they might be in a position to manage their lives better.	Knowledge Acquisition Linkage: Objective 2	False
7	In between psychotic episodes, mentally ill people are seldom capable to live relatively normal lives, working, raising children, going to church and things like that. This makes them easy to identify to law enforcement.	Global Perspectives Linkage; Objective 2	False
8	In criminal profiling class, we learned that we can predict the behavior of criminals by way of deduction and other time tested police scientific technique. Accordingly, we may deduce the behavior of one mentally ill person serves as a model of behavior for all mentally ill people.	Critical Thinking Linkage: Objective 2	False
9	It is appropriate to arrest the mentally ill for emergency detention to get them off the street and out of the public's eye. However, once the crisis is safely handled by law enforcement, then the problem is best dealt with by social workers, courts and others in more businesslike quiet environments.	Effective Communication Linkage: Objective 2	False
10	Manic-depression has nothing to do with bipolar syndrome. Moreover, manic –depression only happens to females.	Knowledge Acquisition Linkage: Objective 2	False
11	Mental illness is simply another "politically correct" mischaracterization of what is a character flaw(s), bad attitude or poor impulse control, or any combination thereof.	Global Perspectives Linkage: Objective 1	False
12	Mentally ill people acting bizarrely have little interest in their own safety and a great deal of interest in creating trouble for others. Strict enforcement of their potentials for danger is essential.	Professionally Responsible Action Linkage: Objective 2	False
13	Mentally ill clients should be identified to law enforcement by their social services agencies. Once done, the mentally ill should be considered to be an elevated threat to officer safety due to the mental illness.	Critical Thinking Linkage: Objective 1	False
14	Most people who have a mental illness had poor parenting as children.	Knowledge Acquisition Linkage: Objective 1	False
15	One of the main causes of mental illness is a lack of self-discipline and will power in these people. The social service agency institution fails at accepting and dealing with this fact. As a result, the law enforcement community becomes a "social lint trap" for the continual failure of social experimentations. In turn, the social service communities blame law enforcement for using too much force.	Effective Communication Linkage: Objective 2	False

16	People with mental illness are just as intelligent as those people who are not mentally ill. This means, as a law enforcement officer I can choose to calmly discuss things at a non-threatening level with a mentally ill person. Because they are intelligent, I can make them understand that I want them to feel. If done humanely, most mentally ill will understand and react positively to my messaging.	Global Perspectives Linkage: Objective 1	True
17	Since the 1960s, the American Mental Health System (i.e. hospitals, doctors, and treatment) has not been able to deal with the growing numbers of people who seek treatment. Accordingly, the American Criminal Justice System is now one of the few places the mentally ill can go to get help of any kind for their issues. This means a law enforcement officer, I can expect more and more of my time on patrol dealing with matters associated with mental illness. As a result, I need some help in doing this.	Professionally Responsible Action Linkage: Objective 2	True
18	Social services support intervention tends to be fluffy "bleeding heart" alternatives to dealing mentally ill people concerning their bad and often times illegal behavior. The closer the law enforcement community comes to interacting with social service people, the sooner the cops will lose control and-- it is the cops who will have their police power erode.	Critical Thinking Linkage: Objective 2	False
19	The best way to deal with people in a mental health crisis is to set firm limits with them and make it clear at the onset just exactly "who is in charge."	Professionally Responsible Action Linkage: Objective 1	False
20	In the past, I have observed bizarre behaviors of the mentally ill, (i.e. screaming incoherently, flailing about, lack of an appropriate response to my authority, etc.). In the future, I should be prepared to escalate the use of force at a moment's notice with the mentally ill as their bizarre behavior is a threat to my safety.	Global Perspective Linkage: Objective 1	False
21	The differences between psychiatry and psychology are so small that most people do not realize that a psychologist has only a short clinical internship to complete at a hospital to become a psychiatrist.	Knowledge Acquisition Linkage: Objective 1	False
22	The human mind cannot create virtual "worlds" in which the mentally ill think they exist. Therefore, when dealing with the mentally ill, the sooner the law enforcement officer can get the mentally ill person "re-grounded" to normal reality the sooner that person will stop acting so silly.	Professionally Responsible Action Linkage: Objective 1	False
23	When mentally ill people act bizarrely, this is always a cue for me to get ready to escalate the use of force continuum. As a matter of fact, bizarre behavior is a prelude to danger, as I have been taught in training.	Critical Thinking Linkage: Objective 1	False
24	When someone has a mental illness, it is their brain that is impaired in some way and it affects their behavior and	Knowledge Acquisition Linkage: Objective 2	False

	emotions. This impairment however, is not disease or biologically related in any way. It may connect to their poor impulse control in some manner.		
25	When someone is paranoid and believes the FBI or CIA or your agency is "out to get them," it is a bad idea for me to play along with the apparently delusional individual. It is OK for me to empathize with their distress but I must discount to them I am not seeing and hearing what they are.	Professionally Responsible Action Linkage: Objective 2	True

Analysis of Data

Grade records are expected to be kept by the deliverers of CIT training. Analysis of the data is expected of the results of the training.

Given, "marks" from grades are continuous (scale) data. Continuous data are often summarized by giving their average and standard deviation (SD), and the paired *t-test* (or *z test* if class size is greater than30) is used to compare the means of the two samples (i.e. pre and post-test) of related data. A level of significance of .05 α should be used to compare the pre and post-test data and hopefully, a statistically significant difference will derive.

The paired *t-test* compares the mean difference of the values to zero. It depends on the mean difference, the variability of the differences and the number of data. These computations can be easily done on a Microsoft Excel Spreadsheet. This method would be preferred. However, if doing *t-tests* are not favored by local deliverers of programming, it is then recommended that minimal records keeping of what is referred to as "Gain Scores" be kept of each student who participates in Wisconsin CIT training.

Gain Score

A less complex and acceptable way to measure change in pre and post – tests is called the gain score. To calculate a gain score, one must calculate a learning gain score for each individual student. When an individual student has scored higher on their post-test than they did on their pre-test (which is the common case), you must use the first formula given below to determine their individual gain score.

If and when a student scores lower on their post-test than they did on their pre-test, you must use the second formula given below to calculate their individual gain score. Once you have figured every student's gain score, you must calculate the average gain scores for the class.

Instructions for Calculating Learning Gain Scores

One must calculate a learning gain score for each individual student. When an individual student has scored higher on their post-test than they did on their pre-test (which is the

common case), you must use the first formula given below to determine their individual gain score. When a student scores lower on their post-test than they did on their pre-test, you must use the second formula given below to calculate their individual gain score. Once you have figured every student's gain score, you must calculate the average gain scores for the class. **The formula for positive gain (i.e.. when an individual student scores higher on their post-test than on their pre-test):**

$$\frac{(\text{Post-Test} - \text{Pre-Test})}{(100\% - \text{Pre-Test})}$$

Where: Pre-assessment is the **percent correct** on pre-unit assessment Post-assessment is the **P**ercent correct** on the post unit assessment

Ex. for student #1 below:

$$\frac{70-45}{100-45} = \frac{25}{55} = .45$$

Student #1 demonstrated a gain of 25 percentage points out of a potential 55 percentage points that they could have gained. Thus, they gained .45 (or 45%) of the possible percentage points they could have gained from pre to post assessment. Formula for negative gain (i.e., when an individual student scores higher on their pre-test than on the post-test):

$$\frac{50-75}{100-75} = \frac{-25}{25} = -1.00$$

Student #	Pre Test Score	Post Test Score	Gain Score
1	45%	70%	.45
2	75%	50%	-1.00
3	60%	80%	.50
4	40%	40%	.00
5	65%	70%	.14
6	90%	95%	.50
7	53%	59%	.13
8	60%	90%	.75
9	40%	95%	.92
10	42%	45%	.05
11	58%	88%	.71
12	24%	30%	.08
13	45%	89%	.80

Total Average Gain Score = .31

Student #2 could have gained up to 25 percentage points, but instead lost 25 percentage points (or 100% of what they could have gained.)

Or a 31% learning gain for entire class on average

In education, a gain score increase of >= 30 % per class is considered a generally fair indicator of average class improvement. Lastly, to efficiently measure multiple or class wide gain scores, a Microsoft Excel spreadsheet is available to automate the entire gain scoring process described above.

Future Data Collection/Program Evaluation

Data collection/program evaluation is consistently the weakest part of any program and Wisconsin CIT is not immune.   Because many police agencies only collect anecdotal information regarding the effectiveness of their programs, the likelihood they would serve as a reliable source of post CIT training effectiveness is slim. This lack greatly reduces a program's ability to adjust to the changing needs of the community and the delivery of CIT. It also weakens their ability to secure public funding.

Triangulation

Triangulation refers to the use of more than one approach to the investigation of a research question in order to enhance confidence in the ensuing findings. Since much social research is founded on the use of a single research method (i.e. quantitative) and as such may suffer from limitations associated with that method or from the specific application of it, triangulation offers the prospect of enhanced confidence. Triangulation is one of the several rationales for multi-method research. The term derives from surveying, where it refers to the use of a series of triangles to map out an area.

Comprehensive, ongoing program evaluation is what separates model CIT initiatives from others. It would be useful for the CIT initiative to gather data points may include (but are not limited to) data triangulation, which entails gathering data through several sampling strategies, so that slices of data at different times and social situations, as well as on a variety of people, are gathered. For instance, qualitative measures such as:

1. Attitudes of mental health consumers about CIT trained officers.
    a. One of the claims of CIT is that consumers and family members have increased confidence in the ability of the officer's abilities to handle crises after CIT training and are more likely to call them.
2. The number of mentally ill individuals arrested.
    a. A pre-post measure of this would get at one of the primary goals of CIT: the diversion of mentally ill individuals away from the criminal justice system.
    b. Pre-post implementation data regarding use of force involving mentally ill persons.
3. Utilization of community health services before and after implementation of CIT.
    a. The goal would not only be to reduce incarceration rates, but to have those consumers use existing city services.
4. Measure officer attitudes about CIT before and after the training.
        i. We can use a helpful and free online service for this: surveymonkey.com
5. Other data for assessment evaluation include the following,
    - The number of mental health consumers arrested.
    - The number of "51.50" calls for services.
    - The number of use of force incidents.
    - The number of officer injuries.

- All correlated to CIT training and pre and post testing.

References

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