

**Research Brief**  
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Introduction: Clinical and Research Consulting (CRC) partnered with the Department of Sociology and Anthropology at Montana State University (MSU, Dr. Cody Warner), The Pacific Institute Inc. of Seattle, WA (TPI), Montana Correctional Enterprises (MCE), and Montana State Prison (MSP) to evaluate the efficacy of TPI programming at MSP. Evaluation sought to measure if program participation impacts offenders' thinking patterns over time. Preliminary pre-test/post-test results show statistically significant decreases in criminal thinking across multiple scales and significant increases in goal-directed thinking, self-control and self-esteem.

The Model: "Steps to Economic and Personal Success" (STEPS) is an educational and cognitive training model designed to empower offenders to reduce their criminal thinking and instill effective pro-social thinking. Participants engage in 15 classroom facilitated multi-media encounters including video and audio sessions, written materials, exercises, practice interviews and self-assessment tools delivered across 20 hours. Self-directed work continues beyond the classroom to include practical application in living and work areas. The program goal is for participants to consciously control thinking to achieve present and future positive behavior change.

STEPS is rooted in constructivism and general learning theory – the participants go through a process of mentally re-creating what they know and how they can learn more about themselves. The internal vision of how they anticipate thinking and behaving both currently and in the future is re-constructed. Core beliefs about self are also re-constructed. Moreover, the underlying theoretical framework for the model is informed by both Cognitive Psychology - there is a systematic process of cognitive restructuring - and Solution-Focused Brief Therapy. Solution-focused is a contemporary alternative to the traditional problem-focused paradigm commonly found in correctional/offender treatment models; it assumes an offender has the ability to use inner strengths and resources to make positive changes in their thinking and behavior. The constructivism inherent in Narrative Therapy models of treatment is also manifest in the STEPS model: participants construct/create an internal and written narrative of what the future life they are thinking themselves into will read like.

Evaluation Study Methods: Facilitators were trained to administer the model with fidelity using the updated (2014) STEPS materials and a manualized implementation strategy. A 104-item pre-test/post-test survey instrument was designed to measure changes in specific thinking domains among inmates who volunteer to take the STEPS curriculum. The survey questionnaire includes the following historically valid and reliable scales: TCU Criminal Thinking Scales; Consideration of Future Consequences; Elements of Self-Control; State Hope Scale; and the Rosenberg Self-Esteem Scale. Before the first class session and after completion of the last session, participants answer the same 104-item survey questionnaire consisting of all scale and subscale items. The post-class survey includes three open ended questions to tap impressions and opinions

about the curriculum. Data collection began in December 2014, following MSU's Institutional Review Board (IRB) approval, and is on-going.

The sample as of October 20, 2015 includes 83 inmates who have taken the pre-curriculum survey and 54 of whom completed the post-curriculum survey. Results below are based on those participants who have completed both the pre and post-test surveys (samples ranging from 48-53, depending on the scale and patterns of missing information). Tests of statistical significance are based on group mean comparisons using a paired samples t-test, which takes into account means, standard deviations, and number of observations.

Results: The following preliminary scale results have been documented by Dr. Warner.

- TCU Criminal Thinking Scales, with sub-scales: There was a statistically significant decrease in Justification; Personal Irresponsibility; Power Orientation; Cold Heartedness; and Criminal Rationalization; Entitlement is lower, but not significantly.
- Consideration of Future Consequences: The post-program mean (45.63) is nearly 15% higher than the pre-program mean (39.82), a statistically significant difference. Across the course of the curriculum, participants come to think more about future consequences than about immediate wants and needs.
- Elements of Self-Control: The pre-program scores are significantly lower than post-class scores for all three of the subscales: impulsivity, risk-seeking and self-centered orientation have all decreased. Self-control is improved across the course of the curriculum.
- State Hope Scale: Pre-program scores are significantly lower than post-program scores for the scale overall and for both of the subscales. Thinking patterns of program participants become more goal directed.
- Rosenberg Self-Esteem Scale: The participants display significantly higher levels of self-esteem. The post-class mean is almost 14% higher than the pre-class mean.

Conclusion and Next Steps: Statistically significant positive change was observed across all scales; thinking, as measured by the scales, has changed in the desired direction. Additional cases with complete pre and post-test data will strengthen confidence in the results. Additional statistical tests should continue to be run for all scales to be sure they are behaving normally and manifesting previously established discriminant, convergent and construct validity, and reliability. Moreover, construction of a comparison group from MSP's extensive Offender Management and Information System (OMIS) is in order to explore potentially greater generalizability of the results.

External peer review will affirm the evidence being established for the efficacy of STEPS program and be an important foundation block for establishing it as evidence based practice with this population. On October 16, 2015, Dr. Warner presented preliminary results to the Dept. of Psychology, MSU. An abstract of the work was accepted for a panel presentation at the annual meeting of the Academy of Criminal Justice Sciences (ACJS) in March/April 2016 in Denver, Colorado. Finally, a peer-reviewed journal manuscript is under preparation for spring/summer of 2016.