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# Empirical Evidence on the Importance of Training and Experience in Using the Level of Service Inventory–Revised

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Recent trends in corrections have mandated the adoption and use of risk and need assessments for offenders. Research indicates that many correctional agencies around the country either currently use or are in the process of implementing risk and need assessment instruments. One example of an instrument that is being implemented on a wide scale is the Level of Service Inventory–Revised (LSI-R). Data from Multi-Health Systems, Inc. (MHS), the company that markets the LSI-R, indicate that more than 600 agencies in United States currently use this risk/need assessment tool. While increasing use of objective classification instruments is encouraging, simultaneously there are growing concerns regarding the effective implementation of these “third-generation” risk/need assessment tools.

The authors of the LSI-R, in discussing risk assessment in general, express concern about the ability of correctional practitioners to understand and properly administer risk assessment instruments. Research by Bonta, Bogue, Crowley, and Motiuk (2001) that investigated the implementation of the LSI-R indicated error rates that were of concern. Their research also indicated that these error rates could be reduced through the use of training prior to implementation. While currently there is a lack of quality assurance research conducted on other instruments such as the Wisconsin Risk and Need scales or the Salient Factor Score, it is conceivable that errors occur in these instruments as well. This may be particularly true when considering the potential for agencies, which may be in a rush to implement best practices, to skip necessary, preliminary research and training.

## About the LSI

The LSI-R is a 54-item risk/need assessment tool that covers 10 criminogenic (crime-producing) domains. The areas covered include criminal history, education/employment, finances, family/marital relationships, accommodations, leisure/recreation, friends/acquaintances, alcohol/drug use, emotional/mental health, and attitudes/orientations. To score the LSI-R assessment properly, practitioners conduct a semi-structured, one-on-one interview with the offender, using an interview guide that assists in the gathering of necessary detail. The structured interview generally takes between 35 and 45 minutes.

The primary purpose of the interview is to gather information from the offender in a dynamic way, which means to assess these criminogenic domains as they currently exist within the offender’s life, offering a real-time picture of his or her criminogenic needs. Several pieces of supporting material, such as the inter-

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view guides, have been developed to assist the practitioner with the structured interview.

In addition to using information from the structured interview, the practitioner will also review collateral information such as police files, criminal background checks, court files, and probation files. The review of collateral information is important, as it allows the practitioner to verify information that comes out in the interview as well as to challenge potential inconsistencies. The use of collateral information may also help facilitate the interview itself, offering the practitioner insight into a new case prior to the interview.

The LSI-R is an example of a risk/need assessment tool that, when properly implemented, will allow an agency to observe the currently recognized “best practices” in offender assessment. Due to the depth and breadth of the tool itself, it is necessary for practitioners to have a fluent understanding of the general principles of offender classification—the risk, need, and responsivity principles. In addition, practitioners also need to understand the specific technical aspects of the tool—the interview process, use of the supporting materials, and the measurement/scoring of each of the 54 items. At a minimum, participation in a training session facilitated by individuals with a high level of expertise both in offender classification in general, and the LSI-R in particular, is necessary in order for practitioners to obtain the skills necessary to do the assessment properly. Ideally, practitioners will also receive follow-up training after the initial training, where reinforcement of the scoring rules and the process in general will occur.

Formal training is the ideal environment to address the need for skill development among practitioners wishing to use the LSI-R. Also important, however, is consideration regarding implementation on the agency level. When anything new is implemented into an existing agency or organization, adjustments must be made regarding workload and the order of certain processes. As such, any agency wishing to implement the LSI-R will likely need to work out several “bugs” to ensure proper implementation. It is important for agencies to allow time for both individual (practitioner-level) skills to develop and for agency processes to adjust in order to accommodate the implementation of the LSI-R.

### **Research on the Importance of Training**

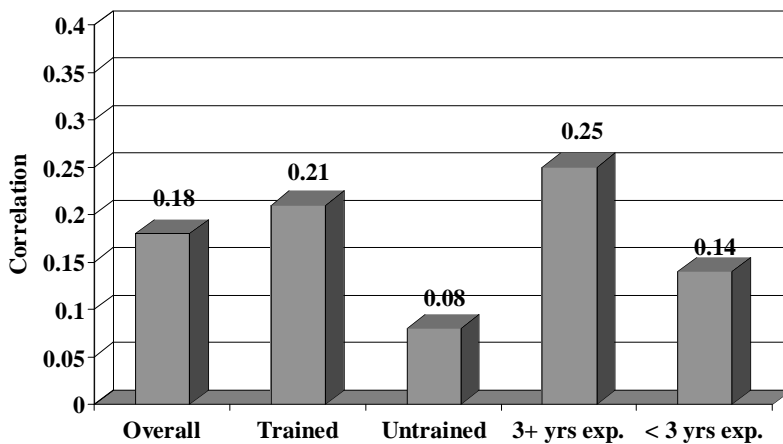
Two recent studies on the implementation of the LSI-R underscore the importance of training and quality assurance as they relate to the use of risk/need assessment instruments. The importance of these processes cannot be overstated in light of the movement demanding that agencies base decisions relating to supervision and treatment on comprehensive (and valid) risk/need assessment results. It is therefore extremely important that these assessments be accurately administered and scored, thereby producing meaningful and readily usable results.

**Focusing on training and experience.** The first study (Flores, Lowenkamp, Holsinger, and Latessa, 2004) investigates the link between training on the administration of the LSI-R and the predictive validity of the instrument. LSI-R scores

and recidivism data were collected on 2,030 offenders assessed at one of nine residential community correctional facilities in Ohio. Each agency providing LSI-R scores was categorized based on: 1) the length of time it had been using the LSI-R (less than 3 years, or 3 or more years), and 2) whether formal training had been provided to staff on the administration and scoring of the LSI-R.

Flores et al. calculated the correlations between LSI-R scores and recidivism (defined in this study as incarceration) for the entire sample of offenders and then for each agency separately.<sup>1</sup> The next step in the analyses was to calculate correlations for the groups of agencies based on their years of experience using the LSI-R and also based on their training status. The correlations for the entire sample and the groupings of agencies is presented in Figure 1. The correlation found for the entire sample is .18. However, when examining the correlations based on the groupings of agencies an interesting and expected pattern is revealed. The correlation for the agencies providing formal training is significantly higher than the correlation produced by the agencies without formal training (.21 for trained versus .08 for untrained). Further, the agencies that had 3 or more years' experience in using the LSI-R had correlations that were substantially larger (.25) than those produced by agencies with less than 3 years' experience in using the LSI-R (.14).

**Figure 1. Quality Assurance and Offender Assessment: Predictive Strength of the LSI-R**



Outcome defined as incarceration. R values for trained ranged from .16 to .26; for untrained, -.02 to .18. R values for 3 years+ ranged from .19 to .30, for less than 3 years .08 to .20. See Flores, Lowenkamp, Holsinger, and Latessa (2004), Predicting Outcome with the LSI-R: The Importance of Quality Assurance.

<sup>1</sup> Positive correlations indicate a positive relationship between the composite LSI-R score and the likelihood of recidivism. As the LSI-R score increased in value, the likelihood of being incarcerated increased as well. Positive correlation coefficients (Pearson's r), can range in value from 0 to 1, with 0 indicating no relationship, and 1 indicating a very strong (perfect) relationship.

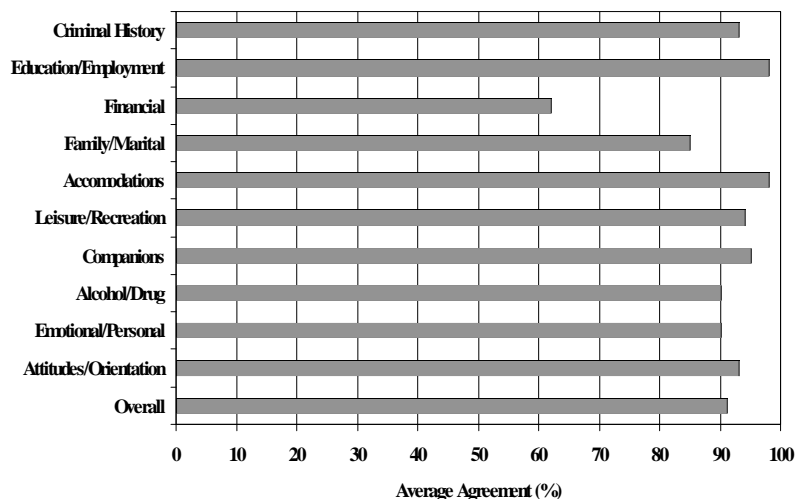
These findings are consistent with research conducted on best practices in correctional interventions. Specifically, Lipsey (1999) found that the effectiveness of programming is positively related to being in operation for 2 or more years. Also of interest, the Washington State Institute of Public Policy (2004) recently found that family-based interventions were effective in reducing recidivism when properly implemented, but when poorly implemented the programming was associated with increases in recidivism. The findings of Flores et al. that training and experience with the LSI-R are related to its accuracy, are consistent with similar measures for other types of core correctional practices.

**Focusing on inter-rater reliability.** The second study (Lowenkamp, Holsinger, Brusman-Lovins, and Latessa, 2004) investigated the inter-rater agreement of LSI-R trainees. In this study 167 correctional practitioners participating in a LSI-R training were asked, at the conclusion of the training, to complete a LSI-R assessment based on a written vignette. These assessments were compared to each other regarding the agreement among individual raters in the scoring of each item and the overall classification level that was determined to apply to the offender described in the vignette.

Figure 2 presents the data resulting from the analysis of inter-rater agreement. Across all 54 items there was, on average, a 91% agreement rate. While the agreement rate varied based on the need area assessed, 8 of the 10 subsections of the LSI-R had agreement rates of 90% or higher. One section had an agreement rate of 85% and one section a 62% agreement rate. Regarding classification, 86% of the assessments placed the offender in the moderate/high risk category.

These results revealed two important findings for the sample of just-trained practitioners under consideration: 1) the vast majority of the practitioners placed the offender characterized in the vignette into the same risk level, and 2) an even

**Figure 2. Inter-Rater Agreement of Trained Staff Using the LSI-R**



higher percentage of practitioners recognized the same set of criminogenic needs in the individual described by the vignette and agreed on the magnitude/importance of those criminogenic needs as they currently existed in the offender's life/environment. Although comparable data on inter-rater agreement rates of untrained practitioners are not currently available, these results lend support to the importance of formalized technical training regarding not only the LSI-R in particular, but any new assessment process in general.

### Applying Quality Assurance in Risk/Need Assessment

These results support two important concepts regarding the implementation of the LSI-R: formalized training and agency experience. The LSI-R and other third-generation risk/need assessments have greater usefulness than previous assessment methods. The LSI-R measures more relevant criminogenic factors than its predecessors, and it measures these factors in a dynamic way. Dynamic measurement allows for a more accurate and valid risk/need scale and allows for the measurement of change in the offender over time. Due to the dynamic and comprehensive nature of the LSI-R, however, training and experience become extremely important. A lack of training (or "bootleg" training conducted informally by non-certified trainers) will result in reduced accuracy and effectiveness.

To fully utilize the potential benefits of the LSI-R, or any third-generation risk/need assessment process, agencies should obtain formal training for all practitioners who will conduct the assessments. Agencies should also expect a "learning curve" to take place, where issues specifically relating to LSI-R implementation are worked out.

In addition to being an effective risk/need classification tool, the LSI-R also lends itself to the development of comprehensive dynamic case planning. Case planning is most effective when it focuses on criminogenic factors and allows for the measurement of change in these factors over time. If the LSI-R is not administered properly, the classification decisions and all processes based on the tool (such as case planning and the monitoring of progress) will be severely hobbled. Clearly, in order to fully reap the benefits that an assessment tool such as the LSI-R can offer, both training and perseverance are key. ■

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