

**Application of 5S and Visual Management in Vocational Training for Sustained
Livelihood of Persons with Intellectual and Developmental Disabilities**

Thesis submitted to Ramakrishna Mission Vivekananda
Educational and Research Institute
for the award of Degree of

DOCTOR IN PHILOSOPHY

in

Special education (Intellectual Disability)

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(Deemed-to-be-University as declared by Govt. of India u/s 3 of UGC Act, 1956)

Accredited by NAAC with A++ Grade

Coimbatore Campus, SRKV Post, Coimbatore, Tamil Nadu-641020, India

June 2025

ABSTRACT

This study examined whether integrating 5S and Visual Management into vocational training could improve employment outcomes for persons with Intellectual and Developmental Disabilities. Many trainees face barriers to employment not because of inability to work, but because training environments and methods do not align with workplace demands.

A mixed-methods approach was used with trainees at a vocational training center in Tamil Nadu. The research began with exploratory analysis to identify causes of low job retention, followed by the design and implementation of a 5S and Visual Management intervention. The intervention restructured the training space and instructional methods using Sort, Set in Order, Shine, Standardize, Sustain, and Visual cues to reduce cognitive load and make tasks clearer.

Outcomes were measured through a one-group pretest-posttest design and supported by case studies, observations, and a fidelity checklist. Results showed that production time decreased by 27.12%, output increased by 66.67%, and employment rates rose from 43.48% to 73.91%. Average monthly income more than doubled after the intervention. Employer feedback indicated greater trainee independence and reduced need for supervision.

Stronger fidelity to 5S and Visual Management practices was associated with greater improvements in productivity and retention. Findings suggest that low-cost changes to the training environment can produce meaningful gains in independence, job placement, and income for persons with intellectual and developmental disabilities. The approach is practical, scalable, and aligned with NSQF standards.

Recommendations include extending training to a minimum of 6 months, certifying instructors in 5S and Visual Management, strengthening industry partnerships, and providing post-placement mentoring. This model offers an evidence-based strategy to advance inclusive employment and supports Sustainable Development Goal 8 on decent work and economic growth.

Keywords: 5S, Visual Management, Vocational Training, Intellectual and Developmental Disabilities, Employability, Inclusive Employment.