Developing an Action Plan to Foster Transfer of Learning

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Purpose of the Project:

To create a framework for the successful transfer of learning of hourly employees at the Composite Facility of Bristol Aerospace Limited located in Winnipeg, Manitoba

Transfer of learning can be defined as the degree to which trainees apply to their jobs knowledge, skills, behaviours and attitudes they obtained in training

Purpose of the First Phase of the Project:

To develop an action plan for creating the conditions at the plant that would foster transfer of employee learning

Composite Fabricator Required Skills

Composite fabricator

- Must have a general knowledge of all related materials, methods, and equipment
- Prepare and carry out a variety of composite tool building and mold making
- Prepare and carry out repair schemes on composite components
- Fabricate parts from drawings, or samples
- Must have specific skills to do a particular job

Method

Action Research method is used to identify gaps between observable and desired behaviours and practices, identify interventions, and develop an action plan for improving transfer of learning at the Composite Facility of Bristol

Research Question

Research question: *What are the conditions for hourly employees' successful transfer of skills in the Composite Facility of Bristol?*

Data Collection Methods

- Semi-structured interviews: completing a questionnaire followed by face-to-face interviews
- Literature review on transfer of learning and personal experience
- Written (electronic) records: scatter plot of four graphs – Utilization, Efficiency, Productivity, Average Productivity; Cross-Training Matrix; Skills Count Matrix

Making Sense of Data - Categories

- Category 1 – Individual Characteristics
- Category 2 – Environmental Climate
- Category 3 – Intervention Needs

Individual Characteristics

- Different in grasping of materials, tools, functions, and techniques
- Most of the workers are visual learners
- Many workers experience difficulty with workplace documents navigation, interpretation of technical terms, mathematical skills, and decision making strategies

Individual Characteristics

- Recent immigrant workers do not follow instructions easily, reluctantly participate and communicate in a team
- Older workers do not retain well the new material being taught
- Older workers' health factors reduce ability to perform, self-efficacy for learning and development
- Some workers have low intrinsic motivation

Environmental Climate

Supports:

- Supervisory instruction and support, regular feedback and encouragement
- More experienced buddy (charge hand) instruction and help
- Good conditions for work and tools for the job
- Descriptive with visual representations documents
- Supervisors are interested in workers life, their well-being, learning and success

Environmental Climate

Accountability:

- Productivity records to keep track of workers performance
- Regular feedback on performance from supervisors
- Expected to respect and support other people
- Use of self-checks and peer-checks for some operations
- Regular recertification to keep workers accountable for learning

Environmental Climate

Barriers:

- Sometimes trainers are not there
- Some trainers are reluctant to teach
- The Operation Sheets and drawings were not always clear, not updated, often did not include color coding, did not reflect modifications for particular materials
- Not enough pictorial descriptions (for immigrant workers)

Environmental Climate

Barriers:

- Not enough mathematical and literacy tools
- Hard to remember lengthy steps in Operation Sheets (for older workers)
- There is no discussion about the procedure, alternative approaches; the workers are just told what to do
- Not many people are cross-trained – no jobs rotation – little opportunity to perform
- No agreement on the approach to training

Intervention Needs

- Rethinking approach to training
- Raising workers' motivation
- Creating better climate for transfer of learning
- Developing critical thinking environment

Action Plan

- Conduct workplace *skills needs assessment*
- Develop and implement a *refresher training plan* and a *training package*
- Develop *cross-training plan*
- Develop and implement *rotation plan*
- Develop and implement a *recognition system*
- Arrange *managers/supervisors participation in training* that the employees receive

Action Plan

- Create a *pictorial dictionary of composites terms* and make it accessible to employees
- Create *visual aids* (conversion tables, reference charts, demo stations, math tools)
- Continue *upgrading Operation Sheets* and *record number of changes* to communicate the information to employees
- Arrange train the trainer (mentor) *session on critical thinking* strategies
- *Coach* charge hands in *questioning and discussion techniques*

Outcomes and Further Study

- Action plan has been developed.
- There were challenges in getting all parties involved in active participation in this project.
- The next step will be monitoring interventions, continuing collecting data and reflecting on the results of the first phase of this project.
- The ultimate goal will be the development of a framework for the successful transfer of learning/skills at the Composite Facility of Bristol.

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Questions?