Did The Training Make A Difference? Evaluating Transfer of Knowledge Using the Holton Model

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History of Holton
Kirkpatrick has been viewed as a foremost authority in the field of Evaluation.

For decades, his Four-Level Evaluation Model has been the dominant evaluation model for human resource development (HRD).
Kirkpatrick’s (HRD) model has been used for determining:

- Effectiveness of personnel development at four levels:
  - Reaction
  - Learning
  - Behavior & implementation application
  - Results
Holton proposed a model with three primary outcomes:

- **Learning**: Achievement of the learning outcomes desired by the training or intervention

- **Individual Performance**: Change as a result of learning being applied to the job

- **Organizational Results**: Changes at the organizational level as a result of changes in individual performance
Holton’s: Human Resource Development Evaluation Research and Measurement Model (HRDERMM)

Secondary Influences
- Personality Characteristics
- Intervention Readiness
- Job Attitudes
- Intervention Fulfillment

Motivation Elements
- Motivation to Learn
- Motivation to Transfer

Environmental Elements
- Reaction
- Transfer Climate
- Expected Utility/Return On Investment
- External Events

Outcomes
- Learning
- Individual Performance
- Organizational Results

Ability/Enabling Elements
- Ability
- Transfer Design
- Linkage to Organizational Goals
History of Holton

Transfer of Learning (TOL)

Primary Intervening Variables:

- Ability
- Motivation to learn
- Reaction to learning
- Transfer design
- Motivation to transfer
History of Holton
Transfer of Learning (TOL)
Primary Intervening Variables – Continued:

- Transfer conditions
- Expected utility
- Linkage to organizational objectives
- External events
History of Holton
Transfer of Learning (TOL)
Secondary Intervening Variables:

- Intervention readiness
- Job attitudes
- Personality characteristics
- Intervention fulfillment
Variables Tested in this Evaluation

- **Secondary Influences**
  - Personality Characteristics
  - Intervention Readiness
  - Job Attitudes
  - Intervention Fulfillment

- **Motivation Elements**
  - Motivation to Learn
  - Motivation to Transfer

- **Environmental Elements**
  - Reaction
  - Transfer Climate
  - External Events

- **Outcomes**
  - Learning
  - Individual Performance
  - Organizational Results

- **Ability/Enabling Elements**
  - Ability
  - Transfer Design
  - Linkage to Organizational Goals
History
Infant Adoption Awareness Training Program (IAATP)

- Understanding Infant Adoption (UIA) curriculum designed to ensure that healthcare professionals have necessary skills and knowledge when presenting the adoption option to women experiencing unintended pregnancies.
Spaulding for Children

Utilizes UIA curriculum as one aspect of their Infant Adoption Training Initiative (IATI):

- Delivered across 27 states and 3 U.S. Territories
- Developed by adoption experts
- Evidenced-based curriculum based on 27 Federal guidelines
- Video enhanced
History
IATI Continued

- Includes six modules:
  - **Module 1: Introduction**
    - Overview and general requirements
  - **Module 2: Adoption Practice**
    - History, types, and perspectives
  - **Module 3: Laws & Procedures**
    - State & federal laws and rights
  - **Module 4: Social, Cultural, & Personal Influences**
    - Individual factors influencing decision
  - **Module 5: Nondirective Techniques & Informed Choice**
    - Skills in nondirective techniques
  - **Module 6: Resources & Community Referrals**
    - Identifying needs and appropriate resources
Methodology
Questionnaire

- IRB–approved instrument and protocol
- Included pertinent demographic questions
- Included 35 items germane to the Holton Transfer of Learning model
- Most items included a five–point Likert scale
Primary Research Question

- Are there differences in those individuals who used the information as compared to those who did not use it six-months following the training when compared on relevant Holton factors?
Sampling

- 537 email invitations were sent to individuals who:
  - Attended IATI training sessions AND
  - Completed the IATI six-month follow-up survey AND
  - Had valid email addresses

- Total of 356 valid invitations
- Total of 157 respondents
- 44% Response Rate to Web-Based survey
### Respondent Groups

Currently interacts with individuals experiencing unintended pregnancies

<table>
<thead>
<tr>
<th>Status at 6-month follow up</th>
<th>Yes</th>
<th>No</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Used Information</td>
<td>74</td>
<td>16</td>
<td>90</td>
</tr>
<tr>
<td>Did Not Use Information</td>
<td>41</td>
<td>24</td>
<td>65</td>
</tr>
<tr>
<td>Total</td>
<td>115</td>
<td>40</td>
<td>155</td>
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</table>
Descriptives
Descriptives – Users
Participants’ Geographic Location

n = 89

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<thead>
<tr>
<th>State</th>
<th>Number</th>
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<tbody>
<tr>
<td>Alaska</td>
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<tr>
<td>Idaho</td>
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<td>Illinois</td>
<td>2</td>
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<tr>
<td>Indiana</td>
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<td>Kansas</td>
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<td>Maine</td>
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<td>Massachusetts</td>
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<tr>
<td>Ohio</td>
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</tr>
<tr>
<td>Oregon</td>
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<tr>
<td>Rhode Island</td>
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</tr>
<tr>
<td>Texas</td>
<td>5</td>
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<tr>
<td>Washington</td>
<td>5</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>5</td>
</tr>
</tbody>
</table>
Descriptives – Non-Users
Participants’ Geographic Location

N = 65

- Arkansas
- Idaho
- Illinois
- Indiana
- Iowa
- Kansas
- Louisiana
- Maine
- Michigan
- Minnesota
- Missouri
- Nebraska
- New Hampshire
- New Jersey
- New York
- Ohio
- Oklahoma
- Oregon
- Texas
- Washington
- Wisconsin
- Virgin Islands
Descriptives – Users
Type of Organization

n = 76
Descriptives – Non-Users
Type of Organization

Number

Organization Type

n = 63
Descriptives – Users
How Long Ago Participants Attended IATI Training

N = 90

<table>
<thead>
<tr>
<th>Length of Time Since Participant Attended IATI Training</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two years</td>
<td>55</td>
</tr>
<tr>
<td>One year</td>
<td>29</td>
</tr>
<tr>
<td>11–9 months</td>
<td>1</td>
</tr>
<tr>
<td>8–6 months</td>
<td>2</td>
</tr>
<tr>
<td>5–3 months</td>
<td>2</td>
</tr>
<tr>
<td>In the past month</td>
<td>1</td>
</tr>
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</table>
Descriptives – Non-Users

How Long Ago Participants Attended IATI Training

- Two years: 40
- One year: 19
- 11-9 months: 2
- 8-6 months: 4
- 2 months: 1

N = 66
Descriptives – Users

Length of Time to Use Information

N = 91

- Almost immediately: Within a month or two (42)
- Pretty quickly: more than two months after but less than six (27)
- A little later: approximately six months after (13)
- Much later: seven months to a year after (4)
- Much, much later: more than a year after (5)

How Quickly Participant Used Information
Findings
I had the choice to attend or not attend this training.
Choice of Attending Session

**Used Information**
- Yes, had choice to attend: 82%
- No, did not have choice to attend: 18%

**Did Not Use Information**
- Yes, had choice to attend: 85%
- No, did not have choice to attend: 15%
Motivation

I was interested in learning more about the option of infant adoption.
Interest in Infant Adoption

• Significantly greater when trainees work in a capacity to interact with individuals experiencing unintended pregnancies

• $F(1, 146) = 8.48, \ p = .004$
Self-Efficacy

I believed that I could present the adoption option very well.
Belief in Ability to Present Topic of Infant Adoption

$F(1, 146) = 149.78, p < .001$
I THOUGHT about how I could incorporate the topic of infant adoption into my on the job performance.
Thought about topic and on-the-job performance

Before and After Training

$F(1, 146) = 71.13, \ p < .001$
Thought about topic and on-the-job performance
Before & After Training BY Relationship of Work to Topic

$F(1, 146) = 7.99, p = .005$
Thought about topic and on-the-job performance

Status at 6-Month Follow-Up

$F(1, 146) = 6.76, \ p = .01$
I set goals to incorporate the topic of infant adoption into my on the job performance.
SET GOALS to incorporate topic into on-the-job performance

Status at 6-Month Follow-Up

\[ F(1, 146) = 6.63, p = .01 \]
Expected Utility/Return On Investment

The information/skills I gained at the training were meaningful to my personal and/or professional performance and goals.
The training was meaningful personally and/or professionally.

Status at 6-Month Follow-Up

$F(1, 145) = 5.33, p = .02$
Expected Utility/Return On Investment

I felt the information could be used in my job responsibilities.
The information could be used in my job responsibilities

Status at 6-Month Follow-Up

$F(1,146) = 10.31, p = .002$
Motivation to Transfer

I believed that if I used the information I learned my job performance would improve.
I believed using the information would improve my job performance.

Status at 6-Month Follow-Up

$$F(1, 145) = 7.00, p = .009$$
Ability

Present GENERAL information related to a patient /client’s pregnancy.
Ability to present GENERAL information related to pregnancy status at 6-month follow-up.

\[ F(1,147) = 8.98, \ p = .003 \]
Ability

Present the adoption option if requested by patients/clients experiencing an unintended pregnancy.
Ability to present the adoption option if requested by patients/clients

Status at 6-Month Follow-Up

\[ F(1, 147) = 4.42, \ p = .04 \]
Ability

Provide REFERRALS for services related to infant adoption.
Ability to provide REFERRALS for services related to infant adoption

Status at 6-Month Follow-Up

\[ F(1,147) = 8.11, \ p = .005 \]
My agency presented infant adoption as an option for unintended pregnancies.
My agency presented infant adoption as an option for unintended pregnancies

Before and After Training

\[ F(1,149) = 35.60, p < .001 \]
Transfer Climate

My agency was supportive of me using the information I learned regarding the infant adoption option.
Agency was supportive of trainees using the information learned

Status at 6-Month Follow-Up

$f(1,149) = 6.66, p = .01$
Agency provided me with RESOURCES so that I could use the information I learned from the training.
Agency provided me with RESOURCES to use the information I learned

Status at 6-Month Follow-Up

\[ F(1,149) = 12.21, p = .001 \]
The Importance of Trainee Readiness

Implications
Questions and Answers