COMPOSITE LEARNING INDEX
Measuring Canada’s Progress in Learning

Marc Lachance, Director - Monitoring & Reporting
Canadian Council on Learning (CCL)
Why does Canada need a Composite Learning Index?

• *Gives attention to the important contribution of learning to Canada’s economic and social well-being*

• *Draws attention to the multi-dimensional character of learning*

• *Until the CLI, there has been no way of measuring how well Canada is doing across the full spectrum of learning.*

• *Shows that learning conditions and their impact on Canada’s economic and social well-being can be measured, reported and monitored over time and in different geographic contexts*
What does the CLI represent?

- The CLI generates numeric scores representing the state of lifelong learning in Canada, its many cities, towns and rural communities.

- A high score means that a particular community has the learning conditions to succeed economically and socially.
### Pillars of Learning

<table>
<thead>
<tr>
<th>Learning to Know</th>
<th>Literacy, numeracy, general knowledge, and critical thinking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning to Do</td>
<td>Technical, hands-on skills that are closely tied to occupational success</td>
</tr>
<tr>
<td>Learning to Live Together</td>
<td>Civic engagement, respect and concern for others and social and inter-personal skills</td>
</tr>
<tr>
<td>Learning to Be</td>
<td>Development of the mind, body and spirit through personal discovery, creativity and achieving a healthy balance in life</td>
</tr>
</tbody>
</table>

Inspired by the Four Pillars of Learning developed for UNESCO by Jacques Delors.
Learning to KNOW Indicators

- Youth literacy skills (reading, math, science and problem solving)
- High-school dropout rate
- Post-secondary participation
- University attainment
- Access to learning institutions (elementary & secondary schools, colleges, universities)
UNIVERSITY ATTAINMENT

WHY IS IT IMPORTANT TO LEARNING IN CANADA?
Research clearly shows that higher educational attainment results in a wide range of economic and social benefits for Canadians, their communities and the country as a whole. University attainment is an indicator of “human capital,” or the skills and knowledge available in the local workforce.

WHAT IS IT?
The proportion of Canadians aged 25 to 64 who have completed a university program, according to Statistics Canada’s annual Labour Force Survey. This indicator measures the number of working-age Canadians who have finished a university-level program.

CHART 1: UNIVERSITY ATTAINMENT IN CANADA, BY GENDER, AGES 25–64, 1993–2007

Source: Statistics Canada, Labour Force Survey
Learning to DO Indicators

- Availability of training in the workplace
- Adult participation in job-related training
- Access to vocational training institutions
Learning to LIVE TOGETHER Indicators

- Participation in social clubs and organizations
- Volunteering
- Learning from other cultures
- Access to community services (e.g. libraries)
Learning to BE Indicators

- Exposure to media (reading material, internet)
- Learning through culture (live arts, museums)
- Learning through sports
- Access to broadband internet
- Access to cultural resources (e.g. art galleries)
What is it?
The average travel time required for Canadians to reach a range of learning institutions and services. This measure is made up of four distinct indicators, one for each pillar of the CLI:

• **Learning to Know:**
Access to learning institutions, such as elementary and secondary schools, colleges and universities

• **Learning to Do:**
Access to vocational learning institutions, such as business and secretarial schools

• **Learning to Live Together:**
Access to community services, such as libraries, religious organizations, and business, civic and social associations

• **Learning to Be:**
Access to cultural resources, such as museums and art galleries
Social and Economic Outcomes of Learning

• The outcomes of learning (dependent variables):

  Economic outcomes
  - Income (average)
  - Unemployment rate

  Social outcomes
  - Adult Literacy
  - Civic engagement
  - Early Childhood Development
  - Population health
  - Environmental responsibility
2008 Composite Learning Index
Composite Learning Index Trends 2006-2008
## 2008 CLI Results and Trends

<table>
<thead>
<tr>
<th></th>
<th>2006 CLI Score</th>
<th>2007 CLI Score</th>
<th>2008 CLI Score</th>
<th>EPPY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CANADA</strong></td>
<td>73</td>
<td>76</td>
<td>77</td>
<td>+1.9</td>
</tr>
<tr>
<td>Large Cities*</td>
<td>75</td>
<td>78</td>
<td>80</td>
<td>+2.1</td>
</tr>
<tr>
<td>Smaller Cities &amp; Towns**</td>
<td>73</td>
<td>75</td>
<td>75</td>
<td>+1.4</td>
</tr>
<tr>
<td>Rural Communities***</td>
<td>68</td>
<td>72</td>
<td>72</td>
<td>+2.0</td>
</tr>
</tbody>
</table>

### 2008 Pillar Scores and Trends

<table>
<thead>
<tr>
<th></th>
<th>Learning to KNOW</th>
<th>Learning to DO</th>
<th>Learning to LIVE</th>
<th>Learning to BE</th>
<th>EPPY</th>
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<tr>
<td><strong>CANADA</strong></td>
<td>5.0</td>
<td>-0.1</td>
<td>5.3</td>
<td>4.8</td>
<td>-0.1</td>
</tr>
<tr>
<td>Large Cities*</td>
<td>5.3</td>
<td>-0.1</td>
<td>5.7</td>
<td>5.1</td>
<td>-0.1</td>
</tr>
<tr>
<td>Smaller Cities &amp; Towns**</td>
<td>4.7</td>
<td>-0.1</td>
<td>5.1</td>
<td>4.8</td>
<td>-0.2</td>
</tr>
<tr>
<td>Rural Communities***</td>
<td>4.3</td>
<td>0.0</td>
<td>4.7</td>
<td>4.3</td>
<td>-0.3</td>
</tr>
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</table>

* Large cities - urban centres with > 100,000 people
** Smaller cities and towns - communities with < 100,000 people, and > 150 people km²
*** Rural areas - < 100,000 people, and < 150 people km²

Learning to Know, to Do, to Live Together, to Be
Learning to KNOW

Pillar Score = 5.0
EPPY = 0.0

No change in since 2006

• No significant improvement over the last three years in:
  – Youth literacy assessments;
  – Participation in post-secondary education.

• Slight improvement over the last three years in:
  – High-school dropout rates;
  – Proportion of university graduates.
Learning to DO

**Pillar Score** = 5.3  
**EPPY** = +0.2

Consistent improvement since 2006

- **Improvement over the last three years in:**  
  - Participation of adults in job-related training (specifically younger adults, aged 25 to 34);

- **No significant improvement over the last three years in:**  
  - Availability of workplace training provided by employers;
Learning to LIVE TOGETHER

Pillar Score = 4.8
EPPY = -0.1

Slight decrease since 2006

- Continual refinements made to this pillar makes it difficult to pinpoint what is driving the minimal downward trend.
  - Improvement over the last three years in the participation in clubs and social organizations;
- Current indicators represent the strongest connection to date with the CLI’s social and economic outcomes.
Learning to BE

Pillar Score = 5.6
EPPY = +0.3

Consistent improvement since 2006

- Improvement over the last three years in:
  - Exposure to museums, galleries and live performing arts;
  - Exposure to the Internet;

- Decline over the last three years in:
  - Exposure to sports and recreation;
CLI Interactive Map

Click here to get access to the interactive website.
### Montréal

- **Year:** 2008
- **Composite Learning Index:** 71 (+2.0)  
  **Canada:** 77 (+1.9)

#### Learning to Know
- **Youth reading skills:** 4.9 (-0.6)  
  522.0**  
  527
- **Youth math skills:** 4.9  
  540.0**  
  ▲ 527
- **Youth problem-solving skills:** 4.9  
  530.2**  
  ▲ 529
- **Youth Science Skills:** 4.9  
  531.0**  
  ▲ 534
- **High-school dropout rate:** 9.5%  
  ▲ 9.3%
- **Post-secondary participation:** 47.9%  
  ▲ 40.0%
- **University attainment:** 34.1%  
  ▲ 27.4%
- **Time to schools (h:m:s):** 2:24  
  ▲ 2:34
- **Time to PSE (h:m:s):** 9:02  
  ▲ 17:08

#### Learning to Do
- **Job-related training:** 4.9 (+0.3)  
  5.3 (+0.2)
- **Availability of workplace training:** 21.3%  
  ▲ 23.5%
- **Time to vocational schools (h:m:s):** 51.9%  
  ▲ 56.1%
  18:52  
  ▲ 35:39

#### Learning to Live Together
- **Volunteering:** 3.7 (-0.1)  
  4.8 (-0.1)
- **Participation in clubs:** 32.5%  
  ▲ 45.3%
- **Learning from other cultures:** 15.8%  
  ▲ 18.7%
- **Time to libraries (h:m:s):** 61.1%**  
  ▲ 71.5%
  11:11  
  ▲ 11:14
- **Time to associations (h:m:s):** 4:52  
  ▲ 10:29
- **Time to religious organizations (h:m:s):** 2:59  
  ▲ 3:27

#### Learning to Be
- **Exposure to internet:** 4.7 (+0.4)  
  5.6 (+0.3)
- **Exposure to reading:** 59.8%  
  ▲ 64.1%
- **Exposure to sports:** 81.0%  
  ▲ 79.7%
- **Exposure to performing arts:** 33.8%  
  ▲ 41.6%
- **Exposure to museums, etc.:** 43.0%  
  ▲ 41.7%
- **Time to museums and galleries (h:m:s):** 29.3%  
  ▲ 34.1%
  21:40  
  ▲ 23:29
- **Access to broadband internet:** 97.9%  
  ▲ 85.2%

▲ above Canada average  
* data only available at the economic region level  
** data only available at the provincial level  
CM - these measures are common with 2008

( ) - Trend score in Estimated Points Per Year (EPPY)
### CLI case studies

<table>
<thead>
<tr>
<th>Location</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blackfalds, Alta.</td>
<td>With a fireplace, free wireless internet and an explicit “no shushing” rule, the Blackfalds Public Library is not your typical small town library. <a href="#">More</a></td>
</tr>
<tr>
<td>Laval, Que.</td>
<td>He may have burst onto the national stage thanks to his massively popular double-platinum selling 2006 album <em>I Think Of You</em>, but for years Gregory Charles has been working on a kind of recognition that’s much closer to home. <a href="#">More</a></td>
</tr>
<tr>
<td>Saint John, N.B.</td>
<td>Transforming itself from a hard-luck harbour town to one of Canada’s fastest-growing cities in less than a decade, the success story of Saint John holds a lesson or two for the rest of Canada. <a href="#">More</a></td>
</tr>
<tr>
<td>St. John’s, N.L.</td>
<td>Until last fall, Tina Pretty hadn’t had to worry about homework in more than 30 years. Now the 46-year-old is preparing for an English Literature course at Memorial University; her third course since returning to school in September 2007. <a href="#">More</a></td>
</tr>
<tr>
<td>Victoria, B.C.</td>
<td>Victoria. Home to the newly wed and the nearly dead, right? It turns out that this longstanding cliché is now seriously passé. <a href="#">More</a></td>
</tr>
<tr>
<td>Waterloo, Ont.</td>
<td>At first, the contrast is striking: An Old-Order Mennonite community, complete with horse-drawn carriages, located within 15 minutes of the global headquarters of high-tech success story Research in Motion. That’s the Waterloo Region. <a href="#">More</a></td>
</tr>
</tbody>
</table>
What is a Learning Community?

“A Learning Community looks for ways to bring learning and people together to foster the well-being of the community”
Learning Communities: Operational Definition

Neighbourhoods, villages, towns, cities or regions that explicitly use lifelong learning as an organizing principle and social/cultural goal in order to promote collaboration of their civic, economic, public, voluntary and education sectors to enhance social, economic and environmental conditions on a sustainable, inclusive basis.

Communities of Place
Successful Learning Communities

Civic
(federal, provincial, municipal, First Nations)

Economic
(social, private)

Partnerships

Participation

Performance

Education
(ECD to PSE)

Community, Voluntary

Public
(libraries, museums, social, health)

Source: Adapted from Dr. Ron Faris
Learning Cities across the World

- Over 300 “Learning City” (or “Learning Region”) initiatives have been identified globally
  - Europe, United Kingdom, Australia, Asia

- In Canada:
  - Victoria/South Island Learning Community (SILC)
  - City of Vancouver
  - Town of Fort Erie, ON
  - St. Johns, NFLD
  - Edmonton, AB (exploring)
CLI: Tool for Learning Communities

Communities can use the CLI similar to how individuals use Canada’s Food Guide:

The food guide helps individuals identify the right quantity and combination of various food groups recommended for healthy living.

The CLI helps communities identify the right combination of learning conditions that promote economic and social well-being.
CLI: Tool for Learning Communities

• CLI is a measurement tool designed to help communities identify their strengths and weaknesses in fostering a lifelong learning environment.

• CLI provides a lifelong learning framework for cities to help define what a “Learning City” is and to measure progress over time.

• CLI can assist cities in developing a “Community Learning Strategy”
Lifelong learning results from a continuously supportive system which stimulates and empowers individuals to acquire the knowledge, skills, understanding and values they require throughout their lives.

(Longworth and Davies, 1996)
Vancouver: Learning City

- CCL has initiated a “Learning Cities” project with the City of Vancouver, using the CLI as its underlying framework.

- The objectives of the project are to:
  - Gather all key community partners;
  - Undertake a detailed assessment of the learning conditions currently provided by the City of Vancouver;
  - Provide community partners with an analysis of the city’s strengths and weaknesses in the area of learning;
  - To facilitate the development of a “Community Learning Strategy.”
Framework for Vancouver’s Learning Strategy

Learning Objectives

Learning to KNOW (school)
- literacy & job readiness
- degree completion
- improved access

Learning to DO (workplace)
- skills development
- collaboration & partnership
- workplace training

Learning to LIVE (community)
- enhanced access
- celebrate diversity
- social responsibility

Learning to BE (home)
- support participation
- motivation to learn

Desired Outcomes

Social Health
- engagement
- Inclusion
- empowerment

Economic Health
- productivity
- capacity
- innovation

Environmental Health
- sustainability
- lifestyle choices
# Framework for Measuring Progress: Lifelong Learning Strategy for the City of Vancouver

<table>
<thead>
<tr>
<th>DESIRED OUTCOMES</th>
<th>INDICATOR</th>
<th>MEASURE</th>
<th>DATA SOURCE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SOCIAL Health</strong></td>
<td>CLI score</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Increased recognition of the importance of lifelong learning</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Higher rates of literacy and numeracy</td>
<td>CLI score</td>
<td>Adult literacy rates</td>
<td>SCAL</td>
</tr>
<tr>
<td>3. Increased citizen engagement and social inclusion</td>
<td>CLI score</td>
<td>Youth literacy rates</td>
<td></td>
</tr>
<tr>
<td>4. Safe and comfortable learning environments??</td>
<td>CLI score</td>
<td>Voter participation rates</td>
<td></td>
</tr>
<tr>
<td><strong>ECONOMIC Health</strong></td>
<td>CLI score</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Enhanced employee productivity</td>
<td>CLI score</td>
<td>Employment rate</td>
<td></td>
</tr>
<tr>
<td>6. Improved business and labour capacity</td>
<td>CLI score</td>
<td>Household income</td>
<td></td>
</tr>
<tr>
<td>7. Increased innovation and research</td>
<td>CLI score</td>
<td>Voter participation rates</td>
<td></td>
</tr>
<tr>
<td><strong>ENVIRONMENTAL Health</strong></td>
<td>CLI score</td>
<td></td>
<td></td>
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<tr>
<td>8. Improved consumer and lifestyle choices that support sustainability</td>
<td>CLI score</td>
<td></td>
<td></td>
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<tr>
<td>9. Increased solutions to address environmental changes</td>
<td>CLI score</td>
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</tbody>
</table>

**Five Major Themes Based on Consultation**

A) Inspiring, motivating and supporting learning
B) Raising awareness
C) Ensuring accessibility
D) Facilitating seamless transitions
E) Building coalitions and partnerships
Lifelong Learning Strategy

Four-Year Action Plan:

Possible Areas of Focus:

• To inspire and motivate people to learn and to continue learning throughout their lives.
  
  e.g., develop a media campaign promoting the benefits of learning / profile learners of different abilities, ages and cultures

• To raise awareness about lifelong learning opportunities in the City of Vancouver.
  
  e.g., host a celebration of learning festival / incorporate a visual map of lifelong learning opportunities on the website / recognize and award excellence and innovation in learning

• To facilitate and support lifelong learning in the City.
  
  e.g., work with businesses to create learning plans for their employees / work with youth serving agencies to develop adolescent leadership and mentorship opportunities / identify and share best practices in learning

• To facilitate access by addressing the barriers to lifelong learning in the City.
  
  e.g., work with at-risk, disadvantaged and marginalized groups to identify barriers and to propose solutions
<table>
<thead>
<tr>
<th>Objective</th>
<th>Strategy</th>
<th>Major Theme Addressed</th>
<th>Interventions (program, partners)</th>
<th>INDICATOR</th>
<th>MEASURE</th>
<th>DATA SOURCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. To increase completion rates for students at all stages of learning.</td>
<td>Develop a system of publicly-funded, universal access to childcare, development and learning for children to school age.</td>
<td>ALL</td>
<td>Child development and school readiness</td>
<td>• Proportion of children who are vulnerable on at least one domain.</td>
<td>EDI</td>
<td></td>
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<tr>
<td></td>
<td>Increase supports to learners – e.g. homework clubs, tutorial assistance.</td>
<td></td>
<td>High school completion rates</td>
<td>• Youth completing high school</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Expand and enhance Aboriginal educational programs</td>
<td></td>
<td>Post-secondary completion rates</td>
<td>• Aboriginal youth completing high school</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. To enhance access to learning institutions at all stages of learning</td>
<td>Improve access to education and quality childcare for teen parents.</td>
<td>C</td>
<td>Access to preschool programs</td>
<td>• Post-secondary completion rates</td>
<td></td>
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</tr>
<tr>
<td>and for all groups.</td>
<td>To restore tuition-free Adult Basic Education.</td>
<td></td>
<td>Post-secondary enrolment rates</td>
<td>• Proportion enrolled in university, colleges or training programs</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Adult enrolment rates</td>
<td>• Proportion of adults enrolled in non-university diploma/technical programs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. To prepare and support seamless transitions for learners between stages</td>
<td>Examine flexible scheduling and self-paced learning to enable students to gain workplace experience</td>
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<tr>
<td>learning.</td>
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<tr>
<td>4. To provide supportive, inspiring and healthy learning environments for</td>
<td>Improve curriculum and programs to ensure its practicality and relevance</td>
<td>A</td>
<td></td>
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<tr>
<td>all citizens.</td>
<td>Recognize and support different learning styles</td>
<td></td>
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</table>
Further Information

• More information about the 2008 CLI, including detailed data tables for all of the indicators, is available on the CCL website at www.ccl-cca.ca/cli

• If you have any questions or comments about the Composite Learning Index, please e-mail them to mlachance@ccl-cca.ca.
European Lifelong Learning Indicators (ELLI)

Conference 1: How Learning can foster the well-being and progress of communities?

Ulrich Schoof

1. Project Idea & Objectives – Making Lifelong Learning Tangible…

2. The Forerunner – The Canadian Composite Learning Index (CLI)…

3. Project Architecture – The Two Core Modules…

4. The Indicator - Concept – Constructs, Indicators, Measures…

5. The IT-Platform – Open Data & Open Source…

6. Project Status - What has been done & next steps…
1. Project Idea & Objectives – Making Lifelong Learning Tangible…

We want to create an instrument which….

✓ …measures lifelong learning and its impact on economic and social well-being on different geographical levels in Europe.
   (Measuring LLL & Linking it to Well-being - Idea)

✓ …provides and communicates a holistic and easy to understand concept of learning.
   (Holistic Learning - Perspective)

✓ …should be valuable and easy to access for a wide audience.
   (Internet - Web 2.0 based - Concept)

✓ …should be developed, designed and used as a dynamic, open learning tool, flexible for “prosumer” adjustments.
   (Open Data - Approach)

✓ …should be open for further developments and transferable to and applicable in different countries, regions and contexts.
   (Open Source - Philosophy).
2. The Forerunner– The Canadian Composite Learning Index (CLI)
2. The Forerunner—The Canadian Composite Learning Index (CLI)...

![ CLI Composite Learning Index Map ]

<table>
<thead>
<tr>
<th></th>
<th>Montréal</th>
<th>Canada</th>
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<tbody>
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<td><strong>Year: 2008</strong></td>
<td>71 (+2.0)</td>
<td>77 (+1.9)</td>
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<td><strong>Composite Learning Index</strong></td>
<td>4.9 (-0.6)</td>
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</tr>
<tr>
<td>Exposure to reading</td>
<td>81.0%</td>
<td>79.7%</td>
</tr>
<tr>
<td>Exposure to sports</td>
<td>33.8%</td>
<td>41.6%</td>
</tr>
<tr>
<td>Exposure to performing arts</td>
<td>43.0%</td>
<td>41.7%</td>
</tr>
<tr>
<td>Exposure to museums, etc.</td>
<td>29.3%</td>
<td>34.1%</td>
</tr>
<tr>
<td>Time to museums and galleries (h:m:s)</td>
<td>21:40</td>
<td>23:29</td>
</tr>
<tr>
<td>Access to broadband internet</td>
<td>97.9%</td>
<td>85.2%</td>
</tr>
</tbody>
</table>

▲ above Canada average
▼ below Canada average

* data only available at the economic region level
** data only available at the provincial level
CM - these measures are common with 2008
( ) - Trend score in Estimated Points Per Year (EPPY)
3. Project Architecture – The Two Core Modules...

Composite Index Model
Conceptual Framework

IT-Platform
Open Data & Open Source
4. The Indicator Concept – Constructs, indicators, measures...
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The ELLI (Scientific) Development Team
3. Project Architecture – The Two Core Modules...

Composite Index Model
Conceptual Framework

IT-Platform
Open Data & Open Source
5. The IT-Platform – Open data & Open source…

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Core Features:

Data Display & Visualisation
- **Mapping**: Data Display and Comparisons on Geographical Maps (Googlemaps-Mashup)
- **Data Display Options**: Scorecard View, Community GUI, Charts & Diagramms

Model Editing
- **Change**, Save and Discuss Indicator-Model
- **Create** new Model & Concept with Database

Open Data
- **Export / Import Data** (Bulk Up/Download) in different Formats (xls. etc.)
- **Data Mashup** Options (ELLI-API)

Open Source (Code)
- **Easy Transfer & Further Development** of Software
Keep-up-to-date!

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Publications

Happiness, Joy and Well-Being – which role does learning play?"

A representative survey in Germany, January 2008

Why learning effects happiness

Publication Date: Winter 2008