Definitions of Terms and Measures

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Leading practitioners and thought leaders in learning are working together to implement reporting standards in L&D and, ultimately, all facets of talent development. The inspiration for this work is the set of Generally Accepted Accounting Principles (GAAP) which have provided accountants with standard definitions and statements (like the income statement and balance sheet) since 1939. Like the accounting profession, L&D should have its own reporting principles, standards and consistently-defined measures to provide consistent guidance to practitioners and to allow for meaningful comparisons among organizations. We have named these evolving standards the Talent Development Reporting principles (TDRp).

Kent Barnett, CEO and founder of Knowledge Advisors, and Tamar Elkeles, VP of Qualcomm’s Corporate Learning Center, launched this effort in the fall of 2010. They established an executive council comprised of leading practitioners and recruited the author to help with the effort. Kent and Tamar also established an advisory group of thought leaders in the field including Jac Fitz-enz (CEO, Human Capital Source), Rob Brinkerhoff (Professor Emeritus, Western Michigan University), Jack Phillips (Chairman, ROI Institute), Josh Bersin (CEO and President, Bersin & Associates), Frank Anderson (President, Strategic Public Sector Solutions, LLC), Laurie Bassi (CEO, McBassi & Company), and Dave Vance (President, Manage Learning LLC, and formerly President, Caterpillar University). ASTD and several leading accounting firms have since endorsed the work as well.

The team’s recommendations, approved by the executive council in March 2011, include the following:

1. Adopt a set of eight guiding principles
2. Adopt standard measures and definitions
3. Adopt three foundational statements
4. Adopt three executive reports

This document defines the standard measures (recommendation 2). The measures are organized by the statement that employs them beginning on page 4. Terms, many common to all statements and reports, are defined first beginning on page 8.
Three foundational statements will be our industry’s equivalent of the income statement, balance sheet, and cash flow statement. The recommended statements for L&D are the business outcomes statement, the effectiveness statement, and the efficiency statement. Similar to the three accounting statements, each L&D statement has a standard and defined format, while allowing flexibility in the elements or measures depending on the industry and organization circumstances. Moreover, the formal, written definitions of L&D measures should drive consistency in use and calculation by all organizations. This consistency in reporting and definitions will not only provide much needed guidance but will also enable more robust benchmarking across companies.

The three executive reports are highly customizable (each organization chooses which measures to include) and are intended for managing the learning function to deliver the planned results. The L&D Summary Report provides a high level view of the performance of the learning function for the CEO and other senior leaders. The other two reports are the L&D Program Report and the L&D Operations Report. The CLO or VP of Training would use these reports to manage L&D programs and overall efficiency of the function.
Figure 1 shows how the measures feed into the three statements which in turn provide the data for the three management reports.

**Executive Reporting Process**

*Figure 1: Executive Reporting Process*

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**Figure 1: Executive Reporting Process**

- **EXECUTIVE REPORTS**
  - Senior Executives
    - L&D Summary Report (QUARTERLY)
  - Learning Executives
    - L&D Program Report (MONTHLY)
    - L&D Operations Report (MONTHLY)

- **STATEMENTS**
  - Outcome Statement
  - Learning Efficiency Statement
  - Learning Effectiveness Statement

- **DATA SETS**
  - Outcomes
  - Effectiveness
  - Efficiency

- **DATA SOURCES**
  - Financial Data
  - Learning Management System
  - Evaluation System
  - Other Sources (e.g. HRIS, ERP, CRM)

---

*Extract, convert and calculate Standard Measures*
The three statements (Outcome, Effectiveness, and Efficiency) organize and standardize all the important L&D measures much like the income statement, balance sheet, and cash flow statement do for accounting measures. The statements provide information about the basic measures needed to manage the learning function. Each statement has the same columns: last year’s results, this year’s plan, year-to-date (YTD) results, and YTD results as a percent of plan. The statements may have additional columns (like monthly plan and results) but these are the minimum. These statements should be produced at least quarterly and, in most cases, monthly.

**Outcome Statement**

The first statement is the Business Outcomes Statement which reports the key goals or desired outcomes (results) of the organization and the expected impact of L&D on achieving those goals. The report should include the primary goals of the organization for the year (e.g. a 10% increase in sales), any other goals which will be supported by learning, and the expected impact or importance of learning on achieving those goals.

The goals should be presented in descending order of priority. The impact or importance of learning on achieving the goal may be a Kirkpatrick/Phillips level 3, 4 or 5 quantitative measure (a number), or may be expressed qualitatively (e.g. high, medium, low). The data should represent primarily the view of the stakeholder (e.g. the VP of Sales believes the proposed learning program, properly conceived, designed, implemented, and reinforced, should contribute 30% of the 10% increase in sales [or 3% higher sales]). If level 4 or 5 measures are not available or not appropriate, a level 3 application rate or other measure may be used as a proxy or indicator for impact.
Learning & Development

Sample Business Outcome Statement
Results Through June

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Revenue</td>
<td>$774</td>
<td>$689</td>
<td>$764</td>
<td>$825</td>
<td>$3,052</td>
<td>$890</td>
<td>$821</td>
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<tr>
<td></td>
<td>Millions of $</td>
<td>% change over year earlier</td>
<td>7.2%</td>
<td>8.8%</td>
<td>10.7%</td>
<td>13.3%</td>
<td>10.0%</td>
<td>15.0%</td>
</tr>
<tr>
<td>2</td>
<td>Leadership</td>
<td>68.1</td>
<td>67.3</td>
<td>68.0</td>
<td>68.5</td>
<td>68.5</td>
<td>69.5</td>
<td>71.5</td>
</tr>
<tr>
<td></td>
<td>EOS (1) leadership score (points)</td>
<td>-0.4</td>
<td>-0.8</td>
<td>0.7</td>
<td>0.5</td>
<td>0.0</td>
<td>1.0</td>
<td>2.0</td>
</tr>
<tr>
<td>3</td>
<td>Safety</td>
<td>143</td>
<td>157</td>
<td>174</td>
<td>165</td>
<td>639</td>
<td>125</td>
<td>130</td>
</tr>
<tr>
<td></td>
<td>Number of injuries</td>
<td>% change over year earlier</td>
<td>-8.5%</td>
<td>-10.5%</td>
<td>-9.4%</td>
<td>-11.6%</td>
<td>-10.0%</td>
<td>-12.6%</td>
</tr>
<tr>
<td>4</td>
<td>Call Center Satisfaction</td>
<td>79.1</td>
<td>78.4</td>
<td>80.1</td>
<td>80.5</td>
<td>80.5</td>
<td>81.5</td>
<td>83.4</td>
</tr>
<tr>
<td></td>
<td>Satisfaction score</td>
<td>Change over previous quarter (pts)</td>
<td>0.2</td>
<td>-0.7</td>
<td>1.7</td>
<td>0.4</td>
<td>1.6</td>
<td>1.0</td>
</tr>
<tr>
<td>5</td>
<td>Comply with New Regulations</td>
<td>% in compliance</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>6</td>
<td>Innovation</td>
<td>9</td>
<td>7</td>
<td>10</td>
<td>12</td>
<td>38</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Number of new patents</td>
<td>Change over year earlier</td>
<td>1</td>
<td>-2</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>High Business Acumen</td>
<td>EOS (1) business acumen score</td>
<td>57.6</td>
<td>58.4</td>
<td>56.9</td>
<td>55.8</td>
<td>55.8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Change over previous quarter</td>
<td>-0.3</td>
<td>0.8</td>
<td>-1.5</td>
<td>-1.1</td>
<td>-2.1</td>
<td>1.5</td>
</tr>
<tr>
<td>Medium</td>
<td>Employee Engagement</td>
<td>EOS (1) total score</td>
<td>Change over previous quarter</td>
<td>65.1</td>
<td>64.9</td>
<td>65.3</td>
<td>66.4</td>
<td>66.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>-0.3</td>
<td>-0.2</td>
<td>0.4</td>
<td>1.1</td>
<td>1.0</td>
<td>0.7</td>
</tr>
</tbody>
</table>

Note: 1. EOS is quarterly Employee Opinion Survey

Figure 2: Sample Business Outcome Statement

Effectiveness Statement

The second statement is the Effectiveness Statement which contains more familiar measures and focuses on how well or how effectively the business outcomes are achieved through learning. Recommended measures include level 1-5 indicators. All organizations should, at a minimum report level 1 (satisfaction and a forecast of application and perhaps impact) and 2 (learning) measures. Level 3 (application) is strongly recommended for strategic, costly or visible programs aligned to organizational goals. Levels 4 (impact) and 5 (net dollar benefits or ROI) are recommended for key programs.

Efficiency Statement

The third statement is the Efficiency Statement which reports the activity measures and cost elements that demonstrate how efficiently the outcomes were achieved. Efficiency measures include Level 0 or volume (number of participants, courses, hours, etc.), utilization rates (courses, instructors, facilities, etc.), budget and opportunity costs, program and vendor management, cycle times, reach, and other key indicators.
The three recommended reports are the L&D Summary Report, L&D Program Report, and L&D Operations Report. These reports provide managers and decision makers the information to manage and oversee the L&D function. Each report answers the same questions: how are we doing versus plan and how is the year going to end?

The reports pull key measures (different for each organization) from the statements to help manage the L&D function. Consequently, they will be highly customized to reflect the measures most important for a particular function. Although the chosen measures will differ by organization, each report should show the same columns or information: last year’s results, this year’s plan, year-to-date (YTD) results, YTD results as a percent of plan, and a forecast for the year.

These are the same columns as in a statement with the addition of a forecast column. The reports may have additional columns (for example, monthly results and monthly plan), but these are the minimum. These reports should be produced at least quarterly and, in most cases, monthly. They should be 1-2 pages long and interpreted for the audience either in a face-to-face presentation or in writing with a focus on summary conclusions and recommendations.

**L&D Summary Report**

The first report is the L&D Summary Report which includes key measures from all three statements. Its primary audiences are business and teach executives (CEO, CLO, etc.) and will contain higher-level, aggregated information about the most important initiatives and measures. Typically, the L&D Summary Report will include key business outcome measures (including the impact of learning), key effectiveness measures (like feedback, learning and application), and key efficiency measures (like number of unique and total participants, number of courses and hours, reach, utilization rates, cycle times, budget and opportunity costs, and cost reduction).

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**Each report answers the same questions:**

- how are we doing versus plan
- how is the year going to end?
### Learning & Development

#### Sample Summary Statement

**Results Through June**

<table>
<thead>
<tr>
<th>Impact</th>
<th>2011</th>
<th>For 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Actual</td>
<td>Jun YTD %</td>
</tr>
<tr>
<td>Total Participants</td>
<td>Number 40,121</td>
<td>50,000</td>
</tr>
<tr>
<td>Unique Participants</td>
<td>Number 20,263</td>
<td>23,000</td>
</tr>
</tbody>
</table>

**Top Ten Programs and Initiatives (1)**

| Total Participants | Number 25,000 | 30,000 | 17,268 | 58% 32,000 |
| Application Rate   | % who applied it 65% | 75% | 71% | 73% |
| Sponsor Estimate of Impact | On 5 point scale 2.3 pts | 2.5 pts | 2.4 pts | 2.4 pts |

**Top Priority Programs and Initiatives**

**Marketing**

- Increase in Sales
  - Corporate Goal or Actual % 2% | 20% | 17% | 20% |
  - Application of Training (application rate) % NA | 80% | 85% | 85% |
- Total participants Number 386 | 1,000 | 826 | 83% | 1,115 |

**Leadership**

- Increase in Leadership Score
  - Corporate Goal or Actual points 0 pts | 5 pts | 3 pts | 4 pts |
  - Impact of Training (time spent coaching) minutes/week NA | 60 | 50 | 50 |
- Total participants Number 0 | 400 | 169 | 42% | 400 |

**Effectiveness**

- Participant Feedback % favorable 80% | 85% | 87% | 102% | 85% |
- Sponsor Feedback % favorable 75% | 80% | 77% | 96% | 78% |
- Learning Score 78% | 85% | 83% | 84% |
- Application rate % who applied it 61% | 75% | 78% | 79% |

**Efficiency**

- % of courses developed on time % 82% | 95% | 88% | 94% |
- % of employees reached by L&D % 85% | 88% | 72% | 88% |
- % of ee's with development plan % 82% | 98% | 95% | 96% |
- E-learning course utilization rate % taken by 20+ 83% | 97% | 91% | 97% |

**L&D Investment**

- L&D Expenditure Million $ $15.8 | $20.2 | $9.9 | 49% | $20.2 |
- Opportunity Cost Million $ $3.4 | $2.9 | $1.3 | 45% | $2.9 |
- Cost Reduction (internal to L&D) Thousand $ $63 | $295 | $168 | 57% | $325 |

Note: (1) The top ten programs include the following:
- Marketing, Leadership, Safety, Fraud Detection, Business Acumen,
  Engineering, Performance Mgt, New Employee Orientation, and Innovation.

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**Figure 3: Sample L&D Summary Report**

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L&D Program or Initiative Report

The second report is the L&D Program or Initiative Report. The target audience for this report is learning executives who manage programs, people and budget, including the CLO, directors and program managers. The report enables these learning executives to manage programs and initiatives on a monthly basis to deliver the planned results. Consequently, this report will be more detailed and focused than the L&D Summary Report. Typically, it will include the organization goal, learning’s impact on that goal, number of participants, number of courses, completion dates for development and delivery, and levels 1-3 (including the sample size).

L&D Operations Report

The third report is the L&D Operations Report. The target audience is the same as the L&D Program Report: learning executives. The purpose of the report is to manage L&D operations efficiently. This report will contain the most important measures from the efficiency report, focusing on those key efficiency measures which will be actively managed on a monthly basis.

This section defines the general terms used in statements and reports and often in the definition of measures. For definitions of the measures themselves please turn to page YY.

Planning Terms

- **Sponsor**: The process owner or stakeholder with ultimate responsibility to deliver the business outcome.

- **Organizational Outcome**: An organization’s planned or actual results. Examples of planned outcomes include a 10% desired increase in revenue and a 30% desired decrease in injuries (synonymous with organizational goals). Examples of actual results include an 8% realized increase in revenue and a 35% realized decrease in injuries.

- **Organization Goal**: The desired organizational outcome such as a 10% increase in sales for the year. In this example, the metric is sales and the desired value is a 10% increase.

- **Impact**: Learning’s impact on organizational outcomes. Impact may be expressed as a level 1 participant or sponsor estimate of impact, a level 3 application rate, a level 4 impact, a level 5 value of learning or as a proxy for level 4 or 5.

- **Plan**: The quantitative or qualitative goal for the year for the measure being reported. For example, the plan may be for a 10% increase in sales or an application rate of 60%.
• **Forecast:** The sponsor or learning professional’s projection or reasoned guess for the value of a measure once the year is already underway. The forecast will often differ from the plan (original goal). For example, the plan may have been a 10% increase in sales for the year, but by July it is evident the plan will not be achieved and the forecast is now for a 7% increase in sales. Forecasts are typically made for all measures which are actively managed.

• **Last year’s Results (or Actuals):** The results for the last complete fiscal year.

• **Year to date results (or actuals):** The results from the start of the fiscal year through the most recent month for which actuals are available.

• **% of plan:** A calculation of progress to date to achieve the plan for the measure being reported. By formula, \[ \% \text{ of plan (annual)} = \frac{\text{Year-to-date results}}{\text{Plan (annual)}} \]

**Participant Terms**

• **Participants:** Those who are actively engaged in a formal or informal learning program or initiative. There are two ways to count the number of participants in programs or initiatives. The count of **unique participants** removes duplication from participants taking multiple courses. It answers the question, “How many people have been reached by learning?” The count of **total participants** measures all instances of participation or opportunities for learning and allows for the same people to have taken multiple courses. This count answers the question, “How much learning is being provided?” and is directly related to the work load of the L&D function. See definitions for total and unique participant measures on page ZZ under the Efficiency Statement.

**Program/Courses Terms**

• **Program:** Training initiative spanning days, weeks or months often with multiple classes and potentially other learning components (e.g. informal learning, capstone projects, coaching, self-study) that is typically repeated for cohorts or learners. A program is defined to include initiatives as well. For example, a program may include the course described above plus performance support tools plus two hours of self-paced online learning for the same 23 participants. A program may also be composed of courses for different target audiences. For example a safety program may consist of courses for employees and different courses for supervisors.

• **Initiative:** Includes efforts not typically considered a program. Examples might include getting employees to complete a development plan or supervisors to spend at least one hour per week coaching. For purposes of simplification, however, the term programs will be understood to encompass initiatives.
- **Curriculum**: A category or group of courses.

- **Course**: A training topic that has classes available for it. For example, a course may include the class described above plus three more closely related and integrated classes over a four week period.

- **Class**: A specific training delivery or event which may be instructor led in the classroom, facilitated online, or self-paced and web based. An example is a two-hour instructor-led session for 23 participants on May 15.

A taxonomy of program, courses, curricula and classes is depicted in Figure 4.

![Executive Leadership Program](image)

*Figure 4: Program, Course, Class Taxonomy*

### Types of Learning

#### Formal Learning

- **Formal Learning**: The knowledge and skills transfer that occurs with the help of a structured curriculum. Examples are ILT, vILT and e-learning courses.

- **ILT**: (Instructor-led Training): An instructor is physically present in the classroom.

- **vILT**: (Virtual Instructor-led Training): A real-time instructor leads the class virtually or remotely. (synchronous)

- **e-Learning**: Training provided electronically without the presence of a real-time instructor. Includes learning hosted on a computer or mobile device. (asynchronous)

#### Informal Learning

- **Informal Learning**: The knowledge and skills transfer that occurs without the help of a structured curriculum. Examples include knowledge sharing, coaching and mentoring, and performance support (job aids).
• **Coaching and Mentoring**: Personal and/or professional guidance and development of one person by another.

• **Community of Practice (C of P)**: A group of individuals who share a common interest and come together (usually virtually) to learn from each other. The community typically will have a leader, subject matter experts, and rules for engagement.

• **Knowledge Sharing**: Sharing of knowledge and information typically accomplished electronically through communities of practice (CoP).

• **Performance Support**: Physical or electronic aid or support to accomplish a particular task.

• **Social Media**: Uses web-based and mobile technologies used to turn communication into interactive dialogue

### Blended

• A combination of learning methods such as ILT and e-learning.

### Statements

• **Outcome Statement**: A statement showing organizational outcomes and the impact of learning on those outcomes.

• **Outcomes**: Measures of organizational outcomes and the impact of learning on those outcomes

• **Effectiveness Statement**: A statement showing how well or how effectively organizational outcomes are achieved through learning.

• **Effectiveness**: An organization’s ability to deliver the intended results.

• **Effectiveness Measures**: Indicators of how well learning contributes to outcomes (intended results). These include the Kirkpatrick and Phillips levels 1-5 and could be extended to include others such as those suggested by Bersin. Examples include satisfaction with quality of content and delivery, application to job, and impact. Effectiveness data comes largely from self-reported data but also can include assessment/test data, observation and performance feedback.
Outcome Statement Measures

These were introduced under General Planning Terms but are repeated here as well. The actual measures in an outcome statement will be very specific to the organization, reflecting its priorities and the chosen measure of learning’s impact on each outcome. A high-level outcome statement may contain 5-10 organizational outcomes and the associated impact of learning for each.

- **Organizational Outcome**: An organization’s planned or actual results. Examples of planned outcomes include a 10% desired increase in revenue and a 30% desired decrease in injuries (synonymous with organizational goals). Examples of actual results include an 8% realized increase in revenue and a 35% realized decrease in injuries.

- **Impact of Learning**: Learning’s impact on organizational outcomes. Impact may be expressed as a Level 1 participant or sponsor estimate of impact, a level 3 application rate, a level 4 impact, or a level 5 value of learning.

Effectiveness Statement Measures

Effectiveness measures are organized by Kirkpatrick/Phillips levels 1-5. Calculation methodology is also included for levels 1-3. Methodology for calculating levels 4 and 5 is too complex to include here and the reader is referred to the White Paper.

**Level 1: Participant (Participant Feedback)**

A measure of the satisfaction or reaction of the participants of the class, course or program. Measurement may be taken immediately upon completion (paper-based survey or electronically) or several days following completion (electronically). Typically, multiple questions are asked to determine the satisfaction or reaction. These may include:

- **Quality**: This refers to content, delivery, facilities, schedule, online connection, etc. Typically there will be multiple questions on quality.

- **Relevance**: The relevance of the content to the participant’s needs and to the organization’s goals.

- **Alignment**: While it is a best practice to ensure alignment of learning programs to organization goals before the learning is developed, this does not always occur. Even when alignment occurs at a high level in the organization, it is possible that the participant’s supervisor and work group are not aligned to the goals of the learning program. Consequently, depending on the circumstances, it may be desirable to measure various aspects of the learning program’s alignment to ensure that it will have the intended impact. Typically, alignment of delivered learning would be determined by surveying the participants.

For more on outcome measures, see the Talent Development Reporting Principles White Paper, pages 23-29.
• **Amount Learning (Level 2 Estimate):** The participant’s estimate of how much he or she learned.

• **Intent to Apply (Level 3 Estimate):** The participant’s estimate of his or her likelihood to apply what was just learned on the job.

• **Impact (Level 4 Estimate):** The participant’s or sponsor’s estimate of the impact of learning on the business outcome. For instance, the participant may believe that his or her sales will increase 10% as a result of taking the course.

• **Value (Level 5 Estimate):** The participant’s or sponsor’s estimate of the value of the impact of learning on the business outcome. For instance, the sponsor may believe that the 10% increase in sales due to learning is worth $1.2 million in additional net income.

• **Total:** An average of the above level 1 measures so that a single figure can be reported for level 1.

**Level 1: Calculation Methods**

• **Percent (%) Checking Top Two Boxes:** One of two common methods for calculating level 1 scores. Typically, the participant will have a range of answers (for example, strongly agree to strongly disagree) and be asked to select the one that best represents their opinion. This method of calculating a level 1 score adds all the participants who selected the top two boxes (typically strongly agree and agree) and divides by the total number of responses. A 5-point scale is recommended.

• **Average Score:** The other common method for calculating level 1 scores. This method assigns a value to each box (for example, 1 for strongly disagree to 5 for strongly agree). The level 1 score for a class, course, or program then is calculated as the simple average of all the participants’ responses. A 5-point scale is recommended.

**Level 1: Sponsor (Sponsor Feedback)**

A measure of the satisfaction or reaction of the sponsor of the learning to the development, delivery, or management of the initiative. Questions typically would solicit feedback on quality, ability to meet deadlines, responsiveness of the L&D group to requests and changes, ease of working with L&D, frequency of communication regarding progress, and cost management as well as questions to rate L&D as a good business partner and whether the sponsor would recommend L&D to others.

The level 1 calculation methods may be applied to sponsor feedback as well.

Even when alignment occurs at a high level in the organization, it is possible that the participant’s supervisor and work group are not aligned to the goals of the learning program.
Level 2: (Amount Learned)

A measure of the knowledge learned, skills developed, or change in attitude. Measurement is made during the class (especially with online learning), at its completion, or shortly after completion. For knowledge transfer, a test is typically administered to test the amount of knowledge acquired and a grade is generated for each participant reflecting how many questions were answered correctly. For skill development, observation may be used, and the grade reflects the percentage of new skills demonstrated by the participant. Change in attitude may be measured by answering questions or observation, and the grade reflects the percentage of desired attitudes exhibited by the participant. Sometimes, measurement will be made both before and after a class, course or program.

Level 2 Calculation Methods

- **Percent (%) Who Passed:** One of two common methods for presenting level 2 scores. Typically, the sponsor will set a minimum threshold that the learner is expected to achieve (for example 85%). Performance above the threshold constitutes a passing score. The percent **that passed** is calculated as the number of participants performing above the threshold divided by all the participants in the class, course or program.

- **Average Score:** The other common method for presenting level 2 scores. The level 2 score for a class, course, or program is calculated as the simple average of all the participants’ scores. This average is often compared to the sponsor’s threshold.

Level 3: (Application)

A measure of the application or transfer of knowledge, skills, or attitudes to the job. Level 3 measures whether the learner’s behavior or attitude has changed due the program. This may be measured by asking the participants whether they have applied the new learning or skills (or changed their attitudes), or it may be measured by observation (for example, by a supervisor). The decision about when to measure should be driven by the expectation of how long it will take to see meaningful and consistent application in the workplace. This may be immediately upon completion of training (for example, in a call center) or after a period of several months (for example, for consultative sales training).

Level 3: Calculation Methods

The level 3 score is calculated as the percentage of participants who have applied the knowledge/skills/attitudes divided by the total number of participants in the class, course, or program.

- **Note:** Bersin’s concept of Individual Performance (the 8th element in his Impact Measurement Framework) is similar to level 3.
Level 4: (Application)

A measure of the impact of learning on the organizational outcome. Stated another way, level 4 measures the results of the learning program by answering the question, “How much did organizational performance improve due to the learning?” The level 4 measure will always be in the same terms as the organizational outcome. For example, if the desired outcome is a 10% increase in sales, and if a learning program for the sales force increases sales by 3%, then the impact of learning is a 3% increase in sales. There are numerous methods for isolating the impact of learning on the desired outcome which range from participant or sponsor estimates of impact to sophisticated statistical techniques.

- **Sponsor Estimate of Impact:** The level 4 measure of the impact of learning on the organizational outcome made by the sponsor. While most impact measures are derived from participant reporting or statistical techniques, the sponsor is often asked for his/her opinion directly. The sponsor may answer in terms of the organizational outcome (for example, that training is responsible for half of the increase in sales) or may be asked to rate the impact of training on a 5-point scale. Alternatively, the sponsor may simply select High, Medium, or Low impact. Level 5 (Value: Net Benefit or ROI)

Level 5 (Value: Net Benefit or ROI)

A measure of the dollar impact of learning (net benefit) on the organizational outcome which is simply the value of the level 4 impact measure less the total cost of the learning program. Level 5 may be presented as the net benefit, ROI, or sometimes as a benefit cost ratio (B/C).

- **Gross benefit:** The dollar benefit of a learning program before any costs are subtracted. The dollar benefit is simply the value of the impact of learning (level 4) on the business outcome. For example, a 3% increase in sales due to training may be worth $900,000 in additional net income to a company. In this case, the gross benefit is $900,000.
- **Total cost:** All the costs associated with a learning program, including design, development, delivery, management, reinforcement, and opportunity costs. For more on costs, refer to the
- **Net benefit:** Gross benefit less total cost. If the total cost of the sales program were $300,000, then the net benefit would be $900,000-$300,000=$600,000.
- **Return on Investment (ROI):** In business it is the net income from a project divided by the capital cost of the project. In learning, it is the net benefit of the program divided by the total cost. ROI is expressed as a percentage. In the sales example above, the ROI would be $600,000/$300,000=200%.
Efficiency measures are organized by category, and the categories are presented in alphabetical order. The categories are:

- Classes
- Communities of Practice
- Costs
- Courses: Availability and Use
- Courses: Development
- Cycle Time
- Effort
- Headcount
- Hours
- Participants
- Reach
- Utilization

In practice, organizations must decide what categories and measures are important for the current and near-term management of the L&D function. No organization will choose all the measures and some may need to create additional measures to meet their needs.

### Classes

- **Classes, total**: Total number of classes which were held (count multiple sessions of the same class). For example, if class A is conducted five times, class B three times, and class C once, the total number of classes is $5+3+1 = 9$.
- **Class size**: Number of participants in an ILT or vILT class.
- **Class size, average**: The simple average of all class sizes (Sum of class sizes / total classes)
- **Classes, cancelled**: Number of classes which were open for enrollment but later cancelled.
- **Classes, % cancelled**: Classes cancelled / Classes total expressed as a percentage.

### Communities of Practice

- **Communities of practice, total**: The number of unique communities of practice in the organization.
- **Communities of practice, active**: The number of communities where there has been activity within a defined time period (month, quarter, or year). Activity would include discussions, requests for help, providing help, identification of experts, or contributions/access to stored knowledge.
- **Communities of practice, % active**: Active communities of practice / Total communities of practice expressed as a percentage.
• **C of P members, total**: The total number of individuals who are members of communities of practice.

• **C of P members, active**: The total number of individuals who have engaged in discussions, requested or provided help, served as experts, or contributed/accessed knowledge within a defined time period.

• **C of P members, % active**: Active C of P members / Total C of P members expressed as a percentage

### Cost Measures

• **L&D expenditure**: A measure of the investment in learning and development calculated as the direct cost of learning.

• **Direct cost**: These include expenses incurred by the organization for the planning, design, development, delivery, management, and measurement of formal and informal learning. Direct cost also includes expenditures by the learning function(s) for performance consulting, reinforcement of learning, and general management of the learning function. Put another way, direct cost includes all the expenses (entire budget) of all learning functions within an organization plus direct expenditures on learning that occur outside learning functions (in other business units) plus tuition reimbursement expenditures (wherever they are budgeted). In terms of the financial reports for a learning function, the following types of expenditures are included in direct cost:

  • **Labor and related expense** (salaries plus employer paid taxes, benefits, bonuses, profit sharing)

  • **Overhead expense** including office supplies, dues, subscriptions, printing, mailing, phone, computer, equipment leases, travel & entertainment, consultants, other external service providers, classroom rental, utilities, training (for the L&D staff), etc.

  • **Internal charge**. In many organizations, the L&D department will be charged by the organization for occupancy-related expenses. There may also be internal charges for IT, HR, Accounting, Legal, etc. These may appear under Overhead in a monthly department expense statement or be shown separately, but they need to be included.

Two large subcomponents of direct cost are shown separately:

• **External service provider expense**: The amount spent to contract services from learning providers outside the company. This category is part of Overhead Expenses above but is also reported separately. It includes expenses for partners, vendors and consultants who design, develop, and deliver or administer learning as well as providers of learning systems (LMS, LCMS, etc.) and consulting.
• **Tuition reimbursement expenditure**: Reimbursements to employees for educational programs at educational institutions. Note: This practice conforms to ASTD’s definition of total direct learning costs which also includes tuition reimbursement. It is understood tuition reimbursement may not fall within the scope of all L&D functions.

• **Learner’s travel-related and fee expenses**: The travel-related cost for participants to attend either in-house or external learning programs plus the program-related costs of external programs (for example, the registration fee to attend a three-day leadership program conducted by ASTD). This is often difficult to obtain although some organizations provide a check box on travel expense forms to indicate the expense is related to learning.

• **Opportunity cost**: The value of what is given up or foregone in choosing one course of action over another. In the context of learning, opportunity cost is the value of what the participants would have been doing if they were not in class. Sales people would be closing deals, engineers would be designing product, etc., which is why they were hired in the first place. So, the organization loses their work contribution when they participate in a learning program. What is the value of that foregone contribution? It should be at least what the organization is paying them, and if it is not, then the employee should be reassigned, retrained, demoted, or fired because it does not make economic sense for the organization to pay the employee more than they are worth.

Thus, at a minimum, opportunity cost can be calculated as the value of the participant’s time in class and in transit. This can be found as hours x the labor and related hourly rate. For example, the opportunity cost of 100 sales people (each earning $50/hr in salary and benefits) in a 2-day ILT with 30-minute travel time each way would be:

\[
100 \times [(2 \text{ days} \times 8 \text{ hrs/day})+ (.5 \text{ hr/trip} \times 4 \text{ trips})] \times \$50/\text{hr} = 100 \times 18 \text{ hrs} \times \$50/\text{hr} = \$90,000.
\]

In some cases, the opportunity cost will exceed the value of the participant’s time and can be more accurately determined. For example, the organization may be able to estimate the value (impact on net income) of the lost sales from having 100 sales people in training for two days. In this case, and assuming this estimate exceeds the value of their time, the estimate should be used as the opportunity cost.
**Total cost**: Total cost for learning in an organization includes all learning-related costs except those outside the learning function(s) for management and reinforcement of learning (which generally would be too difficult to obtain). By formula,

$$\text{Total cost} = \text{Direct cost} + \text{Learner’s travel-related and fee expense} + \text{Opportunity cost}$$

See the cost breakdown in the table below:

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<th>Cost Category</th>
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<td><strong>Direct Costs</strong></td>
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<td>Labor &amp; Related Costs</td>
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<td>Overhead Expenses</td>
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<td>Internal Changes</td>
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<td>External Provider Expense</td>
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<td>Tuition Reimbursement Expense</td>
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<tr>
<td><strong>Total Direct Costs</strong></td>
<td>A+B+C+D+E</td>
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<tr>
<td>Learner’s Travel Related &amp; Fee Expenses</td>
<td>F</td>
</tr>
<tr>
<td>Opportunity Costs</td>
<td>G</td>
</tr>
<tr>
<td><strong>Total Costs</strong></td>
<td>A+B+C+D+E+F+G</td>
</tr>
</tbody>
</table>

- **Cost reduction**: A reduction in total cost or a component of total cost.
- **L&D expenditure per employee**: L&D expenditure / Total employees.
- **Average development cost of a new ILT or vILT class**: The direct cost of developing new ILT and vILT classes divided by the number of new ILT and vILT classes.
- **Average development cost of a new e-learning class**: The direct cost of developing new e-learning classes divided by the number of new e-learning classes developed.

**Courses: Availability and Use**

- **Courses available**: Total number of unique courses available for enrollment during the period of measurement. For example, a course that is open for registration in December of 2011 but not offered until February of 2012 would count as a course available in 2012 but not in 2011. A course that is open for enrollment but ultimately cancelled due to low or no registration still counts as an available course since it was offered. A course planned but never opened for enrollment does not count as an available course. Total courses available = ILT course available + vILT courses available + e-learning courses available.
Courses used: Total number of unique courses that had participants.

Courses, % used: Courses used / Courses available expressed as a percentage.

Courses available, ILT: Total number of unique ILT courses available for enrollment.

Courses used, ILT: Total number of unique ILT courses that had participants

Courses % used, ILT: ILT courses used / ILT courses available expressed as a percentage

Courses available, vILT: Total number of unique vILT courses available for enrollment

Courses used, vILT: Total number of unique vILT courses

Courses % used, vILT: vILT courses used / vILT courses available expressed as a percentage

Courses available, e-learning: Total number of unique e-learning courses available for enrollment

Courses used, e-learning: Total number of unique e-learning courses that had participants

Courses % used, e-learning: E-learning courses used / E-learning courses available expressed as a percentage

Courses, % ILT: ILT courses / Total courses expressed as a percentage.

Courses, % vILT: vILT courses / Total courses expressed as a percentage

Courses, % e-learning: E-learning courses / Total courses expressed as a percentage

Courses, blended: Total number of courses delivered using a combination of two or more of the following: ILT, vILT, E-learning

Courses, % blended: Blended courses / Total courses

Courses: Development

Courses, total developed: Total number of new and updated courses.

Courses, developed, number meeting deadline: Total number of new and updated courses completed on or before the deadline established by the stakeholder or learning staff.

Courses, developed, % meeting deadline: Courses developed meeting deadline / Total courses developed expressed as a percentage.

Courses, total delivered: Total number of courses delivered.

Courses, delivered, number meeting deadline: Total number of courses delivered on or before the deadline established by the stakeholder or learning staff.

Courses, delivered, % meeting deadline: Courses delivered meeting the deadline / Total courses delivered expressed as a percentage.
Cycle Time Measures

The time elapsed from the beginning of a defined process to its completion. Tracking cycle times and comparing to internal history and external benchmarks provides an opportunity to improve efficiency.

- **Cycle time, performance consulting**: The time in days from the first meeting with a sponsor to discuss how learning may help meet their need (start of needs analysis) to the completion of the needs analysis and hand off to design and development.

- **Cycle time, hand off to design and development**: The time in days from the completion of the performance consulting to the start of design and development.

- **Cycle time, design and development for ILT and vILT**: The time in days from the start of design and development to the completion of design and development (sponsor agrees the ILT or vILT course is ready for deployment).

- **Cycle time, design and development for e-learning**: The time in days from the start of design and development to the completion of design and development (sponsor agrees the e-learning course is ready for deployment).

- **Cycle time, hand off to delivery**: The time in days from the completion of design and development to the delivery of the course (first day of ILT or vILT class, or the first day the e-learning is available).

- **Cycle time, total**: The time in days from the first meeting with the sponsor to delivery of course. Total cycle time will be the sum of the five components above.

Effort Measures

A measure of the amount of work required to plan, design, develop, deliver, measure, and manage learning expressed in hours, days, months, or years. For example, if one learning staff member spends 200 hours on learning program A and another spends 60 hours, the total effort spent on program A is 260 hours.

- **Effort to create new courses**: The effort required to plan, design, and develop a new course including the performance consulting expressed in hours or days.

- **Effort to update existing courses**: The effort to plan, redesign, and redevelop an existing course expressed in hours or days.
Headcount Measures

Employees

- **Employees, total**: The size of the organization’s workforce measured as the average number of full-time equivalent (FTE) employees over the year. The count should include employees of consolidated domestic and international subsidiaries, part-time and seasonal employees, and officers. The count should not include contracted workers, consultants, vendors, board members, or employees of unconsolidated subsidiaries. Most organizations report employee counts on a monthly basis so total employees will be found as the simple average of the counts for the 12 months. Some organizations may not provide the full-time equivalents for part-time employees. In this case estimate the FTE for part-time employees from the total number of part-time employees. [Identical to ASTD’s definition of Workforce Size]

- **Employees, number of unique**: The size of the organization’s workforce measured as the count of all full-time and part-time employees throughout the year. Due to turnover, this count will exceed the number of employees on the payroll at the end of the year. For example, if employees A-D were on the full-time payroll all year, employee E left in March, part-time employee F started in June, and full-time employee G started in December, the unique employee count is 7 and the year-end count is 6.

- **Employees per L&D staff**: Total employees / Total learning staff expressed as a number to one decimal place. Both the numerator and denominator are expressed in full-time equivalents (FTEs).

Learning Staff

- **Learning staff, total**: Number of staff in all learning functions expressed as full-time equivalents (FTEs). For example, 3 full-time staff, 1 part-time staff person who works 20 hours per week (20 hours / 40 hours = .5 FTE), and one part-time staff person who works 30 hours per week (30 hours / 40 hours = .75 FTE) constitute 4.25 FTEs (3.0 + .5 + .75 = 4.25)

- **Learner staff, total hours available**: The sum of each staff member’s available hours to plan, design, develop, deliver, reinforce, measure, and manage learning. The available hours are found by subtracting time not available for work from the person’s total paid annual hours (2080 for full time, 1040 for half time, etc.). Time not available for work includes holiday, vacation, and sick time as well as time for staff meetings, performance management, and training. Typically, an estimate is made of total hours available annually.
The unique hours of formal learning available pertains to the total number of hours available for formal learning.

- **Learning staff, total hours used**: The sum of each staff member’s actual hours used to plan, design, develop, deliver, reinforce, measure, and manage learning. Typically, these hours are tracked and recorded on a daily or weekly basis.

- **Learning staff, % total hours used**: Total hours used / Total hours available expressed as a percentage.

### Hours

- **Unique hours of formal learning available**: Total number of hours available for formal learning. This is typically a one-time count made annually. The total is calculated as the sum of the hours for each unique class which is offered regardless of whether it is subsequently cancelled. (In other words, the sum of the hours of all classes for all available courses. See the definition for courses available above). Typically, a standard duration is set for an e-learning class and the standard duration is assumed for all participants of that class. (For example, a typical standard duration is 30 minutes meaning that participants, on average, are expected to engage the e-learning class for 30 minutes.)

- **Unique hours of formal learning used**: Total number of hours in classes which had participants. For example, suppose 5 two-day ILT classes were available (offered) for the week but two cancelled for low enrollment. The hours of formal learning available would be 80 hours (5 classes x 16 hours per class), and the unique hours used would be 48 hours (3 classes x 16 hours per class).

- **Unique hours of formal learning, % used**: Unique hours of formal learning used / Unique hours of formal learning available expressed as a percentage. In the example above, it would be 48 hours / 80 hours = 60%.

- **Hours of formal learning used**: Total number of hours participants were engaged in formal learning (accessed or completed courses). The total is calculated as the sum of each participant’s total number of hours in class. Using the above example, suppose that there were 20 participants for the first class, 10 for the second, and 25 for the third. The total hours of formal learning used would be (20 participants x 16 hours) + (10 participants x 16 hours) + (25 participants x 16 hours) = 320 hours + 160 hours + 400 hours = 880 hours.

- **Hours, ILT**: Total number of hours participants spend in ILT classes.

- **Hours, % ILT**: ILT Hours / Hours of formal learning used

- **Hours, vILT**: Total number of hours participants spend in vILT classes.

- **Hours, % vILT**: vILT Hours / Hours of formal learning used

- **Hours, e-learning**: Total number of hours participants spend in e-learning classes.
Total participants is the count of all instances of participation in programs or initiatives where every opportunity for learning is counted, even when the same individual takes multiple courses.

- **Hours, % e-learning**: E-learning hours / Hours of formal learning used.
- **Hours, blended**: Total number of hours participants spend in blended classes.
- **Hours, % blended**: Blended hours / Hours of formal learning used.
- **Hours of knowledge sharing**: Total number of hours participants spend engaged in knowledge sharing. Will usually be an estimate made monthly or annually based on survey data or information from the knowledge management system.
- **Hours of performance support**: Total number of hours participants spend using performance support tools. May be tracked or estimated monthly or annually based on survey data.
- **Hours of social media**: Total number of hours participants spend using social media (including knowledge sharing). May be estimated monthly or annually based on survey data.
- **Hours of informal learning used**: Total number of hours participants were engaged in informal learning. By formula, Hours of informal learning = Hours of performance support + hours of social media.

**Participants**

- **Total participants**: The count of all instances of participation in programs or initiatives where every opportunity for learning is counted even when the same individual takes multiple courses. Some refer to this as the total opportunities for learning.
- **Unique participants**: The count of distinct individuals participating in programs or initiatives. The count of unique participants does not allow for duplication or double counting across multiple programs or initiatives.
- **Participants registered for ILT**: Count of total participants registered (scheduled) for ILT classes.
- **Participants completing ILT**: Total participants who attend and complete ILT classes.
- **Participants, % completing ILT**: Participants completing ILT / Participants registered for ILT expressed as a percentage.
- **Participants registered for vILT**: Count of total participants registered (scheduled) for vILT classes.
- **Participants completing vILT**: Total participants who attend and complete vILT classes.
- **Participants, % completing vILT**: Participants completing vILT / Participants registered for vILT expressed as a percentage.
Reach Measures

- **Employees reached by L&D**: The number of unique employees who participated in formal or informal learning that was sponsored, conducted, or managed by the learning function. For example, any employee who took a course from the learning function, engaged in a community of practice sponsored by the learning function, or used a performance support tool designed by the learning function would count.

- **Employees, % reached by L&D**: Employees reached by L&D / Number of unique employees expressed as a percentage.

- **Employees with development plan**: The number of unique employees who have a personal development plan.

- **Employees, % with development plan**: Employees with development plan / Number of unique employees expressed as a percentage.

Utilization Measures

Utilization measures the extent to which resources are being used to their capacity. When compared to internal history or external benchmarks, utilization measures show opportunities for improvement and cost reduction. The following measures have already been defined in other categories but are often included under the heading of utilization:

- **Participants, % completing ILT**: Participants completing ILT / Participants registered for ILT expressed as a percentage.

- **Participants, % completing vILT**: Participants completing vILT / Participants registered for vILT expressed as a percentage.

- **Courses, % used**: Courses used / Courses available expressed as a percentage.

- **Courses % used, ILT**: ILT courses used / ILT courses available expressed as a percentage.

- **Courses % used, vILT**: vILT courses used / vILT courses available expressed as a percentage.

- **Courses % used, e-learning**: E-learning courses used / E-learning courses available expressed as a percentage.

- **Classes, % cancelled**: Classes cancelled / Classes total expressed as a percentage.

- **Unique hours of formal learning, % used**: Unique hours of formal learning used / Unique hours of formal learning available expressed as a percentage. In the example above, it would be 48 hours / 80 hours = 60%.

- **Learning staff, % total hours used**: Total hours used / Total hours available expressed as a percentage.
### Management of Terms and Measure

#### Recommended Measures by Maturity of Organization

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<th>Int.</th>
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<td>(Virtual Instructor-led Training)</td>
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<td>Informal Learning: Community of Practice (C of P)</td>
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Revised - April 10, 2012
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<tr>
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<td>Courses, % used ILT</td>
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<td>Courses, available vILT</td>
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<tr>
<td>Courses, used vILT</td>
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<tr>
<td>Courses, % used vILT</td>
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<tr>
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<tr>
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<tr>
<td>Courses, % used e-learning</td>
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<td></td>
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<tr>
<td>Courses, % ILT</td>
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<tr>
<td>Courses, % vILT</td>
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<tr>
<td>Courses, % e-learning</td>
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<td>Courses, % blended</td>
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| **Courses: Development**       |                        |                         |     |     |     |
| Courses, total developed       | Y                      | X                       |     |     |     |
| Courses, developed, number meeting deadline | Y                      | X                       |     |     |     |
| Courses, developed, % meeting deadline | Y                      | X                       |     |     |     |
| Courses, total delivered       | Y                      | X                       |     |     |     |
| Courses, delivered, number meeting deadline | Y                      | X                       |     |     |     |
| Courses, delivered, % meeting deadline | Y                      | X                       |     |     |     |

| **Cycle Time Measures**        |                        |                         |     |     |     |
| Cycle time                     | Concept                | X                       |     |     |     |
| Cycle time, performance consulting |                      | Y                       |     |     |     |
| Cycle time, hand off to design & development | Y                      | X                       |     |     |     |
| Cycle time, design & development for ILT and vILT | Y                      | X                       |     |     |     |
| Cycle time, design & development for e-learning | Y                      | X                       |     |     |     |
| Cycle time, hand off to delivery |                      | Y                       |     |     |     |
| Cycle time, total              |                        | Y                       |     |     |     |
## Statement/Measure | Value must be supplied | Value can be calculated | Beg | Int | Adv
--- | --- | --- | --- | --- | ---
### Effort Measures
- Effort
  - Concept
- Effort to create new courses
  - Y
- Effort to update existing courses
  - Y
### Headcount Measures
- Employees, total
  - Y
- Employees, number of unique
  - Y
- Employees, per L&D staff
  - Y
- Learning staff, total
  - Y
- Learning staff, total hours available
  - Y
- Learning staff, total hours used
  - Y
- Learning staff, % total hours used
  - Y
### Hours
- Unique hours of formal learning available
  - Y
- Unique hours of formal learning used
  - Y
- Unique hours of formal learning, % used
  - Y
- Hours of formal learning used
  - Y
- Hours of formal learning available
  - Y
- Hours, ILT
  - Y
- Hours, % ILT
  - Y
- Hours, vILT
  - Y
- Hours, % vILT
  - Y
- Hours, e-learning
  - Y
- Hours, % e-learning
  - Y
- Hours, blended
  - Y
- Hours, % blended
  - Y
- Hours of knowledge sharing
  - Y
- Hours of performance support
  - Y
- Hours of social media
  - Y
- Hours of informal learning used
  - Y
The count of unique participants removes duplication from participants taking multiple courses.

### Unique and Total Participant Counts

#### General approach

There are two ways to count the number of participants in programs or initiatives. The count of unique participants removes duplication from participants taking multiple courses. It answers the question, “How many people have been reached by learning?” The count of total participants measures all instances of participation or opportunities for learning and allows for the same people to have taken multiple courses. This count answers the question, “How much learning is being provided?” and is directly related to the work load of the L&D function.

#### Definitions

Unique participants: The count of distinct individuals participating in programs or initiatives. The count of unique participants does not allow for duplication or double counting across multiple programs or initiatives.

Total participants: The count of all instances of participation in programs or initiatives where every opportunity for learning is counted even when the same individual takes multiple courses.

### Statement/Measure

<table>
<thead>
<tr>
<th>Statement/Measure</th>
<th>Value must be supplied</th>
<th>Value can be calculated</th>
<th>Beg</th>
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<th>Adv</th>
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<td>Employees, % reached by L&amp;D</td>
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<td>X</td>
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<td>Employees with development plan</td>
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<td>Employees, % with development plan</td>
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<td>Participant, % completing ILT</td>
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<tr>
<td>Courses, % used, e-learning</td>
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<td>Courses, % cancelled</td>
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<td>Learning staff, % total hours used</td>
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<td>X</td>
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</tbody>
</table>
Computations
Total participants may be summed but unique participants generally cannot. A learning management system (LMS) can be used in practice to provide both counts. If done manually, then the number of unique participants is simply the unduplicated count which means you need to know, by name, who is taking each course.

When each program consists of just one course:
For example, suppose a marketing program or initiative consists of a consultative selling skills course and a product features course. Both are for the same audience of 100 salespeople. Then we have:

<table>
<thead>
<tr>
<th>Program</th>
<th># of Courses</th>
<th>Target Audience</th>
<th>Unique Participants</th>
<th>Total Participants</th>
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<tbody>
<tr>
<td>Consultive Selling Skills</td>
<td>1</td>
<td>All Western Region Reps</td>
<td>100</td>
<td>100</td>
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<tr>
<td>Product Features</td>
<td>1</td>
<td>All Western Region Reps</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>2</td>
<td></td>
<td>100</td>
<td>200</td>
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</table>

Since the same 100 salespeople took both courses, the program total for unique participants counts them only once.

Now suppose we have the same two courses but the salespeople taking the product features course are different than those taking the consultative selling skills course.

<table>
<thead>
<tr>
<th>Program</th>
<th># of Courses</th>
<th>Target Audience</th>
<th>Unique Participants</th>
<th>Total Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consultive Selling Skills</td>
<td>1</td>
<td>All Western Region Reps</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Product Features</td>
<td>1</td>
<td>All Eastern Region Reps</td>
<td>110</td>
<td>110</td>
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<tr>
<td>Total</td>
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<td>210</td>
<td>210</td>
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</tbody>
</table>

Now the number of unique participants for the two programs is 210. There are 210 unique (distinct or unduplicated) salespeople in these programs.

Next, suppose the 100 western region salespeople take both courses, 110 eastern region salespeople take just selling skills, and 50 central region salespeople take just product features.
Program | # of Courses | Target Audience | Unique Participants | Total Participants
---|---|---|---|---
Consultive Selling Skills | 1 | 100 Western Region Reps & 110 Eastern Region Reps | 210 | 210
Product Features | 1 | 100 western Region Reps & 50 Central Region Reps | 150 | 150
Total | 2 | | 260 | 360

In this case the total number of unique participants in the two programs is 260 (100 from the western region, 110 from the eastern region, and 50 from the central region).

**When a program consists of more than one course:**

Last, consider the case where one program consists of multiple courses. In this case, the total number of participants in each program equals the number of unique participants x number of courses.

Suppose that the consultative selling skills program now consists of two courses (one two-day ILT plus one 30-minute WBT) and the product features program consists of ten 60-minute WBTs.

| Program | # of Courses | Target Audience | Unique Participants | Total Participants
---|---|---|---|---
Consultive Selling Skills | 2 | 100 Western Region Reps & 110 Eastern Region Reps | 210 | 210
Product Features | 10 | 100 western Region Reps & 50 Central Region Reps | 150 | 150
Total | 12 | | 260 | 1920

Notice that the total number of unique participants remains unchanged at 260, but the number of total participants is much higher at 1920 reflecting that each of the 210 took two courses and each of the 150 took 10 (for a total of 1500).
Note: You may wish to consider the 10 WBTS for product features part of one course rather than separate courses. In that case, total participants for product features would be 150 and the total participants for both programs would be 670.