Learning Analytics:
Learning Measurement
Best Practices
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About KnowledgeAdvisors

KnowledgeAdvisors is a business intelligence software company that helps organizations measure and manage their learning investments. KnowledgeAdvisors proprietary learning analytics software, Metrics that Matter™, is a technology that helps organizations understand how to better train and develop employees and customers.

The Metrics that Matter™ proprietary technology has been adopted by several industry leaders and is becoming the standard in learning measurement and analytics. Through Metrics that Matter™, we help our clients:

- Easily implement and administer technology-based measurement solutions
- Maximize their Return on Investment (ROI)
- Gain the knowledge required to improve and monitor performance of learning programs on an ongoing basis
- Obtain valuable learner satisfaction and job impact data
- Obtain critical business impact and ROI data
- Reduce learning related expenditures
- Compare performance to internal and external benchmarks
- Conduct testing exercises for comprehensive Level II analysis
- Conduct needs assessment exercises to assess gaps for training and non-training issues

For more information about KnowledgeAdvisors or Metrics that Matter please visit www.knowledgeadvisors.com.
Survey Background

In the past 12 months a tidal wave of information has been generated by the learning industry on the need and power of learning analytics. Learning Analytics is the set of activities a learning organization does that helps it understand how to better train and develop employees and customers.

A survey was prepared and data was collected. Now the results are in.

The results are organized around the key constructs we used in our survey. We hope you find these results meaningful in your quest to implement industry Best Practices to your Learning Analytics.

If you have any questions or comments about this report, or would like to be notified about additional reporting we issue based on this research please contact us.

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KnowledgeAdvisors Statement of Responsibility
KnowledgeAdvisors has exercised professional care and diligence in the preparation of this report. However, the data used in this report originated from third party sources. KnowledgeAdvisors has not independently verified, validated, or audited the data. KnowledgeAdvisors shall not be liable to any client or any other person or entity for any inaccuracy, inauthenticity, error or omission. Furthermore, in no event should KnowledgeAdvisors be liable for consequential, incidental, or punitive damages to any person or entity in any matter relating to this report.
### Benchmark Group Profile

#### Number of respondents

101<sup>a</sup>

#### Organizations by employee size<sup>b</sup>

<table>
<thead>
<tr>
<th>Employee Size</th>
<th>Count</th>
</tr>
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<tbody>
<tr>
<td>250 or Less</td>
<td>17</td>
</tr>
<tr>
<td>251 to 5,000</td>
<td>21</td>
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<tr>
<td>5,001 to 10,000</td>
<td>7</td>
</tr>
<tr>
<td>10,001 or greater</td>
<td>27</td>
</tr>
</tbody>
</table>

#### Number of Industries Represented<sup>c</sup>

17

Number of Responding Organizations per industry
- Banking: 6
- Communications: 2
- Federal Government: 4
- Healthcare: 1
- Higher Education: 1
- Insurance: 3
- IT Services: 10
- Legal: 1
- Management Consulting: 9
- Manufacturing: 9
- Media: 1
- Other-Commercial: 6
- Other-Professional Service: 8
- Retail/Personal Services: 1
- State/Local Government: 6
- Transportation: 2
- Utilities: 3

#### Number of Countries Represented<sup>d</sup>

11

Number of Responding Organizations per country
- Australia: 3
- Belgium: 1
- Canada: 2
- France: 1
- India: 1
- Mexico: 1
- New Zealand: 1
- Singapore: 1
- South Africa: 3
- UK: 5
- USA: 51

*note: This profile represents the total number of respondents, within the report a reference to 'n' will indicate the number of responses to the specific question you are reviewing.*
*note: Organizations with more than 1 respondent and having the same address were counted as one organization throughout this profile.*

<sup>a</sup> A respondent is defined as having submitted the survey with at least one response
<sup>b</sup> 29 respondents did not provide
<sup>c</sup> 28 respondents did not provide
<sup>d</sup> 30 respondents did not provide
Respondent Listing

The respondents below consented to have their names associated with this research initiative. The assistance of all respondents was greatly appreciated.

Austin Charles
Celanese
Cerner Corp
Cisco Systems
CMS
CNA
Computer Data, Inc.
CyberSkills, Inc.
David Forman Ltd
Distance Consultant
Eaton Corporation
Edge Wireless LLC
EDS
EMC
Equity Office Properties
Fireman's Fund Insurance Company
Global Pace

GM
GMAC
Hewlett-Packard
Holcim France Benelux
Informatics Group
Kilpatrick Stockton, LLP
M&I Bank
Nebraska Public Power District
Outlearning Pty Ltd
PD Rutherford & Associates Pty Ltd
PERC
Randstad North America
Roosevelt University
Servicios Alestra S. A. de C. V (AT&T in Mexico)
United Parcel Service
Versiontwo
Key Survey Findings

Based on a compilation of the data, below are some of the key findings we have observed:

Technology:
- Most training organizations collect their evaluation data using paper and/or online methods. Other popular methods include email and interviews.
- A majority of training providers store collected data in centralized databases.
- The most commonly used database type is a spreadsheet application. Other popular applications include enterprise relational databases and departmental relational databases.
- Overall, training organizations feel that they leverage technology and automation at a moderate level for data aggregation and data collection. However, organizations overall feel that their data reporting is slightly below a moderate level and data filtering is their weakest element.
- When importing data to learning analytics tools from “feeder” systems, training organizations use Learning Management systems and Online Evaluation tools most often.

Process:
- Most organizations formally measure over 75% of their training events.
- A majority of training providers do not have a standard set of key performance indicators that they measure and monitor regularly.
- Nearly 80% of participants reported they use end of class questionnaires to survey learners on their training all the time. Post-Tests, Skills/Needs Assessments and Instructor questionnaires are used frequently or all the time by at least 30% of respondents.
- With respect to training budgets, most training providers have less than 5% available for learning analytics.
- Few organizations have 2 or more full-time equivalent resources to focus on learning analytics. Most have 1 or none.
- Resources dedicated to learning analytics spend an average of only 20% of their time performing data analysis.

Stakeholders:
- Training providers feel that their clients hold a somewhat significant value to performance analysis reports. They feel that tactical reports, aggregate reports and executive reports hold only moderate value to their clients.
- Providers also reported that their performance analysis and executive reporting tools have slightly below average performance. Aggregate reports and tactical reports perform slightly above average.
Learning analytics results are communicated to stakeholders most commonly by periodic electronic/paper management reports and periodic meetings. Another popular communication method is to provide stakeholders direct access via web reporting interfaces/tools.

Most learning measurement outcomes are available to stakeholders on a request basis or monthly basis. Many organizations make the information available quarterly while others have it available on a continuous/real time/daily basis. Others have semi-annual/annual availability only.

Results of learning evaluation processes are most frequently shared with training staff and managers. Senior Managers, Training Executives and Business Units are other common recipients of this type of data.

Organizations provide the results of their learning analytics for many reasons. The most popular reason is to showcase the training's value to the organization. Another common reason is to indicate the quality of the training services provided. Additional reasons include because stakeholders request it or to justify large expenditures.

**Strategy**

- Only 30% of respondents evaluate their training above Level 3 - Behavior/Job Impact. 50% of respondents evaluate training to Level 2 or Level 3, and 20% evaluate their training at Level 1 only.

- Only 62% of the respondents use benchmarking to compare their learning analytics results with that of other training organizations.

- 80% of participants use a standard set of questions asked to all learners across all learning events as part of their measurement strategy. 49% use a core set of key performance indicators balanced across the Levels of Learning. 31% implemented built-in predictive indicators of advanced measures on their end of class evaluations, and only 14% use analytics models that are scaleable and replicable.

- With respect to the levels of accuracy of analytics, a majority of respondents require reasonable quantitative/qualitative indicators to be considered useful for making business decisions. 11% require periodic 'word of mouth' statements, and the remaining 11% require highly precise, statistically valid measures.

- To obtain a higher level of accuracy, 4% feel they can have as many additional resources as needed, and 18% feel they can get no additional resources to improve their data accuracy. 42% of organizations expect that they could obtain very little additional resources to increase accuracy, and 36% feel they could obtain moderate additional resources.
Key Outputs Listing

The list below represents the graphical outputs on the proceeding pages. These outputs are based upon the survey instrument completed by respondents. Please refer to the individual pages for benchmark results for each of these outputs.

### Technology

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### Stakeholders

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### Strategy

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<td>Importance of Analytic Accuracy</td>
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EVALUATION DATA COLLECTION
Consider all the training events you conduct. What percent of evaluation data is collected from participants using the following methods?

- Paper (n=89): 65%
- Web (n=61): 48%
- Email (n=49): 16%
- Other (n=26): 16%

**Participants who selected 'Other' were asked to describe what collection methods they use. Responses included:**
- On the job observation;
- Face to face meetings;
- Follow up interviews;
- Interactive Skills-based assessment

This measure examines how training organizations collect their evaluation data. Each collection method includes an n count defining the number of respondents who entered an input for the question, and the percentage value of each method is the average of all respondents’ inputs for that collection type. These results were determined by averaging the values entered into a text box by respondents. Values have been rounded to the nearest whole percentage.

Ensure your analytics data collection is flexible to allow multiple methods of collection. As a primary tool, electronic methods should be considered due to the cost savings and timeliness of receipt.

**Number of Respondents = 99**
DATA STORAGE

If you collect data for analytics purposes, how do you store the collected data?

- Centralized database: 52%
- Multiple databases: 23%
- Combination of both: 25%

This measure examines how organizations are storing the data they collect in reference to the training they provide. Just over half of the respondents store their information in a centralized database. One-fourth of the respondents store their collected data in multiple databases, and just under one-fourth of the respondents use a combination of a centralized database and multiple database system. These values have been rounded to the nearest whole percentage.

Use a centralized database to store your learning analytics data. Centralization facilitates the aggregation and custom querying of the data that is needed for more comprehensive reporting and analysis.

Number of Respondents: 96

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This measure examines what types of databases organizations use to store the data they collect. A majority of the respondents use a spreadsheet application, such as Excel. Just under 60% use a relational database (30% use departmental relational database tools such as Access, and 28% use Enterprise Relational Databases such as SQL or Oracle). 34% use other types of databases and systems to store learning analytics data. Many respondents selected more than one type of database for this question. Values have been rounded to the nearest whole percentage.

To the extent possible, leverage an OLAP database because it allows large numbers of individuals to perform in depth queries on the data for deeper analysis. However, be mindful to modify the OLAP tool with the appropriate front end menu structures and back end reporting interfaces to prevent the less skilled from inappropriately querying data.

Number of Respondents = 98

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DATA QUERYING AND FILTERING
Does your analytics sophistication allow you to easily query and filter the collected data along the following dimensions?

This metric examines how learning analytics systems can query their data and produce results based on limited criteria, and what aspects the data can be customized to. The most common functionalities include classes, courses, and instructors. The least commonly used query filters are learning delivery methods and learning providers. The values were determined by the number of respondents who selected each option for the question. Many respondents selected multiple responses to this question. Values have been rounded to the nearest whole percentage.

It is important to have the ability to customize your data queries to different class demographic information because it provides you more power in analyzing your learning organization's performance and effectiveness. Selecting criteria allows you to compare similar aspects of your training organization and more easily identify areas for improvement.

Number of Respondents = 89
DATA MANAGEMENT

How would you best describe the current level of technology and automation leveraged by your organization for the following elements of your learning analytics process? (A 1 indicates little/no automation and a 5 indicates significant technology/automation)

<table>
<thead>
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<th>Element</th>
<th>Score</th>
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<tr>
<td>Data Collection (n=100)</td>
<td>3.01</td>
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<tr>
<td>Data Aggregation (n=101)</td>
<td>3.07</td>
</tr>
<tr>
<td>Data Filtering (n=99)</td>
<td>2.84</td>
</tr>
<tr>
<td>Data Reporting (n=101)</td>
<td>2.99</td>
</tr>
</tbody>
</table>

This measure examines how well respondents feel different aspects of their learning analytics process is automated with the use of technology. The highest scoring aspect is Data Aggregation, with a 3.07/5.0 score, which is adequate automation but not a very significant amount. Data Collection and Data Reporting are just below Data Aggregation with respective scores of 3.01 and 2.99. Data Filtering is the least automated process with a score of 2.84. These values were determined by averaging the scores selected by all respondents for each aspect of learning analytics.

Leveraging technology to provide data management functionality is a great way to collect, analyze and report data. Collecting data electronically reduces the risk of data entry error since the primary source of evaluation entry will be directly from the training participant. Aggregating, filtering and generating reports from electronic sources of data reduce the risk of manual calculation error and provide more flexibility to work with the data you have collected and stored.

Number of Respondents = 101
DATA IMPORTS
Can your learning analytics tools import data from any of the following "feeder" systems in an easy, automated manner?

This metric examines how many organizations use a learning analytics tool that can collect data from other "feeder" systems using an easy process to decrease the administration required for learning analytics and increase the value of their whole dataset. Most respondents import from LMS(56%) or Online Evaluation Tools(54%). 16% import from ERPs, 10% from CRMs, 6% from other systems and 3% from MRPs. Many respondents selected more than one answer for this question. Values have been rounded to the nearest whole percentage.

Importing data from feeder systems mitigates duplicate data entry into multiple systems and lessens the risk of errors. Because of these benefits, an integrated analytics process linking the analytics tool to the feeder system will significantly reduce administrative cost and time as well.

Number of Respondents = 63
BEST PRACTICES IN LEVERAGING TECHNOLOGY FOR LEARNING ANALYTICS

What are your Best Practices when leveraging technology for learning analytics?

Best Practices Include:

● Ensure the technology in use is user-friendly, easy to use, and globally accessible for all who use it
● Use a centralized database that is well-maintained and reliable for primary data storage
● Technology that automates as much of the evaluation and reporting processes as possible
● Use a centralized reporting system to ensure format and data integrity
● Integrate standardized reports to minimize reporting time
● Using the web to collect and report data
Technology

CHALLENGES IN LEVERAGING TECHNOLOGY FOR LEARNING ANALYTICS

What are your greatest challenges when leveraging technology for learning analytics?

Challenges include:

- Little or no understanding of the available technologies and how to prove the necessity of technology tools to management
- Comfort level of user to use the technology
- Development time for the original structure and continuing time for enhancements/increased functionality
- Determining the right design for a system that will allow for consistent data collection, flexible reporting and ease of use
- Establishing standardized processes
- Ability to generate queries based on multiple criteria
TRAINING MEASUREMENT
What percent of all your training events (i.e. classes) are formally measured?

This measure examines how often learning organizations are evaluating the training they provide. 61% of respondents evaluate 76 to 100 percent of their training; another 18% measure half to three quarters of the training they provide; 11% measure only one quarter to one half of their training events, and 9% of the respondents measure less than one quarter of their training events. 1% of the respondents do not evaluate any of their training. Values have been rounded to the nearest whole percentage.

Evaluating 100% of your learning programs in a manner that is practical, scaleable, and replicable ensures you have coverage across all learning to measure improvement opportunities and easily demonstrate value to a variety of stakeholders. It is essential that technology be leveraged and that reasonable indicators (as opposed to highly statistical metrics) be calculated in order to cover 100% of your learning initiatives.

Number of Respondents = 95
KEY PERFORMANCE INDICATORS
Does your organization have a standard set of key performance indicators that you measure and monitor regularly?

This metric examines how learning organizations evaluate their training. 66% of respondents do not have a standard set of key performance indicators that they use to measure all their training, and 34% of respondents do have a standard set in use today. Values have been rounded to the nearest whole percentage.

A standard set of key performance indicators should be created that has indicators of all the key elements of accepted learning measurement methodologies. For example, a balanced set of measures should include components of satisfaction, learning effectiveness, job impact, business impact, and ROI. Consistently applying the scorecard to all learning will allow you the flexibility to conduct more in depth analysis on the scorecard components.

Number of Respondents = 95
This measure examines how frequently learning organizations use different types of data collection methods. The most commonly used is the End of Class Questionnaire, with 77.8% of respondents using them all the time. Other data collection techniques used frequently or all the time by at least 30% of the respondents include Post-Tests, Skills/Needs Assessments, and Instructor Questionnaires. The surveying methods used rarely or not at all by at least 50% of the respondents include supervisor questionnaires, instructor questionnaires, and on the job questionnaires. Please see the data table below for more information. Values were determined by generating the percentage of respondents selecting each of the frequencies for each of the collection methods and have been rounded to the nearest whole percentage.

Use a variety of data collection instruments on varying stakeholders at varying points in time to yield a true picture. At a minimum, an up front needs assessment followed by an end of class survey, follow up survey, and occasionally a survey to managers can help you understand the perceived and realized value of the training.

Number of Respondents = 95

<table>
<thead>
<tr>
<th>Data Table: Average Frequency of Use by Data Collection Method</th>
<th>All The Time</th>
<th>Frequently</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Not at All</th>
</tr>
</thead>
<tbody>
<tr>
<td>End of Class Questionnaire (n=95)</td>
<td>77.89%</td>
<td>15.79%</td>
<td>4.21%</td>
<td>0.00%</td>
<td>2.11%</td>
</tr>
<tr>
<td>On the job Questionnaire (n=93)</td>
<td>5.39%</td>
<td>12.90%</td>
<td>26.88%</td>
<td>23.66%</td>
<td>31.18%</td>
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<tr>
<td>Supervisor Questionnaire (n=92)</td>
<td>5.43%</td>
<td>9.78%</td>
<td>26.09%</td>
<td>28.26%</td>
<td>30.43%</td>
</tr>
<tr>
<td>Instructor Questionnaire (n=94)</td>
<td>21.28%</td>
<td>10.64%</td>
<td>15.96%</td>
<td>20.21%</td>
<td>31.91%</td>
</tr>
<tr>
<td>Pre-Test (n=91)</td>
<td>3.30%</td>
<td>10.99%</td>
<td>36.26%</td>
<td>35.16%</td>
<td>14.29%</td>
</tr>
<tr>
<td>Post-Test (n=93)</td>
<td>12.90%</td>
<td>32.26%</td>
<td>26.88%</td>
<td>19.35%</td>
<td>8.60%</td>
</tr>
<tr>
<td>Skill/Needs Assessment (n=92)</td>
<td>10.87%</td>
<td>20.65%</td>
<td>43.48%</td>
<td>18.48%</td>
<td>6.52%</td>
</tr>
</tbody>
</table>
LEARNING ANALYTICS BUDGET

What budget do you have for conducting learning analytics as a percent of your total training budget?

This measure examines what portion of an organization’s training budget is dedicated to learning analytics. 53% of the respondents allocate 5% or less of their training budget to analytics. 23% of the respondents have no learning analytics budget. 14% have 6 to 10% of their budget available for analysis, and 6% of respondents have 11 to 25% of their training dollars allocated to analytics. Only 5% of the respondents allocate over 25% of their training budget to learning analytics. These values have been rounded to the nearest whole percentage.

Independent studies have shown that organizations should spend 3 to 5% of their total training budget on measurement. If technology tools are properly leveraged, organizations can obtain a comprehensive solution that measures all training from satisfaction to ROI for less than this.

Number of Respondents = 88
**LEARNING ANALYTICS EMPLOYMENT RESOURCES**

How many full time equivalents (FTEs) focus on learning analytics?

This metric examines how many full time equivalent employees learning organizations have to focus on learning analytics. 49% of the respondents have less than 2 employees working on their learning analytics. 5% of respondents have 2 to 5 employees, 10% have greater than 5 employees, and 36% of respondents currently do not have any full time employees for learning analytics. Values have been rounded to the nearest whole percentage.

Employing resources dedicated to learning analytics is beneficial to all learning organizations for many reasons. A dedicated resource provides assurance that your established learning analytics process will not diminish over time due to other employees having to focus on other higher priorities. It also allows your organization to train an employee on measurement or hire someone who is already an expert to help you maintain and improve your analytics process(es). Ideally, less FTEs are needed if technology can be leveraged to do the administrative aspects of measurement such as data collection, storage, processing, and reporting - freeing up the resource(s) to analyze the data and make business decisions from it.

Number of Respondents = 94
LEARNING ANALYTICS TIME ALLOTMENT

What percent of the time do your FTEs spend on learning analytics?

This measure examines what percent of time your learning analytics resources spend on different components of the process. FTEs average dedicating just over one-third of their time to data collection; about 20% of their time for data reporting, analysis and aggregation each; and about 10% performing data filtering. Values were determined by averaging the responses entered into text boxes by participants, and have been rounded to the nearest whole percentage.

Ideally, the less time FTEs can spend on tasks that are easily automated, such as data collection, aggregation, and filtering, the more time they can spend analyzing your data and reporting it. This leaves much more time available for meaningful results to become more easily attainable. Technology tools can significantly reduce the administrative tasks (collection, aggregation, filtering and reporting) leaving more time for resources to analyze the data and make intelligent business decisions from it.

Number of Respondents = 65
Process

BEST PRACTICES
What are your Best Practices about your learning analytics process?

Best Practices Include:

- Tie analytics to business priorities and evaluate based on what needs to be measured
- Always evaluate all training
- Finding links to the bottom line
- Harnessing the support of top management
- Consistent process throughout the learning organization with respect to evaluating/collecting data, analyzing and reporting
- Aggregating data for reports
- Holding individuals accountable for metrics
- Using report data to create action items for improvement
- Emphasis on analysis
- Use a technology-driven process to reduce the amount of manual administration/aggregation
- Employing people with data analysis expertise to generate reports
- Sharing results of evaluations as high as senior management
Process

LEARNING ANALYTICS PROCESS CHALLENGES
What are your greatest challenges of your current analytics process?

Challenges include:

- Change Management between existing paper-based systems/distributed databases and one that is electronic/centralized
- Bridging the knowing-doing gap
- Obtaining data that is applicable and meaningful
- No method for measuring informal learning
- Getting data returned to those who need the feedback in a timely manner
- Benchmarking against the industry
- Proving the importance/value of analysis to others in organization as well as clients
- Getting full-time resources for learning analytics regardless of whether they perform administrative/data collection/entry duties or data analysis
- Obtaining higher evaluation response rates from training participants
- Establishing a centralized database for data when different clients need different systems
IMPORTANCE AND PERFORMANCE OF REPORTS

For each of the following report types, rate how well your current learning analytics tools work to create these reports. Then, rate how important it is to the customers of training (business units, senior management) to have this reporting. A 1 indicates little/no importance or performance, and a 5 indicates significant importance or performance.

This measure examines learning analytics tools’ abilities to generate different reports and compares the importance of different reports to their performance. Performance Analysis reports are the most important with a score of 4.06 out of 5.0, but have the lowest performance of 2.49 out of 5.0. Executive, Tactical and Aggregate Reports all hold a somewhat significant importance. The performance of each of these reports is less than their importance, but each are performing near an average performance level. Values were determined by averaging the responses selected for each report type.

The survey shows a clear gap in today's ability to provide performance analysis and secondarily executive reporting. The need to create a practical, scaleable, and replicable analytics process so that performance analysis and executive reporting can be done easier and in a more timely fashion is evidenced by these gaps. Leveraging technology wrapped around industry methodology to provide a balanced scorecard of key performance indicators is critical to narrowing these gaps.

_Number of Respondents = 84_
LEARNING ANALYTICS COMMUNICATION TO STAKEHOLDERS

How do you typically communicate results to your stakeholders?

This metric examines the methods learning organizations use to share results of learning analytics with stakeholders. The most common methods are periodic meetings/conversations and periodic electronic/paper management reports, with 66% of respondents selecting each. 24% of the respondents provide this information by giving the stakeholders direct access to reports themselves via web reporting interfaces/tools, and 2% of the respondents selected Other. Many respondents selected more than one answer for this question. Values have been rounded to the nearest whole percentage.

It is important to establish a regular schedule and method for sharing results with stakeholders. This guarantees that your stakeholders will provide you time on a regular interval to discuss training and review your results for performance and progress. Establishing and maintaining a relationship with your stakeholders provides you a foundation to build support for learning analytics in your training organization. Although small today, a self-service web reporting interface is an excellent tool to allow a variety of stakeholders to access the business intelligence they need, when they need it.

Number of Respondents = 82
LEARNING ANALYTICS AVAILABILITY TO STAKEHOLDERS
What best describes the availability of learning measurement outcomes to key stakeholders?

<table>
<thead>
<tr>
<th>Availability</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Available on Request</td>
<td>32.93%</td>
</tr>
<tr>
<td>Continuous/Real Time/Daily</td>
<td>14.63%</td>
</tr>
<tr>
<td>Semi-Annually/Annually</td>
<td>3.66%</td>
</tr>
<tr>
<td>Weekly</td>
<td>6.10%</td>
</tr>
<tr>
<td>Quarterly</td>
<td>19.51%</td>
</tr>
<tr>
<td>Monthly</td>
<td>23.17%</td>
</tr>
</tbody>
</table>

This measurement examines the availability of learning analytics results to stakeholders. About one third of the respondents provide the information upon request to stakeholders. Just under one fourth have the information available on a monthly basis. About one fifth of the respondents have information available quarterly. Just under 15% have the information available on a continuous/real time/daily basis. 6.10% of the respondents have the information available on a weekly basis, and 3.66% operate on a semi-annual/annual basis. Values have been rounded to the nearest whole percentage.

Offering high availability of learning analytics information to stakeholders allows them to understand the performance and progress of the learning organization as they feel necessary. By giving them more opportunities to view data, stakeholders are more likely to show interest in the training and proving its value to others. Although 'Available on Request' is the most popular communication model, it is also the most risky and reactive. Training departments should proactively provide reports to stakeholders rather than wait for their customers to ask them.

Number of Respondents = 82
LEARNING ANALYTICS DELIVERY TO STAKEHOLDERS

To whom do you formally provide access/reporting of learning analytic data?

- **Senior Management** (58%)
- **Training Staff and Managers** (84%)
- **Senior Management** (56%)
- **Other** (9%)

This measure examines who receives learning analytic data in learning organizations. 84% of respondents selected training staff and managers, the most popular selection. Senior management and training executives follow, with 58% and 56% of respondents selecting each respectively. 48% of respondents provide information to business units, and 9% selected other individuals, such as instructors who are to be evaluated for job performance reviews. human resources, strategic business partners and clients. Many respondents selected more than one answer for this question. Values have been rounded to the nearest whole percentage.

Providing your learning analytics results to those who will find it useful in proving the value of training is an important part of any learning analytics process. The more visible and available your results are, the more people will see the actual numbers that prove training’s worth, building interest in and support for additional training to improve your bottom line.

*Number of Respondents = 81*
LEARNING ANALYTICS MOTIVATION FOR DELIVERY

What is the primary reason you provide learning measurement information to senior management and business unit management?

This measure examines the motives learning organizations have for providing their learning analytics data to managers. 41.98% of respondents provide this information to showcase the value of training to the organization. About one fourth of the respondents use this data to indicate the quality of the training services. 19.75% of the respondents provide the information because it has been requested. 8.64% of the respondents use their results to justify large expenditures, and the remaining 4.94% selected other reasons, including to help make decisions about where to invest money to run the business and because it is part of HR planning processes. Values have been rounded to the nearest whole percentage.

It is important to determine why you are sharing your learning analytics information because it will help you define what metrics your stakeholders feel are important, which allows you to determine what kind of reports are most beneficial and the content you need to evaluate your training on.

Number of Respondents = 81
LEARNING ANALYTICS RESULTS AND STAKEHOLDERS

What are the Best Practices you deploy when reporting results to stakeholders?

Best Practices Include:

- Reporting on Global Metrics
- Tailoring reports to provide stakeholders the data they want and nothing more
- Tailoring reports to provide stakeholders results surrounding business impacts they want to know about
- Summarize results in reports with bulleted conclusions and actual employee comments
- Provide reports regularly (weekly/monthly/quarterly) in a timely manner
- Provide reports that require no further manipulation to determine additional results
- Compare results in current report with benchmark or historical performance data
- Use consistent formats for stakeholder reports
- Highlight relevance of training to business objectives
- Hold one on one meetings when possible to review
LEARNING ANALYTICS RESULTS AND STAKEHOLDERS

What are your greatest challenges when reporting results to stakeholders?

Challenges include:

- Providing data that makes sense to stakeholders
- Reporting meaningful data as opposed to readily available data
- Making the overview short enough to keep their attention
- Determining the links between training efforts and business results
- Understanding what information stakeholders value
- Aggregating data from multiple sources to provide reports in a timely fashion
- Flexibility in meeting stakeholder formatting requirements
- Obtaining interest from stakeholders
- Establishing a reporting schedule
LEARNING LEVEL STRATEGY

What is the highest Learning Level you formally leverage analytics to help you measure?

This measure examines how deeply learning organizations are evaluating their training. 20% of the respondents selected Level 1 only. Just under 50% of the respondents selected Level 2 or 3 (28% and 22% of respondents, respectively). The remaining 30% of respondents measure their training through Levels 4 and 5 (12% and 18%, respectively). Values have been rounded to the nearest whole percentage.

Measuring training through all five levels of measurement is a strategy that is not impossible to achieve. Levels 1 through 3 provide plenty of information regarding learner satisfaction, improved knowledge of the learner and the training's effect on the learner's job performance. However, it is not until you begin analyzing training at levels 4 and 5 that you can assign the training's impact on job performance to specific business initiatives, and determine the true value of training by calculating your final Return on Investment.

Number of Respondents = 82
This measure examines how learning organizations are comparing their performance to that of other organizations in a benchmark group. 38% of respondents do not currently benchmark results. 35% benchmark between groups in the learning organization; 30% use benchmarks that compare their data externally by industry, job function, and other demographic information; 24% of the respondents use benchmarks to compare data within a single learning group. Many respondents selected more than one response for this question. Values have been rounded to the nearest whole percentage.

Using benchmarks to compare your performance and progress to other groups is an excellent way to determine where your organization stands within the benchmark group type you choose to compare with. It can easily provide you with information on areas for improvement in order to compete with other members of your benchmark group, and also show you what areas you are exceeding in reference to those other members. Benchmarking is a powerful tool to motivate by example and continuously improve.

Number of Respondents = 82
Strategy - Measurement Strategy

MEASUREMENT COMPONENTS

Does your measurement strategy have any of the following components?

- Standard set of questions asked to all learners across all learning events: 80%
- Core set of key performance indicators balanced across the Learning Levels (reaction, learning, behavior, results, ROI): 49%
- Built-in predictive indicators of advanced measures (application to job, business results, ROI) on end of class evaluation instruments: 31%
- Analytics models that are scaleable and replicable for day-to-day analysis: 14%

This metric examines what components training organizations include in their measurement strategies. The most common component is a standard set of questions asked to all learners across all learning events, with 80% of respondents. 49% of the respondents use a core set of key performance indicators balanced across the learning levels (reaction, learning, behavior, results, ROI). 31% of the respondents have a strategy that includes built-in predictive indicators of advanced measures (application to job, business results, ROI) on end of class evaluation instruments. Finally, 14% of the respondents use analytics models that are scaleable and replicable for day-to-day analysis. Many participants selected more than one response for this question. Values have been rounded to the nearest whole percentage.

It is important to include specific measurement components as part of your analytics strategy. Including a standard set of measurement items throughout your learning evaluation instruments that come from all levels of learning will provide you with the data and power to perform deeper analysis and various comparisons for your learning analytics. Using practical, scaleable, and replicable models ensure your data is always available but is gathered with an eye on resource management.

Number of Respondents = 71
ANALYTIC ACCURACY

In your organization, what best describes the level of accuracy that analytics must have in order to be perceived as useful for information decision-making purposes of senior management?

![Pie chart showing percentage breakdown]

This measure examines the perceived level of accuracy required for learning analytics data to be considered useful in training organizations. A significant majority, 78%, feel that their data needs to be as accurate as reasonable quantitative/qualitative indicators. The remaining 22% of respondents were split between periodic ‘word of mouth’ statements and highly precise, statistically valid measures (each at 11%). Values have been rounded to the nearest whole percentage.

Independent studies have shown that there is an enormously high cost to data accuracy versus obtaining a reasonable indicator. Organizations should balance when to take the extra time and money to yield highly statistical results. Given how executives make decisions, often times reasonable data provided in a more timely manner outweighs data with more precision delivered in a less timely manner. As a general rule, collect data using reasonable key performance indicators for 100% of your learning initiatives. For 5 to 10% of the strategic, visible, and costly initiatives drill deeper in your analysis.

Number of Respondents = 79
Strategy - Measurement Accuracy for Impact

IMPORTANCE OF ANALYTIC ACCURACY
In your organization, how much additional resources (financial, physical, and human) would/does senior management approve to go from reasonable quantitative indicators to highly precise measures for day-to-day information decision making?

This measure examines the importance of analytic accuracy based on how much additional resources respondents feel they could obtain from management to bring their level of accuracy up to a highly precise level. Nearly half (42.5%) of the respondents feel they could obtain very little additional resources to improve the accuracy of their data. 36.25% of the respondents feel they could obtain a moderate amount of additional resources, 17.50% feel they could receive no additional resources, and 3.75% feel they can get as many extra resources as needed. Values have been rounded to the nearest whole percentage.

The results clearly support that senior management at most organizations has little or no resources to allocate toward highly precise, statistical measures. This supports the premise that the core learning analytics measurements must be practical, scaleable, and replicable across all learning initiatives resulting in reasonable indicators to make timely business decisions. This is not to say that resources should not be allocated for advanced measurement. For 5 to 10% of learning programs which are strategic, visible or costly, more resources on measuring those may be justified.

Number of Respondents = 80
LEARNING ANALYTICS STRATEGY
What are the Best Practices of your learning measurement strategy?

Best Practices Include:

- Obtain full time, dedicated people with an understanding of measurement to lead the process
- Use benchmarking
- Measure within the provided budget
- Keep the system practical
- Align metrics to business targets
- Leverage technology to support learning analytics process
- Keep the metrics understandable and credible to readers
- Integrate evaluation processes with existing LMS
LEARNING ANALYTICS STRATEGY
What are the challenges you face when practically deploying your learning measurement strategy?

Challenges Include:

- Proving the importance of a learning analytics system to senior management
- Consistent strategy between multiple learning organizations in the company
- Educating sponsors and senior leaders on learning measurement theory and its importance to the business
- Obtaining approval for measuring at Kirkpatrick Learning Levels 3 and 4
- Setting standards for measurement within the organization - some want to measure everything, others want to measure nothing
- Establishing a strategy to include all levels of learning while keeping it simple and consistent