
Human resource management — Learning and development metrics

*Management des ressources humaines — Indicateurs d'apprentissage
et de développement*

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Published in Switzerland

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO/TC 260, *Human resource management*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

A well-conceived measurement and reporting strategy is necessary to ensure organizational and individual development processes are managed efficiently and effectively to produce the desired outcomes. This document provides a framework and the concepts, metrics, descriptions and guidance necessary to create a basic measurement and reporting strategy.

ISO 30422 provides guidance on a systematic process model for learning and development (L&D) to help managers and others ensure that L&D occurs in the most efficient and effective way to deliver intended outcomes. While it includes a clause on evaluation, describing the reasons to measure and the benefits expected to accrue from measurement, it does not include recommendations for specific metrics or provide guidance on definitions, purpose or use.

ISO 30422 identifies the need to address both individual and organizational outcomes as well as the efficiency and effectiveness of the L&D programmes (see ISO 30422:2022, Figure 1).

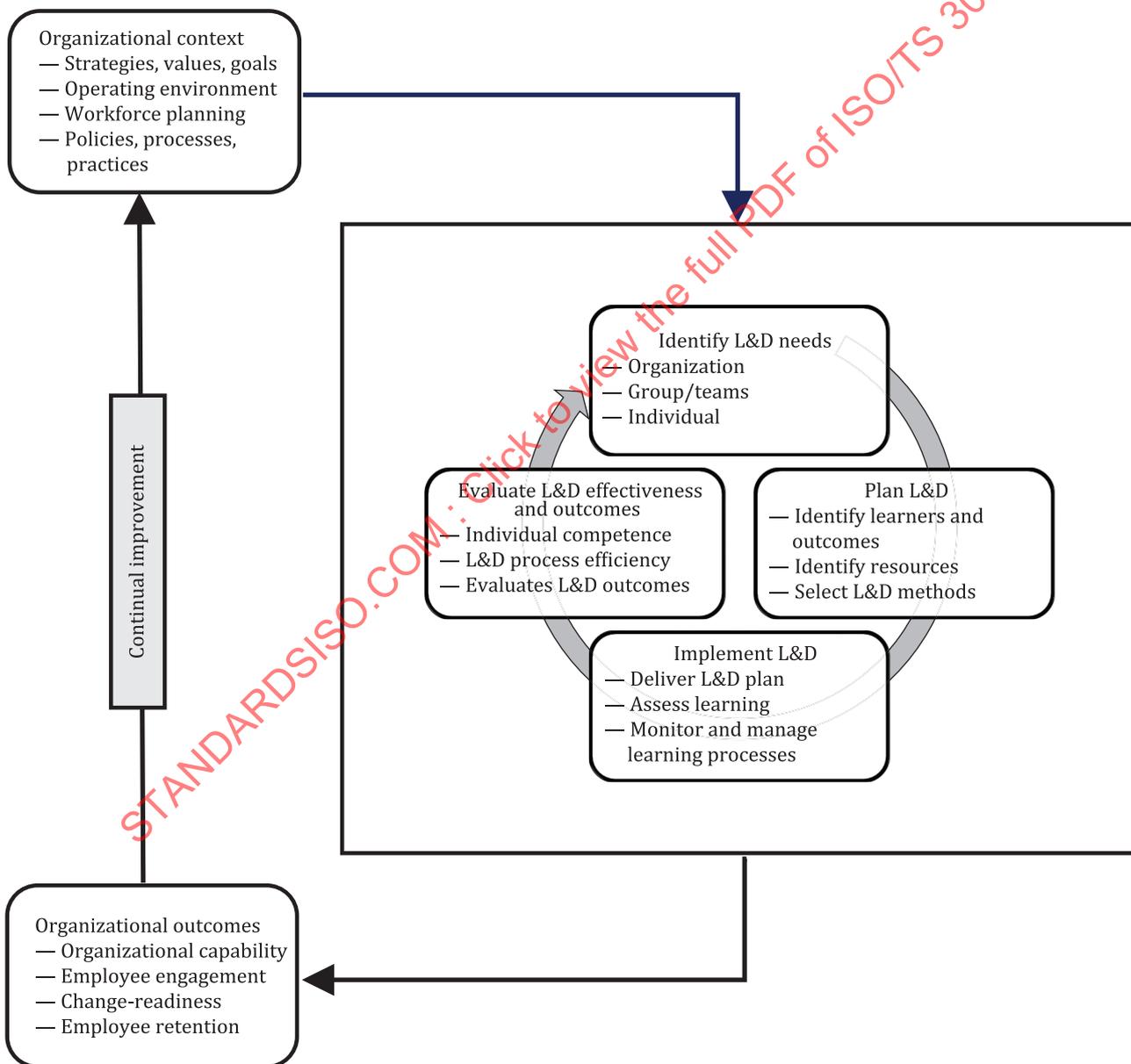


Figure 1 — Learning and development process

This document follows that guidance by focusing on three types of metrics (efficiency, effectiveness and outcome) deployed over five categories of user (senior organization leader, group or team leader, head of learning, programme manager and individual) to measure learning. This framework is used to provide specific guidance on how to measure L&D, including recommended metrics by user and by size of organization. A list of recommended metrics and an example of their use in a scorecard are provided for each user. In total, more than 50 metrics for formal and informal learning are described, including formulae and worked-out examples where appropriate. Guidance is also provided for selecting the most appropriate report to share the metrics. Four types of reports are described and illustrated by example, including scorecards, dashboards, programme evaluation reports and management reports.

NOTE Small-to-medium organizations will possibly not have a dedicated learning department or head of learning. Instead, there could be one or more employees throughout the organization with responsibility for learning.

This document also incorporates guidance from ISO 30414. All eight of the learning-related metrics from ISO 30414 are included.

Detailed guidance on the limited number of learning-related metrics from ISO 30414 can be found in ISO/TS 30428. The L&D metrics described in ISO/TS 30428 are included in this document but greater detail is provided in ISO/TS 30428.

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Human resource management — Learning and development metrics

1 Scope

This document provides recommendations on how to measure learning. Since the selection of metrics depends on the reason to measure and the user of the metrics, and since a balanced set of metrics is important to avoid unintended consequences, the document begins with a framework for organizational learning and development (L&D), including five categories of users, four broad reasons to measure and three types of metrics. This framework is then used to recommend 50 metrics organized by user, type of metric and size of organization, and provide a description of each. The document concludes with guidance on reporting metrics, including a description of the different types of reports and guidance on their selection based on the user's reasons for measuring.

Metrics for both formal and informal learning are included. The guidance is intended for all types of organizations, including commercial and nonprofit, as well as for all sizes. No previous knowledge of L&D metrics is required, although those new to L&D measurement can consult the suggested references on matters of frameworks, metrics and programme evaluation to learn more.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 30400, *Human resource management — Vocabulary*

ISO 30414, *Human resource management — Guidelines for internal and external human capital reporting*

ISO 30422:2022, *Human resource management — Learning and development*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 30400, ISO 30414 and ISO 30422 and the following apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1 programme

course or series of courses with similar learning objectives designed to accomplish an organizational objective or need

Note 1 to entry: Programmes can include different types of learning, such as instructor-led, e-learning and informal learning. For example, a programme to improve leadership could begin with some e-learning to convey basic concepts, continue with an instructor-led course to discuss and role-play and end with the provision of performance support tools and coaching.

4 Measurement framework

4.1 General

In the case of L&D, there are multiple users of the metrics, multiple reasons to measure, more than 100 possible metrics^[9] and multiple ways to share the selected metrics. This document shares one possible framework to facilitate understanding, selection and reporting of metrics. It also provides a common basis for communication. The purpose of this framework is to make it easier to select, report and use L&D metrics.

4.2 Categories of users

Measurement selection starts with the identification of users and the category of data aggregation required by those users. This answers the question, "Who will use these metrics and what level of data aggregation is required?"

Five categories of users are suggested:

- Senior organization leader: This category of user includes the chief executive officer (CEO), chief financial officer (CFO), head of human resources (HR), board of directors and objective owners (e.g. the head of sales, who has an objective to increase sales by 10 %). Data are aggregated across the organization. Recommended metrics include measures such as percentage of employees reached by learning, percentage of employees with an individual development plan, total cost of learning and contribution to outcomes.
- Group or team leader: This category of user includes heads of business units or other units within an organization. Data are aggregated across a group or team, which can be either a cohort taking a learning programme or a group of unrelated individuals. Recommended metrics include measures such as the number of participants, number of courses, hours spent in learning and satisfaction with the learning.
- Head of learning: The head of learning in a large organization is typically a full-time position with responsibility for all or most of the organization's learning. In a small organization, the head of learning can be the full-time or part-time person with responsibility for L&D. Data are aggregated across the organization but used only by the head of learning and other senior L&D leaders. Examples include metrics that are not of interest to the CEO but are managed at the department level (e.g. percentage of courses completed on time, percentage of online content that is utilized, mix of virtual versus in-person learning and percentage of informal versus formal learners).
- Programme manager: The programme manager is the person responsible for a specific learning, training or development programme. The data are focused on individual programmes and not aggregated across multiple programmes. The programme manager can use these data to manage the programme on a daily or weekly basis to deliver planned results. Recommended metrics include measures such as number of participants, completion rates, completion dates, application rates and outcomes.
- Learner: The individual learner is also a consumer of learning data. In this case, the data are unique to each learner. Recommended metrics include measures such as number of offerings available, informal learning opportunities and competency assessments.

The recommended metrics in [Clause 5](#) are organized by these five categories.

4.3 Reasons to measure

The next step is to identify the reasons to measure, which influence the selection and reporting of metrics. There are many specific reasons to measure but four broad categories can be employed to group these:^[9]

- Inform: Many users want a question answered. For example, “How many courses are offered?” or “How many employees have taken at least one offering?” Others want to know if there are trends in the data. For example, “Is usage trending up?” or “Is virtual learning gaining share?”
- Monitor: Users want to know if the value of a metric remains within a historically acceptable range. This implies that the value of the metric is currently or has recently been acceptable and the objective is to ensure it remains so. For example, “Does monthly participant satisfaction with learning remain above 80 % favourable?” In contrast to “inform”, users have an opinion about the desired value of a metric and are prepared to take corrective action if the value does not remain within the desired range;
- Evaluate: Users want to know if the programme was efficient and effective and if the desired organizational outcome was achieved. A post-programme review could uncover opportunities for continual improvement or could indicate further work is required. Programme evaluation is the focus of most books and articles on the measurement of learning. The Kirkpatrick and Phillips approaches are two of the most commonly employed.
- Manage: Users want to use metrics to actively manage their programmes to deliver planned results which are an improvement on what has been achieved in the past. The objective to improve the value of a measure is what distinguishes managing from monitoring, where the objective was to keep the value in the range it has been in the past. Managing requires setting specific, measurable targets for each key metric upfront and then comparing actual results to plan each month to determine if corrective action is necessary. This purpose requires special reports.

While much of the literature on L&D measurement is focused on programme evaluation, most L&D measurement and reporting activity is focused on informing and monitoring. Programme evaluation requires a higher level of analytical capability, often including statistics, while measuring to manage requires the highest level of analysis and management capability.

The reasons to measure should be identified at the beginning of the measurement period for each user. This helps to ensure that there is agreement on the measurement strategy by all parties. It also helps to ensure that the most appropriate metrics are selected and that the metrics are shared in the most appropriate type of report. (4.5 describes the different types of reports and [Clause 7](#) sets out the most appropriate type of report for each reason to measure.)

4.4 Types of metrics

Three categories of metrics (efficiency, effectiveness and outcome) have been suggested by various authors^[3,4,6,9] and are used for this framework. The three types are applicable to all categories of users and all organization types and sizes. Categorizing the metrics is important to ensure the selection of a balanced set of metrics.

- Efficiency: These are quantity metrics such as number of courses or learners, costs, utilization rates and percentage of employees actively involved with learning. Some efficiency metrics, for example, a utilization rate or percentage on-time completion, require no further information to interpret: a higher percentage is always better than a lower percentage. For most efficiency measures, however, a comparison needs to be made to history, benchmark or plan to make a statement about efficiency. Some efficiency metrics can be divided by another metric (e.g. cost per learner) and compared with history, benchmark or plan to reach a conclusion about efficiency.
- Effectiveness: These are quality metrics that answer the question, “How good was the programme?” Effectiveness metrics can help uncover issues with learning design, content or delivery, as well as application. Adopting the five levels from Kirkpatrick^[5] and Phillips,^[7] effectiveness metrics include the participant’s reaction to the programme (level 1), the amount learned (level 2), the

degree of application on the job (level 3) and the return on investment (level 5). A programme is not considered effective if participants react poorly to it, learn little, fail to apply what they learned or if the programme's cost exceeds its benefit.

- Outcome (level 4): The Kirkpatrick^[5] approach calls level 4 “results” and refers to the change in the organizational metric targeted by the learning. For example, if a learning programme is designed to increase sales, then results are the increase in sales (e.g. 5 %). The Kirkpatrick approach focuses on making a correlation between the learning and the organizational objective, seeking to show a compelling chain of evidence that learning contributed to the results and met expectations. The Phillips^[7] approach calls level 4 “impact”, which is defined as the isolated impact of learning on the organizational goal. For example, if a learning programme contributed 20 % of the 5 % increase in sales, then the impact of learning on sales would be 1 % higher sales ($20 \% \times 5 \% = 1 \%$). [Annex B](#) illustrates the most common method of isolation. Outcome metrics are always tied directly to the reason for the learning programme (e.g. increase sales or reduce injuries).

NOTE 1 Since the Kirkpatrick approach does not isolate the impact of learning, there is no measure of isolated impact. Instead, results reflect the change in the organizational objective, which could also be due to factors other than learning. Since isolated impact is not available with the Kirkpatrick approach, return on investment (ROI) can only be calculated using the Phillips approach.

NOTE 2 Not all learning programmes are designed to directly improve organizational outcomes and therefore do not have an organizational learning outcome measure. All programmes, however, do have a learner outcome measure.

In this framework, the majority of L&D metrics are efficiency measures. Some add a fourth type of metric called economy, which is cost and is captured under efficiency in the framework described.

4.5 Types of reports

The final element in a measurement strategy is the reporting, which is how most users actually receive their learning metrics. The recommended report is based on the user and their reasons to measure. There are four basic types of reports employed to convey the values of the selected learning metrics:

- Scorecards: These are the traditional reports for L&D, which look like a table and contain many cells of data. Typically, metrics are shown in the rows and the time period (months, quarters or years) is shown as the column heading.
- Dashboards: These reports typically include more aggregated data (e.g. year-to-date totals) and fewer numbers than scorecards but instead include visual displays (bar or line graphs or pie charts). Dashboards can also be interactive so that displays are updated automatically as the numbers change. Unlike scorecards there is no standard format.
- Programme evaluation reports: These are special purpose reports used to share the results of a completed programme or pilot. They follow a common structure, such as need for the programme, expectations and planned outcomes, summary of implementation, comparison of actual results to plan, summary of results and suggestions for further improvement. Unlike scorecards and dashboards, programme evaluation reports are typically presentations or written documents.
- Management reports: These reports are specifically designed to help programme managers manage their programmes and help the head of learning manage the department. These reports have a common format, which is similar to the format used by the sales and manufacturing departments. Columns typically include last year's results, plan for this year, year-to-date (YTD) results, YTD results compared with plan, forecast for the year and forecast compared with plan.

NOTE There are three types of management reports. The programme report is used by the programme manager and head of learning to manage a programme. The operations management report is used by the head of learning to manage measures selected for improvement. The summary management report is used by the head of learning to brief senior organization leaders and manage at a high level.

Examples are provided in [Annex A](#).

5 Recommended metrics

5.1 General

This clause sets out the recommended metrics to measure learning, organized by user, type of measure and organization size. While there is no universal definition of small, medium or large organizations, these categories are sometimes defined by the recognized authority within the country or region. [Tables 1](#) and [2](#) provide a summary of all the recommended metrics. In recognition of the ability of larger organizations to report more metrics, many more metrics are recommended for large organizations than for small and medium organizations.

A detailed description is provided for each metric in alphabetical order in [Clause 6](#). Most metrics can be analysed at an aggregate level and also segmented by business unit, region, gender, race, type of employee or other category of interest.

Table 1 — Recommended metrics for large organizations

Type of metric	Metric name	User				
		Senior leader	Group leader	Head of learning	Pro-gramme manager	Learner
Outcome metrics	Impact of learning (level 4)	x	x	x	x	
	<i>Workforce competency rate</i>	x	x	x	x	
	Individual competency					x
Efficiency metrics						
All learning	Unique participants	x	x	x	x	
	Total participants	x	x	x		
	Percentage of employees reached by learning	x	x	x		
	Percentage of employees with individual development plans	x		x		
	<i>Total cost</i>	x	x	x	x	
	Existence of individual development plan					x
NOTE Italics indicate metric recommended by ISO 30414 and detailed in ISO/TS 30428.						

Table 1 (continued)

Type of metric	Metric name	User				
		Senior leader	Group leader	Head of learning	Programme manager	Learner
Formal learning	<i>Average formal training hours</i>	x		x		x
	<i>Percentage of employees who participated in formal learning</i>			x		
	<i>Percentage of employees who participate in training by category</i>	x		x		
	<i>Percentage of employees who have completed training on compliance and ethics</i>	x		x		
	<i>Percentage of leaders who have participated in training</i>	x		x		
	<i>Percentage of leaders who have participated in leadership development</i>	x		x		
	Completion rate	x	x	x	x	
	Completion date				x	x
	Hours used		x			
	Courses used		x	x		
	Unique employees in L&D	x		x		
	Full-time equivalent (FTE) in L&D	x		x		
	Percentage of courses available by type of learning			x		
	Percentage of courses used by type of learning			x		
	Percentage of courses developed on time			x		
	Percentage of courses delivered on time			x		
	Courses available			x		
	Courses used			x		x
	Unique hours available			x		
	Unique hours used			x		
Total hours used			x		x	
Utilization rate (instructors, classrooms)			x			
Informal learning	<i>Percentage of employees reached by informal learning</i>			x		
	<i>Unique users of online content available through the organization's portal or repository</i>			x		
	<i>Unique documents available</i>			x		
	<i>Unique documents used</i>			x		x
	<i>Total documents accessed</i>			x		
	<i>Percentage of employees using the portal</i>			x		
	<i>Communities of practice</i>			x		x
	<i>Active communities of practice (CofP)</i>			x		
	<i>Active CofP members</i>			x		
	<i>Performance support tools available</i>			x		
<i>Performance support tools used</i>			x		x	
<i>Unique performance support tools users</i>			x			

NOTE Italics indicate metric recommended by ISO 30414 and detailed in ISO/TS 30428.

Table 1 (continued)

Type of metric	Metric name	User				
		Senior leader	Group leader	Head of learning	Pro-gramme manager	Learner
Effectiveness metrics						
Formal learning	Participant reaction (level 1)	x	x	x	x	x
	Objective owner satisfaction (level 1)	x		x	x	
	Learning (level 2)		x	x	x	x
	Application rate (level 3)	x	x	x	x	x
	Results or impact (level 4, see outcome metrics)					
	ROI (level 5)	x		x	x	
Informal learning	User satisfaction with portal or content			x		
	User satisfaction with communities of practice			x		
	User satisfaction with performance support tools			x		

NOTE *Italics indicate metric recommended by ISO 30414 and detailed in ISO/TS 30428.*

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Table 2 — Recommendations for small and medium organizations

Type of metric	Metric name	User				
		Senior leader	Group leader	Head of learning	Pro-gramme manager	Learner
Efficiency metrics						
All learning	Unique participants	x	x	x	x	
	Total participants	x	x	x		
	Percentage of employees reached by learning	x	x	x		
	Percentage of employees with individual development plans	x		x		
	<i>Total cost</i>	x	x	x	x	
	Existence of individual development plan					x
Formal learning	<i>Average formal training hours</i>	x		x		x
	<i>Percentage of employees who participated in formal learning</i>			x		
	<i>Percentage of employees who have completed training on compliance and ethics</i>	x		x		
	Completion rate				x	
	Completion date				x	
	Unique employees in L&D			x		
	FTE in L&D			x		
	Courses used					x
Total hours used					x	
Effectiveness metrics						
Formal learning	Participant reaction (level 1)	x	x	x	x	
	Objective owner satisfaction (level 1)				x	
	Learning (level 2)			x	x	
	Application rate (level 3)			x		
NOTE Italics indicate metric recommended by ISO 30414 and detailed in ISO/TS 30428.						

A guiding principle in measuring learning is to select a balanced set of metrics in order to avoid unintended consequences. For example, if the head of learning selected only efficiency measures such as creating more courses and meeting deadlines, the staff could rush development, resulting in low quality. On the other hand, if the head of learning selected only effectiveness metrics, the staff could spend so much time ensuring the highest-possible quality that few courses are finished and many miss deadlines. Since both quality and quantity are important, a balance of effectiveness and efficiency metrics is recommended. This guidance applies to all categories of users.

An outcome metric should be added whenever the learning has been designed to help achieve an organizational objective (e.g. higher sales or employee retention).

5.2 Senior organization leader

5.2.1 General

Senior organization leaders are focused on metrics aggregated across the organization to inform, monitor, evaluate and manage learning. Recommended metrics include organizational learning outcome metrics for all programmes supporting key organizational objectives and a variety of efficiency and effectiveness metrics aggregated across all programmes. Metrics for workforce competency, objective owner expectations and job performance are also recommended.

Typically, senior leaders are interested in no more than 10 to 20 metrics in total. While they could be interested in all the organizational outcome metrics, they will possibly be interested in only three to five efficiency metrics and two or three effectiveness metrics. Metrics can be shared in reports at least quarterly.

5.2.2 Outcome metrics

Research shows that senior organization leaders are most interested in organizational learning outcomes.^[8] They want to know what impact learning had on key organizational objectives or needs. Outcome metrics for important organizational objectives can take the form of “impact of learning on _____”, where the organizational objective fills in the blank. For example, the outcome metric for sales-related training is “impact of learning on sales”. Other common organizational objectives are injuries, productivity, quality, leadership, employee engagement, employee retention, internal mobility and diversity and inclusion. [Table 3](#) illustrates the organizational and learning outcome metrics for several organizational outcomes.

Table 3 — Organizational outcome and learning outcome metrics

Organizational outcome	Percentage contribution from learning %	Learning outcome (impact of learning)
Sales increased by 10 %	20	Sales increased by 2 % due to learning
Injuries reduced by 20 %	60	Injuries reduced by 12 % due to learning
Productivity increased by 5 %	30	Productivity increased by 1,5 % due to learning
Retention increased by 4 points	20	Retention increased by 0,8 points due to learning
Engagement increased by 3 points	20	Engagement increased by 0,6 points due to learning

Senior organizational leaders could also be interested in the workforce competency rate, which represents the aggregate of individual competency ratings. This outcome metric is recommended by ISO 30414. In addition, improvement in job performance and meeting objective owner or stakeholder expectations for the training are common outcome metrics, especially when results or impact cannot be quantified.

5.2.3 Effectiveness metrics

In addition to outcomes, organization leaders are interested in the effectiveness of their operations. The following metrics are recommended and are presented as averages across the organization (levels refer to the levels assigned by Kirkpatrick^[5] and Phillips^[7]):

- participant reaction (level 1): the reaction of the participant to the learning;
- objective owner satisfaction (level 1): the satisfaction of the objective owner (e.g. the head of sales) with the learning;
- application rate (level 3): the percentage of learning actually applied on the job;

- return on investment (level 5 and not normally aggregated but rather shared for each major programme).

Levels 3 and 5 are of more interest to senior leaders than level 1;^[8] however, level 1 is important to confirm the quality of the programme and instructor are acceptable.^[5]

5.2.4 Efficiency metrics

Senior leaders are also interested in the efficiency of the programmes directly supporting their organizational objectives.

Recommended effectiveness metrics include:

- total participants (allows for one participant to take more than one course);
- unique participants (a participant is counted only once);
- percentage of employees who participated in formal learning (recommended by ISO 30414);
- percentage of employees reached by learning (includes tracked informal learning, for example participation in communities of practice);
- percentage of employees with a development plan;
- total cost (recommended by ISO 30414).

Although not as common, ISO 30414 recommends the following additional metrics for internal reporting:

- average formalized training hours;
- percentage of employees who participate in training by category;
- percentage of employees who have completed training on compliance and ethics;
- percentage of leaders who have participated in training;
- percentage of leaders who have participated in leadership development programmes.

5.2.5 Example of a senior leader scorecard

Figure 2 illustrates how the recommended metrics for a senior leader of a large organization (e.g. a CEO) can be displayed in a scorecard with annual data when the purpose is to inform. There are four outcome metrics, four effectiveness metrics and seven efficiency metrics. Outcome metrics are listed first, followed by effectiveness metrics, reflecting the preferences of most CEOs. The “1 % higher sales” result for 2022 means that learning by itself contributed to a 1 % increase in sales. For example, sales could have increased by 5 % and learning contributed 20 % of the 5 % for a 1 % increase due solely to learning.

See the summary report in [Annex A](#) for an example of when the purpose is to manage, which requires the addition of plan and forecast columns.

Type of metric	Name of metric	Unit of measure	2022	2023	Change
Outcome	Impact of learning on sales	%	1 % higher sales	2 % higher sales	1 %
	Impact of learning on injuries	%	10 % reduction	15 % reduction	5 %
	Impact of learning on productivity	%	2 % increase	2 % increase	no change

Type of metric	Name of metric	Unit of measure	2022	2023	Change
	Impact of learning employee engagement	Points	1 point increase	2 point increase	1 point
	Improvement in performance	% favourable	79 %	83 %	4 %
	Competency assessment after training	5-point scale	4,1	4,3	0,2 point
	Objective owner expectations met	5-point scale	4,4	4,8	0,4 point
Effectiveness	Participant reaction	% favourable	83 %	85 %	2 %
	Goal owner satisfaction	% favourable	76 %	85 %	9 %
	Learning (knowledge test)	Score	85 %	87 %	2 %
	Application of learning	% of content applied	65 %	75 %	10 %
Efficiency	Unique participants	Number	2 546	3 256	28 %
	Total participants	Number	7 954	12 567	58 %
	Percentage of employees reached by learning	%	87 %	91 %	4 %
	Percentage of employees with a development plan	%	72 %	80 %	8 %
	Percentage of employees who completed training on compliance and ethics	%	91 %	99 %	8 %
	Percentage of leaders who participated in leadership development programmes	%	72 %	78 %	6 %
	Total cost	Thousand euros	1 123	1 578	41 %

Figure 2 — Example of a senior leader scorecard for organization learning

5.3 Group or team leader

5.3.1 General

In this category the user is a leader of a group or a team. If the group is a learning cohort participating in a programme, the leader could be interested in metrics to inform, monitor, evaluate and possibly manage. If the group is a collection of individuals (not a cohort in a learning programme), the leader could be interested in metrics to inform and monitor.

5.3.2 Outcome metrics

Group leaders typically focus more on efficiency and effectiveness metrics rather than outcome metrics. There will be an organizational outcome metric if the programme is designed to help the entire group or team achieve a strategic organizational objective. If the programme is instead intended to meet a need such as better communication or teamwork, there will be learner outcomes such as increased knowledge or skill but not impact on a strategic objective. In this case, the learner outcome

can be measured as the improvement in knowledge, skill or ability. ISO 10667 provides guidance on assessment. If the group is a collection of individuals pursuing their own learning objectives, there will not be an organizational outcome.

5.3.3 Effectiveness metrics

Effectiveness metrics recommended for the group or team leader:

- participant reaction (Level 1);
- learning (Level 2) (by test score or observation);
- application of learning (Level 3).

5.3.4 Efficiency metrics

Efficiency metrics recommended for formal learning if the group is a cohort participating in a learning programme:

- unique participants;
- total participants (if more than one course is offered);
- completion rate;
- total cost.

Efficiency metrics recommended for formal learning if the group is a collection of individuals (not a cohort in a learning programme):

- unique participants;
- total participants;
- percentage of employees reached by learning;
- hours used;
- courses used;
- total cost.

Informal learning metrics should be tailored to the group but can include metrics on the usage and satisfaction with communities of practice, performance support tools and online content.

5.3.5 Example of group leader scorecard

Figure 3 illustrates how the recommended metrics for a group leader can be displayed in a scorecard using annual data when the purpose is to inform. In this example, the group leader is a department head who desires to increase her employee engagement score by providing more learning for her employees.

Type of metric	Name of metric	Unit of measure	2022	2023	Change
Outcome	Impact of learning on employee engagement	Points	1 point increase	3 point increase	2 points
	Improvement in performance	% favourable	75 %	80 %	5 %
	Competency assessment after training	5-point scale	3,6	4,0	0,4 point

Type of metric	Name of metric	Unit of measure	2022	2023	Change
Effectiveness	Participant reaction	% favourable	87 %	91 %	4 %
	Learning (knowledge test)	Score	89 %	91 %	2 %
	Application of learning	% of content applied	81 %	85 %	4 %
Efficiency	Unique participants	Number	258	295	14 %
	Total participants	Number	542	896	65 %
	Completion rate	%	96 %	99 %	3 %
	Courses used	Number	15	25	60 %
	Hours used	Number	542	1 020	88 %
	Total cost	Euros	95 256	154 897	63 %

Figure 3 — Example of a group leader scorecard for group learning

5.4 Head of learning

5.4.1 General

The head of learning can measure to inform, monitor, evaluate and manage learning across the organization. As such, most of the data will be aggregated across all programmes and units but in practice can also include breakouts by units or regions. Recommended metrics include all those listed for the senior organization leader plus other metrics which are generally not of interest to senior leaders but are of interest to the head of L&D.

5.4.2 Outcome metrics

The head of learning could be interested in the organizational outcome metrics for all programmes which directly support the objectives of the CEO or head of HR. The list of organizational outcome metrics depends on the specific objectives of the CEO and head of HR. If L&D supports each objective, there should be an organizational outcome metric for each. See examples under outcome metrics for senior organization leaders.

Senior L&D leaders could also be interested in workforce competency, objective owner expectation and job performance metrics.

5.4.3 Effectiveness metrics

The following effectiveness metrics are recommended for the head of learning to measure the effectiveness of programmes. These measures are averaged over all the courses for a department-wide view. The levels refer to the levels assigned by Kirkpatrick^[5] and Phillips.^[7]

Formal learning:

- participant reaction (level 1) or net promoter score;
- objective owner satisfaction (level 1);
- learning (level 2);
- application of learning (level 3);
- results or impact (level 4) (covered under outcome metrics);
- return on investment (level 5).

Informal learning:

- user satisfaction with portal or content (level 1);
- user satisfaction with communities of practice (level 1);
- user satisfaction with performance support tools (level 1).

5.4.4 Efficiency metrics

Since most metrics for L&D are efficiency metrics, the number used by the head of learning could be very large. In practice, however, most practitioners focus on a limited number in any given period. Many of these are usage metrics intended to show how intensely learning assets are used. For example, comparing courses used with courses available or documents used to documents available provides important information on usage. A low usage rate for any learning asset can prompt an investigation into the utility of the asset or its marketing.

The recommended efficiency metrics for the head of learning include all those recommended for a senior leader plus the following:

- unique employees in L&D;
- FTEs in L&D;
- formal learning:
 - percentage of courses available by type of learning (instructor-led, virtual instructor-led, e-learning, mobile, blended);
 - percentage of courses used by type of learning (instructor-led, virtual instructor-led, e-learning, mobile, blended);
 - percentage of courses developed or purchased on time;
 - percentage of courses delivered on time;
 - courses available;
 - courses used;
 - unique hours available;
 - unique hours used;
 - total hours used;
 - utilization rate for instructors, classrooms;
 - course cost;
- informal learning:
 - percentage of employees reached by informal learning;
 - unique users of online content available through the organization's portal or repository;
 - documents available;
 - documents accessed;
 - total documents accessed;
 - percentage of employees using the portal;

- communities of practice;
- active communities of practice;
- active members in communities of practice;
- performance support tools (job aids) available;
- performance support tools used;
- total performance support tools used;
- unique performance support tool users.

5.4.5 Example of head of learning scorecard

Figure 4 illustrates how the recommended metrics for the head of learning for a large organization can be displayed in a scorecard using annual data when the purpose is to inform. In this example, the head of learning wants to see outcome metrics for the CEO's top four objectives, the standard effectiveness metrics aggregated across the organization and a number of efficiency metrics to gauge progress in initiatives to increase the number of learners and the amount of learning. Efficiency and effectiveness metrics for informal learning can be added.

The scorecard and dashboard in [Annex A](#) provide additional examples of how the recommended metrics for formal learning can be shared when the purpose is to inform and monitor using monthly and YTD data. See the operations report in [Annex A](#) for an example of how these recommended metrics can be shared when the purpose is to manage using YTD data.

Type of metric	Name of metric	Unit of measure	2022	2023	Change
Outcome	Impact of learning on sales	%	1 % higher sales	2 % higher sales	1 %
	Impact of learning on injuries	%	10 % reduction	15 % reduction	5 %
	Impact of learning on productivity	%	2 % increase	2 % increase	no change
	Impact of learning on employee engagement	Points	1 point increase	2 point increase	1 point
	Improvement in performance	% favourable	79 %	83 %	4 %
	Competency assessment after training	5-point scale	4,1	4,3	0,2 point
	Objective owner expectations met	5-point scale	4,4	4,8	0,4 point
Effectiveness	Participant reaction	% favourable	83 %	85 %	2 %
	Objective owner satisfaction	% favourable	76 %	85 %	9 %
	Learning (knowledge test)	Score	85 %	87 %	2 %
	Application of learning	% of content applied	65 %	75 %	10 %
	Return on investment (ROI)	%	List individually	List individually	
Efficiency	Unique participants	Number	2 546	3 256	28 %

Type of metric	Name of metric	Unit of measure	2022	2023	Change
	Total participants	Number	7 954	12 567	58 %
	Percentage of employees reached by learning	%	87 %	91 %	4 %
	Percentage of employees with a development plan	%	72 %	80 %	8 %
	Percentage of employees who completed training on compliance and ethics	%	91 %	99 %	8 %
	Percentage of leaders who participated in leadership development programmes	%	72 %	78 %	6 %
	Total cost	Million euros	1 123	1 578	41 %
	Courses available	Number	253	301	19 %
	Course used	Number	236	291	23 %
	Unique hours available	Number	786	922	17 %
	Unique hours used	Number	741	853	15 %
	Total hours used	Number	10 456	13 951	33 %
	Percentage of courses developed on time	%	78 %	84 %	6 %
	Percentage of courses delivered on time	%	75 %	82 %	7 %
	Percentage of course hours available by type				
	Instructor led	%	15 %	30 %	15 %
	Virtual instructor led	%	52 %	35 %	-17 %
	E-learning	%	22 %	18 %	-4 %
	Mobile	%	3 %	5 %	2 %
	Blended	%	8 %	12 %	4 %
	Total	%	100 %	100 %	

Figure 4 — Example of a head of learning scorecard for organization learning

5.5 Programme manager

5.5.1 General

The programme manager is focused on metrics for the programme(s) in support of a single objective. For example, there could be two programmes in support of the objective to increase sales by 10 %: (i) consultative selling skills; and (ii) product features training. Typically, there is one outcome metric per organizational objective and several efficiency and effectiveness metrics. The programme manager can measure to inform, monitor, evaluate and manage.

See the programme report in [Annex A](#) for an example of how the recommended metrics can be shared when the purpose is to manage.

5.5.2 Outcome metrics

The programme manager could be most interested in the outcome metric. The specific outcome metric depends on the objective supported by learning. For example, if the objective is to reduce injuries, the outcome metric would be “the impact of learning on reducing injuries” and can be calculated by the Phillips^[7] approach or described by the Kirkpatrick^[5] approach.

Programme managers could also be interested in ensuring they have met the expectations of the objective owner and that job performance has improved.

5.5.3 Effectiveness metrics

The following effectiveness metrics are recommended:

- participant reaction (level 1);
- objective owner satisfaction (level 1);
- learning (level 2);
- application of learning (level 3);
- return on investment (level 5).

5.5.4 Efficiency metrics

The following efficiency metrics are recommended:

- number of unique participants;
- number of total participants;
- completion rate;
- completion date;
- cost.

5.5.5 Example of programme manager scorecard

Figure 5 illustrates how the recommended metrics for a programme manager of a large organization can be displayed in a scorecard using quarterly and YTD data when the purpose is to inform. In this example, the programme is designed to increase sales by increasing the competency of the sales force to help achieve an organizational objective of 10 % higher sales. The programme consists of one instructor-led course, one e-learning course, performance support tools to reinforce the learning and a community of practice for knowledge sharing. Data are available through the second quarter and programme delivery is expected to conclude in the third quarter.

Outcome metrics include the impact on sales, the participant’s responses to a question about the programme’s impact on their performance and an assessment of their increased competence by their supervisor. Impact and competence are assessed in a follow-up survey 3 months after completing the course, so data are not available for the first quarter. Effectiveness metrics include both measures of application (intent to apply measured in the post-course survey and actual application measured 3 months later in a follow-up survey). Efficiency metrics include the usual formal learning metrics plus the use of performance support tools and a community of practice.

The programme management report in [Annex A](#) provides an example of how the recommended metrics can be shared when the purpose is to manage using YTD data. The programme evaluation report in [Annex A](#) provides an example of how the recommended metrics can be shared in a briefing at the completion of the programme when the purpose is to evaluate the programme.

2023 Programme to increase sales

Type of metric	Name of metric	Unit of measure	First quarter	Second quarter	YTD
Outcome	Impact of learning on sales	%	NA	1 % higher sales	1 % higher sales
	Improvement in performance	Likert 5-point scale	4,6	4,8	4,7
	Competency assessment after training	Likert 5-point scale	NA	4,3	4,3
Effectiveness	Participant reaction	% favourable	83 %	85 %	84 %
	Learning (knowledge test)	Score on first attempt	85 %	87 %	86 %
	Application of learning — intent to apply	% of content applied	75 %	80 %	78 %
	— actual application	% of content applied	NA	68 %	68 %
Efficiency	Unique participants	Number	100	50	150
	Total participants	Number	200	100	300
	Completion rate for formal training	%	50 %	25 %	75 %
	Completion date for formal training	Date	NA	NA	NA
	Unique performance support tools used	Number	6	10	10
	Community of practice active users	Number	76	125	135
	Total cost	Thousand euros	130	55	185
	— development, delivery and management cost	Thousand euros	50	15	65
— opportunity cost	Thousand euros	80	40	120	

NOTE 1 Impact and competency data not available until second quarter.

NOTE 2 Completion date expected in third quarter.

Figure 5 — Example of a programme manager scorecard

5.6 Learner

5.6.1 General

The following metrics are recommended to measure individual learners. Efficiency metrics are more common for individual learners than effectiveness or outcome metrics.

Efficiency metrics:

- hours spent in formal learning;
- number of courses used;
- completion dates;
- utilization of informal learning assets;
- existence of an individual development plan;
- opportunity cost or value of the participant's time spent learning.

Effectiveness metrics:

- participant reaction (level 1);
- learning (level 2);
- application (level 3);
- course ratings.

5.6.2 Outcome metrics

For the learner, outcome can be measured by the increase in knowledge, skill or ability gained through a learning programme, which can be reflected in the achievement of internal or external certification. This is often measured through testing or observation. ISO 10667 provides guidance on assessment. A competency framework, where the outcome of the programme is measured by the increase in competency level (e.g. from level 1, new to the job, to level 2, able to complete more challenging tasks) can also be employed. Competency metrics are recommended in ISO 30414. Further guidance for the calculation of competency metrics is provided in ISO/TS 30428.

Figure 6 illustrates how some of the recommended metrics for an individual can be shared in a scorecard when the purpose is to inform. The focus is on courses as well as informal learning opportunities. Completion date for the development plan is also included along with the relevant competency assessments.

For January to December 2023				
Courses completed	Completion date	Hours	Completion date for development plan	
Introduction to financial reporting	04 Feb	4		15 Feb
Advanced spreadsheets	21 Feb	2	Membership in communities of practice	Status
Career in finance	15 Mar	1	Finance	Active
Total		7	Accounting	Active
			Marketing	Inactive
Enrolled but not yet completed	Enrolment date	Hours		

Intermediate financial reporting	21 Apr	8	Performance support tools used	Date last used
Coaching for success	18 May	4	Financial reporting	25 Apr
Total		12	Money laundering	05 May

Additional required courses	Due date	Hours	Online content accessed	Date
Sexual harassment in the workplace	30 Jun	1	New accounting rules	23 May
How to recognize money laundering	31 Aug	1	New human capital reporting rules	05 Jun
Data security	30 Sep	4		
Total		6		

Additional discretionary courses	Planned month	Hours	Competency assessment	Actual 2022	Plan 2023
Introduction to public speaking	October	4	Accounting	3,5	4,0
Business writing	November	6	Finance	2,0	3,0
Total		10			
Total hours		35			

Figure 6 – Example of an individual learning scorecard

6 Description of recommended metrics

6.1 General

The recommended metrics are described in this clause, arranged alphabetically. Examples of their use are provided in the scorecards in [Clause 5](#) and in the scorecard, dashboards, programme evaluation report and management reports shared in [Annex A](#). The description identifies if the metric is recommended by ISO 30414 or detailed in ISO/TS 30428.

6.2 Active communities of practice

This metric is the number of communities of practice where comments and content are regularly shared during a period of time (e.g. 1 month). This metric can be divided by total communities to produce a utilization measure.

6.3 Active members in communities of practice

This metric is the number of community members who regularly participate in a period of time. This metric can be divided by the total members to produce a utilization metric, as shown in [Table 4](#).

Table 4 — Utilization of communities of practice

	2022	2023	Change
Active communities	30	50	20
Total communities	50	60	10
Percentage of communities that are active	60 %	83 %	23 %
Active members	646	1 289	643
Total members	952	1 575	623
Percentage of members who are active	68 %	82 %	14 %

6.4 Application of learning (level 3)

This metric is the application of new knowledge, skills or behaviours on the job after the training. It can be measured by observation or more commonly in a post-event survey as intent to apply where participants are asked about their intention to apply. It can also be measured in a follow-up survey, typically several months later, as actual application where participants are asked about their actual experience. If the course has a sole learning objective the participant can be asked whether or not they applied the learning (yes or no). If the course has multiple objectives, the participants can be asked the percentage of content applied on a decile scale from 0 % to 100 %. For example, a follow-up survey can include the following question to measure actual application using a decile scale: "What percentage of the content were you able to apply?" The responses would be averaged over the participants for the course (for the programme manager) or over participants for all courses (for the head of learning). Like levels 1 and 2, application is foundational and should be measured whenever it is important to know that the learning is effective. See [Table 5](#).

Table 5 — Application of learning rates

	2022	2023	Change
Intent to apply	70 %	74 %	4 %
Actual application	61 %	69 %	8 %

6.5 Average formal learning hours

This metric is a popular measure of the amount of learning provided to employees over a year. It is calculated as total hours of learning divided by number of employees. This metric is recommended by ISO 30414 for internal reporting by all organizations and detailed guidance on its use is provided in ISO/TS 30428. Results can be provided by group to gauge equity and reasonableness. For example, [Table 6](#) shows the average hours by category of employee, gender and experience.

Table 6 — Average formal learning hours

	2022	2023	Change
All employees	43,5	44,7	1,2
Managers	45,2	46,2	1,0
Associates	42,4	45,2	2,8
Male employees	44,5	44,9	0,4
Female employees	42,5	44,5	2,0
Non-binary employees	43,1	44,7	1,6
Employees with less than 2 years' experience	49,2	50,7	1,5

Table 6 (continued)

	2022	2023	Change
Employees with 2 to 5 years' experience	43,2	44,1	0,9
Employees with more than 5 years' experience	34,7	34,9	0,2

6.6 Budget

This metric is the amount approved for the department or a programme, typically as part of the annual budgeting and planning process.

6.7 Competency rating

This metric is the assessment by a supervisor of their employee’s competency in performing their job. A scale is established (e.g. 1 to 5), with the lowest number indicating very little ability to perform the job and the highest number indicating expertise. See ISO/TS 30428 for details. For example, an employee new to the job could have a score near the minimum required for the job while someone with many years in the position could have attained the highest level and be considered an organization or industry expert.

6.8 Completions

This metric is the number of unique participants who complete the course or programme. This number is typically less than the target audience since some never register for or complete the course.

6.9 Completion date

This metric is the date when course development or delivery is complete. The planned completion date should be agreed upon with the objective owner or sponsor. See [Table 7](#).

Table 7 — Planned and actual completion dates

Course name	Planned completion date	Actual completion date	Variance
Selling skills	15 May	30 May	2 weeks

6.10 Completion rate

This metric is the percentage of the target audience that successfully completes a course or programme calculated as completions/target audience. For example, if the target audience was 100 employees and 81 completed the course, the completion rate would be 81/100 = 81 %. The number registered can also be used as the denominator. For example, if only 90 registered for the course, the completion rate would be 81/90 = 90 %. An example is provided in [Table 8](#).

Table 8 — Calculation of course completion rate

	2022	2023	Change
Target audience	1 000	1 200	20 %
Number registered	950	1 150	21 %
Number completed	900	1 100	22 %
Completion rate	90 %	92 %	2 %

6.11 Cost reduction

This metric is any reduction in cost resulting from activities of the learning department designed to improve efficiencies or reduce cost.

6.12 Courses available

This metric is the number of unique course available to be taken in a period (e.g. month, quarter, year). The course counts if it is offered but subsequently cancelled.

6.13 Courses used

This metric is the number of unique courses which were conducted during a period. This metric can be divided by courses available to calculate a utilization rate for courses, which informs decisions about which courses to keep, update or replace. See [Table 9](#).

Table 9 — Courses available and used

	2022	2023	Change
Courses available	100	120	20 %
Courses used	90	115	28 %
Percentage of courses used	90 %	96 %	6 %

6.14 Documents accessed

This metric is the unique count of documents accessed through an organization's portal. This metric can be divided by documents available to calculate a utilization rate for content which can be used to inform decisions on which content to keep, update or replace. See [Table 10](#).

Table 10 — Documents available and accessed through the portal

	2022	2023	Change
Documents available	243	301	24 %
Documents accessed	189	283	50 %
Percentage of documents accessed	78 %	94 %	16 %

6.15 Documents available

This metric is the unique count of documents available through an organization's learning portal.

6.16 FTE in L&D

This metric is the number of FTEs in L&D found by summing the fractional hours of part-time staff with full-time staff. For example, if there are two part-time employees and each works half-time, together they constitute one FTE. Add this to the number of full-time employees to find the FTE for the department, see [Table 11](#).

Table 11 — L&D department headcount and FTEs

	2022	2023	Change
Full-time staff	20	22	2
Part-time staff	6	8	2
FTE for part-time staff	3	4	1
Total	26	30	4
Total FTE	23	26	3

6.17 Job performance

This metric is a measure by either the learner, supervisor or observer of the job performance before and/or after the training programme. Job performance can be observed or measured in a survey. A

common survey statement is “This course improved (or is likely to improve) my job performance.” A five- or seven-point scale is recommended where 1 is “strongly disagree” and the top score is “strongly agree”.

6.18 Impact (level 4)

This metric is the Phillips^[7] level 4 measure of isolated impact (outcome), which comes in two parts. First is the percentage contribution from learning on an organizational metric. For example, learning contributed 30 % of the 6 % increase in sales. The second part is the change in the organizational metric due to learning, which is found by multiplying the percentage contribution by the organizational metric. For example, if learning contributed 30 % towards the 6 % increase in sales, learning was responsible for a 1,8 % increase in sales (30 % × 6 % = 1,8 % increase in sales). See [Annex B](#) for a description of the most common methodology to determine the percentage contribution. Either level 4 impact or results is recommended for any programme that is aligned to key organizational objectives and has significant cost or exposure. The organizational objective, contribution of learning and the resulting isolated impact of learning are shown together in [Table 12](#).

Table 12 — Impact of learning on sales

	Plan	Actual
Organizational objective: increase sales	10 %	12 %
Percentage contribution from learning	20 %	25 %
Impact of learning on sales	2 %	3 %
NOTE Level 4 isolated impact is required to calculate ROI.		

6.19 Learning (level 2)

This metric is the amount learned, usually measured by a post-test at the end of a course. The purpose is to ensure participants have acquired the requisite knowledge. Pre-tests can also be employed and compared with the post-test to calculate the increase in knowledge, skill or ability. Test results can be reported as the raw score (e.g. 91 % correct). When the test has to be retaken until a passing grade is achieved, it is also helpful to know the percentage who pass at the first attempt or the number of attempts required to pass to evaluate whether there are any issues with the test or the material. Like level 1, this is also a foundational metric and strongly recommended for compliance and basic knowledge courses. Options for sharing level 2 results when the minimum pass score is 85 and multiple attempts are allowed are shown in [Table 13](#).

Table 13 — Example of options to report level 2 learning

Average score on first attempt	81 (out of 100)
Percentage who passed on first attempt	83 %
Average score on final attempt	91 (out of 100)
Percentage who passed on final attempt	100 %
Number of attempts to pass	1,7

6.20 Objective owner satisfaction (level 1)

This metric measures the satisfaction of the objective owner (or the person who requested the learning) with the learning and the L&D department. Typical questions include how satisfied the objective owner was with the course, whether it was delivered on time and on budget and whether the objective owner would recommend the L&D department to colleagues. A five-point scale is recommended with results reported as the average raw score from all objective owners or as the percentage favourable (top two boxes on either a five- or seven- point scale). See [Table 14](#).

Table 14 — Options to report objective owner satisfaction

	Unit of measure	2022	2023	Change
Objective owner satisfaction with L&D	5-point scale	4,1	4,3	0,2
Objective owner satisfaction with L&D	% favourable	81 %	83 %	2 %

6.21 Objective owner expectations met

This is an organizational outcome metric which measures whether the learning programme met the expectations of the objective owner or key stakeholder. It is often employed when impact or results cannot be quantified and is highly recommended instead of objective owner satisfaction when impact or results cannot be quantified as an outcome metric. This metric can be measured by a survey at the end of the learning engagement with the statement “My expectations for this learning programme were met” using a five- or seven-point scale. The results can be shared as the average response or as the percentage favourable (see objective owner satisfaction for an example).

6.22 Participant reaction (level 1)

This metric measures the reaction of participants to the learning, usually measured at the end of the course or shortly thereafter in a post-event survey. Its purpose is to identify any issues which need to be addressed with regard to content, instructor or audience. Questions can ask for feedback on the instructor, content, pace of the course, materials and whether the participant would recommend the course to others. A five- or seven-point Likert score is typically employed where, for example, 5 on a five-point scale would be highly satisfied and 1 would be highly dissatisfied. The results are reported as either the average of the Likert scores (e.g. 4,3 out of 5) or the percentage favourable, where the top two boxes are counted as favourable (e.g. 83 % favourable). See [Table 14](#) for an example. This is a foundational metric since it can expose issues with design or delivery of the course or indicate that the target audience is not appropriate. Level 1 can also be applied to informal learning to solicit the participant’s satisfaction with a community of practice, performance support tool, content available on the portal or coaching.

6.23 Percentage of courses available by type of learning

This is a metric showing the mix of courses available by type of learning (instructor-led, virtual, e-learning, mobile, blended) found by dividing either the number of courses or their hours for each type of learning by the total. The percentage can be calculated for either courses offered or courses used. This metric is very common and considered foundational as organizations try to find the right balance by type. See [Table 15](#).

Table 15 — Percentage of courses offered by type

	Number of courses	% of total	Number of hours	% of total
Instructor-led	25	12 %	112	28 %
Virtual instructor-led	51	25 %	147	37 %
E-learning	98	47 %	68	17 %
Mobile	10	5 %	2	1 %
Blended	24	12 %	65	16 %
Total	208	100 %	394	100 %

6.24 Percentage of employees reached by learning

This metric is calculated as unique participants/total employees. It is commonly requested by senior leaders, so a foundational metric.

6.25 Percentage of employees who have completed training on compliance and ethics

A measure of the ethical and compliance culture of an organization, this metric is calculated as the number of employees who have completed the required compliance and ethics training divided by the number of employees assigned to the training. ISO 30414 recommends this metric for internal and external reporting by all organizations.

6.26 Percentage of employees who participate in formal learning

This metric is calculated as the number of employees who participate in at least one formal learning experience divided by the total number of employees. This metric indicates whether formal learning is used by many or just a few employees. It is recommended by ISO 30414 for internal reporting by all organizations and detailed guidance on its use is provided in ISO/TS 30428. [Table 20](#) provides an example.

6.27 Percentage of employees who participate in formal learning by category

This metric shows the mix of formal learning by category of interest to the organization. For example, categories can include marketing, manufacturing, engineering, quality, leadership, onboarding and compliance. This metric is calculated as the number of employees in each type divided by the total number of employees. For example, if five employees out of 100 took marketing training, then 5/100 = 5 % is the percentage for marketing. This metric is recommended by ISO 30414 for internal reporting by large organizations and detailed guidance on its use is provided in ISO/TS 30428.

6.28 Percentage of employees who participate in informal learning

This metric is calculated as the number of employees who participate in at least one informal learning experience (such as portal content, communities of practice or performance support tools) divided by the total number of employees. This metric indicates whether informal learning is used by many or just a few employees. See [Table 16](#).

Table 16 — Utilization of informal learning

	2022	2023	Change
Employees in a community of practice	76	145	91 %
Employees using the portal to access documents	540	852	58 %
Employees using performance support tools	35	91	160 %
Employees using at least one of the three types of informal learning	589	931	58 %
Total employees	2 500	3 000	20 %
Percentage of employees using at least one type of informal learning	24 %	31 %	

6.29 Percentage of employees with individual development plans

A measure of organizational commitment to employees, this metric is calculated as the number of employees with an individual development plan divided by the total number of employees.

6.30 Percentage of employees using the learning portal

This metric is calculated as the number of employees using the organization’s learning portal to access content divided by the total number of employees. This indicates the intensity of usage and a low percentage could call for different content or more marketing.

6.31 Percentage of leaders who have participated in leadership development programmes

Designed to show the commitment of an organization to developing its leaders, this metric is calculated as the number of leaders who participate in a leadership development programme divided by the total number of leaders. It is recommended by ISO 30414 for internal reporting by large organizations. See [Table 17](#).

Table 17 — Percentage of leaders who have participated in training or development

	2022	2023	Over last 5 years
Percentage of leaders who participated in leadership development	10 %	15 %	55 %
Percentage of leaders who participated in training	75 %	85 %	100 %

6.32 Percentage of leaders who have participated in training

Designed to show the commitment of leaders to personal development, this metric is calculated as the number of leaders who participate in formal learning divided by the total number of leaders. It is recommended by ISO 30414 for internal reporting by large organizations.

6.33 Percentage of courses developed on time

A key measure of L&D department efficiency, this metric is calculated as the number of courses developed on scheduled divided by the total number of courses developed.

6.34 Percentage of courses delivered on time

A key measure of L&D department efficiency, this metric is calculated as the number of courses delivered as scheduled divided by the total number of courses delivered, see [Table 18](#).

Table 18 — Percentage of courses developed and delivered on time

	2022	2023	Change
Courses developed	24	27	3
Courses delivered on time	20	25	5
Percentage of courses developed on time	83 %	93 %	10 %
Course delivered	102	146	44
Courses delivered on time	95	138	43
Percentage of courses delivered on time	93 %	95 %	2 %

6.35 Performance support tools available

This metric is the unique count of performance support tools available to users. See [Table 19](#).

Table 19 — Utilization of performance support tools

	2022	2023	Change
Tools available	10	20	100 %
Tools used	8	19	138 %
Percentage of tools used	80 %	95 %	15 %

6.36 Performance support tools used

This metric is the unique count of performance support tools used at least once. This metric is used to calculate the percentage of performance support tools used.

6.37 Reach

This metric is the percentage of employees who participate in any type of formal or tracked informal learning (e.g. communities of practice, performance support tools, online content, coaching or mentoring). Reach is calculated as unique participants divided by the total number of employees. As informal learning becomes more popular, this is an excellent measure of reach. It can be used separately for formal and informal learning. For example, in [Table 20](#), 99 % of employees were reached by learning in 2023.

Table 20 — Percentage of employees who participated in learning

	2022	% of total	2023	% of total
Employees who participated in formal learning	9 873	90 %	12 123	93 %
Employees who participated in informal learning (tracked)	3 871	35 %	7 890	61 %
All employees who participated in formal or informal learning	10 500	95 %	12 895	99 %
All employees	11 000	100 %	13 000	100 %

6.38 Results (level 4)

The Kirkpatrick^[5] approach calls level 4 “results” and refers to the change in the organizational metric targeted by the learning. For example, if a learning programme is designed to increase sales, then results are the increase in sales (e.g. 6 %). Kirkpatrick’s methodology establishes a compelling chain of evidence to show that learning played a role in achieving the 6 % increase in sales, which can include lower-level results more closely tied to the learning (e.g. an increase in the number of customers requesting quotes and an increase in the number of closed deals). High levels 1, 2 and 3 can also be used to make the case for programme results. The Kirkpatrick approach does not result in an estimate of isolated impact. Either level 4 impact or results should be obtained for any programme that is aligned to key organizational objectives and has significant cost or exposure.

6.39 Return on investment (level 5)

ROI is the Phillips^[2] level 5 measure used to show whether the investment in learning was worth the cost. It is defined as net benefit/programme cost, where net benefit is defined as gross benefit minus programme cost. Gross benefit is the bottom-dollar value of the Phillips level 4 impact. Programme cost includes all costs associated with the programme, including the opportunity cost (value of participants time calculated as hours × labour and related rate). For example, ROI is 82 % in the following scenario:

Gross benefit = 100 000 euros (from goal owner or accounting)

Total programme cost = 25 000 + 30 000 = 55 000 euros

Programme cost for development, delivery and management = 25 000 euros

Opportunity cost for participant’s time = 30 000 euros

Net benefit = 100 000 – 55 000 = 45 000 euros

ROI = 45 000 / 55 000 = 82 %

6.40 Target audience

This metric is the desired number of participants for a course or programme determined by the objective owner, sponsor and L&D department.

6.41 Total cost (organization)

This metric is calculated as the sum of all expenditures on L&D from the learning department and business units plus tuition reimbursement payments. In short, all spending on learning within an organization. Total cost does not include the value of participants' time (opportunity cost) or the cost of participants' travel to learning events or conferences. It does include travel costs for instructors. ISO 30414 recommends this metric for internal and external reporting by all organizations. It is also used to calculate cost per learner and is a foundational metric. For example, in an organization with a central learning department, as well as learning departments in the business units, the total cost is calculated by adding all the elements in [Table 21](#).

Table 21 — Calculation of total organization cost for learning

	Thousands of euros			
	2022	2023	Change	% change
Central learning department	1 100	1 300	200	18 %
Manufacturing business unit learning department	350	400	50	14 %
Marketing business unit learning department	250	300	50	20 %
Other business unit learning departments	395	430	35	9 %
Tuition reimbursement	750	800	50	7 %
Total cost	2 845	3 230	385	14 %

6.42 Total documents accessed

This metric is the total number of documents accessed from the learning portal, allowing for a document to be accessed by multiple people and for multiple times.

6.43 Total hours used

This metric is the total hours of formal learning content used which allows for a course to be taken multiple times. A standard duration may be assigned to e-learning courses. This metric is often shared to demonstrate the hours of learning provided in a period.

6.44 Total participants

This metric is the total instances of participation. For example, if an individual takes three courses, that counts as three instances of participation or three total participants. Budget, cost, number of instructors and designers are all correlated with total, not unique participants, so this a foundational metric. [Table 22](#) provides an example.

Table 22 — Unique and total participants by gender

Gender	Unique participants	% of total	Total participants	% of total
Male	4 000	43 %	8 500	39 %
Female	5 000	53 %	11 500	53 %
Non-binary	400	4 %	1 600	7 %
Total	9 400	100 %	21 600	100 %

6.45 Total performance support tools used

This metric is the total number of performance support tools used, allowing for a tool to be accessed by multiple users and for multiple times. [Table 19](#) provides an example.

6.46 Unique employees in L&D

This metric is the number of staff in the L&D department.

6.47 Unique hours available

This metric is the count of unique hours available for formal learning, typically made once per year. A standard time can be assigned to e-learning. A course can be offered multiple times during the year, but the duration of the course is counted only once. See [Table 23](#).

Table 23 — Hours available and used

	2022	2023	Change	% change
Unique hours available	242	288	46	19 %
Unique hours used	210	272	62	30 %
Percentage of unique hours used	87 %	94 %	8 %	
Total hours used	12 123	15 963	3 840	32 %

6.48 Unique hours used

This metric is the number of unique hours in courses that had participants. This can be divided by “unique hours available” to obtain the percentage of unique hours used, which is a common metric employed to identify low-usage courses for revision or deletion.

6.49 Unique participants

This metric is the unduplicated count of participants. For example, if an individual takes three courses, that counts as one unique participant since it is the same person taking all three courses. A learning management system (LMS) can produce this count. This metric is used to calculate the percentage of employees reached by learning, a common metric of interest to senior leaders, so this is also a foundational metric. Participants can be segmented by age, gender, work experience, pay grade, programme or another category for further analysis (e.g. to ensure equity), see [Table 22](#).

6.50 Unique performance support tool users

This metric is the unique count of employees who have used at least one performance tool.

6.51 User satisfaction with learning portal (or content)

This metric is a level 1 measure to determine user satisfaction with the organization’s learning portal, including its ease of use and breadth of content. A five- or seven-point Likert scale survey can be used. The metric can be an average of the responses to two or three statements such as “I am satisfied with the breadth of non-course content available on the portal” and “The content was easy to find”. See [Table 24](#).

Table 24 — User satisfaction with informal learning

	Unit of measure	2022	2023	Change
Communities of practice	% favourable	56 %	60 %	4 %
Performance supports tools	% favourable	45 %	50 %	5 %
Online content	% favourable	38 %	48 %	10 %

6.52 User satisfaction with communities of practice

This metric is a level 1 measure to determine user satisfaction with their community of practice. A five- or seven-point Likert scale can be used to respond to a statement such as “I find great value in my community of practice” or “I would recommend my community of practice to others in my area of expertise”.

6.53 User satisfaction with performance support tools

This metric is a level 1 measure of user satisfaction with performance support tools, including their ability to help the user accomplish their task. A five- or seven-point Likert scale survey may be used. The metric can be an average of the responses to two or three statements such as “I am satisfied with the availability of performance support tools” and “Performance support tools helped me complete my task”.

6.54 Unique users of content

This metric is the unique count of employees who have accessed content on the portal.

6.55 Utilization rate

This metric is a comparison of usage against a base. For example, the utilization rate of classrooms is the number of hours a classroom is used divided by the total available, and the utilization rate of instructors is the number of hours of preparation, travel and teaching divided by the number of hours available to the instructor.

6.56 Workforce competency rate

This metric is the average of employee competency ratings across a team, group, department, business unit or organization, which can be weighted by the number of employees in each group. See ISO/TS 30428 for details. It is recommended by ISO 30414 for internal reporting by large organizations. For example, if there are three business units the workforce competency rate for the organization is the weighted average of all three. See [Table 25](#) for an example where the competency scale is 1 to 5, with 5 being the highest level.

Table 25 — Calculation of average competency rating for organization

Business unit	Number of employees	Weight	Rating	Weight × rating
A	1 000	0,5	4,4	2,20
B	600	0,3	4,6	1,38
C	400	0,2	4,1	0,82
Total	2 000	1,0		4,40

7 Reporting of metrics

7.1 General

Most metrics are shared in reports rather than in person, in an email or over the telephone. Consequently, reports are the connection between the user of the metrics and the metrics themselves. Since there are at least four different types of reports used in L&D, it is important to select the appropriate report to meet the needs of the user. In this framework, the recommended report type is linked back to the reason to measure (see [Table 26](#)).

Table 26 — Report type by reason to measure

Reason to measure	Report type
Inform	Scorecard or dashboard
Monitor	Scorecard or dashboard with thresholds
Evaluate	Programme evaluation report
Manage	Management reports

Scorecards and dashboards are employed to both inform and monitor. However, if the purpose is to monitor, they must include thresholds for the acceptable range and are often colour-coded.

A best practice is to discuss the type of report with the prospective user upfront to ensure the report meets their needs.

7.2 Senior organization leaders

Dashboards, programme evaluation reports and the summary management report are recommended for senior leaders (e.g. CEO, CFO and governing bodies) monthly or quarterly. (A scorecard is typically too detailed for these users.) The dashboard should contain very high-level aggregate data of importance to the users. Programme evaluation reports can be used to brief senior leaders at the conclusion of key programmes. The summary management report should be shared quarterly to show the contribution of learning to the achievement of organizational goals or meeting key organizational needs.

7.3 Group or team leaders

Scorecards and dashboards are recommended for group leaders. Typically, these users are interested in metrics such as the number of participants, courses or hours of learning combined with participant reaction, learning and application of learning. A scorecard should be employed if the users need detailed data and a dashboard if higher-level and more aggregated data are desired.

7.4 Head of learning

All four types of report are recommended for the head of learning and senior learning leaders. Scorecards and dashboards are recommended for sharing monthly efficiency and effectiveness metrics. The data can be aggregated. If the purpose is to monitor a metric to ensure it remains within a pre-set range, then thresholds should be added to the scorecard or dashboard. The head of learning will also be interested in key programme evaluation reports. An operations management report should be used to manage the metrics targeted for improvement across the organization, such as the number of participants, percentage of employees reached by learning, on-time completion and application of learning.

7.5 Programme managers

The programme evaluation and programme management reports are recommended for the programme manager and other stakeholders who have an interest in managing a programme to deliver planned results. The programme evaluation report summarizes programme results upon completion and can be used to brief others, including senior organizational leaders. The programme management report shows year-to-date progress against plan as well as a forecast of how the year is likely to end.

7.6 Individuals

Reports can often be generated for an individual by the learning management system or HR information system. These individual reports can include a list of courses taken, online content accessed, membership in communities of practice, use of performance support tools and any certifications or badges earned or competencies demonstrated. Although not technically a report, the individual should also have an individual development (or learning) plan which is updated at least annually.

Annex A (informative)

Examples of reports

A.1 Scorecards

Scorecards are the traditional means of sharing data in L&D. Scorecards present data in a table-like format with the metrics as rows and the time periods (month, quarter, YTD and year) as columns. Scorecards typically contain many cells or individual numbers.

Scorecards are recommended when the reason for measuring is to inform and the user wants to see detailed monthly or quarterly data. An example is provided in Figure A.1.

Metric	Unit of measure	Value							Year-to-date
		Jan	Feb	Mar	Apr	May	June		
Unique participants	Number	76	118	184	201	209	225	621a	
Total participants	Number	81	125	195	215	230	245	1 091	
Number of unique courses	Number	5	8	12	14	15	15	26a	
Total number of courses	Number	7	12	16	17	23	25	100	
Percentage of employees reached by learning	%	7,6	11,8	18,4	20,1	20,9	22,5	62,1	
Percentage of employees with individual development plans	%	51,5	76,3	81,5	84	87,6	90,4	90,4	

^a Unique participants and courses cannot be summed since there is duplication across the months.

Figure A.1 — Example of a scorecard used to inform

Scorecards can also be used to monitor metrics to ensure the values stay within acceptable ranges. For this purpose, a threshold(s) is required for each metric, which can take the form of a range or upper or lower limits. Colour coding is often employed to highlight acceptable and unacceptable values. A scorecard with colour-coded thresholds is shown in Figure A.2.

Metric	Unit of Measure	Value						Thresholds		
		Jan	Feb	Mar	Apr	May	Jun	Green	Yellow	Red
Percentage of courses developed on time	%	80 %	100 %	90 %	90 %	70 %	100 %	> 90 %	80%-90%	< 80 %
Percentage of courses delivered on time	%	85 %	95 %	100 %	95 %	100 %	95 %	> 95 %	90%-95%	< 90 %
Participant reaction	% favourable	78 %	82 %	84 %	81 %	78 %	83 %	> 80 %	75%-80%	< 75 %
Application of learning	% applied	54 %	61 %	63 %	57 %	61 %	65 %	> 60 %	50%-60%	< 50 %

NOTE For this document, light grey represents green, medium grey represents yellow and dark grey represents red.

Figure A.2 — Example of a scorecard used to monitor

Scorecards are typically generated at least monthly with updated data.