TATA CONSULTANCY SERVICES

Building on belief

Measuring learning effectiveness

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Introduction

Learning today is less of a check-in-the-box activity and more of a business stimulus with a larger purpose of meeting and achieving organizational goals. According to Training magazine's 2020 Training Industry Report, just the total U.S. training expenditure stands at a whopping $82.5 billion.

That said, industry research has found that one of the biggest challenges facing learning leaders today is measuring the effectiveness of learning initiatives. How do you know if the learning process in an organization is successful in playing that larger role of achieving business outcomes? The answer is simple. There is need for systematic and careful measurement of learning effectiveness through collaboration between learning teams and business stakeholders.

What is learning effectiveness and why measure it?

As the management guru Peter Drucker once said, "What gets measured gets improved." Evaluating learning effectiveness shows how useful your current learning offerings are and how you can improve them in the future.

Sean Hudson, Vice President, Digital and Global Head of Learning and Development at Pfizer, rightly says in the LinkedIn Learning Workplace Report 2022:

"Our top opportunity is to quantify the impact and ensure it is enterprise-wide, so that learning can help lead the way forward."

More and more organizations today would like to focus on realizing the value of the learning investments they have made.

Evaluating learning and measuring its effectiveness is about getting answers to questions such as:

- How effective was the learning intervention in helping learners gain relevant knowledge and skills?
- Were the learners able to apply what they learned to improve their performance or work?
- What other business goals did the learning program achieve?

Let us look at the existing models in the market.

Traditional methods of measurement

The most popular methods of measuring learning effectiveness are:

- The Kirkpatrick model
- The Phillips ROI model

The Kirkpatrick model

Donald Kirkpatrick developed this model in 1959. It works on the premise that any learning program can be measured at four levels:

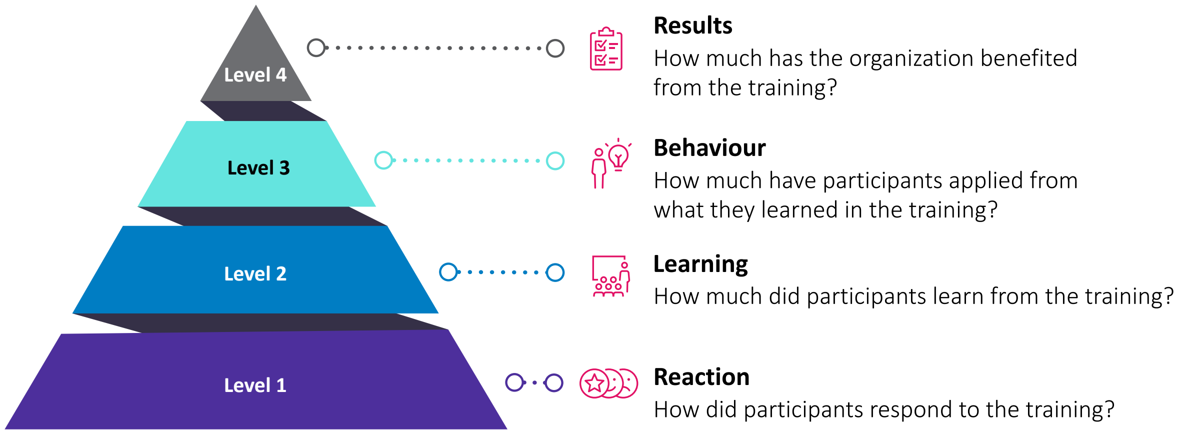


Figure 1: The Kirkpatrick model

The model has also evolved over the years incorporating feedback from its new age practitioners and consultants, in keeping with their broader intent and its practical application. They called this - The New World Kirkpatrick model.

The Phillips ROI Model

Jack Phillips conceptualized the ROI model in the year 1980. He noticed a few shortcomings in the Kirkpatrick model and built a framework to address them.

While Level 1 (Reaction) and Level 2 (Learning) remain the same as the Kirkpatrick model, Phillips treated Level 3 (Application and Implementation) a little differently. His approach helped organizations determine whether an issue (if there is one) lies with the application of the learning or its actual implementation. This model proved to be a marginal improvement over the Kirkpatrick model.

Level 4 (Impact) in the Phillips ROI model is broader and looks at the impact of a learning intervention, rather than only the results.

The Phillips model has an additional Level 5 (Return on Investment) that measures the value of learning programs.

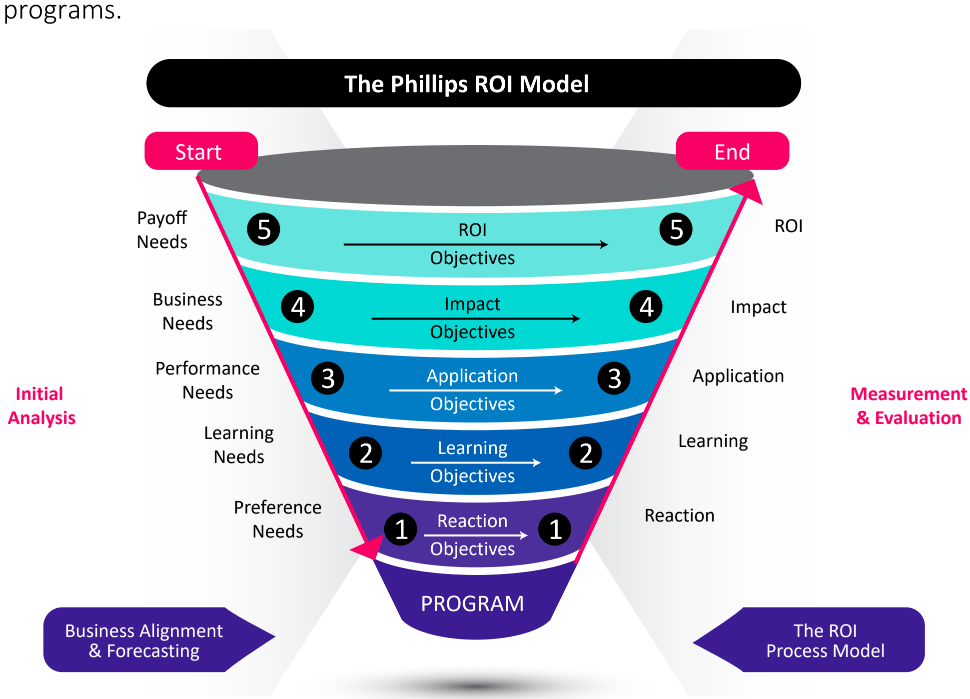


Figure 2: The Phillips ROI model

Challenges with traditional models and introduction to 3i

Traditional models are tried-and-tested and have proven their credibility over the years. However, they sometimes fall short of providing a consistent mode of measuring learning effectiveness. Some of their shortcomings include:

- There are no definite guidelines to outline till what level a program/course/learning intervention needs to be evaluated. While some may need to be evaluated at Level 3, some could possibly just stop at Level 2.
- Additionally, traditional models may generate skewed and convoluted data at times. For example, these models do not consider organizational factors that could contribute to performance improvement. They do not ask the all-important question - Is a learning intervention the only solution to a problem? Human performance could primarily depend on nine major factors i.e., talent, skills/knowledge, tools, environment, incentives, information, job aid, management, or leadership. A performance issue, therefore, may not always be solved by creating a learning program around it – in fact, learning could sometimes prove counterproductive!
- According to the LinkedIn Learning Workplace Report 2022, the measurement of learning effectiveness has remained stagnant over the years. Traditional models have continued to use the same methodology to evaluate the effectiveness of learning.

We believe that any solution without context may not serve the very purpose for which it has been designed. With our experience of running talent development operations at scale, we realized the challenges of measuring learning effectiveness early on. Our cause-and-effect analysis helped us unearth the possible reasons for raising a learning request. While some such requests seemed trainable, there were some that went beyond the realms of learning. This led us to conceptualize 3i, a home-grown model that not only addresses exceptions but also helps foster a consistent approach to measuring learning effectiveness of any learning program. It retains the best of the traditional models but brings in a more holistic approach aligning learning to business needs or goals.

For example, the 3i model continues to use the basic tenets of the 4 levels of the Kirkpatrick model, interspersed within its construct, but brings in a contemporary approach towards measuring the effectiveness of any learning program.

This model was first piloted in one of the largest business units of TCS, with a strength of more than 90,000 employees.

The phases of 3i

The ‘i’s in the 3i model stand for:

Identify

In most situations, evaluation of learning effectiveness is initiated and introduced after a learning program. When this happens, it becomes difficult to garner support from the business. The business may not even endorse the desired impact due to lack of understanding or conviction. Therefore, the Identify stage acts as the foundation of success for this model.

In this stage, there is a mutual consensus with the business on the clear needs, expected results, and the desired timelines to achieve the results. A charter is created to identify the right stakeholders and business leaders along with a mutual consensus on the outcomes, expectations, and the support required throughout the program.

All stakeholders are urged to step back and take a more holistic view of the business and its talent requirements in this phase. It even traces back to the origin of account-level operations and hence, allows the measurement cycle to look at the various aspects of human performance and any other factors, right from the beginning. This phase also initiates conversations around the availability of data and methods to capture it for measurement.

The scope and the need statements are defined. In some specific instances, the L&D team may also decline a request if the underlying causes discovered do not warrant a learning intervention. However, the L&D team would, in these situations, provide viable recommendation that the business team can explore.

For example, with one such learning request, we realized that the scope of work demanded highly specialized resources for specific technologies. The onboarded resources did not meet the technical requirements and it was certain that no amount of learning intervention would have helped them acquire the desired competencies. Our recommendation to the business team was to revisit the manpower mix and select the right candidates before requesting for any learning interventions. This decision helped us save training man-hours.

The success of this stage is measured by identifying all details related to:

1. Business team charter
2. Training need study document
3. Business need details like the business metric impacted, its current state etc.
4. Expected results
5. Competency details and current and ideal competency levels
6. Expected completion date
7. Quorum of learners
8. Attribution of success to the learning intervention
9. Stakeholder sign off on need statement etc.

The outcome of this stage is a detailed and congruent needs statement. This forms the fulcrum of the learning intervention that will help achieve the desired results. This statement acts as an agreement on the expected outcomes of the learning program between the L&D and business teams. The business team agrees that the learning program, if completed successfully, will positively impact the business KPIs. For example, the business may agree that a communication skills program in a customer service voice process will have a high impact on the business KPIs and thereby, mutually decide on an improvement target.

Example:

Reduction of errors% in the emails to the client to decrease from 20% to 10% by April 25, 2022

Incubate

Learning interventions are designed and deployed in the Incubate stage. While the L&D team does most of the work, the business team is kept engaged. They provide their buy-in to the approach, ensure availability as per the drawn schedules, provide SME support where applicable, and generate learning reports as per the privileges and rights generated.

This stage includes two substages or outcomes - Design and Delivery. Design focuses on customization of the learning program to effectively impart the identified knowledge, skills, and behaviors. Delivery focuses on the actual learning intervention and is based on the program design.

The design of the program could include various learning modalities like self-paced learning, instructor-led training, refresher training, post training exercises, assessments by supervisors, behavioral assessments by business, etc.

Design of the learning intervention and the implementation of the approved design are the overall outcomes of this stage.

The Design phase would include:

1. Solution design document
2. Solution approach and plan
3. Solution content
4. Evaluation strategy
5. Agreement with business and sign off

The Delivery phase would include:

1. Learning delivery
2. Batch reports with evaluation analysis
3. Learning feedback analysis
4. UAT/Pilot analysis for new programs
5. Pre and post accreditation

Impact

This final stage measures the results achieved upon the implementation of learning by the participants. This is also the stage where the business signs off these results. In this phase, the L&D function will also consolidate the best practices derived for other such interventions later.

The Impact phase includes two substages - Validation and Reporting. Validation of impact on the identified metrics after completion of the intervention and reporting business results to the stakeholders and internal team members for the replication of success.

Data is collected from the business on the agreed metrics for every individual and for the business unit as per the agreed timeline. All the learning data, like assessment scores or competency acquired, is also collected. A thorough analysis is conducted to measure the impact. Data Analysts and Quality Black Belts are also consulted during this phase.

Validation substage would include:

1. Measurement of the post learning results
2. Comparison of pre- and post-survey scores
3. Impact study with % improvement on metrics
4. Gap identification and recommendations based on root cause analysis (RCA).

Reporting substage would include:

1. Business stakeholder sign off on improvement
2. Program reported out to all stakeholders
3. Sharing and replication of success in other programs

The L&D function shares results with stakeholders for sign off with an agreement on follow ups and next steps.

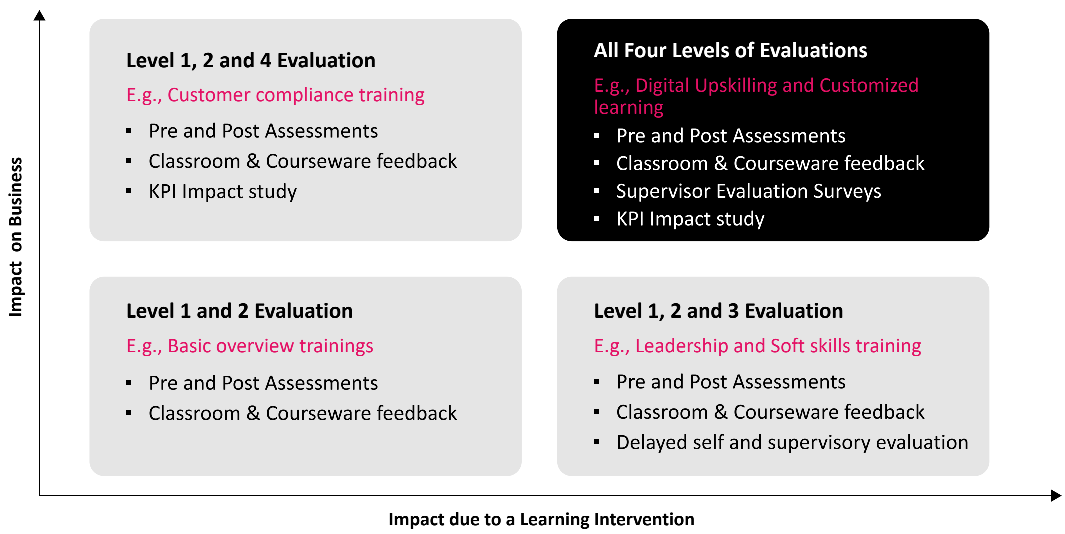
Building a case for evaluation – 3i Decision Grid

The 3i model, in consultation with the business leaders, uses a 3i Decision Grid to decide the level of evaluation. This is done by assessing the intervention on two critical variables - 'Impact to the business' and 'Impact due to a learning intervention'.

The grid allows you to first decide what level of evaluation must be conducted and thereby, helps set the right expectations with the business. It also allows for higher focus on learning programs that need to be measured at all levels.

Programs with higher stakes, longer duration, and complexity may call for higher levels of evaluation, although there could be exceptions in line with the grid and discussions had with the business leaders.

3i Decision Grid



*This approach will be applied based on the expected level of contribution from the training intervention, as was agreed with the Business in the need statement, in the Identify stage.

Figure 3: The 3i Decision Grid

As a recommendation, if both the variables, 'Impact to the business' and 'Impact due to a learning intervention' are high, then Kirkpatrick Levels 3 and 4 measures of learning effectiveness should be initiated. If both the parameters are assessed to be low, then only Levels 1 and 2 should be adequate. The intensity of the measurement for the variables should be mutually agreed upon with the business and stakeholders during the identify stage.

Benefits of 3i

The 3i model helps the L&D function establish the context for self and all stakeholders involved. This model helps garner a strong support for implementation, acceptance, and endorsement of the results achieved. Even if the L&D team declines the learning request, the business is still left with enriching insights into the problem, helping them deploy the necessary steps/solution.

Above all, the 3i model helps the L&D function measure and demonstrate the agreed results and its impact on the business for every learning program deployed using the model. (Please refer to the case studies below)

Traditionally, L&D is only seen as a supporting function and is onboarded when an issue has reached a certain critical state, leading to escalations and heightened business reactions. This often leads to rushed and hasty decisions, like forced learning interventions without a thorough need-analysis or setting unrealistic goals resulting in misplaced outcomes.

With the implementation of the 3i model and the results demonstrated, the L&D function gets onboarded right from the start of the project, thereby playing a pivotal role as a key business partner in the entire process. This newfound role gives the L&D function an opportunity to step back and provide a more holistic view of the requirement and associated solutions thereof. It gives the team an opportunity to talk the business language and align itself to the desired business goals.

Conclusion

The benefits and the effectiveness of the 3i model have been well-established through the results achieved. The next stage of evolution is to scale this model and make it consistent across programs, places, and personnel. This model is now being digitized through the TCS iON learning platform and the various aspects of the three phases will be deployed through a user-friendly workflow.

The 3i model gives greater flexibility as it can be incorporated right from the design of every type of learning program and customized to suit an organization's requirements.

Onboarding business stakeholders and getting them to appreciate the intent of the model could be challenging at times. In this model, requirements in each phase (e.g., team charter, business metrics etc.) have been laid down and thorough adherence is necessary. For this, it is important for business stakeholders to be involved and engaged throughout the process. Disengaged involvement from the business could foster compromised and convoluted results. Therefore, the drivers of success (e.g., training need study document, evaluation strategy, impact study etc.) at every stage must be completed, reviewed, and signed off by the stakeholders in collaboration with the L&D function.

Learning effectiveness is critical and today, it is not only about measuring and determining the extent to which the learning solutions are changing people's behavior and performance but also a major driver of how the HR and L&D functions are enabling organizations to stay ahead of time.

Annexure:

Case studies

Case Study 1: The case of air ticket reservations

Background: The client had migrated to a new ticketing system
As part of the adoption process, the client wanted TCS associates to be trained by an empaneled training vendor to ensure accurate transmission of knowledge, which meant higher costs and greater downtime for TCS

Business Need

- Create an internal program within a duration of a month to eliminate the external training requirement and ensure the same or higher proficiency of skills is acquired by the participants

Implementation

- The 3i model was used to capture all the success factors in every stage and business leaders were on boarded right from the start
- Detailed modules were created with customized system snapshots, syntax manuals and practice examples in collaboration with SMEs
- Domain assessments were created for accurate calibration
- Training was deployed on an internal platform.

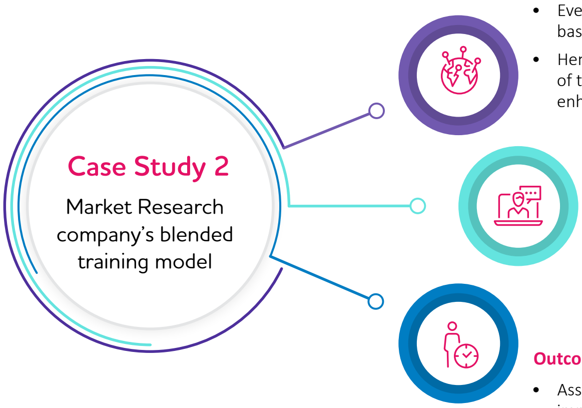
Improved KPIs for Organizations

Hiring TAT

External Training Cost

Measuring Impact

- Zero defects/ gaps were identified in the modules during client review as well as during process training client review.
- Reduced hiring time by eliminating niche requirement and creating ability to hire internally
- Learning duration was shortened by 1 week
- External training cost of Rs. 16000 per associate eliminated through internal training



Requirement

This Market Research company's relationship, over the years had grown with TCS across multiple locations.

- Every year, there were over 1100 associates joining in Team Member roles, requiring basic level of domain proficiency within 3 months of joining as agreed with the client
- Hence, the need to explore alternate learning methodologies was felt for scalability of talent supply and standardization of deployment for increased coverage and enhanced knowledge retention

3i Implementation

The following need was discussed and agreed with the business leaders.

- Associate coverage at E0 level was to be improved from 48% to >75% within 3 months,
- Physical training hours for associates to be reduced from 9 hours to 2 hours.

The training team worked at enhancing the existing training models by use of alternate learning methodologies to provide training more efficiently. The new approach was socialized with all stakeholders and the success criteria at every stage was captured diligently

Outcome

- Associate coverage at E0 Level improved from 48% to 78% after the implementation of new learning methodology. Batch assessment scores improved from 67% to 89%.
- Reduction of training time from 9 hours to 2hours, and production hours saved: 6860 hours for 980 associates.
- Standardization of Training across locations was also a result of this.

About the Authors

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Poushali has a postgraduate degree in English Literature and possesses more than 27+ years' experience in advertising and talent development. She currently heads TCS iON Talent Development Center and International Pre-Sales. She's also a Senior Assessor in the TBEM and a Design Thinking facilitator, certified by Royal College of Arts and Imperial College, London. She has won several awards in eLearning & Talent Development including Brandon Hall & Stevie. Her whitepaper on Engagement, Entertainment and Education in E-Learning won the best whitepaper award from Emerald Publishing Group UK in 2009.

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Digant is a seasoned Learning and Development professional with 21+ years of work experience. He has been in various L&D roles across organizations like GE, Firstsource, Cognizant and TCS. He has successfully designed, deployed, and facilitated multiple learning programs in these organizations across employee levels. He completed his Executive MBA from Amrita School of Business with a gold medal and secured 1st rank in MS degree from SUNY Buffalo. He currently works as a Senior Learning Consultant with TCS iON – Talent Development Center.

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Sudeshna has over 17 years of experience in Learning and Development that spans across Talent Development, Instructional Design, Learning Consulting, and Design Thinking. She has essayed multiple L&D roles across organizations like IBM, Wipro, Tata Interactive Systems, and Cognizant. She currently works as a Senior Learning Consultant with TCS iON – Talent Development Center. A commerce graduate with a postgraduate diploma in Instructional Design, she is a lifelong learner who takes pride in partnering with organizations and helping them build capabilities to empower people.

Acknowledgement

We would also like to acknowledge the contribution of Samik Ghosh. He was the Global head of Talent Development for TCS BPS and is currently the ISU Head of a Strategic Business Unit of TCS.

His inputs and perspectives helped in conceptualizing this model. He was also instrumental in planning and review of real-time implementation of this model by the L&D teams across business units and geographies.

Awards and accolades

- TCS ranked number one for ninth consecutive year in Customer Satisfactionby Whitelane Research Survey
- Ranked number one amongst top 10 companies, India by LinkedIn
- TCS recognized as the #1 Top Employer in the United States, Europe and Asia Pacific;#2 in Latin America
- Ranked amongst top 3 employers across 18 countries
- Recognized as a global top employer for sixth consecutive year by Top Employers Institute
- Named India's overall most outstanding company in Asiamoney's 2019 Poll
- Won 2021 CIO 100 award for workplace resilience solution developed during pandemic
- Won Four Stevie® awards at the 2020 International Business Awards
- Ranked overall best managed technology company in Asia by FinanceAsia Poll
- Won 2021 Data Breakthrough award for AI-Powered Software Suite
- HR Excellence Award 2020
- Recognized as sustainability leader in the Dow Jones Sustainability World Index
- Recognized as a most valuable global brand 2021 by Kantar Brandz
- Recognized as a U.S. Superbrand for strength of business reputation and community impact
- Recognized as a UK Superbrand for exceptional customer reputation and community contribution
- Recognized as one of the top 2 most valuable IT services by Brand Finance

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About Tata Consultancy Services Ltd (TCS)

Tata Consultancy Services is an IT services, consulting and business solutions organization that has been partnering with many of the world's largest businesses in their transformation journeys for over 50 years. TCS offers a consulting-led, cognitive powered, integrated portfolio of business, technology and engineering services and solutions. This is delivered through its unique Location Independent Agile™ delivery model, recognized as a benchmark of excellence in software development.

A part of the Tata group, India's largest multinational business group, TCS has over 600,000 of the world's best-trained consultants in 46 countries. The company generated consolidated revenues of US $25.7 billion in the fiscal year ended March 31, 2022 and is listed on the BSE (formerly Bombay Stock Exchange) and the NSE (National Stock Exchange) in India. TCS' proactive stance on climate change and award-winning work with communities across the world have earned it a place in leading sustainability indices such as the MSCI Global Sustainability Index and the FTSE4Good Emerging Index..

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