ADVISOR ENTERPRISE

Plan better… Achieve more!

Preliminary Media Analysis
Step by Step Guide

ADVISOR Enterprise User's Guide

Latest Update: February 7, 2018

Printed in Canada

Foreword

ADVISOR Enterprise is a Training Management System that drives training efficiency by (a) aligning current and future training activities to operational requirements to identify gaps, duplications and training with minimal value; (b) forecasting and comparing the costs of viable delivery options; (c) uncovering cost drivers; and (d) improving resource allocation. ADVISOR is built around the ADDIE model with the added flexibility of starting the analysis at any level. ADVISOR is made up of the following 6 modules that can be used separately or in any combination.

Module #1 Training Analysis

Analysis: To find out "*who needs to be trained, on what and why*". Improves training decisions by identifying and prioritizing knowledge, skills and competencies needed by each job (position) to meet organization missions and goals. In addition to establishing a clear line of sight between employees' tasks and organization goals, ADVISOR assesses the need and priority for training using the Difficulty, Importance and Frequency (DIF) model. [Mission Analysis, Competency Analysis, System Analysis, Job Task Analysis and Knowledge/Skill Gap Analysis].

Module #2 Training Design

Design: To find out "*what is the most effective and economical way to deliver training*". Improves training decisions by rating the effectiveness as well as forecasting and comparing the costs of alternate blends of delivery options. In addition to maximizing training efficiency, ADVISOR minimizes costly errors by assessing the risks and impact of eLearning and training devices on learners, learning and organization. [Media Analysis, Cost Analysis and Training Plans].

Module #3 Fidelity Analysis

Develop: To find out the "*fidelity requirements of training devices*". Determines the visual, tactile, olfactory, affective & auditory sensory cues requirements of training devices by taking into account who will use the training device; training requirements – i.e. the performance, enabling and learning objectives that will be addressed through the training device; synthetic environment requirements; and synthetic environment elements.

Module #4 Resource Management

Implementation: To find out "*how much money and resources are needed*". Maximizes training efficiency by accurately forecasting and comparing budget, personnel and resources required for one or multiple training programs using various blends of delivery options. In addition to improving training decisions, ADVISOR facilitates project planning and resource management by forecasting money and resources needed to develop, deliver, administer, manage, maintain and support training programs over life cycle. [Forecast and Optimize Training Budgets, Personnel and Resources].

Module #5 Project Management

Implementation: To find out "*how training should be implemented*". Keeps projects on time and within budget by developing program project plan, identifying critical paths/milestones, assigning personnel and resources as well as monitoring progress. In addition to anticipating potential problems and facilitating the implementation of corrective measures, ADVISOR improves resource allocation by tracking the utilization rates of personnel and resources. [Develop Project Plans and Track Progress].

Module #6 Performance Analysis

Evaluation: To find out "*how training impacts performance and organizational goals*". Improves performance by zeroing in on the source of the problem and identifying solutions that produce the desired level of productivity. Moreover, ADVISOR highlights actions that will generate the greatest impact by assessing the feasibility of implementing plausible solutions as well as forecasting the costs, benefits and return on investment (ROI) of each intervention. [Performance Gap Analysis, Root Cause Analysis and Cost Benefit Analysis].

TABLE OF CONTENTS

Chapter 1: Setup Courses

1.1 Introduction

Two approaches can be utilized to perform a Media Analysis within ADVISOR: Preliminary Course Analysis or Detailed Course Analysis.

Preliminary Course Analysis uses the Data Collection Wizard to quickly assess the feasibility and potential savings that may result from using alternate delivery options. This approach is highly effective in analyzing courses with a single learning objective/outcome. Key data is collected under the **Data Collection Wizard** and submitted for analysis. Preliminary Course Analysis is simple to use, assesses the viability of alternate delivery options within few minutes, and the analysis can be easily refined under the **Course Analysis** folder. In other words, Preliminary Course Analysis is best suited for quick analysis of courses with limited details and single learning outcome.

Comparatively, Detailed Course Analysis provides a more comprehensive analysis of course content to assess the feasibility of using alternate blends of delivery options. This approach is better suited for courses with multiple learning objectives/outcomes. To facilitate the forecasting of development, hardware, administrative, management, travel, instructors, facilities, transmission, maintenance and support costs; Templates can be created and made available to all analysts. In addition to speeding the analysis process, Templates preserve consistency, as well as facilitate carrying out multiple "what if scenarios". Detailed Course Analysis is carried out under **Course Analysis** folder.

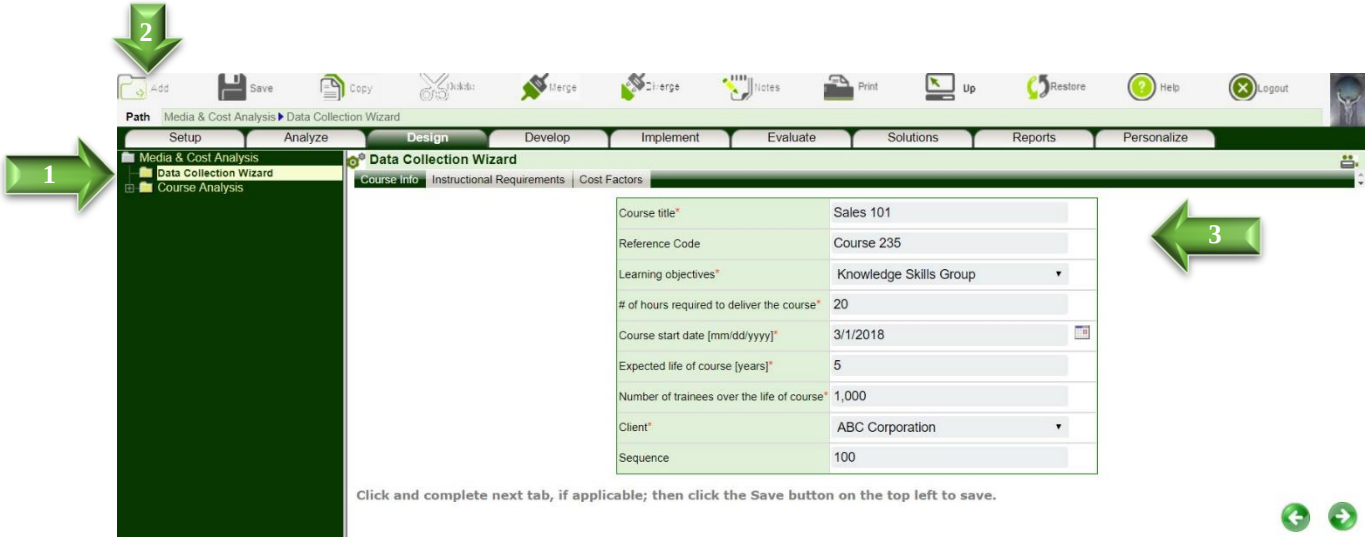
The current guide presents a step by step process for conducting Preliminary Course Analysis to identify the most cost effective delivery option. For details on all media analysis covered by ADVISOR Enterprise, please refer to the Training Design User Guide. Separate Step-by-Step Guide is available for conducting Detailed Course Analysis, and therefore will not be covered in this Step by Step Guide. For info on basic functionality and how to configure ADVISOR in line with needs, please refer to the Configure ADVISOR Step by Step or User Guide. Remember that context sensitive help for each screen is also available by clicking on the [**Help**] button.

1.2 Setup New Course

To evaluate the effectiveness and costs of alternate options for the delivery of training and recommend the most cost effective delivery option that meets organizational, learning and learners' needs, begin by setting-up the Course under the Data Collection Wizard. To setup a new course:

Input General Course Information

Step 1: Click on the **Data Collection Wizard** folder.
Step 2: Click the [**Add**] button.
Step 3: Input the course title, the primary learning outcome/objective of the course, start date, expected life of course, and other required information.



Notes:

- If the Course has multiple learning outcomes, then you may either select the most dominant category or divide the Course into several Groups and analyze each Group separately under the Course Analysis Folder (refer to Media Analysis Step-by-Step Guide for details).

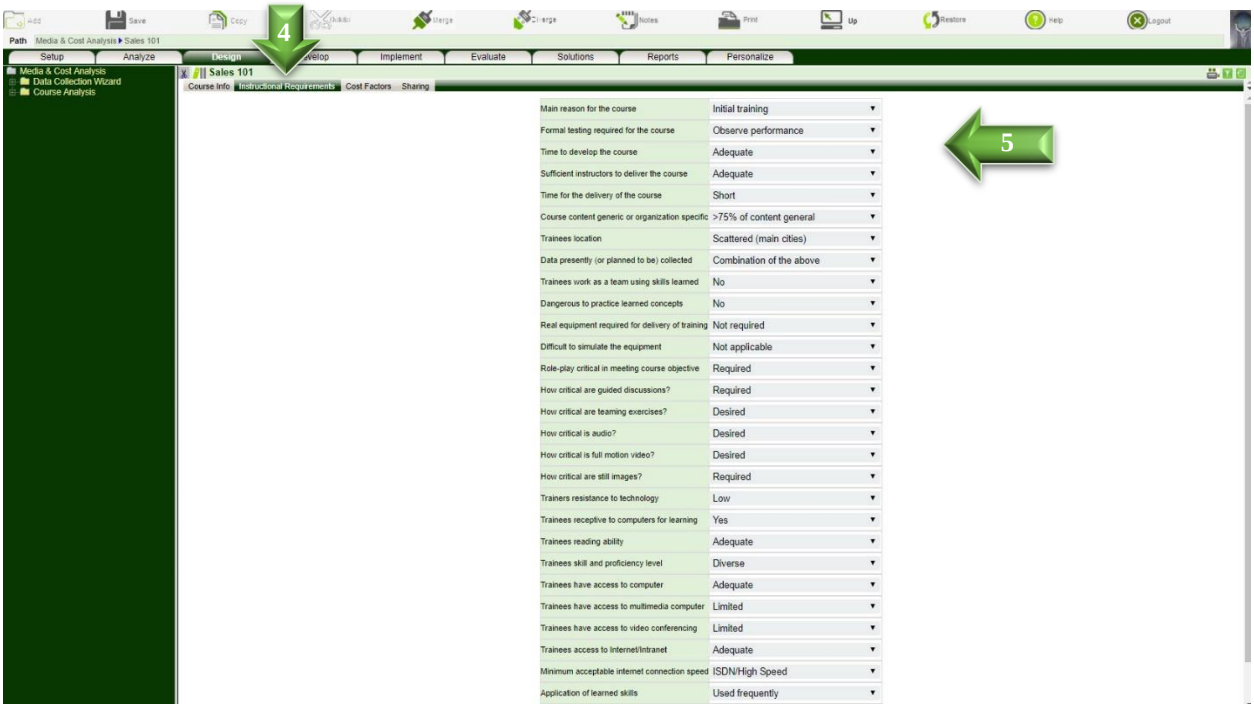
- All fields with an asterisk (*) should be completed. But of course, the more data you provide the better the results.

- Context sensitive help for each screen is also available by clicking on the [**Help**] button.

Define Instructional Requirements

Step 4: Click on the [**Instructional Requirements**] tab.

Step 5: Input requested information, including the main reason for the course, whether formal testing is required, availability of time to develop the course, instructors' availability and other required information. Detailed description of each field is provided in Section 4.2 and can also be viewed by clicking on the [**Help**] button.



Note:

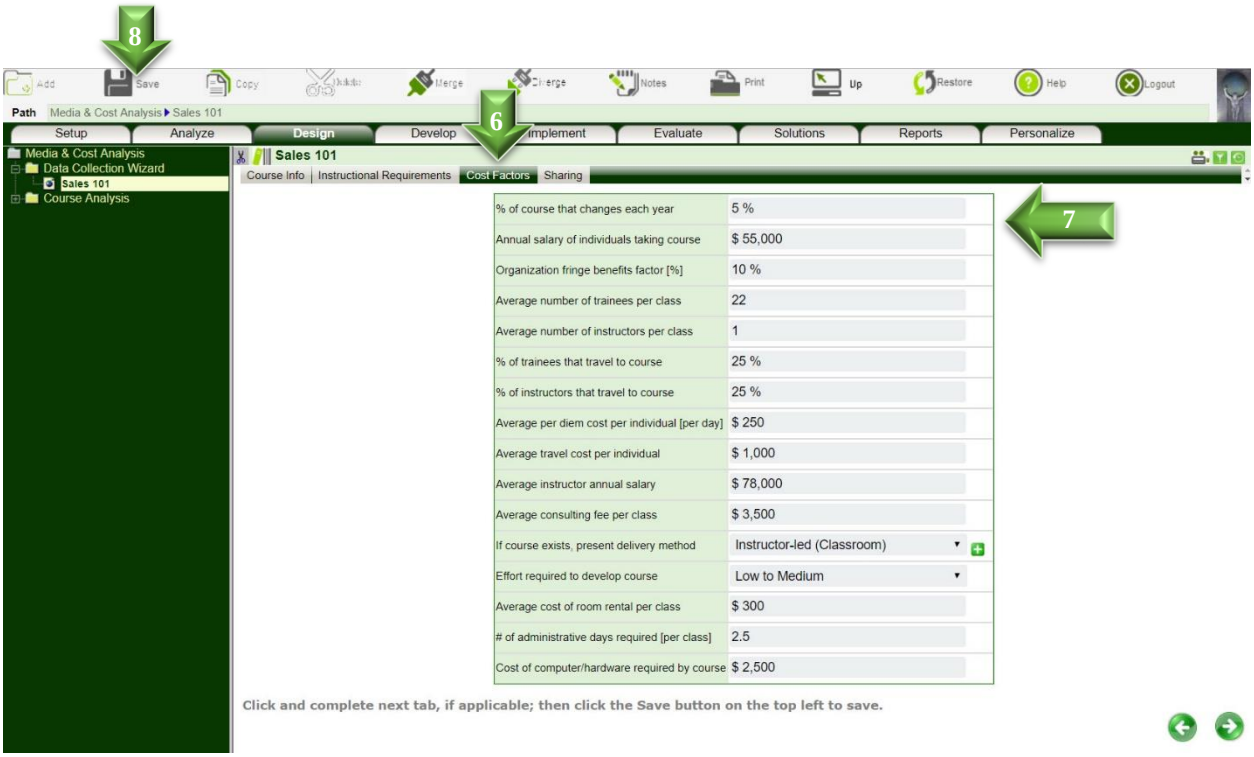
- You are not required to answer all fields, however, the more data you provide the better the results.

Identify Cost Factors

Step 6: Click the [**Cost Factors**] tab.

Step 7: Input requested information, including the % of course that changes each year, annual salary of individuals taking course, average number of trainees and instructors per class, % of trainees and instructors that travel to course and other required information. Detailed description of each field is provided in Section 4.3 and can also be viewed by clicking on the [**Help**] button.

Step 8: Click [**Save**] to save the data and create the Course under the **Course Analysis** folder.



Notes:

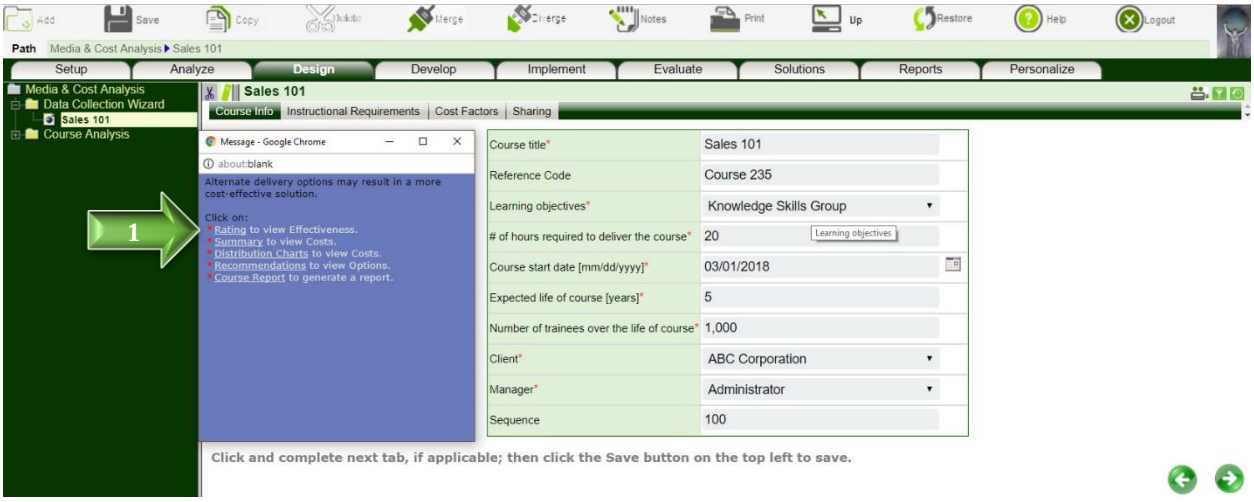
- You are not required to answer all fields, however, the more data you provide the better the results.
- You may also share course data with colleagues (i.e., Users assigned to the same Client) by clicking on the [**Sharing**] tab, placing checkmarks next to their names and clicking [**Save**].
- To view and/or modify the preliminary analysis, click on ⊞ next **Course Analysis** folder. A list of available courses including those generated by the Data Collection Wizard is presented. For details, please refer to the Media Analysis Step-by-Step Guide.

Chapter 2: Review Analysis and Results

A blue pop up box with five options/hyperlinks appears after you save the Data Collection Wizard. To view the results of the analysis:

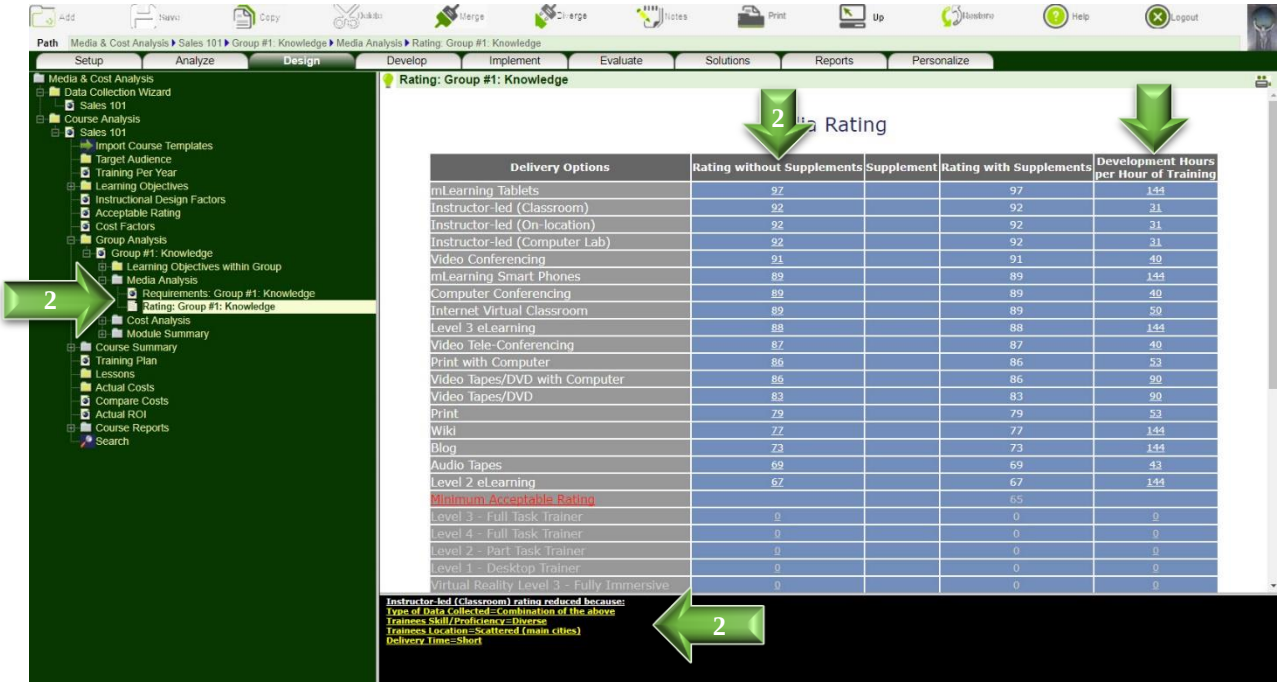
2.1 Review Instructional Design Rating

Step 1: To find out which delivery options are viable, and how well they meet organization, learning and learners' needs, click on the [**Rating**] Hyperlink.



ADVISOR automatically rates all supported delivery options (Configure ADVISOR Step by Step Guide, Section 2.4) – i.e., media's ability to meet organizational, learning and learners' needs based on data provided under the [**Instructional Requirements**] tab. A 100% rating indicates that the delivery option meets all stated requirements. A 0% rating indicates that the delivery option did not meet a critical requirement and should not be considered any further.

Step 2: To find why a delivery option is not recommended or why its rating has been reduced, click on the rating next to the delivery option. The reasons are presented in the window at the bottom of the screen – based on provided information.

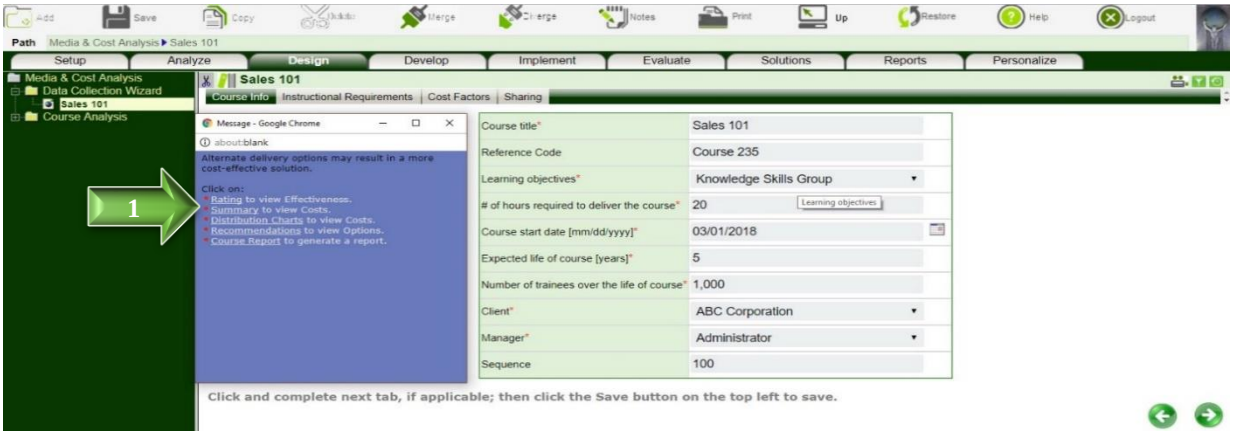


Notes:

- Based on industry averages, the number of hours needed to develop one hour of training is also presented next to each media.
- To modify the Minimum Acceptable Rating, click the **Acceptable Rating** node, edit and lock the field, and click [**Save**].

2.2 Review Costs

Step 1: To view a summary of the costs of viable delivery options, click on the [**Summary**] Hyperlink.



ADVISOR forecasts the costs of viable delivery options based on data provided under the [**Course Info**] and [**Cost Factors**] tabs. This includes total Development, Hardware, Administrative, Trainees, Instructors, Facilities, and Maintenance Costs, as well as, Total Costs and Cost per Trainee. Furthermore, you can view direct (budget related) costs, indirect (productivity related) costs, savings that may result from utilizing alternate delivery options, start-up and recurring costs, as well as personnel and resources required to design, develop, deliver, administer and maintain this Course.

Step 2: To view [**Direct/Indirect**] costs, potential [**Savings**], [**Up-Front**] and [**Recurring**] costs, as well as [**Resources**] and [**Personnel**] required click on the corresponding tabs.

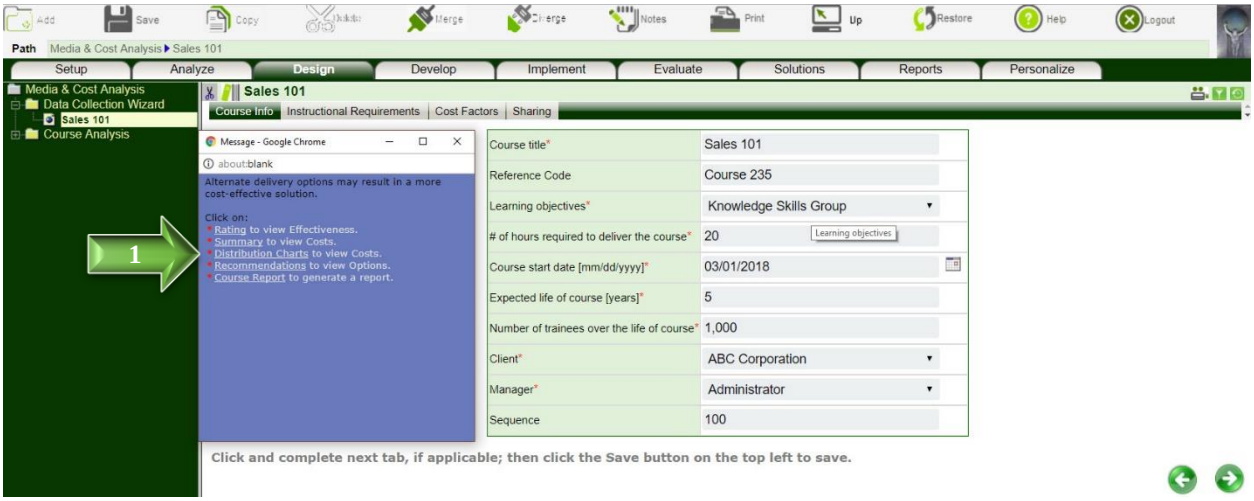
	mLearning Tablets	Instructor-led (Computer Lab)	Video Conferencing	Internet Virtual Classroom	Level 3 eLearning	Video Tapes/DVD with Computer	Print with Computer
Development Costs	$ 134,280	$ 28,908	$ 37,300	$ 46,625	$ 93,996	$ 83,925	$ 49,423
Courseware Costs	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
Hardware Costs	$ 2,500	$ 2,500	$ 2,500	$ 2,500	$ 2,500	$ 2,500	$ 2,500
Administrative Costs	$ 46,630	$ 46,630	$ 46,630	$ 46,630	$ 46,630	$ 46,630	$ 46,630
Management Costs	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
Trainees Costs	$ 657,609	$ 1,192,120	$ 657,609	$ 657,609	$ 460,326	$ 657,609	$ 657,609
Instructors Costs	$ 46,630	$ 249,731	$ 221,630	$ 221,630	$ 0	$ 0	$ 0
Facilities Costs	$ 0	$ 15,000	$ 15,000	$ 0	$ 0	$ 0	$ 0
Hardware Operation Costs	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
Transmission Costs	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
Maintenance Costs	$ 26,856	$ 5,782	$ 7,460	$ 9,325	$ 18,799	$ 16,785	$ 9,885
Support Costs	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
Total Costs	**$ 914,506**	**$ 1,540,670**	**$ 988,130**	**$ 984,320**	**$ 622,252**	**$ 807,449**	**$ 766,046**
Total Costs (PV)	$ 914,506	$ 1,540,670	$ 988,130	$ 984,320	$ 622,252	$ 807,449	$ 766,046
Total Number of Trainees	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Cost per Trainee	**$ 915**	**$ 1,541**	**$ 988**	**$ 984**	**$ 622**	**$ 807**	**$ 766**
Cost per Trainee (PV)	$ 915	$ 1,541	$ 988	$ 984	$ 622	$ 807	$ 766

Note:

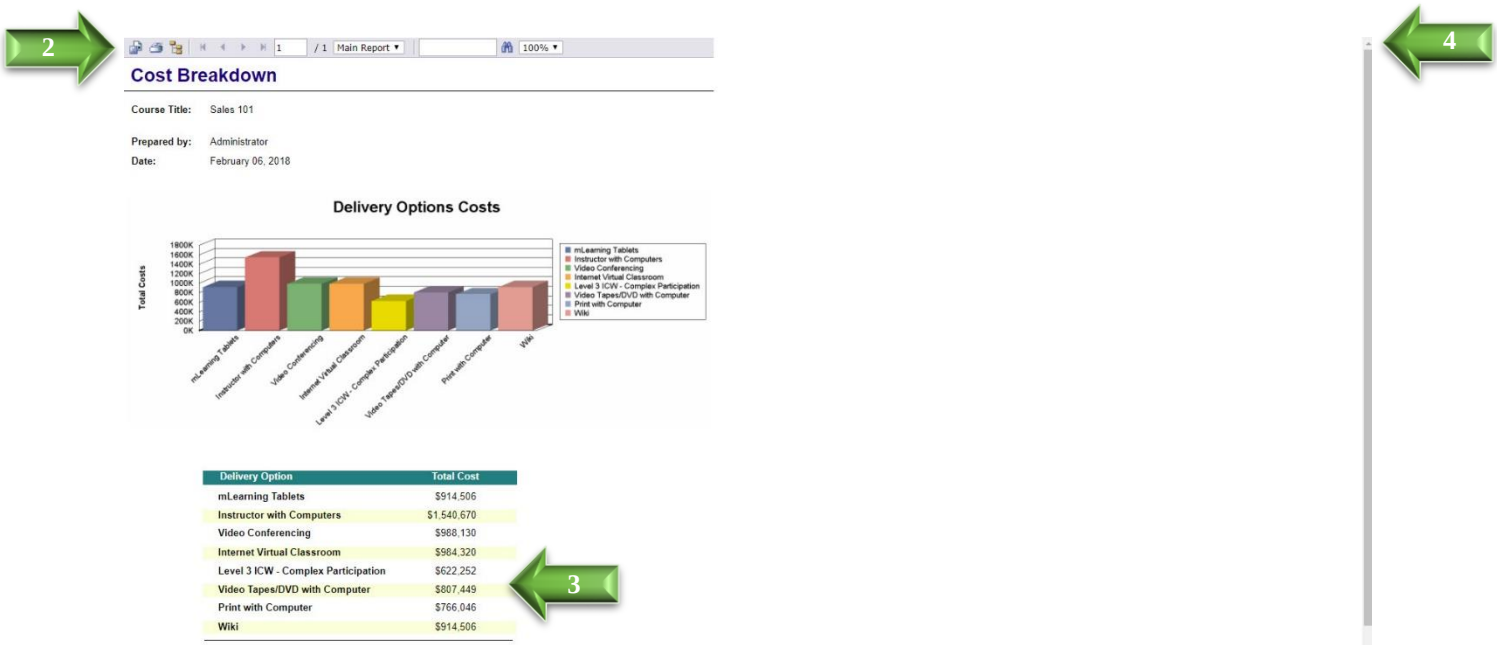
- To find out how each item (Development Costs, for example) is computed, click on the corresponding (**Development**) node. You may also edit any field and click [**Save**] to re-compute.

2.3 Review Cost Distribution Charts

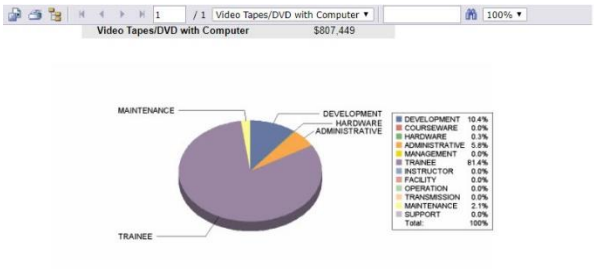
Step 1: To view a graphical representation of the costs of viable delivery options over the life of the course, click the [**Distribution Charts**] Hyperlink.



Step 2: To export the reports to MS Word or pdf, or print click on the corresponding icon.
Step 3: To view a detailed cost breakdown of a delivery option, click on its title.



Step 4: To return to ADVISOR, close the Report Window.



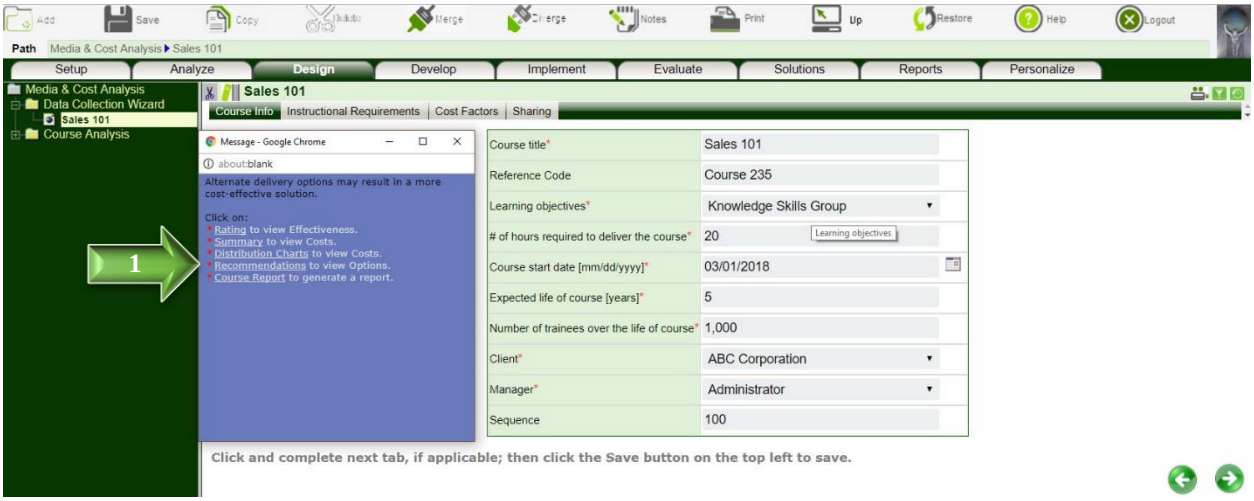
Note:

- Graphical representations of direct (budget related) costs as well as indirect (productivity related) costs are available under the **Direct/Indirect Charts** node.

- Graphical representations of disbursements of costs over time including breakeven point and potential savings that may result from using a new delivery option in comparison with the current delivery option is presented under the **Break Even Point Charts** node.

2.4 Review Recommendations

Step 1: To view ADVISOR's recommended delivery option, click on the [**Recommendations**] Hyperlink.

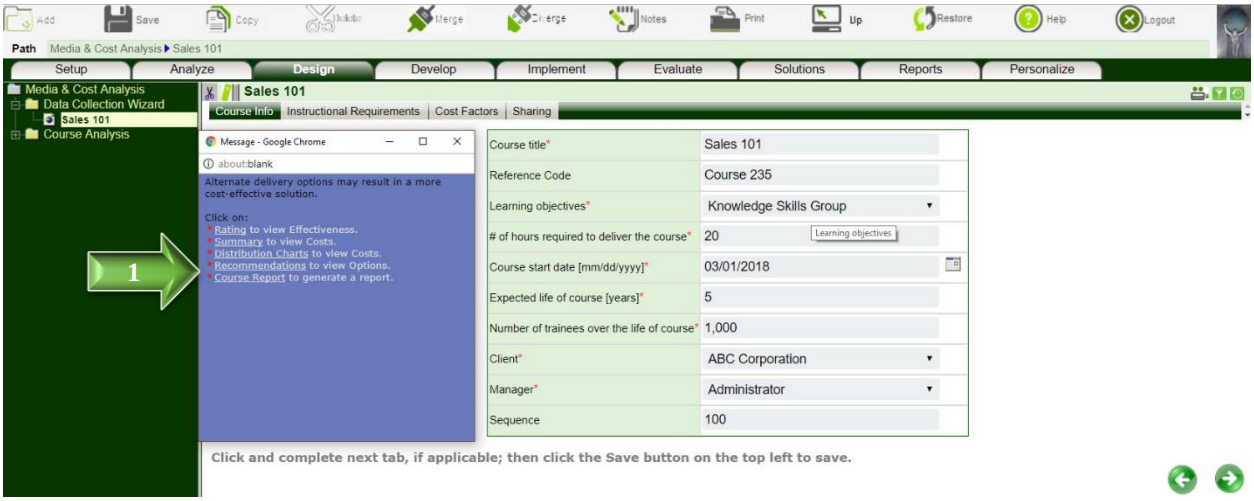


Step 2: Delivery Options are presented from most to least favorable. In addition to presenting cost effectiveness and effectiveness rating, up-front and recurring costs are also presented, along with potential savings, and personnel and resource requirements.

Delivery Options	Cost Effectiveness Rating	Effectiveness Rating	Up-front	Recurring Costs	Savings (PV)	Instructors [days/year]	Developers [days]	Administrators [days/year]	Facilities [hours/year]
Level 3 eLearning	100.0%	88.0%	$0.0	$3,760.0	$0.0	0.0	252.0	25.0	0.0
Print with Computer	79.4%	86.0%	$0.0	$1,977.0	$0.0	0.0	133.0	25.0	0.0
Video Tapes/DVD with Computer	75.9%	86.0%	$0.0	$3,357.0	$0.0	0.0	225.0	25.0	0.0
mLearning Tablets	75.2%	97.0%	$0.0	$5,371.0	$0.0	25.0	360.0	25.0	0.0
Video Conferencing	65.2%	91.0%	$0.0	$39,492.0	$0.0	25.0	100.0	25.0	0.0
Internet Virtual Classroom	63.8%	89.0%	$0.0	$36,865.0	$0.0	25.0	125.0	25.0	0.0
Wiki	59.6%	77.0%	$0.0	$5,371.0	$0.0	25.0	360.0	25.0	0.0
Instructor-led (Computer Lab)	42.6%	92.0%	$0.0	$137,594.0	$0.0	28.0	78.0	25.0	0.0

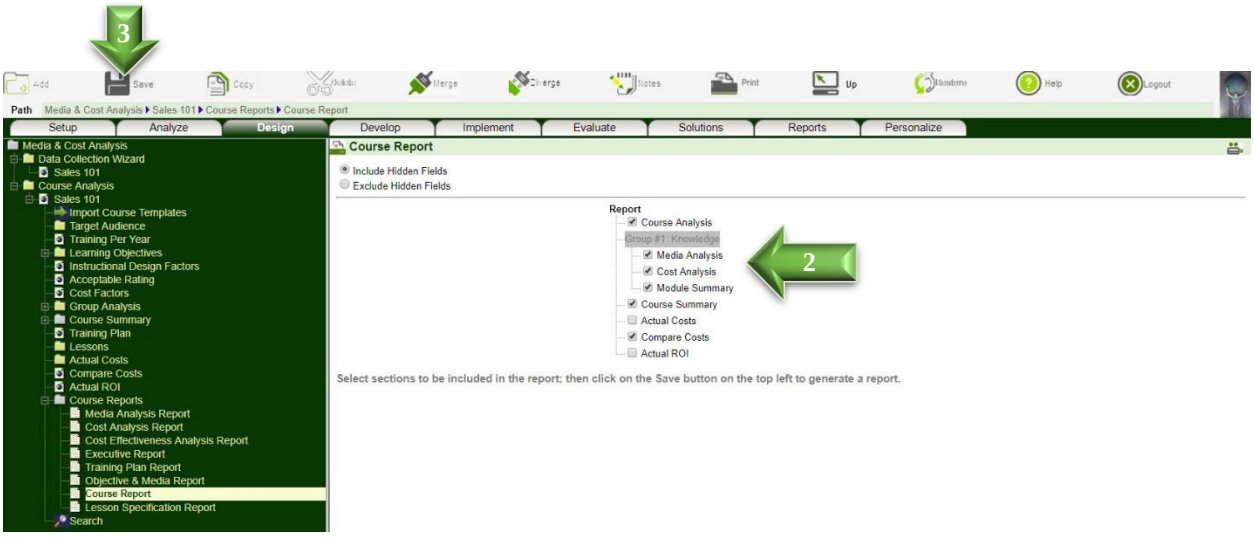
Chapter 3: Generate Course Report

Step 1: To generate a comprehensive report of all course attributes including reasoning behind media rating, cost breakdown and recommendations, click on the [**Course Report**] Hyperlink.



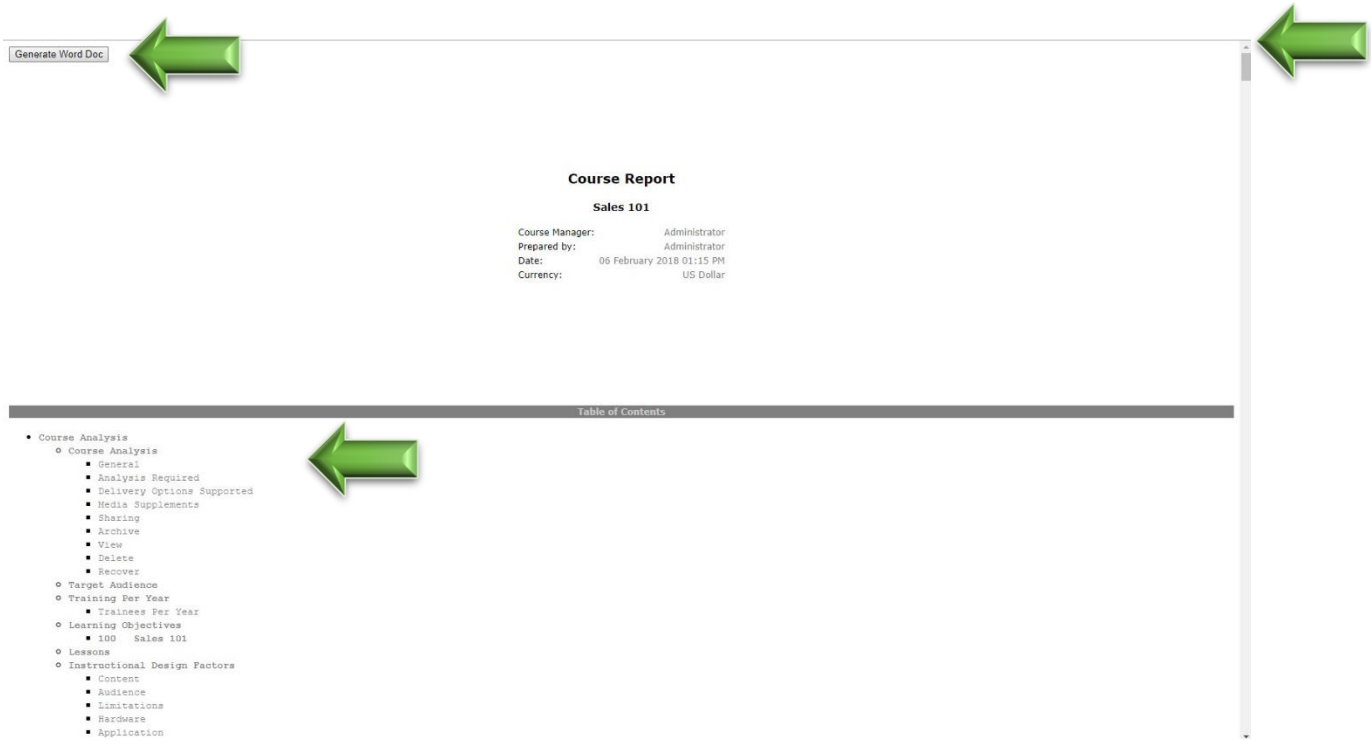
Step 2: Select items to be included in the Course Report by placing checkmarks next to the desired items.

Step 3: Click [**Save**] to generate.



Notes:

- Since the report is in html format, you can quickly advance to any section by clicking on the corresponding title in the Table of Contents. You may print or save the report using the corresponding functions in your Browser. To return to ADVISOR, close the Report window.



Remember that context sensitive help is also available for each screen by clicking on the Help (button). Enjoy!

Annex A: Description of Key Data Items

For your reference, a brief description of requested data under the (**course title**) node under the **Data Collection Wizard** folder is presented below.

4.1 Course Info

Course Title	Maximum 200 characters.
Learning objectives	What is the learning outcome/objective of this course? If more than one, what is the most dominant category?
# of hours required to deliver the course	Estimate the number of hours required to deliver the course in an instructor-led format.
Course start date [dd/mm/yyyy]	Indicate the expected delivery date of the course. If the course exists, then use today's date as a reference point.
Expected life of course [years]	Over how many years can the course be delivered before it becomes obsolete, irrelevant or requires major changes? If the course exists, estimate the remaining life, using today's date as a reference point.
Number of trainees over the life of the course	Estimate the number of learners over the life of the course. If the course exists, estimate the number of learners using today's date as a reference point.
Client	Specify the Client for this course.
Manager	Individual responsible for media analysis and cost analysis. Data may be shared with colleagues.
Sequence	Indicate the order in which the courses should be presented. Number will be assigned in increments of 100, if none is provided.

4.2 Instructional Requirements

Main reason for the course	What is the main reason for the course? ❑ Certification; if employees (inspectors, for example) have to be certified each year. ❑ Initial training; if the course deals with new product, program or policy (for example). ❑ Recurring/Refresher; if employees are required to take the course each year (Hazardous Materials Handling, for example). ❑ Upgrade knowledge; if course advances trainees' existing knowledge (new features of Word 2017 for Word 2013 users, for example); ❑ Orientation; if it provides organizational overview for new employees, for example. Impact: While Electronic Performance Support Systems (EPSS) provide effective means for upgrading the knowledge of employees, they are not suited for initial training, for example.
Formal testing required for the course	Is formal testing required for this course? If yes, what type of test is required: ❑ Performance based; requires instructor or SME to observe the performance of trainees (driving test, for example). ❑ Skill/Knowledge based; requires trainee to answer questions (multiple choice, solve problems, essay, etc.) that can be evaluated by instructor or SME at a later date. ❑ Oral presentation; if trainees are required to make a presentation and/or answer questions in real-time posed by a panel, for example. ❑ Essay writing; if trainees are required to write open-ended questions test. ❑ On the job; if trainees are evaluated by the supervisor on the job. ❑ Group projects; if trainees' evaluation is based on a group project Impact: Self-study media such as Print and CBT are not adequate for performance-based evaluation; while some skill/knowledge based tests can be effectively carried out through computer based testing.
Time to develop the course	Is there a deadline for course development or updating – i.e., is time available to develop the course material? ❑ Critically short; if the course material is required within a three months period, for example, and the consequences of missing the deadline are high. ❑ Short; if the course material is required within a six months period, for example, and the consequences of missing the deadline are moderate. ❑ Adequate; if the development/revision time is flexible or the consequences of missing the deadline are not critical.

Impact: Options that require lengthy development effort such as Multimedia CBT or WBT may not be practical if the development time is critically short and the consequences of missing the deadline are high.

Sufficient instructors to deliver the course

Are there sufficient qualified instructors/subject matter experts to deliver the course in an instructor-led mode?

- ❑ Critically short; if the number of instructors/subject matter experts is very limited. In other words, few individuals have the necessary expertise; or too many resources (guest speakers, for example) are required to conduct "live training".
- ❑ Short; if the number of instructors/subject matter experts for the course is limited, but manageable.
- ❑ Adequate; if the number of instructors/subject matter experts for the course is adequate. In other words, adequate resources are available.

Impact: Classroom delivery may not be appropriate for training a large number of individuals scattered over a large geographic area in a short period of time, if few individuals are qualified to deliver the training.

Time for the delivery of the course

Does the course have to be delivered within a specific time period?

- ❑ Critically short; if the course has to be delivered as quickly as possible and the consequences of delays are high. Training sales force on a new product, or customer service staff on a new reservation system, for example.
- ❑ Short; if the course has to be delivered in a short, but manageable, time frame; and the consequences of missing the deadline are moderate.
- ❑ Flexible; if the delivery schedule is flexible. Although there may be benefits for acquiring the knowledge sooner than later, the consequences of the delay are minimal.

Impact: Classroom delivery may not be appropriate for training a large number of individuals scattered over a large geographic area in a short period of time, especially if few individuals are qualified to deliver the training.

Course content generic or organization specific

Is the course content generic or specific to the organization?

Impact: Off-the-shelf computer based training or web based training courses, for example, will not be available for topics specific to the organization.

Trainees location

Are trainees local or spread over a large geographic area?

- ❑ Widely scattered; if the course is offered to individuals all over the world or in remote areas.
- ❑ Scattered; if the majority of trainees are located in main cities within the same country.
- ❑ Local; if the majority of trainees work within the same city/region.

	Impact: Asynchronous delivery options, such as Video Conferencing are not practical if trainees are located in the same city/region.
Data presently (or planned to be) collected	Is the collection of data required? If yes, which data should be collected? Impact: A Learning Management System, for example, may provide an effective and economical option for collecting and compiling scores, surveys and comments.
Trainees work as a team using skills learned	Do trainees (on the job) work as a team when using skills learned in the course? Impact: Delivery options, such as Classroom, that can simulate the working environment may be better suited for courses that require trainees to work as a team.
Dangerous to practice learned concepts	Is it dangerous for trainees to practice learned concepts – how to regulate a high voltage panel, for example? Impact: Delivery options, such as CBT, that can simulate dangerous activities may be better suited for the delivery of training.
Real equipment required for the delivery of training	Is on-the-job versus training equipment required for the delivery of training? In other words, does the course deal with the operation, maintenance or support of equipment - such as removing, installing or troubleshooting an engine, flying an airplane. If the answer is yes, than is this equipment required for the delivery of training? Impact: Complexity of equipment may impact plausible delivery option.
Difficult to simulate the real equipment	Can the functionality of the equipment be simulated? ❑ Very difficult; if simulator/trainer is required. Flying an airplane or operating a crane, for example. ❑ Difficult; if it involves a complex process, such as diagnosing problems and repairing equipment. ❑ Moderate; if it involves the simulation of a software program, for example. ❑ Easy; if it involves the simulation of paper forms, for example. Impact: Complexity of simulation may impact plausible delivery option. CBT or WBT, for example, are not suited for developing psychomotor skills on complex equipment.
Role play critical in meeting course objectives	Would trainees' benefit from role-playing and problem solving – i.e., experience various outcomes? How important is it towards achieving the learning objectives? ❑ Required; if the course deals with attitude change and trainees value the opinion and experience of colleagues.

- ❑ Desired; if colleagues' opinion and experience add value to the course, but not critical.
- ❑ Not required; if colleagues' opinion and experience has minimal impact on the course.

Impact: Synchronous delivery methods, such as Classroom, that allow the exchange and sharing of views are better suited for courses that deal with behavioral or attitude change.

How critical are guided discussions?

Would trainees' benefit from guided discussions, i.e., expressing opinions, sharing experiences and knowledge? How important is it towards achieving the learning objectives?

- ❑ Required; if course deals with attitude change; and trainees value the opinion and experience of colleagues.
- ❑ Desired; if colleagues' opinion and experience add value to the course, but not critical.
- ❑ Not required; if colleagues' opinion and experience has minimal impact on the course.

Impact: Synchronous delivery methods, such as Classroom, that allow the exchange and sharing of views are better suited for courses that deal with behavioral or attitude change.

How critical are teaming exercises?

Would trainees' benefit from teaming exercises – i.e., work as a group to apply specific knowledge? How important is it towards achieving the learning objectives?

- ❑ Required; if trainees work as a team when using learned skills.
- ❑ Desired; if trainees do not work as a team; however, colleagues' opinion and experience add value to course.
- ❑ Not required; if colleagues' opinion and experience has minimal impact on the course.

Impact: Synchronous delivery methods, such as Classroom, that can simulate the working environment may be better suited for skills that are utilized in a team setting.

How critical is audio?

Would audio greatly enhance the learning experience, if the course is delivered in a self-study mode?

- ❑ Required; if course deals with language, music or radio communications, for example.
- ❑ Desired; if audio adds value to the learning experience.
- ❑ Not required, if audio has minimal impact on the learning experience.

Impact: Delivery options such as Multimedia CBT that allow the integration of audio in the training material, are better suited for courses that deal with language, music or radio communications.

How critical is full motion video?	Would full motion video greatly enhance the learning experience, if the course is delivered in a self-study mode? ❑ Required, if full motion video is required to transfer the knowledge, demonstrate a surgical procedure, for example. ❑ Desired; if video adds value to the learning experience. ❑ Not required, if video has minimal impact on the learning experience. Impact: Delivery options such as Multimedia CBT that allow the integration of video in the training material, are better suited for courses that require realistic representation of events.
How critical are still images?	Would still images greatly enhance the learning experience, if the course is delivered in a self-study mode? ❑ Required, if pictures or still images are critical for transferring the knowledge, computer program controls, for example. ❑ Desired; if still images add value to the learning experience. ❑ Not required, if still images have minimal impact on the learning experience. Impact: Delivery options that allow the integration of images in the training material are better suited for courses that require realistic representation of tools and equipment.
Trainers resistance to technology	Are instructors resistant to the use of technology for the delivery of training? ❑ High; if instructors are threatened by technology or believe that training can only occur in a classroom setting. ❑ Moderate; if instructors are not comfortable with technology. ❑ Low; if instructors are comfortable with technology or highly motivated to explore new options. Impact: The effectiveness of synchronous delivery options, such as Internet Virtual Classroom, may be compromised if trainers are resistant to technology.
Trainees receptive to computers for learning	Are trainees receptive to the use of computers for the delivery of training? ❑ Yes; if trainees are using computers on-the-job or at home; and are confident in their ability to learn on their own. Impact: The effectiveness of delivery options that utilize computers, such as CBT and WBT, may be compromised if trainees are resistant to technology.
Trainees reading ability	Is trainees' reading ability adequate? Impact: Delivery methods such as Print, CBT and WBT, are not recommended for trainees with limited reading ability.

Trainees skill and proficiency level	How would you classify trainees' prior knowledge or skill of course content? ❑ Very diverse; if trainees have diverse educational background, knowledge or experience in this field. ❑ Diverse; if trainees have similar educational background but diverse knowledge or experience in this field. ❑ Uniform; if trainees have similar educational background, as well as knowledge and experience in this field. Impact: Delivery options that allow trainees to advance at their own pace, such as CBT and WBT, are better suited for trainees with diverse knowledge and skill.
Trainees have access to computers	How would you rate trainees' access to computers? ❑ Adequate; if trainees have a computer at their desk or home. ❑ Limited; if trainees have to share the computer with others, at the learning center, for example. ❑ No access; if trainees have no or minimal access to a computer. Impact: Methods that require computers for the delivery of training, such as EPSS, CBT and WBT, are not feasible if trainees have no access to a computer.
Trainees have access to multimedia computers	How would you rate trainees' access to multimedia computers? ❑ Adequate; if trainees have a multimedia computer at their desk or home. ❑ Limited; if trainees have to share the multimedia computer with others, at the learning center for example. ❑ No access; if trainees have no or minimal access to a multimedia computer. Impact: Methods that require multimedia computers for the delivery of training, such as Multimedia CBT and WBT, are not feasible if trainees have no access to a multimedia computer.
Trainees have access to video conferencing	How would you rate trainees' access to video conferencing equipment? ❑ Adequate; if video conferencing facilities are readily available to trainees within the organization or through external suppliers. ❑ Limited; if trainees have to travel to gain access to the video conference facilities or availability is limited. ❑ No access; if trainees have no or minimal access to the video conference facility. Impact: Methods that require video conference facility for the delivery of training are not feasible if trainees have no access to the equipment.

Trainees have access to Internet/Intranet	How would you rate trainees' access to the Internet and/or Intranet? ❑ Adequate; if trainees have a computer at their desk or home with access to the Internet and/or Intranet. ❑ Limited; if trainees have to share the computer connected to the Internet/ Intranet with others, at the learning center for example. ❑ No access; if trainees have no or minimal access to Internet or Intranet. Impact: Methods that require the Internet or Intranet for the delivery of training, such as WBT and Internet Virtual Classroom, are not feasible if trainees have no access to the Internet or Intranet.
Minimum acceptable internet connection speed	What is the Internet or Intranet connection speed that is available to trainees? Impact: Delivery methods that require high bandwidth, such as Multimedia WBT, are not practical if trainees have a slow dial-up connection.
Application of learned skills	What is involved in the application of learned concepts/skills? ❑ Complex - decision making; if the course deals with problem solving and making decisions – how to repair a computer, for example. ❑ Cumbersome – computations; if the course deals with computations and/ or report generation – preparing budgets or maintenance procedures for example. ❑ Critical; if correct application of knowledge is critical – i.e., errors have high consequences. ❑ Used infrequently; if the information in the course is used occasionally – how to file travel expense, for example. ❑ Used frequently; if the course deals with functions performed on daily basis or changing behavior/attitude. Impact: Electronic Performance Support Tools may be better suited for complex or critical tasks, for example.

4.3 Cost Factors

% of course that changes each year	Estimate the percentage of the course content that may change each year. The estimate should be based on the initial development effort [10% each year, for example]. Although a course may have a life span of three years, for example, 15% of the content may change each year.
Annual salary of individuals taking the course	Input the average annual salary of trainees [$40,000, for example]. Data on average annual salary of trainees may be obtained from personnel or payroll department. Trainees' salaries are used to compute gained productivity if training can be completed in a shorter period of time.
Organization fringe benefits factor [%]	Input the organization's fringe benefits factor. This covers all expenses including employees' benefits such as medical and dental coverage; organization's contribution to pension and other funds; as well as general operational expenses such as rent, electricity, phone, security, etc. Fringe benefits factor generally varies between 25% to 75% of employees' salary. Data on the fringe benefits factor may be obtained from personnel or payroll department. Fringe Benefits Factor is used to compute the loaded costs.
Average number of trainees per class	Estimate the average number of trainees per class, if course is delivered in a synchronous mode.
Average number of instructors per class	Estimate the average number of instructors/facilitators per class, if course is delivered in a synchronous mode.
% of trainees that travel to course	Estimate the percentage of trainees that would have to travel to and from the course site, if course is delivered in an instructor-led format.
% of instructors that travel to course	Estimate the percentage of instructors/facilitators that would have to travel to and from the course site, if course is delivered in an instructor-led format.
Average per diem cost per individual [per day]	This includes reimbursable daily expenses for lodging, meals and tips. Data on average per diem costs may be obtained from payroll or accounting department.
Average travel cost per individual	This includes round-trip air, bus or train fare, local automobile mileage, taxi or local public transportation costs. You may average these costs for participants in the course. However, the method used to compute the average should be documented. Data on average travel costs may be obtained from payroll or accounting department.
Average instructor annual salary	Input the average annual salary of instructors/facilitators, if course is delivered in a synchronous mode. Data on annual salary of instructors may be obtained from personnel or payroll department.

Average consulting fees per class	Input the average consulting fees per class, if external subject matter experts, instructors or facilitators deliver course in a synchronous mode.
If course exists, present delivery method	Select method currently used to deliver the training, if applicable.
Effort required to develop course	Indicate the effort required to develop the course, or convert to another delivery option, if it exists, as follows: ❑ Low – a course that deals with a simple subject. The course content can be adequately presented in text, graphics and simple animation, if developed in an asynchronous mode. That is, it does not require complex animation, simulation, audio or video. ❑ Medium – a course that deals with a moderately complex subject. The course content requires text, graphics, animation, simple simulations, and some audio but minimal video, if developed in an asynchronous mode. ❑ High – a course that deals with abstract/complex subject that is difficult to comprehend. The course content requires text, graphics, complex animations and simulations as well as audio and video if developed in an asynchronous mode.
Average cost of room rental per class	Estimate facilities costs per class (hotel or conference center room rental, for example), if course is delivered in an instructor-led format.
# of administrative required [per class]	Estimate the number of days per class required to administer the course, if delivered in an asynchronous mode. This may include registering trainees, booking a room, arranging for equipment, etc. Note that this refers to working days and not calendar days.
Cost of computer/hardware required by course	Cost of special equipment (computers or trainers, for example] required for training. If remodeling the classroom is required, then the costs should also be included.