

# MODULE 9 BLENDED COURSE DESIGN

Blended learning meets the changing needs of educators and learners, enabling multiple learning styles, worldwide audiences and growing demands for flexible delivery methods. This document provides a framework by which to plan a blended learning program, consisting of traditional classroom, virtual classroom and/or asynchronous eLearning components. This framework includes the following:

- Blended Learning Planning Template
- F2F Lesson Plan Template
- Virtual Classroom Lesson Plan Template
- Asynchronous eLearning Lesson Plan Template
- Post-Training Support Template
- Selecting the Right Modality Job Aid

**COURSE NAME: INTRODUCTION TO RELATIONAL DATABASE THEORY**

**BLENDED LEARNING PLANNING TEMPLATE FOR INTRODUCTION TO RELATIONAL DATABASE THEORY**

Topic	Task	Notes
Plan the right blend	<p>Selecting and Blending Modalities</p> <ul style="list-style-type: none"> <li>• Select the right modality for each lesson. <i>Refer to the job aid on page 7.</i></li> <li>• Identify creative ways to blend the lessons together into a cohesive program.</li> </ul>	<p>This blended course chunks content into logical components.</p> <p>The course will consist of the following:</p> <ul style="list-style-type: none"> <li>• Synchronous Classroom event</li> <li>• Asynchronous event</li> <li>• Face-to-Face (Traditional Classroom)</li> </ul> <p><b>Synchronous - Virtual Classroom</b></p> <p>The synchronous event will confirm that students have completed the appropriate pre-work and installation processes, as well as verify connectivity. This event will also provide students with an opportunity to ask questions. This step ensures that face-to-face classroom time is not spent troubleshooting connectivity issues.</p> <p><b>Asynchronous eLearning (eCourse)</b></p> <p>This eCourse will introduce students to new concepts and test knowledge of fundamentals.</p> <p><b>Face-to-Face</b></p> <p>The face-to-face event will build on the concepts introduced in the eCourse.</p>
Prepare Students for Success	<p>Communicate / market the program strategically.</p> <ul style="list-style-type: none"> <li>• Create a theme (graphic design) for the program.</li> </ul>	<p>This course will have a “star schema” theme. This terminology refers to relational databases, so all job aids, participant manuals, email communications, etc. will reflect a</p>

	<ul style="list-style-type: none"><li>• Develop a communication strategy and protocol.</li><li>• Provide job aids.</li><li>• Offer an orientation.</li><li>• Publish materials (via an LMS, website or social learning community).</li></ul>	“star schema”.
--	--	----------------

**VIRTUAL CLASSROOM TRAINING PLAN TEMPLATE**

<b>Topic</b>	<b>Approximate Time</b>	<b>Instructor Prep Tasks</b>	<b>The Instructor will...</b>	<b>The learner will...</b>	<b>Assessment</b>
Introductions & Logistics	2 min.	Tech. checks.	<ul style="list-style-type: none"> <li>• Introduce self.</li> <li>• Poll students on pre-work (status).</li> <li>• Demonstrate how to use technology (ask questions, etc.).</li> </ul>	Listen and ask questions.	Respond to poll.
Server Connection	20 min.	Confirm that there are no SAS grid planned or unplanned outages.	<p><b>Poll</b> students to confirm connectivity.</p> <p><b>DEMONSTRATE (SAS EG 4.3)</b></p> <ul style="list-style-type: none"> <li>• Navigate within workspace.</li> <li>• Identify location of the server, library and tables.</li> <li>• Verify Connectivity</li> </ul>	<p><b>Navigate</b> within SAS EG 4.3 to</p> <ul style="list-style-type: none"> <li>• Server</li> <li>• Library</li> <li>• Tables</li> </ul>	<p><b>Navigate</b> to the server, library and tables.</p> <p><b>Confirm</b> Connectivity.</p> <p><b>Answer</b> poll.</p>
SAS EG Best Practices	10 min.	Update job aid.	<p><b>Demonstrate</b> best practices:</p> <p>For example:</p> <ul style="list-style-type: none"> <li>• Avoid double-clicking a table icon.</li> <li>• Avoid clicking the Input Data tab.</li> </ul> <p><b>Instruct</b> participants to download SAS EG BEST Practices job aid.</p>	Listen and ask questions.	<b>Navigate</b> to Best Practices Job Aid / <b>Download</b> Document.
Prepare for Face to Face Class	10 min.	Update workbook.	<b>Instruct</b> participants to download and print workbook.	<b>Download</b> and print workbook (exercises for face to face event).	NA
Conclusion	5 minutes		Review	Ask questions.	NA

**ASYNCHRONOUS ELEARNING LESSON PLAN – STAR SCHEMA ECOURSE**

<b>Topic</b>	<b>Approximate Time</b>	<b>Learning Objectives</b>	<b>Content Description / Graphics</b>	<b>Assessment</b>
INTRODUCTION	2 MINUTES	State Learning objectives.	Star Schema graphic	NA
Star Schema  (Relational Database Theory)	4 minutes	<ul style="list-style-type: none"> <li>Define a star schema.</li> <li>Explain the difference between a relational database and a legacy database.</li> <li>Explain the benefits of a star schema.</li> </ul>	Star Schema – with clickable components and terms.	Complete <b>Knowledge Check</b>  Example: “How does a relational database differ from a legacy database?”
Fact Tables	4 minutes	Define and identify the characteristics of a fact table.	Star Schema graphic  Learners are instructed to click on any component/term to learn more.	<b>KNOWLEDGE CHECK</b> (p. 11)  List 3 things you’ve learned about fact tables.
Dimension Tables  <ul style="list-style-type: none"> <li>Type 1</li> <li>Type 2</li> </ul>	6 minutes	Define and identify the characteristics of a Dimension table.  Describe the types of dimension tables.  Classify tables by type.	<b>Type 1 – Zen woman comparison</b> (live in the now) <ol style="list-style-type: none"> <li>Create a new project.</li> <li>Add Dimension Table to project.</li> <li>Filter.</li> <li>Show results with and without a current row indicator=Y.</li> </ol> Type 2 – track history	Complete <b>KNOWLEDGE CHECK</b> (p. 16) <ul style="list-style-type: none"> <li>List 3 things you’ve learned about dimension tables.</li> <li>Describe the difference between a Type 1 &amp; Type 2 dimension table.</li> <li>List an example of a Type 2 dimension table.</li> </ul>
Granularity	3 minutes	Define the concept of granularity.	Provide example - <b>CANDY</b> tables with varying levels of detail (granularity).	Complete <b>KNOWLEDGE CHECK</b>  What can you can infer by looking at the <b>examples?</b>

Hierarchy Tables	2 minutes	Define and identify a hierarchy table.  Explain Parent/child relationship.	<ul style="list-style-type: none"> <li>• Hierarchy Graphic</li> <li>• Hierarchy Table</li> <li>• Definitions</li> <li>• Examples</li> </ul>	Complete <b>KNOWLEDGE CHECK</b> <ul style="list-style-type: none"> <li>• What is a hierarchy table?</li> <li>• Why do you think hierarchy tables might be useful?</li> </ul>
Keys <ul style="list-style-type: none"> <li>• Primary Keys</li> <li>• Foreign Keys</li> </ul>	5 minutes	Identify the primary and foreign keys.	Provide users with a link to a star map.  Users are instructed to click on each field to identify the primary and foreign keys.	Immediate feedback/text and/or audio with each click.
Summary	2 minutes	List/discuss review.	Instruct user to download job aid with links to all SharePoint references.	NA

**F2F LESSON PLAN TEMPLATE**

<b>Topic</b>	<b>Approximate Time</b>	<b>Instructor Prep Tasks</b>	<b>The Instructor will...</b>	<b>The learner will...</b>	<b>Assessment</b>
Introductions	20 minutes	List on flip chart	Introduce yourself. Provide background and experience. Offer enthusiasm and encouragement to students.	Introduce themselves. <ul style="list-style-type: none"> <li>• Name</li> <li>• Years with Company</li> <li>• Current department/organization</li> <li>• What you hope to learn</li> </ul>	NA
Welcome and Debrief	10 minutes		List Learning Objectives  Discuss eCourse  Q&A	Ask questions.	Participation.
Review eCourse	20 minutes		INSTRUCT participants to review workbook and complete all KNOWLEDGE CHECKS.  Walk-around room to confirm completion.	Complete all knowledge checks in the Star Schema workbook.	KNOWLEDGE CHECKS – questions similar to those in the eCourse.  Discuss / Debrief
SharePoint Knowledge Base	30 – 45 minutes		Discuss the purpose and utility of the SharePoint Knowledge Base.  Display SharePoint Knowledge Base and review basic navigation and content.  Emphasize that new materials are added regularly.	<b>Small Group Scavenger Hunt</b>  Locate the following on SharePoint: <ul style="list-style-type: none"> <li>• Training Material</li> <li>• Data Dictionaries</li> <li>• Star Maps</li> </ul>	SharePoint Knowledge Base

Fact Tables	30 min.		Demonstrate and discuss querying a Fact table.	Learners will refer to workbook to complete Exercise 1: Querying a Fact Table.	Row count
Type 1 Dimensions	30 min.		Demonstrate and discuss querying a Type 1 dimension table.	Learners will refer to workbook to complete Exercise 2: Querying a Type 2 Dimension Table.	Row count
Type 2 Dimensions	30 min.		Demonstrate and discuss querying a Type 2 Dimension table.	Learners will refer to workbook to complete Exercise 3: Querying a Type 2 Dimension Table.	Row count
Keys	20 min.		Demonstrate using a Data Dictionary and Star Map to determine the primary key.	Learner will refer to workbook to complete Exercise 4: Identify the Primary Key	Group Discussion/Debrief
Review	45 min.		Ask questions.	Learners will work in small groups to complete Exercise 5: <ul style="list-style-type: none"> <li>• Facts</li> <li>• Dimensions</li> <li>• Keys</li> </ul>	Group Discussion/Debrief



**POST-TRAINING SUPPORT**

<b>Topic</b>	<b>The Instructor will...</b>	<b>The learner will...</b>
Communication and Support	Communicate via established protocol.  Examples <ul style="list-style-type: none"><li>• Add daily/weekly blog posts.</li><li>• Monitor discussions.</li><li>• Answer questions.</li><li>• Implement contests.</li><li>• Poll students.</li><li>• Email / Announce changes/enhancements.</li></ul>	<ul style="list-style-type: none"><li>• Participate.</li><li>• Ask questions.</li><li>• Answer questions.</li></ul>

## SELECTING THE RIGHT MODALITY (JOB AID)

Modality	Choose this method when...
F2F (Synchronous) / Traditional Classroom	<ul style="list-style-type: none"> <li>• Learners will benefit from group projects and team participation to achieve common goals.</li> <li>• Learners are centrally located and/or are able to meet travel and expense obligations.</li> <li>• Subject matter is complex and will require practice.</li> <li>• Subject matter requires hands-on activities.</li> </ul>
Virtual Classroom	<ul style="list-style-type: none"> <li>• Learners are widely dispersed across a geographical location (countrywide and/or worldwide audiences).</li> <li>• Travel is cost-prohibitive and/or causes too much interruption to work.</li> <li>• Learners will benefit from group projects and team participation to achieve common goals.</li> </ul>
Asynchronous eLearning	<ul style="list-style-type: none"> <li>• Learners require a flexible training schedule.</li> <li>• Learners require ongoing access to tutorials.</li> <li>• Learners need immediate access to training.</li> <li>• Learners have access to the appropriate LMS.</li> <li>• Subject matter is fairly consistent over time and will not require regular (e.g. monthly) updates</li> </ul>