

formance statements, their international vetting, and the ability for particular users to customize their use without concomitant loss of integrity. Still the competencies provide a common design language as well as a common set of skills, knowledge, and attitudes upon which competence is based for instructional designers worldwide. This allows them to be transported to many settings.

Even though the competencies as a whole are comprehensive, they can be viewed from the perspective of those in various design specialties. This orientation will be discussed in Chapter 5.

CHAPTER 5

THE COMPETENCIES AND ID SPECIALIZATIONS

INTRODUCTION

A competent and experienced instructional designer can demonstrate the skills associated with the systematic design process and, therefore, is capable of managing a design project from needs assessment throughout the design, development, implementation, and evaluation phases. In many organizations, instructional designers continue to perform all the phases of a design project, but there is an increasing trend towards specialization, especially in large organizations or in situations where an instructional project or part of a project is outsourced to specialists.

A number of factors contributed to this change. First, the profession itself is becoming more complex and sophisticated, which in turn leads to specialization. As an example, the transition from a training focus to a performance improvement consulting approach highlights the necessity for strong human performance analysis skills, and in many organizations this has led to a specialization in analysis. Second, management's emphasis on accountability and evidence of return on the investment has resulted in a greater emphasis on evaluation and measurement. Third, the increasing professionalization and specialization has led to a need for those who can manage the complexities of this group of professionals. Fourth, the shift from designing for a classroom instructor to designing technology-based instruction has led to the emergence of multimedia

designers and designers of distance education and learning, a role that is rapidly evolving into the e-learning specialist.

The increased use of ID specialists can also be attributed to the globalization of organizations, which has led to an increase in the number and diversity of people to be trained and developed. In some organizations, it is not unusual for tens of thousands of people located in more than a dozen countries to require the similar training. In such cases, a single designer cannot handle a project of this size, and a design team is established. The team typically includes content experts from technical groups in the organization, as well as specialists from other fields, such as human resource development, organization development, information technology, marketing, and communications. While many teams continue to use generalist instructional designers, there is often a group of instructional designers on the team who specialize in certain aspects of the design process such as front-end analysis, technology design and integration, and evaluation.

Simultaneously, there is a trend in many large organizations to downsize and build a leaner workforce. Consequently, much of the instructional design work is now being outsourced. This leads to the use of an internal designer specializing in project management. Often the project managers will manage several projects simultaneously.

THE NATURE OF ID SPECIALIZATION

There are a number of established or emerging specialist roles in the field of instructional design. Four roles—ID specialist, analyst/evaluator, ID manager, and e-learning/instructional technology specialists—have evolved and are common in many settings. The specialists in each role have unique skill sets:

- *ID Specialists*—possessing the competencies to fulfill all roles and specializations in the design, development and implementation of an instructional solutions and usually has a preferred role in designing learning experiences and environments.
- *Analyst/Evaluator*—possessing advanced competencies to undertake performance analysis, training needs assessment, and various forms of assessment and evaluation.
- *ID Manager*—possessing advanced competencies to manage an instructional design function within an organization and manage internal and external designers and other specialists working on

one or several projects; ID managers should also possess ID competencies.

- *e-Learning/Instructional Technology Specialist*—possessing the competencies to design and develop multimedia and online learning processes and products

Although these are not the only specialist roles in the field, they are the most widely recognizable ones. In some organizations, these roles may be combined or separated depending upon project and organizational idiosyncrasies. Nevertheless, it is far more likely that several ID specialists will be found working together in large rather than small organizations. Many specialists may also be independent consultants who specialize in chosen areas of work, for example, evaluators primarily supporting program evaluation, e-learning specialists primarily engage in development of technology-based or supported instruction.

Specialists have generally mastered most of the design competencies, however have a special interest and highly developed competencies in one area of instructional design (e.g., distance education, conducting front end analysis, program evaluation). The most critical competencies required by each of the major specialist roles are summarized in Table 5.1.

The designations in the Table 5.1. were made and validated by business, government, education, and academic practitioners and scholars who are themselves generalist and specialist from around the world. Some competencies are labeled “primary” (designated by an upper case “P”), and some are labeled “supporting” (designated by a lower case “s”).

Primary competencies are most critical to the specialization. For example, as analyst or evaluator requires advanced and in-depth skills in *using appropriate analysis techniques, constructing valid and reliable learner assessment, and preparing evaluation reports*. The supporting competencies, while necessary, are usually not as central to the performance of the role in most job situations. The mature specialist will be able to demonstrate both the primary and supporting competencies.

In addition, design specialists typically have in-depth knowledge of all of the essential design skills, as well as an understanding of the other specializations. They are aware of the relationships among the various roles and have an appreciation for cross-specialization. The same pattern follows for the other specialization.

Within each of the four roles, the various required skills have been grouped into the five competency domains—professional foundations, planning and analysis, design and development, evaluation and implementation, and management. A discussion of each role follows the Table 5.1.

Table 5.1. Specialist Roles: Primary and Supporting Competencies

<i>Domains, Competencies, & Performance Statements</i>	<i>ID Specialist</i>	<i>ID Manager</i>	<i>Analyst/ Evaluator</i>	<i>e-learning Specialist</i>
<i>Professional Foundations</i>				
1. Communicate effectively in visual, oral and written form.				
a) Write and edit messages that are clear, concise, and grammatically correct	P	P	P	P
b) Deliver presentations that effectively engage audiences and communicate clear messages		P	P	
c) Use active listening skills	P	P	P	P
d) Present written and oral messages that take into account the type of information being delivered and the diverse backgrounds, roles, and varied responsibilities of the audience	P		P	P
e) Facilitate meetings effectively		P	P	
f) Use effective collaboration and consensus-building skills	s	P		s
g) Use effective negotiation and conflict resolution skills	s	P		s
h) Use effective questioning techniques	P	s	P	P
i) Solicit, accept, and provide constructive feedback	P	P	P	P
j) Disseminate status, summary, or action-oriented reports		P	P	
2. Apply research and theory to the discipline of instructional design.				
a) Promote how instructional design research, theory, and practice literature may affect design practices in a given situation	s			s
b) Explain key concepts and principles related to instructional design	s	P		s
c) Apply results of instructional design research, theory, and practice	s			s
d) Apply concepts, techniques, and theories of other disciplines to learning and performance improvement	s			P
e) Apply systems thinking to instructional design and performance improvement projects	P	P		P

(Table continues on next page)

Table 5.1. Continued

<i>Domains, Competencies, & Performance Statements</i>	<i>ID Specialist</i>	<i>ID Manager</i>	<i>Analyst/ Evaluator</i>	<i>e-learning Specialist</i>
<i>Professional Foundations</i>				
3. Update and improve knowledge, skills, and attitudes pertaining to the instructional design process and related fields.				
a) Participate in professional development activities				
b) Establish and maintain contacts with other professionals	s		s	s
c) Acquire and apply new technology skills in instructional design practice	s			P
d) Document and disseminate work as a foundation for future efforts, publications, or professional presentations				
4. Apply data collection and analysis skills in instructional design projects.				
a) Identify the data to be collected	s		P	s
b) Use a variety of data collection tools and procedures	s		P	s
c) Apply appropriate data collection methodologies to needs assessment and evaluation	s		P	s
d) Use appropriate quantitative and/or qualitative analysis procedures in needs assessment and evaluation	s		P	s
5. Identify and respond to ethical, legal, and political implications of design in the workplace.				
a) Identify ethical, legal, and political dimensions of instructional design practice and instructional products		s		
b) Plan for and respond to ethical, legal, and political consequences of design decisions		s		
c) Recognize and respect the intellectual property rights of others	P	s		P
d) Adhere to regulatory guidelines and organizational policies	s	s		s
e) Comply with organizational and professional codes of ethics				

(Table continues on next page)

Table 5.1. Continued

<i>Domains, Competencies, & Performance Statements</i>	<i>ID Specialist</i>	<i>ID Manager</i>	<i>Analyst/ Evaluator</i>	<i>e-learning Specialist</i>
<i>Planning and Analysis</i>				
6. Conduct a needs assessment in order to recommend appropriate design solutions and strategies.				
a) Identify varying perceptions of need among stakeholders and the implications of those perceptions			P	
b) Describe the nature of a learning or performance problem	P		s	P
c) Determine the root causes of identified discrepancies	P		s	P
d) Synthesize findings to identify and recommend potential instructional and noninstructional solutions	P		P	P
e) Estimate costs and benefits of possible solutions	s		P	s
f) Prepare and disseminate a needs assessment report			P	
7. Identify and describe target population and environmental characteristics.				
a) Determine characteristics of the target population that may impact the design and delivery of instruction	s		s	s
b) Determine characteristics of physical, social, political, and cultural environment that may influence learning, attitudes, and performance	s		s	s
c) Identify the infrastructure that is available to support the design and delivery of instruction	s			P
d) Determine the extent to which organizational mission, philosophy, and values may impact the design and delivery of instruction	s		s	s
e) Analyze, evaluate, and use learner profile data and environmental characteristics to design instruction	P		P	P
8. Select and use analysis techniques for determining instructional content.				
a) Identify the scope of required content in accordance with needs assessment findings	P			P

(Table continues on next page)

Table 5.1. Continued

<i>Domains, Competencies, & Performance Statements</i>	<i>ID Specialist</i>	<i>ID Manager</i>	<i>Analyst/ Evaluator</i>	<i>e-learning Specialist</i>
<i>Planning and Analysis</i>				
b) Elicit, synthesize, and validate content from subject matter experts	P		P	P
c) Analyze existing instructional products to determine adequacy or inadequacy of content, instruction, and learning	P			P
d) Determine the breadth and depth of intended content coverage given instructional constraints	s			s
e) Determine subordinate and prerequisite skills and knowledge	s			s
f) Use appropriate techniques to analyze various types and sources of content			P	
9. Analyze the characteristics of existing and emerging technologies and their potential use.				
a) Describe the capabilities of existing and emerging technologies required to enhance the impact of instruction	s			P
b) Evaluate the capacity of given instructional and learning environments to support selected technologies	P		P	P
c) Assess the benefits and limitations of existing and emerging technologies	s		s	P
<i>Design and Development</i>				
10. Use an instructional design and development process appropriate for a given project.				
a) Select or create an instructional design process based the nature of the project	s	P		s
b) Modify the instructional design process as project parameters change	P	P		P
c) Describe a rationale for the selected, created or modified instructional design process	s	P		s
11. Organize instructional programs and/or products to be designed, developed, and evaluated.				
a) Determine the overall scope of instructional programs and/or products	P	P		P
b) Identify and sequence instructional goals	P			P

(Table continues on next page)

Table 5.1. Continued

Domains, Competencies, & Performance Statements	ID Specialist	ID Manager	Analyst/ Evaluator	e-learning Specialist
<i>Design and Development</i>				
c) Specify and sequence the anticipated learning and performance outcomes	P			P
12. Design instructional interventions.				
a) Identify instructional strategies that align with instructional goals and anticipated learning outcomes	P			P
b) Apply appropriate interaction design and interactive learning principles	P			P
c) Use appropriate message and visual design principles	P			P
d) Apply appropriate motivational design principles	s			s
e) Accommodate social, cultural, political, and other individual factors that may influence learning	s			s
f) Select appropriate technology and media to enhance instructional interventions, taking into account theory, research, and practical factors	s			P
13. Plan noninstructional interventions.				
a) Identify which, if any, noninstructional interventions are appropriate (e.g., performance support, knowledge management, personnel selection, job redesign, incentive systems)	s	P		s
b) Justify why noninstructional interventions are appropriate	s	P		s
c) Create design specifications for noninstructional interventions	P	s		P
14. Select or modify existing instructional materials.				
a) Identify and select materials that support the content analyses, proposed technologies, delivery methods, and instructional strategies	P			P
b) Conduct cost-benefit analyses to decide whether to use or modify existing materials		P	P	
c) Validate selection or modification of existing instruction	s			s

(Table continues on next page)

Table 5.1. Continued

Domains, Competencies, & Performance Statements	ID Specialist	ID Manager	Analyst/ Evaluator	e-learning Specialist
<i>Design and Development</i>				
d) Integrate existing instructional materials into the design	P			P
15. Develop instructional materials.				
a) Develop specifications that serve as the basis for media production	P			P
b) Produce instructional materials in a variety of delivery formats	P			P
c) Develop materials that align with the content analyses, proposed technologies, delivery methods, and instructional strategies	P			P
d) Collaborate with production specialists	s			s
16. Design learning assessment.				
a) Identify the learning processes and outcomes to be measured	P		P	P
b) Construct reliable and valid methods of assessing learning and performance			P	
c) Ensure that assessment is aligned with instructional goals, anticipated learning outcomes, and instructional strategies	P		P	P
<i>Evaluation and Implementation</i>				
17. Evaluate instructional and noninstructional interventions.				
a) Design evaluation plans	s		P	s
b) Implement formative evaluation plans	P		P	P
c) Implement summative evaluation plans	s			s
d) Prepare and disseminate evaluation report			P	
18. Revise instructional and noninstructional solutions based on data.				
a) Identify product and program revisions based on review of evaluation data	P		P	P
b) Revise the delivery process based on evaluation data	P			P
c) Revise products and programs based on evaluation data	P			P

(Table continues on next page)

Table 5.1. Continued

<i>Domains, Competencies, & Performance Statements</i>	<i>ID Specialist</i>	<i>ID Manager</i>	<i>Analyst/ Evaluator</i>	<i>e-learning Specialist</i>
<i>Evaluation and Implementation</i>				
19. Implement, disseminate, and diffuse instructional and noninstructional interventions.				
a) Create a vision of change that aligns learning and performance goals with organizational goals	s	P		s
b) Plan for the implementation of the interventions		P		
c) Plan for the dissemination of the interventions		s		
d) Plan for the diffusion of the interventions		s		
e) Disseminate the interventions				
f) Monitor implementation, dissemination, and diffusion progress		P		
g) Identify required modifications to implementation, dissemination, and diffusion processes	s			s
<i>Management</i>				
20. Apply business skills to managing the instructional design function.				
a) Align instructional design efforts with organization's strategic plans and tactics		P	s	
b) Establish standards of excellence for the instructional design function		P		
c) Develop a business case to promote the critical role of the instructional design function		P		
d) Recruit, retain, and develop instructional design personnel		P		
e) Develop financial plans and controls for the instructional design function		P		
f) Obtain and maintain management and stakeholder support for the design function		P		
g) Market instructional design services and manage customer relations		P		

(Table continues on next page)

Table 5.1. Continued

<i>Domains, Competencies, & Performance Statements</i>	<i>ID Specialist</i>	<i>ID Manager</i>	<i>Analyst/ Evaluator</i>	<i>e-learning Specialist</i>
<i>Management</i>				
21. Manage partnerships and collaborative relationships.				
a) Identify stakeholders and the nature of their involvement		P	P	
b) Build and promote effective relationships between the design team and stakeholders	s	P		s
c) Manage cross functional teams		P		
d) Conduct project reviews with design team members and stakeholders	s	P	s	s
22. Plan and manage instructional design projects.				
a) Establish project scope and goals	s	P		s
b) Write proposals for instructional design projects	s	s	s	s
c) Use a variety of planning and management tools for instructional design projects		P		
d) Allocate resources to support the project plan		P		
e) Manage multiple priorities to maintain project time line		P		
f) Identify and resolve project issues		P		

THE INSTRUCTIONAL DESIGNER SPECIALIST

Although all practicing IDs are generally competent in the design standards, ID specialists are generally experienced, senior designers whose interests and focus are specifically on design and learning integrity of instructional products. Their expertise is in designing instructional solutions aimed at closing identified knowledge, skill, or attitude gaps in performance. ID specialists are well prepared to design instructional solutions that can operate within a variety of delivery mechanisms (e.g., face-to-face, online, and blended learning environments). As indicated in Table 5.1, in the 2012 ID Competencies there are 34 primary performance statements and 39 secondary performance across 21 competencies clustered in 5 general domains that define the ID specialist. Together, these competencies reflect the complexity of the instructional designer specialist's role.

The ID specialist is responsible for the design integrity of the instructional solution and accomplish most tasks in collaboration with subject matter experts, performance analysts, technicians, evaluators, and others. ID specialists also play a major role in working with clients to define instructional needs and translate those needs into well designed instructional solutions.

ID specialists generally begin their career as an entry-level instructional designer actively developing experiences (and competencies) in design, development, implementation, and evaluation of instructional solutions. Through these experiences, additional professional development activities, and ongoing reflection on instructional sciences, theories, and practices ID specialists develop great interests in design and in-depth competencies of a design specialist.

Given the ID specialist's primary and secondary duties throughout the instructional design process, it is not surprising to see that they develop strong instructional design knowledge, skills, and attitudes throughout the five domains of the instructional designer competencies set including:

- *Professional Foundations*, with a primary emphasis on communications skills, systems thinking, and secondary emphasis on applying research and theory, continually improving competencies on the ID process, applying data collection and analysis skills, responding to ethical, legal, and political implications in the workplace
- *Planning and Analysis*, with primary emphasis on identifying learner and environmental characteristics and using analysis techniques to determine instructional content
- *Design and Development*, with primary emphasis using appropriate design processes, organizing instructional programs, designing

instructional and noninstructional interventions, developing or modifying instructional products and assessment, with secondary emphasis on planning noninstructional interventions

- *Evaluation and Implementation*, with primary emphasis revising instructional interventions based on evaluation data, with secondary emphasis on implementing and evaluating instruction.
- *Management*, with a secondary emphasis on managing partnerships and collaborative relationships with other team members and planning instructional design projects

Professional Foundations

The most critical competency in this domain for ID specialists is to communicate effectively in visual, oral, and written form. The competencies that are secondary to the ID specialist in this domain include: applying research and theory to the discipline of ID, updating and improving knowledge, skills, and attitudes pertaining to the instructional design process and related fields, and applying data collection and analysis skills in instructional design projects.

Certainly, ID specialists need to have well developed writing and presentation skills given their tasks of creating and sharing instructional materials. Often ID specialists also seek input into instructional solutions and provide constructive feedback to team members on projects during development. Thus, they also require refined skill sets in presenting instructional ideas, orally communicating with project stakeholders, collaboration and consensus-building, negotiation and conflict resolution, questioning, and active listening.

It is the responsibility of the ID specialist to assure the integrity of an instructional solution's design. Thus, a primary role of the ID specialist is to apply systems thinking to instructional design and performance improvement projects. This includes referencing best practices in ID research, theory, and practices and applying ID and other disciplines' principles to the design of instructional products. To do these tasks well, the ID specialist also maintains a broad social network with other professionals and continually develops his or her own knowledge and skills in technologies relevant to instructional interventions.

The ID specialist is also well versed in data collection and analysis competencies in order to design instructional solutions based on identified needs and evaluate instruction throughout development and implementation phases. Generally the ID specialist will work with an analyst or evaluator who conducts these types of tasks; the ID specialist then uses results to design and enhance product specifications.

Finally, the ID specialist has a keen sense of, and respect for, the intellectual property rights of others and regulatory guidelines and organization policies. They take the responsibility to make sure that all materials and references adhere to ethical, legal, and political guidelines in the workplace.

Planning and Analysis

The most critical competencies in this domain for ID specialists include: conducting the needs assessment and selecting and using analysis techniques for determining instructional content. The competencies that are secondary to the ID specialist in this domain include: identifying and describing target population and environmental characteristics (including technology) and analyzing these characteristics to design instruction.

The ID specialist is responsible for the needs assessment process that eventually leads to the definition of design solutions. It is critical that the ID specialist be able to define the nature of the learning or performance problems; this ultimately defines the nature of the instruction. The ID specialist also must use the needs assessment data to identify the root causes of performance issues; suggesting that a performance issue occurs because of a gap in knowledge, skills, or attitudes (those things that can be corrected with instruction) or not. From this determination the ID specialist then synthesizes all of the information and recommends instruction and noninstructional solutions. Thus, it is through communication and data collection competencies and refined knowledge of design and learning that the ID specialist can identify performance issues (and their causes) and propose appropriate solutions.

Working with an analyst, the ID specialist plays a role in describing the target population, characteristics of the environment, infrastructure to support design and implementation, and organizational factors that may impact proposed instructional solutions. The primary activity of the ID specialist is to synthesize all of the gathered information to design the proposed instructional solution. The ID specialist (with a subject matter expert) also takes a primary role in determining the scope, validity, and flow of content presentation in the proposed instruction. This includes analyzing existing instruction to determine adequacy of content, instruction, and learning and determining subordinate and prerequisite skills and knowledge required by the target audience.

Finally, selecting appropriate technologies capable of enhancing the impact of the instruction is a critical role of the ID specialist in collaboration with an instructional technologies or e-learning specialist. Together they identify technologies, define their use in delivering or supporting

instruction and learning, and assess the benefits and limitations of the technologies given the proposed instruction, learning environment, and organizational characteristics. Thus, ID specialists must have a grasp of available technologies, their features and characteristics, benefits and challenges of their implementation, and infrastructure requirements.

Design and Development

The most critical competencies in this domain for ID specialists include: organizing instructional programs and/or products, designing instructional interventions, selecting or modifying existing instructional materials, developing instructional materials, and designing learning assessment. The competencies that are secondary to the ID specialist in this domain include: using appropriate design and development processes and planning noninstructional interventions.

Although the ID manager is primarily responsible for identifying and managing the design and development processes, the ID specialist often takes the responsibility (under the supervision of the ID Manager) to modify the ID process as project parameters change over time. ID specialists should be well able to rationalize major changes or minor modifications based on their knowledge of the ID process and current their project.

The greatest impact the ID specialist provides on an instructional project is in the design and development of instructional interventions. ID specialists have highly developed competencies in organizing instructional project and products based on project scope. They are able to successfully define and sequence instructional goals and specify and sequence anticipated learning outcomes. They often work with a subject matter expert to organize content and define required performance outcomes. The ID specialist is also an expert at identifying instructional strategies that prompt learners to interaction with content in ways that support learning outcomes. ID specialists have strong knowledge of how to design activities and resources that incorporate message and visual design, motivational and interactive learning principles, and accommodate social, cultural, political, and other factors that may influence learning. They are also, as suggested above, knowledgeable about a variety of technology and media and able to select those that are best able to enhance the proposed instructional intervention. Technology choices are often made in conjunction with an instructional technologies and information about the organization's technology infrastructure.

Although the primary focus of the ID specialist is in designing instructional interventions, often needs assessment will suggest that performance issues are not a matter of knowledge, skill, or attitude gaps.

Rather, the problems are caused by lack of information, incentive or disincentive issues, lack of or poor quality tools, or a variety of other issues. Given the knowledge gained during the needs assessment process and understanding of the relationships among instruction and performance, the ID specialist is often involved also in designing noninstructional solutions. Thus, the ID specialist may advise clients on noninstructional solutions such as changes in job descriptions, design of information systems and management information systems or HR policies, as their expertise and comfort allows.

Often, a needs assessment will identify instruction already existing in an organization that is deemed *not fully effective* or identify holes in current instruction that need to be filled. In some situations the existing instruction can be enhanced. In some situations packaged instruction can be purchased *as-is* or with *customization options*. ID specialist can help to identify when existing materials should be modified or replaced. Once chosen, the ID specialist can help to validate the choice and integrate the enhanced or new instructional resources into the proposed overall design.

ID specialists also play a role in developing instructional materials. Although often the novice instructional designers and technology specialists play a major role in actually constructing instructional interventions based on design specifications, the ID specialist generally creates the specification and oversee novices and technicians making sure that all materials follow specification and align with analysis. This activity suggests that ID specialists have strong collaboration competencies as they work with both novice designers and production specialists.

Finally, in collaboration with evaluators, the ID specialist exhibits strong learning assessment competencies. The ID specialist takes a primary role in identify the learning processes and outcomes to be measured and performs constant reviews of all materials to assure that assessments align with instructional goals, learning outcomes, and instructional strategies.

Evaluation and Implementation

The most critical competencies in this domain for ID specialists include: revising instructional solutions based on data and implement, disseminate, and diffuse interventions. The competency that is secondary to the ID specialist in this domain is evaluate interventions.

The ID specialist consults and collaborates heavily with evaluators and instructional technologists during this part of the instructional design and development process. The ID specialist will provide input on the evaluation plans and take a secondary role during summative evaluation, however takes a primary role in the implementation of formative evaluation.

It is during the formative evaluation processes that the ID specialist actively interprets results from formative evaluation to make decisions about final enhancements to the intervention.

When instruction is transitioned into full implementation the ID specialist's role is diminished to tasks that support creation of a change vision that aligns learning and performance goals with organizations goals and identifying subsequent modifications to implementation, dissemination, and diffusion processes. At this point the ID specialist will generally collaborate with an program evaluator at points where revisions are suggested based on summative evaluation.

Management

ID specialists, when an ID manager is present, play secondary roles in managing instructional projects. ID specialists will support efforts to maintain effective relationships between the design team and the stakeholders and conduct project reviews. The ID specialist also supports the ID manager establish project scope and write proposals for instructional design projects. In the case of projects with no formal ID manager, the ID specialist uses management competencies to scope, facilitate, manage, and administer projects.

THE INSTRUCTIONAL DESIGN MANAGER

ID managers are generally responsible for controlling, administering, and directing an organization's ID function. As indicated in Table 5.1, in the 2012 ID competencies there are 36 primary performance statements and 9 secondary performance statement across 11 competencies clustered in 4 general domains that define the ID manager. Together, these competencies reflect the complexity of instructional design managers role. It is important to note that competent ID managers also have a grasp of the instructional design process and all its intricacies.

Overall, ID managers are held accountable by the organization's leaders for the accomplishments of the ID function ensuring that it aligns with, and supports, other parts of the organization in meeting the organization's goals. ID managers set the tone and work agenda for ID employees and consultants. ID managers hopefully began their careers as an ID specialist where they gained knowledge and the expertise to lead the organization's ID efforts. However, often those who serve as the ID function manager are human resources generalists who may not have a complete grasp of ID,

learning, and performance improvement. Thus, this set of ID competencies may be very helpful preparing ID managers for this role.

Given ID managers multiple relationships and responsibilities, it is not surprising that they should have competencies in the following domains

- *Professional foundations*, with a primary emphasis on communications skills and applying research and theory to the discipline of instructional design and a secondary emphasis responding to ethical, legal, and political implications in the workplace.
- *Design and development*, with primary emphasis using appropriate design and development processes, organizing instructional programs, planning noninstructional interventions, making decisions to modify existing instructional products.
- *Evaluation and implementation*, with primary emphasis implementing and evaluating instruction.
- *Management*, with a primary emphasis on applying management skills in the ID function, managing partnerships and collaborative relationships, and planning and managing instructional design projects.

Professional Foundations

As with all those involved in the ID function, the ID manager should be able to communicate effectively in visual, oral, and written form. The ID manager must also be able to apply systems thinking in organizing and defining project scope. Most importantly the ID manager is usually the gatekeeper in matters of ethical, legal, and political implications of design in the workplace

ID managers are responsible for making connections to other stakeholders in the organization. They work closely with the managers of such operational functions such as manufacturing, supply chain, and sales and with the managers of such support functions such as finance, legal, and information technology. In these capacities knowledge of the design function and systems thinking are particularly important. ID managers also work with and represent the ID experts who report to them. The ID managers strong communication skills are important because these stakeholders often will attempt to address organizational issues using performance frameworks, points of view, and language that are unique to other parts of the organization.

ID managers also engage other organization stakeholders in understanding the ID issues and negotiating solutions. Such engagement

involves two-way dialogue that occurs one-on-one or in groups in either face-to-face meetings or through virtual communication vehicles. The dialogue can be visual, written, and verbal or a combination of the three forms of communication. Such exchange consists of sharing opinions, listening to and understating other points of view, and inviting feedback. It also can include delivering presentations and reports that effectively share the intended messages.

It is also expected that ID managers can foresee and direct ID processes and outcomes. Because such insight and skilled maneuvering requires more than individual expertise, ID managers have up-to-date knowledge of the research and theory related to the discipline of ID and can explain to the other stakeholders the key concepts and principles related to instructional design. ID managers use systems thinking to gain insight into both the intended and unintended consequences of actions.

Finally, the ID manager should have competencies to identify and respond to ethical, legal, and political implications of design in the workplace. These skills are a secondary emphasis of ID manager in most situations. However, in today's dynamic work environment, various situations arise that have ethical implications. It is therefore prudent for the ID manager to develop strong competencies the ethical, legal, and political guidelines of the organization and use these when making ID function and project decisions.

Design and Development

It is the responsibility of the ID manager to direct ID efforts, which includes determining the ID processes used within the ID function and organize the instructional programs and products that will be developed. ID managers will work with ID specialists and/or instructional technologists to assure that processes for each effort are appropriate based on the nature of the project and that the instructional design process is modified as needed to reflect changes in the project parameters. The ID manager will also work with ID specialists and/or instructional technologists to determine the overall scope of selected projects.

Often a needs assessment will suggest that a noninstructional intervention (e.g., incentive modification, equipment requirements, process issues, organizational modifications) is necessary. Most often the ID managers will negotiate with key stakeholders (e.g., manager who owns the need, the organization's executives, and external consultants) to identify these interventions and determine the kind of effort that will best address the organizational needs (e.g., performance support, knowledge management, personnel selection, job redesign, incentive systems). The

ID manager will often consult with ID specialists and instructional technology, e-learning specialists, as appropriate, who may help justify the need for a noninstructional solution and engage in developing design specification for the intervention. Note that instruction may play a support role in such noninstructional interventions. For example, a knowledge management program could be rolled out via training.

Evaluation and Implementation

In this domain, the primary competency for ID managers is implement, disseminate, and diffuse instructional and noninstructional interventions. Given the ID manager's role in directing an organization's ID function, it is not surprising that ID managers are skilled in creating a vision of change that aligns learning and performance goals with organizational goals; planning for the implementation and disseminations of interventions; or that they monitor the implementation, dissemination, and diffusion progress. ID managers will collaborate with the ID specialists and instructional technologist/e-learning specialist in creating a vision.

Management

By definition, the ID manager's primary competencies include those within the management domain including: applying business skills to managing the instructional design function, managing partnerships and collaborative relationships, and planning and managing instructional design projects.

The ID manager should be competence in basic business skills. This involves assuring that the ID function supports the larger organization, has high quality processes and products, uses resources appropriately, has the personnel and expertise to accomplish the function's goals, and is understood and valued by management and other stakeholders. The ID manager should also be able to market instructional design services within the organization and manage ID customer relations.

ID managers should also be able to successfully manage partnerships and collaborative relationships reflecting the importance of achieving performance goals by working with other stakeholders. ID managers often are responsible for identifying stakeholders and their level of contribution to a process/project. They also will build connections among ID professionals and other stakeholders, and effectively manage cross functional teams. In addition, ID managers must be competence in conducting project reviews throughout and at the end of a project and conduct stakeholder reviews,

ultimately determining success and areas for improvement in projects and personnel.

It is critical that ID managers be able to successfully plan and manage instructional design projects within the ID function. In ID projects, ID managers often work with the ID specialist and instructional technologists to establish project scope and goals and write proposal for ID projects. The ID manager will be able to use a variety of planning and managing tools (e.g., project management tools, cost/benefit tools, resource allocation tools timelines, etc.) to support overall management of ID function projects and make appropriate choices for allocating project resources to support plans. It is also expected that ID managers have the competencies to managing multiple priorities and, as necessary, identify and address project issues.

THE ANALYST/EVALUATOR

The analyst/evaluator can play multiple roles in an instructional design project. As analysts, they specialize in the conduct, analysis, and interpretation of performance analyses and needs assessments. Such activities typically occur at the "front end" of the instructional design process. As evaluators, they work in all project phases—planning for the evaluation early in the project, conducting formative evaluations during design and development, and conducting summative evaluations during and following the implementation. As indicated in Table 5.1, in the 2012 ID competencies there are 29 primary performance statements and 10 secondary performance across 14 competencies clustered in 5 general domains that define the analyst/evaluator. Together, these competencies reflect the complexity of the instructional analyst's/evaluator's role. The analyst/evaluator competencies relate to:

- *Professional foundations*, with primary emphasis on communication and research skills
- *Planning and analysis*, with primary emphasis on identifying learner and environmental characteristics and conducting and reporting needs assessment
- *Design and development*, with primary attention to designing learning assessments
- *Implementation and evaluation*, with primary emphasis on planning and implementing formative and summative evaluations
- *Management*, with a supporting emphasis in conducting project reviews and in writing proposals for design projects

Professional Foundation Skills

The analyst/evaluator, like all instructional designers, are dependent upon a broad range of foundational skills. Because of the specialized role in gathering information from people and in distilling and presenting that information to others as part of the evaluation effort, an important area of competence for the analyst/evaluator involves communication skills.

A high level of competence in communication skills is critical to the analyst/evaluator for two major reasons. First, data collected through interviews, focus groups, and surveys become the foundation for all major design, development, and revision decisions; such data collection involves effective questioning techniques and, for the interviews and focus groups, active listening skills. Second, the analyst/evaluator must be able to clearly articulate in written form any interpretations and recommendations based on the findings.

Almost all of the communication performance statements are considered primary for the analyst/evaluator. These center on the need to interact with individuals and diverse groups throughout the organization when gathering data and insights into “what is really happening.” Active listening is an especially important competency. The analyst/evaluator interacts with individuals and groups when gathering information. The ability to listen and actually “hear” what informants are saying is critical.

In the needs assessment of an ID project, the analyst/evaluator must lay aside any preconceived ideas about the issues at hand. Instead, the person must rely on active listening and expert facilitation skills to uncover data about optimal and actual performance and root causes of the problem. Discussions may reveal issues pertaining to motivation and openness to change, work environment factors that may affect the choice of the intervention, and the target group’s attitudes to potential solutions, including delivery systems.

At the conclusion of the data collection for a needs assessment or evaluation effort, the analyst/evaluator must prepare a report and in many cases also make a formal presentation of the findings to stakeholder groups. The person must prepare crisp, well-written, well-documented reports using tabular and graphical displays of data. Reports should be written in the client’s language rather than that of instructional design, in order to gain the attention and understanding of management decision makers as well as other stakeholder groups.

The analyst/evaluator requires a high level of expertise in making a well-reasoned and compelling case for change. Presentations to senior management and other stakeholders must be informative, engaging, and persuasive, convincing them that the proposed solutions are compatible with, and responsive to, the needs and goals of the organization. Recommendations

should be data-based, but the analyst/evaluator also needs the “people” skills to gain support for these recommendations.

The instructional designer or design team represents one of the analyst’s/evaluator’s primary customers. Team members use the findings and recommendations to make significant design and development decisions. The team requires clearly communicated information about the learner group characteristics and environmental and cultural factors that may need to be accommodated in the design and development process, as well as the anticipated degree of support for the specific interventions. Furthermore, when undertaking revisions, the design team relies on evaluation data, interpretation, and recommendations.

Likewise, the design team is likely to depend on the analyst/evaluator for debriefing them to establish project lessons learned. Since evaluations are usually undertaken some time after the instructional event, face-to-face meetings between the design team and the analyst/evaluator are generally necessary to discuss the report and gain insights from the evaluation. Such meetings can be used to enhance future instructional development as well as suggest revisions in a program.

The core of the analyst/evaluator’s work involves data collection and analysis. Whether as part of a needs assessment or part of an evaluation, this person seeks to uncover any issues or problems. The analyst/evaluator role requires a high level of skills in identifying the needed data, designing data collection tools and procedures, collecting the data, and using the appropriate quantitative and qualitative methods to analyze the data. Only with such skills can the data collection and analysis uncover the relevant issues and generate data that are comprehensive and representative of the target group.

The analyst/evaluator needs to be skilled in formulating questions and conducting interviews and focus groups. It is also important for this specialist to be aware of cultural attitudes that may influence the responses. In some cultures, it is unacceptable to express opinions that differ from the most senior person in the group. In this situation, a written or online survey is more likely to provide more reliable and valid data than a focus group. In other cultures, respondents tend to choose the midpoint on a Likert-type scale survey regardless of their real views.

The analyst/evaluator must be able to use basic statistical techniques to analyze the data that have been collected. When using surveys to gather data globally, thought should be given as to whether translations are needed for any countries or groups of respondents. If so, there should be a translation into that other language by one person and a back-translation into the initial language by another, independent person. If an English language survey is used worldwide, every effort should be made to communicate in unambiguous English, avoiding Western terms or jargon

and using simple sentence structures. When employing online surveys using an organizations system, the analyst/evaluator may need to partner with information technology specialists or external vendors for needed technical support.

Planning and Analysis

The analyst/evaluator plays a major role in planning and analysis for an instructional design project. Much of this is considered “up-front” work, and it lays the foundation for the remainder of the project. The specialist’s role focuses on conducting the needs assessment, describing learner and environmental characteristics, and conducting analyses to determine instructional content and use of instructional technologies.

Needs assessment and analysis are foundational to the entire instructional design process and they represent critical facets of the analyst/evaluator’s role. As part of the needs assessment process, the analyst/evaluator must accurately describe the dimensions of current performance, identify the root causes of performance or attitudinal discrepancies, and recommend interventions to close the performance gap. The analyst also prepares a cost-benefit analysis for recommended solutions when required by a stakeholder or client.

The analyst/evaluator writes a performance analysis report after carefully reviewing all data and then proposes and advocates a range of solutions including both instructional and noninstructional ones, as appropriate. Even a variety of training interventions may be proposed for some performance gaps. Performance analysis and needs assessment of this caliber goes beyond confirming senior management’s dictates or learners’ requests, because they are based on an in-depth assessment of the relationship between current performance and desired organizational outputs.

A clear description of the target population, including the current skill level, is a key output of the analyst/evaluator’s work. In performance analysis and needs assessment, the analyst/evaluator must identify who needs the intervention and report on learner characteristics that the design team should consider. These considerations typically include such demographics as cultural diversity, language fluency, learning preferences, variations in entry-level knowledge across regions, level of motivation to change, and capability with relevant technologies.

The analyst/evaluator must recognize environmental factors that can influence the success of the intervention. That person identifies systemic issues that should be taken into account during the design and development phases. These same environmental factors may influence the attitudes of the learners toward the training and may positively or negatively

impact the transfer of learning to the workplace. In highlighting work processes, structures or systemic factors that may undermine effective implementation of training, the analyst/evaluator is also looking ahead to the environmental factors that undermine the postimplementation effects of the intervention. Examples include a lack of facilities or resources to deliver the training, lack of supervisor support for the intervention, an organizational culture that undermines the training, the need for job redesign prior to training, a lack of supporting processes, the selection of underqualified new hires or lack of support by the trainees’ managers. The analyst/evaluator is concerned with the transfer of training to the work environment and the long-term impact of an intervention on the organization. These conclusions are dependent upon data from a variety of sources. The analyst/evaluator documents any identified barriers as well as notes drivers or environmental factors that support the intervention and overall impact on stakeholders performance.

The analyst/evaluator is the specialist who assists the design team in gathering and analyzing content from subject-matter experts and from other sources. The focus of such efforts is to help determine the instructional content and the appropriate use of any instructional technologies. This analysis takes into account the current levels of content knowledge to determine what may be needed in training. The analysis also takes into account the current and available technologies as well as emerging technologies and assesses the benefits and limitations of each. The results of this analysis may be provided to the instructional technologist on the team for further refinement.

Design and Development

The primary role for the analyst/evaluator during design and development focus on the cons-benefit analysis related to existing instructional materials and the design and development of learning assessments. When an ID project identifies that there are existing instructional materials that are not effective or appropriate one decision is whether they should be modified or replaced with other instruction, either developed or purchased. The analyst/evaluator can conduct a cost/benefit analysis to support this decision.

The most critical role that the analyst/evaluator plays in the design and development phase however is consulting on the development of learning assessments. First the specialist works with the ID and instructional technologist specialists to identify and define the learning processes and outcomes to be measured. Based on that identification, the specialist can construct methods to measure those processes and outcomes. Unlike other design team members, the analyst/evaluator also possesses the skills

to undertake the appropriate analyses to determine the reliability and validity of those assessments. Ultimately, these assessment must be aligned with the instructional and strategies.

Implementation and Evaluation

Evaluation skills form the second major cluster of competence for the analyst/evaluator. Many think of evaluation as taking place at the end of the intervention, but the competent analyst/evaluator understands and communicates the importance of beginning in the early stages of the design process. The specialist plans both the assessment and evaluation strategies in partnership with others on the design team.

Formative, developmental, and summative evaluation strategies (including impact and cost-benefit analyses) are developed at a macrolevel, taking into account the environmental and culture issues previously discussed. With formative and development evaluations, the specialist must provide timely information to the design team so that appropriate revisions can be implemented. At the conclusion of the training implementation, the analyst/evaluator meets with stakeholders to present the findings and discuss recommendations. The stakeholder group may include management, the design team, instructors, content specialists, and developers. Organizational development specialists may also take on the stakeholder role, if the evaluation identifies organizational resistance to change.

The analyst/evaluator is concerned with the transfer of training to the work environment and the long-term impact of an intervention on the organization. These conclusions are dependent upon data from a variety of sources. They also build upon the initial needs assessment, especially when that assessment identified factors that the organization expected to be impacted by the intervention. When the intervention is implemented globally, evaluation decisions must be reflective of the diverse environmental and the social, cultural, and physical influences that can impact both the delivery and the outcomes of training. The analyst/evaluator must be sensitive to the impact of cultural differences on learning, performance, and long-term transfer. In many cases, the impact of these systemic factors cannot be anticipated or predicted, because organizations lack a history of comprehensive program evaluation on a global basis. Similarly, the effects of organizational culture must be taken into account. Organizational values and culture can support or undermine the intervention, leading to success or failure. The competent analyst/evaluator is mindful of these issues and attempts to assess their influence.

The analyst's/evaluator's recommendations must always relate to the organization's strategic goals and the changes needed to achieve these

goals. For this specialist, focusing on the strategic goals is particularly important when findings do not support the prevailing view of a particular intervention. For example, evaluation data may show that a popular program is having no impact on work practices or that the cost of the intervention outweighs the benefits. In such cases, the findings may be discounted, challenged, or even refuted by the instructional developers, the subject-matter experts, the instructors, the primary customers, or management. It is up to the analyst/evaluator to present persuasive arguments that will counteract such opinions.

Management

The competency of primary importance within this domain for the analyst/evaluator is that of working with stakeholders. The specialist depends on the support and input of internal people, and occasionally external experts or contractors, to obtain the performance analysis data and insights needed to identify critical performance issues, root causes, and a range of potential solutions. In some organizations, performance analysis and needs assessment may be regarded as time wasters and unnecessary. The skilled analyst/evaluator is able to identify the key stakeholders and persuade them, especially senior management, that analysis is imperative and a sound investment of time and money. The analyst/evaluator must also build collaborative relationships with potential subject matter experts during the data collection phases. Content experts often agree to act as project SMEs on the basis of relationships formed during the needs assessment phase.

THE E-LEARNING SPECIALIST/INSTRUCTIONAL TECHNOLOGIST (IT)

The e-learning/IT specialist's profile is almost identical to that of the ID specialist, however includes demonstrated expertise on technology-based and supported instructional products. As indicated in Table 5.1, in the 2012 ID competencies there are 40 primary performance statements (6 more than the ID specialist) and 33 secondary performance (6 less than the ID specialist) across 21 competencies clustered in 5 general domains that define the e-learning specialist. Together, these competencies reflect the complexity of the e-learning specialist's role.

The e-learning specialist six primary performances that are different from the ID specialist all focus on the expectation for advance technology knowledge and skills. e-learning specialists work in all phases of an instructional project. However, a majority of their work is dedicated to the development of technology aspects of instructional interventions. For larger

projects there may be several specialists working together to fulfill this role. The e-learning specialist competencies are found in the following domains:

- *Professional foundations*, with a particular emphasis on communications skills, applying concepts, techniques, and theories of other disciplines to technology-based learning and performance improvements, systems thinking, updating current knowledge of new technologies, and intellectual property rights
- *Planning and analysis*, with particular emphasis on identifying performance problems, learner, environmental and infrastructure characteristics and best practices in using technologies
- *Design and development*, with particular emphasis on selecting appropriate technologies and designing and producing instructional interventions to support interaction, learning, and assessment with the most effective technologies
- *Evaluation and implementation*, with particular emphasis on formative evaluation and revision of technology-based or supported interventions
- *Management*, with a particular emphasis maintaining project scope, focus, and schedules and on collaborative relationships with other team members in the design and development of technology solutions

Professional Foundations

A majority of the communication competencies are primary skills of the e-learning specialist, similar to those of the ID specialist. It is particularly important that e-learning specialists also maintain strong competencies in applying concepts, techniques, and theory of other disciplines (e.g., message design, visual design) to learning and performance improvements interventions that use technologies. As with the ID specialist, the e-learning specialist should also use systems thinking to help define technology-based or supported instructional solutions.

With the continued growth in new technologies and digital tools it is expected that e-learning specialists will constantly update their knowledge of emerging technologies or technology uses in instructional and learning settings and have more advanced skills in using such technologies in practice over the ID specialists. Nowadays, or even in the early days when computer technologies began to emerge in educational settings, a trend is for digital tools (e.g., computers, interactive video, internet, electronic white boards, mobile technologies, response systems) to be put in place with

little thought about the instructional implications, those that are beneficial and those that can be inhibiting. Little attention is traditionally paid to the features of new technologies to support or inhibit teaching and learning. Therefore, it is essential that e-learning specialists play gatekeeper and persuader in responding to haphazard integration of technology resources. Advising on the long-term strengths and weaknesses as well as cost/benefits of using technologies based on learning needs is important in developing instructional interventions that have any ability to improve performance.

Given the ease of accessing and capturing information and resources from others in this technologically sophisticated world suggests that another essential competency for the e-learning specialist is recognizing and respecting intellectual property rights of others. The e-learning specialist should know and maintain ethical and legal perspective when it comes to uses of digital resources created by others. Even in cases of international projects where copyright laws do not exist, it is important that the E-learning specialist observe ethical practices.

Planning and Analysis

The e-learning specialists competencies are identical to the ID specialist in the Planning and Analysis domain with the exception of three performance statements. The e-learning specialist has primary (as opposed to the ID specialists secondary) emphasis on identifying the infrastructure that is available to support design and deliver of instruction, describing the capabilities of existing and emerging technologies required to enhance the impact of instruction, and assess the benefits and limitations of existing and emerging technologies. e-learning specialists will generally have additional training, therefore knowledge and skills, in instructional technology that will provide additional benefits to instructional design project teams. Such competencies will help in the identification of appropriate technology solutions based on the needs assessment. e-learning specialists knowledge of multiple types of technologies will also be useful in identify which technologies make the best sense (and should be proposed) and which features of these best choices are most likely to fulfill instructional and learning needs.

Design and Development

The e-learning specialists competencies are identical to the ID specialist in this domain with the exception of one performance statement, select-

ing appropriate technology and media to enhance instructional interventions, taking into account theory, research, and practical factors.

e-learning specialists require expertise and competencies in all facets of the design and development of technology-based learning including use of color, interactivity, screen design, motivational characteristics, graphics, overall message design, and social connectedness factors. Although message and visual design are both critical in all instruction, the varying features and views of instruction in different types of technologies (e.g., computer monitors, smaller handheld devices) suggest changes in information structures, presentation, level of interactivity, and other characteristics. Thus, the competencies of the e-learning specialist can ensure that design specifications effectively integrate these new technologies based on overall instructional goals, expected learning outcomes, accessible resources, and technology infrastructure.

e-learning specialists, as ID specialists, must also be proficient in building connections among technology and nontechnology aspects of an instructional product. This is especially important in the cases of blended learning environments and in the transfer of learning from instruction to the realities of practice. Nowadays, rarely is face-to-face instruction not accompanied by some type of online information, instruction, or learning. e-learning specialists should be able to provide valuable input on aspects of instruction that are best delivered or available in digital format or that require asynchronous activities or that require synchronous interactions with those in distance locations. Developing an effective design should take into account how the learners (and facilitator) will interact with all resources for the instruction whether paper, technology, and human. e-learning specialists should have an understanding of all aspects of instruction and implementation of instruction with regards to technology-based and supported learning.

e-learning specialists should also be able to provide input on technology choices that will support post-instruction transfer of new knowledge to the workplace. Often training has some level of disconnect between training and work environments. Technology solutions may help to bring learning and practice together by using tools that are the 'same' during instruction as those used during work or using instructional resources that are easily and safely accessed in the workplace as references after instruction. e-learning specialists should develop a keen sense of the types of technology resources that are used in the practices of the target audience for instruction and use their knowledge of technology to help the ID specialists create instructional solutions that support transfer (with these tools) from instructional to practice environments.

In the case of the emerging mobile and handheld technologies, for example, e-learning specialists must be skilled at reducing technical con-

tent to clear and unambiguous text for various deliver mechanisms. They must be able to design multimedia interfaces that are effective and visually stimulate the interest of the learner without compromising the instructional and learning requirements. Technology-based instruction may entertain users, but its principle function is to contribute to learning and improve performance often in multi-cultural settings. Thus the e-learning specialist partners with the ID specialist to design and develop technology solutions that are most likely to support learning and transfer.

Evaluation and Implementation

The e-learning specialists competencies are identical to the ID specialist in evaluation and implementation. Both should be well versed in basic evaluation techniques, abilities to revise interventions based on evaluative data, and knowledgeable of the best techniques and strategies to implement instructional interventions. The e-learning specialist will be focused on the technology based aspects of the instructional interventions during these phases, working also with the analyst/evaluator to identify and gather data on specific technology resources.

Management

The e-learning specialists competencies are identical to the ID specialist in the management domain. Both play a supportive role in managing partnerships and collaborative relationships and planning and managing instructional design projects. The e-learning specialist will be focused on providing technology perspectives during collaborations and projects reviews. The e-learning specialist will also provide relevant input on project scope and goals based on their advanced knowledge of the design and development of technology based and support instructional interventions. Thoughts on development process, resources, and time lines may be particularly important in determining overall project scope and progress.

Development of technology resources, given the effort required to develop such resources, may also require additional steps in the design, development, and implementation steps not normally required with classroom or paper-based instruction, for example, technology testing and error reviews). It is critical that the e-learning specialist brings these tasks into the management plan early in the planning stages to avoid time line and resource issues later in the project.

SUMMARY

The instructional design profession has expanded over the decades to include a variety of specialties. All of these specialists (ID, manager, analyst/evaluator, e-learning) and others, have painted the role of the instructional designer based on specified interests and primary competencies. However, it is suggested that all instructional designers, specialists and generalists, should maintain basic competencies in all of the instructional designer domains. Although the descriptions in this chapter lean toward circumstances of large projects with multiple ID specialists working together in a team, many times an instructional designer works solo, fully creating an instructional solution or working on different aspects of an instructional project, taking responsibility for all of these roles. This is often the case of an instructional design consultant or contractor who is hired for a specific instructional project, oftentimes with limited scope.

Whether working in a team or solo, instructional designers have a great deal to learn to be competent. Specialists like program evaluators or e-learning specialists, also must be competent in the all aspects of design and development, however have keenly developed competencies in their area of interest. Competent instructional designers, whether generalists or specialists, develop through education, experience, and participation in on-going professional development. Table 5.1 gives an overview of the competencies that an instructional design specialist, instructional design manager, analyst/evaluator, and e-learning specialists should have to take on their respective roles. The Table 5.1 may also be helpful in identifying the primary and secondary competencies for those who are hiring or contracting generalists and specialists—and those instructional designers who are contemplating assignments or new positions.

CHAPTER 6

THE COMPETENCY VALIDATION RESEARCH

This chapter describes the research involved in the development and validation of the ibstpi instructional designer competencies. These competencies, as with the other ibstpi competency sets, reflect a current assessment of what active professionals do in their practice. Such an assessment, far from being the opinion of a few individuals who claim to be experts or a trendy online survey in social media circles, is the product of rigorous research methods and a legacy of research studies, as described below. Over time these studies have increased the number of active professionals consulted, across continents, countries, languages, diverse organizations settings, levels of expertise, and degrees of formal education in the discipline. Indeed, ibstpi has set a benchmark for this type of research as there are no other studies with this level of rigor and scope.

The ibstpi ID competencies are empirically-based. They are grounded in several research studies, including:

- The development of the 1986 ibstpi ID competencies of “journeyman” instructional designers;
- The Atchison (1996) study that identified competencies of expert instructional designers;
- The Song (1998) study that sought to replicate the work of Atchison;