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# Investigating Instructional Design Management and Leadership Competencies - a Delphi Study

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## Abstract

Research in instructional design and educational technology journals typically focuses on the theories, technologies, and processes related to practice of instructional design. There is little research emphasis, however, on leadership and management of instructional design in higher education. Investigating the competencies associated with effective leadership and management of instructional design is critical as it would provide the field with guidance on how to more effectively prepare and train instructional design leaders and managers in higher education. In this study, we explored the competencies required for an instructional design manager to be effective in higher education settings. We used a Delphi study surveying managers and leaders of instructional design through an anonymous consensus-building process consisting of two rounds of surveys. Results identified eight major categories with 64 competencies as relevant for leading and managing instructional design in higher education. Managers and leaders surveyed identified communication, project management, and visioning and strategic alignment as integral competencies to be successful in leading and managing instructional design. We discuss the implications of this research and provide recommendations for research, practice, and education of future instructional design professionals.

## Introduction

Instructional designers are playing an increasingly important role in improving teaching quality in higher education (Rubley, 2016). There are now roughly 13,000 instructional designers working in higher education (Intentional Futures, 2016). Some scholars assert that instructional designers are particularly well equipped to lead in higher education, noting that quality online instruction will be a key feature of the future of higher education (Ashbaugh & Piña, 2014; Brigance, 2011; Shaw, 2012). In higher education, as in most environments, a director or manager typically leads instructional designers. Many university-trained instructional designers will likely become managers who lead and direct the work of instructional design (Ashbaugh & Piña, 2014; Merrill, 2007), and might therefore benefit from management and leadership courses within instructional design university curricula.

Numerous research studies show the impact--both positive and negative--that a manager's or

leader's behavior and competency have on an employee's engagement at work (e.g. Madlock & Kennedy-Lightsey, 2010; Wang & Hsieh, 2013; Xu & Cooper Thomas, 2011). This impact likely applies to employees serving in an instructional design role. However, the research on instructional design leadership and management is sparse. Da Silva, Diana, and Catapan (2015) conducted a search for recent articles related to instructional design and management and found few articles that discussed both topics, though project management--a component of management--was identified as a common theme in the instructional design literature. Recognizing a need to investigate instructional designer leadership competencies, Ashbaugh (2011) and Ashbaugh and Piña (2014) gathered the expertise of instructional design practitioners in a Delphi study. This study resulted in the 7 Ps of leadership for instructional design (7PL4ID), which includes the following characteristics: (1) *Prescience* – envision and promote a vision of the future; (2) *Preventive or proactive thinking* – strategize to anticipate future problems and opportunities; (3) *Provision for unexpected and unknown* – have backup plans and resources in reserve; (4) *Personality* – collaborate, communicate effectively, and show care for others; (5) *Productivity* – work hard and expect excellence from others; (6) *Psychological/emotional toughness* – make difficult decisions based on sound reasoning; and (7) *Personal convictions*—*exhibit* consistent, moral behavior. However, this study appears to be focused on leadership by instructional design professionals broadly, and not specifically on positional leaders and managers of instructional designers in higher education. Researchers note a need to clarify and validate the specific competencies associated with effective leadership and management of instructional design (Ashbaugh & Piña, 2014).

In the related field of distance education, it is clear that leadership and management have not been adequately researched. A Delphi study involving international distance education experts identified research on management and change as important to moving the field forward (Zawacki-Richter, 2009). Beaudoin (2003) noted “it seems we have not yet paid adequate attention to new roles required of leaders” (p.1) in distance education. While some authors identify leadership theories that might apply to higher education (e.g., Dashtahi, Ekrami, Navehebrahim, and Sarmad, 2016; Nworie, 2012), the majority of the literature focused on management and organization in distance education have been interpretive rather than empirical in nature (Dashtahi et al., 2016), suggesting a need for more empirical research in this area.

Given that a manager likely impacts the success and engagement of instructional designers and that research on effective management and leadership of instructional designers is lacking, we conducted an exploratory study on what these competencies are. In this study, we used a Delphi study surveying managers and leaders. The research questions for this study include the following:

1. What competencies do managers of instructional designers believe are necessary for effectively leading and managing instructional design in higher education?
2. Which of these competencies do managers of instructional designers believe are most important for effectively leading and managing instructional design in higher education?

## **Method**

We used a Delphi methodology for this study (Brill, Bishop, and Walker, 2006; Hasson, Keeney, & McKenna, 2000). The Delphi method is an approach to building a consensus of experts' opinions through multiple rounds of surveys (Hasson et al., 2000). A Delphi study typically includes (a) an initial survey that collects qualitative comments, (b) a second questionnaire that seeks to quantify and statistically analyze participants' responses, and (c) sometimes a third or even a fourth survey that seeks to further quantify and analyze those responses until consensus is obtained (Hasson et al., 2000). Brill et al. (2006) have noted that a Delphi study “is a particularly good research method for deriving consensus among a group of individuals having expertise on a particular topic when information sought is subjective and where participants are separated by physical distance” ( p. 8).

## *Participant recruitment*

To gather participants for our study, we went to the Department of Education's Database for Post-secondary accredited institutions and programs (U.S. Department of Education, n.d.). We used a recent list of accredited organizations within the last quarter, which included 2,591 total instances of organizations seeking institutional accreditation during that period. We then cleaned the data to focus on four-year institutions, remove repetitions, and remove those with no website listed in the spreadsheet.

We then conducted a random sampling procedure to select 800 of these schools, assuming that only a percentage of the universities employ instructional designers. We collected the names and email addresses of potential participants by reviewing the institutional website to find whether instructional designers and their leaders existed. To focus the population, we included any school that was a bachelor-level or higher degree granting institution and that had an instructional design manager on staff. This process yielded 148 potential participants. We recruited these participants through an email soliciting their participation in the survey. As an incentive, we offered participants the opportunity to be entered into a drawing to receive one of two \$25 gift cards.

## *Instruments*

We employed two instruments in this study. Our first survey (Round 1) gathered the expertise of the participants regarding their perception of the key competencies for leading and managing instructional designers based on questions posed. We designed the second survey (Round 2) to quantify and further analyze the importance of the identified competencies that emerged from qualitative analysis of round 1 survey.

### *Round 1*

The purpose of the round 1 survey in a Delphi study is to gather the expertise of the participating experts (Brill et al., 2006; Hasson et al., 2000). Our goal was to identify the competencies that managers of instructional designers believe are necessary for effectively leading and managing instructional design in higher education. We designed the round 1 survey to collect qualitative comments in response to the questions posed.

When conducting a Delphi study, it is important to direct participants' responses toward the stated goal of the study, which in this case was the research topics identified for the study. We did not want to focus the attention of the participants too specifically, so we attempted to use definitions of leadership and management that were somewhat general in nature and that reflected the definitions commonly seen in management and leadership literature. We used the following definitions. *Leadership* is influencing others to accomplish mutually agreed upon purposes for the organization. It entails possessing the ability to: (a) rally others to accomplish a common purpose, (b) forge a path for self and others to follow, and (c) inspire others to productive action. *Management* is the act/process of coordinating people and/or resources efficiently to achieve or to reach organizational goals. It involves five basic functions of planning, organizing, directing, staffing, and controlling. We made the definitions as open-ended as possible to enable the participants to share their expertise.

We solicited candidates by email using the email address identified in the candidate selection process. The email summarized the study and solicited the candidate's participation in the study. The linked round 1 survey included the informed consent form and the survey items. After participants completed the informed consent form, we provided the definitions to give general guidance to participants on what the researchers meant by leadership and management in the context of this study and then posed the following questions:

1. What **management knowledge** do you believe a manager of instructional designers in higher education must possess in order to be successful?
2. What **management skills** do you believe a manager of instructional designers in higher education must possess in order to be successful?
3. What **leadership knowledge** do you believe a manager of instructional designers in higher education must possess in order to be successful?
4. What **leadership skills** do you believe a manager of instructional designers in higher education must possess in order to be successful?
5. What **additional knowledge and skills** must an instructional design leader know and possess in order to be successful?

We kept the round 1 survey open for a two-week period, emailing participants after a week to remind them of our request for participation.

### *Round 2*

Our goal for the round 2 survey was to identify which competencies managers of instructional designers believe are most important for effectively leading and managing instructional design in higher education. We developed the round 2 survey to validate the importance of the themes identified in the round 1 survey. We included the informed consent form on the initial page and created several items to gather more detailed demographic information about each of the participants. The round 2 survey then asked participants to rate the importance of each of the 64 individual competencies identified using the following scale: not important, somewhat important, moderately important, very important, and extremely important.

To solicit participation for the round 2 survey, we again emailed the 148 potential participants and opened the survey for a total of two weeks with an initial email inviting their participation and a follow-up email after one week.

The round 2 survey began with several demographic items. The other categories as determined by the first survey were teaching, learning, design, and technology expertise competencies (10 items); project management competencies (13 items); communication competencies (7 items); interpersonal and people skills competencies (6 items); inspiring, motivating, and empowering others (8 items); environmental and organizational awareness (5 items); visioning and strategic alignment (7 items) and organizational politics and relationships (8 items). In total, there were 70 items on the questionnaire.

Reliability and internal consistency of the scale used in our questionnaire representing various categories of competencies was assessed using Cronbach's alpha (Cronbach, 1971). The items in the categories had high internal consistency as follows: teaching, learning, design, and technology expertise consisted of 10 items ( $\alpha = .748$ ). Project management consisted of 13 items ( $\alpha = .840$ ), while communication consisted of 7 items ( $\alpha = .888$ ). Interpersonal and people skills consisted of 6 items ( $\alpha = .611$ ); inspiring, motivating, and empowering others consisted of 8 items ( $\alpha = .861$ ); environmental and organizational awareness consisted of 5 items ( $\alpha = .730$ ); visioning and strategic alignment consisted of 7 items ( $\alpha = .768$ ) and organizational politics and relationships consisted of 8 items ( $\alpha = .885$ ). The overall internal consistency and reliability among all 64 items was ( $\alpha = .942$ ), greater than the recommended 0.70 (Nunnally, 1978).

## **Results**

### *Round 1 results*

Round 1 survey had a total of 22 participants out of 148, for a response rate of 15%. Eighteen percent of these participants reported 0-2 years of managing and leading instructional design, 32% had 3-5 years, 23% had 6-8 years, 9% had 9-11 years, and another 18% had more than 12 years.

We conducted a thematic analysis of the round 1 survey results using constant comparative analysis to create the themes by iteratively (a) reviewing the gathered data, (b) identifying themes within the data, (c) developing categories based on these themes, and (d) coding and sorting the data to categorize specific comments into those themes. Following the advice of Brill et al. (2006), all three research team members completed individual analyses and then met as a research team to compare our findings and consolidate those themes into a comprehensive set, being careful to review the raw data to remain true to the comments of our experts.

For example, as we reviewed the data, we found that respondents included comments such as these relating to project management: “Project management cycle,” “backwards planning ability to manage timing of projects,” and “Knowing how to manage large projects, assigning tasks as necessary to meet deadlines & goals; knowing how to coordinate and combine multiple small parts in order to make a cohesive whole.” As a research team, we grouped these comments into a project management theme and category. We then placed all responses relevant to that theme within that category. See *Appendix A* for a larger sample of the raw data and emerging categories.

This thematic analysis resulted in eight themes or categories: (1) teaching, learning, design, and technology expertise; (2) project management; (3) communication; (4) interpersonal and people skills; (5) inspiring, motivating, and empowering others; (6) environmental and organizational awareness; (7) visioning and strategic alignment; and (8) organizational politics and relationships. Within these categories, we identified 64 statements of competence drawn from the comments of the survey participants. *Appendix B* includes the resulting categories and the competencies associated with each category.

### *Round 2 results*

Twenty-three participants responded to the round 2 survey, a response rate of 16%. Of this, 52% of respondents had 0-5 years of experience leading or managing instructional designers, and 17% had 6 - 8 years. Additionally, 31% reported over 9 years of experience leading instructional designers. Further, 61% of participants reported that they lead between 1 - 3 designers, another 17% lead 4 - 6 designers, and furthermore 22% of participants lead 7 - 9 designers. In terms of type of institution, 61 % work in public institutions and 39% work in private non-profit institution. Also, 44% of our respondents were female, 56% male. Regarding the highest level of education attained, 35% of respondents had doctorates, 52% had masters, 4% had bachelors, and another 9% reported other as their highest level of education.

### *Importance of competencies*

We used descriptive statistics to determine the relative importance of each of the 64 competencies identified in the first survey. The results ranged from the highest mean ( $M = 4.81$ ) to lowest mean ( $M = 2.95$ ) out of five possible points. Table 2 summarizes the top ranked competencies, with communicate effectively in writing and in speaking across all levels of management; and accept change and help to implement it at the institution rated highest at  $M=4.81$ .

Table 2. The 15 top ranked leadership and management competencies.

<b>Relative Ranking</b>	<b>Top Ranked Competency</b>	<b>Mean Rating</b>
1	Communicate effectively in writing and in speaking across all levels of management	4.81
1	Accept change and help to implement it at the institution	4.81
2	Listen actively	4.76
3	Communicate tactfully	4.67
3	Communicate with members of other departments in a way that is relatable to them	4.67
3	Constructively resolve conflict	4.67
3	Communicate and explain priorities and decisions effectively	4.67
4	Solve client problems	4.62
4	Know the instructional designers including their goals, strengths, weaknesses, and how they fit within the team	4.62
4	Guide work of the team without micro-managing and intervene when needed	4.62
4	Get buy in from others	4.62
4	Build relationships with others	4.62
5	Set priorities based on departmental and institutional objectives	4.60
6	Secure needed resources to fulfill workload	4.57
6	Inspire employees through modeling to grow their expertise and to be honest and ethical	4.57

The lowest rated competency was solve technical problems ( $M = 2.95$ ). This was followed by understand personality styles; and create a budget with  $M = 3.43$  and  $3.52$  respectively. Draw on experience teaching in higher education; and know classroom design principles followed with  $M = 3.57$  and  $3.62$  respectively. *Table 3* summarizes the lowest ranked competencies in this study.

Table 3. The 5 lowest ranked leadership and management competencies.

<b>Lowest Ranked Competencies</b>	<b>Mean Rating</b>
Solve technical problems	2.95
Understand personality styles	3.43
Create a budget	3.52
Draw on experience teaching in higher education	3.57
Know classroom design principles	3.62

The competencies in the communication category rated highest with  $M = 4.68$ . This was followed by project management, visioning and strategic alignment competencies at  $M = 4.33$  and  $4.29$  respectively. Organizational politics and relationships; environmental and organizational awareness; and inspiring, motivating, and empowering others followed. See *Table 4* below. *Appendix B* includes all competencies rated in this study and their relative ranking by survey participants.

Table 4. Overall Rating of Competency Categories

Competency Category	Mean	Rank
Communication	4.68	1
Project Management	4.33	2
Visioning and Strategic Alignment	4.29	3
Organizational Politics and Relationship	4.26	4
Environmental and Organizational Awareness	4.24	5
Inspiring Motivating and Empowering Others	4.21	6
Interpersonal People Skills	4.19	7
Teaching, Learning, Design and Technology Expertise	3.90	8

### Interpretation and discussion

Our first goal was to determine which competencies managers of instructional designers believe are necessary for effectively leading and managing instructional design in higher education. While our results are preliminary, they have identified eight categories of competency and several individual competencies.

When comparing the instructional designer competencies espoused by the International Board of Standards for Training, Performance, and Instruction (Koszalka, Russ-Eft, & Reiser, 2012) with the competencies in this study, there are some clear similarities. For example, there are clear similarities in the categories of Professional Foundations, Design and Development, Evaluation and Implementation, and Management competencies. However, the way in which these competencies are applied is likely different due to the clearly different context in which the skills are applied. Two categories identified in this study – (1) environmental and organizational awareness, and (2) visioning and strategic alignment – are not reflected in the IBSTPI competencies. If many of the graduates of instructional design programs become leaders and managers, then educators might consider including these competencies in their associated graduate program goals. *Appendix C*

provides a comparison of IBSTPI instructional designer competencies and those identified in this study.

Our second goal was to identify the competencies that managers of instructional designers believe are most important for effectively leading and managing instructional design in higher education. We identified Communication, Project Management, and Visioning and Strategic Alignment as the top three competency categories for the study. We were surprised by the relatively low ranking of the Teaching, Learning, Design, and Technology Expertise categories, as compared to the ranking of the other competencies. Still, participants gave it an overall ranking of 3.9, just below the threshold for very important, indicating that these lower-ranking competencies are still important in instructional design leadership and management.

In reflecting on the results of this study, we believe it is important to compare what we have found with what has been written previously regarding instructional design leadership, specifically comparing these results with the 7PL4ID model (Ashbaugh & Piña, 2014). *Table 5* provides a comparison of the 7PL4ID model (Ashbaugh & Piña, 2014) and the results of this study. The term Prescience has similar meaning to the Visioning and Strategic Alignment category, and Preventive or Proactive Thinking in the 7PL4ID is related to our Environmental and Organizational Awareness category. Personality, as described by Ashbaugh and Piña (2014) aligns with the Communication, Interpersonal Skills and People Skills, and Politics and Relationships categories. Also, 7PL4ID's Productivity appears to relate to Inspiring, Motivating, and Empowering Others, as well as Project Management. There did not immediately appear to be a relationship with the Provision for Unexpected and Unknown, Psychological/Emotional Toughness, or Personal Convictions categories described in 7PL4ID. The category of Teaching, Learning, Design, and Technology Expertise, our lowest-ranked category, did not immediately appear to align with 7PL4IDs.

Table 5. Comparing the 7PL4ID and the results of this study.



<b>7 Ps of Leadership for Instructional Design (7PLAID)</b>	<b>Competency categories identified in this study</b>
(1) <i>Prescience</i> – envision and promote a vision of the future	Visioning and strategic alignment
(2) <i>Preventive or proactive thinking</i> – strategize to anticipate future problems and opportunities	Environmental and organizational awareness
(3) <i>Provision for unexpected and unknown</i> – have backup plans and resources in reserve	
(4) <i>Personality</i> – collaborate, communicate effectively, and show care for others	Communication Interpersonal skills and people skills Politics and Relationships
(5) <i>Productivity</i> – work hard and expect excellence from others	Inspiring, motivating, and empowering others Project management
(6) <i>Psychological/emotional toughness</i> – make difficult decisions based on sound reasoning	
(7) <i>Personal convictions</i> , exhibit consistent, moral behavior	

### *Implications for practice*

Universities and employers of instructional designers may benefit from considering these competencies when hiring and developing instructional design leaders and managers. Although the instructional design-specific competencies were rated lower than other competencies by those surveyed in this study, the competencies were still rated as very important by the participants. This implies that design, technology, and learning-specific competencies should be considered when hiring managers and leaders of instructional design.

### *Implications for educators of instructional designers*

In instructional design programs, the focus of educators is typically to prepare graduates to design instructional interventions (Koszalka, Russ-Eft, & Reiser, 2012). However, instructional designers often assume a director or manager role in higher education and might benefit from formal leadership and management training in their studies. If we do not concern ourselves with the development of leadership and management capacities, we acquiesce leadership to others who may have less expertise in learning, instruction, processes, and systems for supporting and improving learning. We as a field should assume a greater role in leadership and decision-making in higher education.

## *Limitations*

This study includes several limitations. We only studied the perspective of managers of instructional designers and not the views of others, including their managers or the people they lead. Another limitation is the low response rate of the first survey. The sample size of participants also limited our ability to draw conclusions with certainty based on the results. This survey only provides a snapshot of the overall competencies deemed important to effectively lead and manage design by instructional design leaders and managers. How they are applied may change from person to person and potentially change over time. These results are limited to instructional design leadership in higher education settings, and the results may not be generalizable to other environments such as business or government. Further research would clarify the importance and impact of these competencies in other settings.

## *Future work*

Our goal was to identify the competencies that instructional design leaders and managers believe are important for leading and managing instructional designers in higher education. More research is needed to further clarify these competencies, including the situations, contexts, and strategies in which these competencies are employed. Analyzing the job descriptions of leaders of instructional designers would yield greater understanding of these competencies. It would be meaningful to investigate the competencies identified by those who manage and are managed by leaders of instructional designers. In addition, further research related to the importance of design, teaching, and learning competencies in leading instructional designers is warranted. Research of this kind would help clarify this and other studies on leadership and provide more evidence related to training in instructional design leadership and management competencies instructional design programs.

## **Conclusion**

Leading and managing instructional design in higher education requires different skills than traditional instructional design skills. In this study, we have investigated these leadership and management skills. More research on the competencies associated with leading and managing instructional designers is warranted. In instructional design and distance education in higher education, we must be aware of these competences so that we can effectively prepare our students and employees to lead.

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## **Appendix A: Raw Data Coding Sheet – Delphi Study**

Survey 1 with Coding (Questions 1 and 3).

### **Question 1: What management knowledge do you believe a manager of instructional designers in higher education must possess in order to be successful?**

Project management cycle

How to budget, how to set priorities, how to create workflow processes, how to track workflow processes

people skills; operational knowledge; understand how academic technology can be used to educate someone

I don't believe that the management knowledge required is distinct to IDs in higher education. Managing people requires the manager to be proficient with institutional structures, policies, culture, mission/vision, and the vertical in which they operate (higher ed here). It also requires the manager to know the direct reports they are managing: what their goals are, how they fit within the model, where they want to grow and develop, how they function with the team, and what their strengths are. A manager should understand motivational techniques, basics of human resource management, and a variety of performance improvement strategies.

backwards planning ability to manage timing of projects

Deep knowledge of ID practice (design skills and theory), project management strategies,

Understanding the principles of sound pedagogy

skills needed by staff, workflow solution for instructional design process, monitor progress, understanding of workload

collaborative leadership styles; servant leadership styles; knowledge of how resources are located at the central and sub-unity levels

(So much depends on the definition of "instructional design" you're employing. In higher education, there are different ways of understanding this work. The term is not used synonymously in all contexts.) In addition to the usual things all managers need? How to motivate people to orient themselves to instructional design work in ways that align with the mission of my center; how to identify the right instructional designer for the task at hand; how to identify appropriate professional development opportunities for instructional designers (not always a simple matter)

how to organize work teams, how to match skills with needs

Knowing how to manage large projects, assigning tasks as necessary to meet deadlines & goals; knowing how to coordinate and combine multiple small parts in order to make a cohesive whole.

The manager must know how to manage technical employees, who tend to be more independent workers than in some other fields. The manager should have an equal or superior knowledge of

instructional design to also be an educator.

**Question 3: What leadership knowledge do you believe a manager of instructional designers in higher education must possess in order to be successful?**

Strategic thinking, visioning, leading others, leading change and goal/objective attainment

motivational theory, leadership styles, personality styles

Visionary; delegation; persuasion; strategy; communicator; change agent

To be successful leaders, managers must have knowledge of ID theory and practice, knowledge of scholarship in teaching and learning, awareness of industry trends and technologies, knowledge of where instructional deficits lay in the industry, and knowledge of their own biases in decision making.

motivational techniques

Importance of short- vs long-term planning, not much you can teach here: intuitive observation of good leaders and awareness of strategies that work or not

Knowing team's strengths and weaknesses

how to get buy in, what motivates people,

collaborative leadership; servant leadership; motivation;

theories of motivation and how they align with instructional development work

organizational awareness

Understanding motivational principles and team dynamics. I think that the manager of instructional designers needs only know the basics of leadership.

I think that the manager of instructional designers needs only know the basics of leadership.

<i>Category</i>	<i>Competency</i>	<i>Mean</i>
Communication		4.68
	Communicate effectively in writing and in speaking across all levels of management	4.81
	Listen actively	4.76
	Communicate and explain priorities and decisions effectively	4.67
	Constructively resolve conflict	4.67
	Communicate with members of other departments in a way that is relatable to them	4.67
	Communicate tactfully	4.67
	Foster healthy feedback loops	4.52
Project Management		4.33
	Accept change and help to implement it at the institution	4.81
	Guide work of the team without micro-managing and intervene when needed	4.62
	Set priorities based on departmental and institutional objectives	4.60
	Secure needed resources to fulfill workload	4.57
	Understand and anticipate employee workloads	4.48
	Bring order out of sometimes chaotic or ill-defined goals	4.43
	Organize work teams and assign responsibilities effectively	4.38
	Create workflow processes and monitor the progress of design projects	4.33



Delegate thinking and non-thinking tasks	4.25
Coordinate and combine multiple small parts in order to make a cohesive whole	4.15
Manage large projects	4.10
Know the project management cycle	3.90
Create a budget	3.52
<hr/>	
Visioning and Strategic Alignment	4.29
Solve client problems	4.62
Think strategically (big picture) and tactically (detail level) at the same time	4.52
Lead others toward goal/objective attainment	4.48
Know the importance of short-term versus long-term planning	4.33
Differentiate between what is best for the learner, institution, department, team, and self when making decisions	4.19
Articulate an inspiring vision that can be accomplished with grit and guidance	4.05
Develop succession pathways	3.86
<hr/>	
Organizational Politics and Relationships	4.26
Get buy in from others	4.62
Resolve conflicts	4.48
Apply skills of diplomacy	4.43
Know the internal politics of the department, college, or university	4.24
Understand that winning battles is not as important as winning the war	4.10
Observe good leaders to build awareness of strategies that do or do not work	4.05
Apply public relation skills	4.00
Apply negotiation skills	4.00
<hr/>	
Environmental and organizational awareness	4.24
Negotiate the culture of higher education to achieve quality instruction and innovation in teaching/learning	4.52
Understand the institution and unit's structures, policies, culture, mission, and vision	4.48



Know the allocation of resources at the central and sub-unit levels	4.10
Awareness of most recent developments in online education and technologies	4.10
Know the industry trends and the direction higher education is going and why/how it's important for the organization	4.00
<hr/>	
Inspiring motivating and empowering others	4.21
Inspire employees through modeling to grow their expertise and to be honest and ethical	4.57
Inspire others to practice their passions and do their best	4.43
Recognize when team members need a word of encouragement and inspiration	4.38
Frame goals in a way that inspires and motivates others to work together for a common purpose	4.29
Encourage creative thinking and independence	4.29

	Be persuasive	4.10
	Know a variety of performance improvement strategies	3.90
	Understand theories, including collaborative leadership, servant leadership, and motivational theory	3.71
<hr/>		
Interpersonal skills, people skills		4.19
	Know the instructional designers including their goals, strengths, weaknesses, and how they fit within the team	4.62
	Build relationships with others	4.62
	Understand team dynamics	4.40
	Have self-confidence when working with others	4.38
	Effectively manage technical employees, who tend to be more independent workers than in some other fields	3.90
	Understand personality styles	3.43
<hr/>		
Teaching, Learning, Design, and Technology Expertise		3.90
	Understand how academic technology can be used to educate	4.33
	Design authentic, engaging, meaningful learning experiences	4.29
	Identify appropriate professional development opportunities for instructional designers	4.19
	Apply assessment skills, including formative evaluation	4.10
	Deep knowledge of instructional design theory and pedagogy	4.10
	Know the research and scholarship of teaching and learning	4.05
	Extensive knowledge of technologies such as a Learning Management System and multimedia development tools	3.81
	Know classroom design principles	3.62
	Draw on experience teaching in higher education	3.57
	Solve technical problems	2.95

**Appendix C: Comparing IBSTPI instructional design competencies with competencies identified in this study**

<i>IBSTPI</i>	<i>Delphi Study Results</i>
<i>Professional Foundations</i>	
1. Communicate effectively in visual, oral, and written form.	<p><i>Communication</i></p> <ul style="list-style-type: none"> <li>• Communicate effectively in writing and in speaking across all levels of management</li> <li>• Communicate and explain priorities and decisions effectively</li> <li>• Listen actively</li> <li>• Constructively resolve conflict</li> <li>• Communicate with members of other departments in a way that is relatable to them</li> <li>• Communicate tactfully</li> <li>• Foster healthy feedback loops</li> </ul>
2. Apply research and theory to the discipline of instructional design.	<p><i>Teaching, Learning, Design, and Technology Expertise</i></p> <ul style="list-style-type: none"> <li>• Deep knowledge of instructional design theory and pedagogy</li> </ul>
3. Update and improve knowledge, skills, and attitudes pertaining to the instructional design process and related fields.	<p><i>Teaching, Learning, Design, and Technology Expertise</i></p> <ul style="list-style-type: none"> <li>• Know the research and scholarship of teaching and learning</li> <li>• Know classroom design principles</li> <li>• Identify appropriate professional development opportunities for instructional designers</li> <li>• Understand how academic technology can be used to educate</li> <li>• Extensive knowledge of technologies such as a Learning Management System and multimedia development tools</li> </ul>
4. Apply data collection and analysis skills in instructional design projects.	
5. Identify and respond to ethical, legal, and political implications of design in the workplace.	
<i>Planning and Analysis</i>	
6. Conduct a needs assessment in order to recommend appropriate design solutions and strategies.	

7. Identify and describe target population and environmental characteristics.
  8. Select and use analysis techniques for determining instructional content.
  9. Analyze the characteristics of existing and emerging technologies and their potential use.
- 

*Design and Development*

10. Use an instructional design and development process appropriate for a given project.
11. Organize instructional programs and/or products to be designed, developed, and evaluated.

*Teaching, Learning, Design, and Technology Expertise*

- Solve technical problems

12. Design instructional interventions.

*Teaching, Learning, Design, and Technology Expertise*

- Design authentic, engaging, meaningful learning experiences

13. Plan non-instructional interventions.
  14. Select or modify existing instructional materials.
  15. Develop instructional materials.
  16. Design learning assessment.
- 

*Evaluation and Implementation*

17. Evaluate instructional and non-instructional interventions.
  18. Revise instructional and non-instructional solutions based on data.
  19. Implement, disseminate, and diffuse instructional and non-instructional interventions.
- 

*Teaching, Learning, Design, and Technology Expertise*

- Apply assessment skills, including formative evaluation

*Management*

20. Apply business skills to managing the instructional design function.

*Interpersonal skills, people skills*

- Know the instructional designers, including their goals, strengths, weaknesses, and how they fit within the team
  - Effectively manage technical employees, who tend to be more independent workers than in some other fields
  - Understand personality styles
  - Understand team dynamics
  - Build relationships with others
-

- Have self-confidence when working with others

*Inspiring motivating and empowering others*

- Know a variety of performance improvement strategies
- Encourage creative thinking and independence
- Be persuasive
- Inspire others to practice their passions and do their best
- Recognize when team members need a word of encouragement and inspiration
- Frame goals in a way that inspires and motivates others to work together for a common purpose
- Inspire employees through modeling to grow their expertise and to be honest and ethical
- Understand theories, including collaborative leadership, servant leadership, and motivational theory

21. Manage partnerships and collaborative relationships.

*Politics and Relationships*

- Apply skills of diplomacy
- Apply public relation skills
- Resolve conflicts
- Observe good leaders to build awareness of strategies that do or do not work
- Know the internal politics of the department, college, or university
- Understand that winning battles is not as important as winning the war
- Apply negotiation skills
- Get buy in from others

22. Plan and manage instructional design projects.

*Project Management*

- Know the project management cycle
  - Create a budget
  - Create workflow processes and monitor the progress of design projects
  - Organize work teams and assign responsibilities effectively
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- Coordinate and combine multiple small parts in order to make a cohesive whole
  - Manage large projects
  - Set priorities based on departmental and institutional objectives
  - Understand and anticipate employee workloads
  - Secure needed resources to fulfill workload
  - Guide work of the team without micro-managing and intervene when needed
  - Bring order out of sometimes chaotic or ill-defined goals
  - Delegate thinking and non-thinking tasks
  - Accept change and help to implement it at the institution
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