

Chapter 6. Situationalities Framework

In this chapter I report findings and provide answers to the study questions. First, I describe meaningful relationships between types of situationalities, such as the relationships between values and goals, and between situationalities and methods. Second, I present and explain the “situationalities framework,” a framework for choosing instructional methods that takes into account the relationships among situationality elements and between situationality elements and methods. Third, I use a specific instructional design application to show how the framework can be used by educators and designers. Fourth, I report author feedback related to the situationalities framework. Finally, I describe several sets of inter-related instructional conditions that often occur together in online learning settings.

Relationships Between Situationalities

It is important to understand the relationships between types of situationalities, such as those between values about learning and learning goals. Ultimately, results derived from these relationships can be used to create instructional theory for online learning environments. For the purposes of this study, it is sufficient to understand relationships between associated pairs of situationality elements, and between the various types of situationalities and methods, since there is a sequential nature to design guidelines derived using this approach. For example, an educator’s values about learning directly influence the educator’s learning goals, which in turn directly influence the instructional methods an educator implements in a particular learning setting. In some cases, an educator’s values about the means of learning may directly influence the

selection of instructional methods, avoiding or supplementing the learning goal – method relationship. Similarly, the instructional conditions present in the learning environment directly affect the effectiveness of the instructional methods.

Next, I describe the relationships between values and goals, goals (and values about means) and instructional methods, and instructional methods and instructional conditions, and discuss relevant findings for each set of relationships.

Values and Goals

The educator's learning goals are usually derived directly from their most important values about the ends of learning.²⁸ For example, an educator who values student-controlled or student-centered learning may state a learning goal of "Students will learn how to control important aspects of their own learning." Therefore, it is important to consider the relationship between learning goals and fundamental values about learning.

Table 9 displays the fundamental values about learning and the corresponding learning goals identified in the case analysis reports. The table uses the classification category names²⁹ instead of the original value or goal statements for clarity and to facilitate cross-case comparison. Fundamental values about learning are listed in the left-hand column, and corresponding learning goals are listed in the right-hand column. The number to the immediate right of each value and goal category name is the number of occurrences of that classification category, either in the set of all cases (for the value column), or in the set of learning goals associated with a particular value category (for the learning goal column).

²⁸ Values about the means of learning, on the other hand, would lead directly to the selection of preferable instructional methods. In this case, the learning goal would be indistinguishable from the value statement.

²⁹ Classification schemes are explained in Chapter 5.

Table 9. Values and Categories of Goals

Values about learning	Categories of learning goals
Collaboration (46)	Collaboration (36) Discussion (3) Miscellaneous (2) Student Control (2) Community (2) Critical Thinking (1)
Community (29)	Community (11) Collaboration (8) Discussion (7) Student Control (3)
Learning Theory (25)	Collaboration (13) Discussion (7) Community (5)
Interactive Dialogue (24)	Discussion (11) Critical Thinking (8) Collaboration (5)
Support (16)	Collaboration (9) Student Control (6) Miscellaneous (1)
Virtual Classroom (3)	Virtual Classroom (3)

Specific relationships

Data in Table 9 show that most value categories are associated with learning goals from several different goal categories. Only the virtual classroom value is limited to learning goals from only one category, but given the unique nature of the virtual classroom case, this is not surprising.³⁰

Learning goals from the collaboration and discussion categories are associated with four of the six values categories, and together comprise more than one-half of the

³⁰ The unique nature of the virtual classroom case makes it a promising candidate for further research focused on this specific type of online learning environment. See Chapter 7 for discussions regarding future research possibilities.

total number of learning goals recorded. Once again, this result is not surprising, since case reports were chosen, in part, because they described socially interactive learning environments, and social interaction commonly involves collaboration and discussion. However, the predominance of collaboration and discussion goals shows that these learning environments are often focused directly towards socially interactive goals, and do not just implement socially interactive instructional methods to achieve other types of learning goals (such as cognitive or affective goals).

The value category of community is reported for 6 of 30 cases, and for 29 of 103 specific instances (unique occurrences of a condition-method pair). Many (11 of 29 specific instances) of the learning goals associated with this value category are classified as community as well. However, more than half of the learning goals associated with the community value category are classified as other types of goals, not as community goals. This may indicate that the value of community is implemented in important ways that are not directly focused on establishing community. For example, for cases that report a value of community, the associated learning goals are likely to include goals of collaboration, discussion, and student control. It seems that if these goals are achieved in the learning environment, the value of community is supported.

Finally, the “learning theory” value category is associated with learning goals in the collaboration, discussion, and community categories. In future work on the framework, it might be useful to reconsider the use of the learning theory value category. Possibly, if a case reports a fundamental value that can be described as a type of learning theory, such as problem-based learning, the case should be investigated further (perhaps by interviewing the case author) to determine the fundamental values about learning at a

more functional level. If this is done, the case information may be more useful for cross-case analysis and will therefore contribute more to the utility of the situationalities framework.

Relationships between values and learning goals are informative, and can help an educator understand various instructional approaches at a strategic level. However, the relationships between learning goals and instructional methods are perhaps more useful when designing an online environment at a tactical level. Once a strategic approach has been chosen, the educator needs to choose instructional methods that will help participants achieve the stated learning goals.

Goals, Values About Means, and Methods

An educator's learning goals are commonly derived directly from the educator's most important values about ends, as explained above. If however, an educator's stated values are focused on the means for instruction (or learning), instead of values about the ends of instruction, these values will lead directly to the selection of instructional methods. In essence, values about means often perform the function of the learning goal in the design process. For example, a value stated as, "I value collaboration among students in the learning process" would lead directly to the instructional methods that implement student collaboration, such as the use of shared workspaces, the use of threaded discussions, etc.

Once the learning goals (and values about means) have been developed, the next logical step in designing instruction is to choose appropriate instructional methods. The instructional methods are the "vehicles" by which the educator's learning goals for participants are met in the learning environment. For example, an educator who has

established a learning goal of “Students learn how to retain control over important aspects of their own learning” should choose instructional methods that are likely to result in student control in the learning environment, such as “Students are required to choose a discussion topic and then prepare and moderate a weekly discussion on that topic for the entire class.” It is therefore important to consider the relationship between learning goals and instructional methods.

Table 10 displays the learning goals and the associated instructional methods reported in the case analysis reports, using the classification category names instead of the original goal or instructional method statements for clarity and to facilitate cross-case comparison.³¹ The table displays the learning goals in the left-hand column, and the categories of instructional methods in the other three columns (one column for each level of method classification)³². The number to the immediate right of each goal and method category name is the number of occurrences of that classification category, either in the set of all cases for the goal column, or in the set of instructional methods associated with a particular goal category for the instructional method column.

Table 10. Goals and Methods (by category)

Learning goal	Instructional methods (by category)		
	Synchronicity	Interactivity	Activity
Collaboration (71)	Asynchronous (49)	Student-Student (S-S) (21)	Review and Feedback (7) Discussion (6) Technical Support (4) File Exchange (2) Collaboration (1) E-mail (1)

³¹ Table 10 does not include a column for “values about means,” since, for this analysis, these values function very similarly to learning goals.

³² Classification schemes are explained in Chapter 5.

Learning goal	Instructional methods (by category)			
	Synchronicity	Interactivity	Activity	
		Group (19)	Discussion (11) Collaboration (5) File Exchange (2) E-mail (1)	
		Instructor-Student (I-S) (9)	Discussion (5) Personal Comm (2) E-mail (2) File Exchange (1)	
	Synchronous (14)	Group (13)	Discussion (12) Collaboration (1)	
		S-S (1)	Collaboration (1)	
	Mixed (4)	Group (4)	Collaboration (4)	
	Other (4)	Group (4)	Collaboration (3) Discussion (1)	
	Discussion (28)	Asynchronous (20)	S-S (11)	Discussion (9) Review and Feedback (1) Other – Anonymous (1)
I-S (5)			Personal Communication (2) Other – Broadcast Message (1) E-mail (1) Review and Feedback (1)	
Group (4)			Discussion (4)	
Synchronous (6)		I-S (4)	Discussion (3) Virtual Classroom (1)	
		Group (1)	Discussion (1)	
		S-S (1)	Discussion (1)	
Mixed (2)		Group (1)	Collaboration (1)	
		I-S (1)	Discussion (1)	
Community (18)		Asynchronous (13)	S-S (9)	Social (4) Discussion (3) Discussion – Anonymous (1) E-mail (1)
			Student-External Expert (S-Ext) (4)	Collaboration (2) Review and Feedback (1) Discussion (1)
	Synchronous (3)	S-Ext (3)	Discussion (3)	
	Other (2)	Group (1)	Collaboration (1)	
		I-S (1)	Other – Group Exercises (1)	

Learning goal	Instructional methods (by category)		
	Synchronicity	Interactivity	Activity
Student Control (11)	Asynchronous (9)	S-S (5)	Discussion (5)
		I-S (3)	Discussion (1) File Exchange (1) E-mail (1)
		Group (1)	Discussion (1)
	Mixed (1)	S-S (1)	Discussion (1)
	Synchronous (1)	S-Ext (1)	Technical Support (1)
Critical Thinking (9)	Asynchronous (9)	S-S (5)	Discussion (5)
		I-S (4)	Discussion (2) E-mail (2)
Virtual Classroom (3)	Synchronous (3)	I-S (3)	Virtual Classroom (3)
Resolve conflict (1)	Synchronous (1)	S-S (1)	Personal Communication (1)
Self sufficiency (1)	Asynchronous (1)	Other-Mix (1)	Collaboration (1)
Misc – Ind. Support (1)	Synchronous (1)	I-S (1)	Discussion (1)

Specific relationships

The focus of instructional methods in case reports where collaboration is an important learning goal is primarily student-student (and group) discussion. Collaboration goals are associated most often (in 35 of 71 instances) with instructional methods that are classified as asynchronous and synchronous group and student-student discussion.

Instructional methods that focus on other, more direct forms of collaboration, such as providing group workspace for student groups, are less dominant, but undoubtedly still important. In 15 of 71 instances, collaboration goals are associated with instructional methods focused directly on collaboration. In addition, it is interesting to note that the majority of the instructional methods that are classified at the activity level as review and feedback are associated with collaboration goals. Apparently, an important reason to use

review and feedback type instructional methods is to achieve collaboration learning goals.

Community goals are often associated with instructional methods that are classified as student-external expert at the interactivity level. Of these (student-external expert category) methods, the activity level method classification is most often discussion and collaboration. This indicates that instructional methods involving external experts such as scientists or international students (from other universities) in discussion and collaboration activities are frequently used to achieve community learning goals. Additionally, every recorded instance of instructional methods classified at the social activity level is associated with a community learning goal. This indicates that instructional methods using social activities are frequently used to achieve community learning goals.

Discussion goals are almost always associated with instructional methods classified at the discussion activity level. Not surprisingly, the relationship between discussion goals and discussion-related instructional methods is very consistent. It makes sense that when the learning goal is to learn how to engage students (or other participants) in discussion, the instructional methods are focused on discussion activities.

Student control goals are most often associated with instructional methods classified in the asynchronous discussion category. A typical example of a discussion-type method that achieves student control goals is, “Students will choose a discussion topic and moderate the online discussion.” Allowing students to choose specific discussion topics that are interesting to them, and then requiring them to facilitate (or control) the discussion is a frequently used method to achieve the goal of student control.

Critical thinking goals are always associated with instructional methods classified as asynchronous discussion or e-mail. Effective methods for developing critical thinking skills often involve discussion or dialogue among the learning participants, and usually take a significant amount of time since these skills commonly require reflection and deep thinking about a subject. Asynchronous methods, in general, allow for more time between interactions, providing time for reflection and thought. Therefore, asynchronous methods may be more useful than synchronous methods for meeting learning goals of developing critical thinking skills.

Instructional methods chosen to meet particular learning goals are only effective when associated instructional conditions are met, so it is important to understand relationships between instructional methods and instructional conditions. These relationships are described next.

Methods and Conditions

An educator's learning goals and values about means directly influence the instructional methods s/he chooses for a learning environment, as explained above. In order to create the most effective learning environment, an educator should also consider the instructional conditions that affect the effectiveness of the alternative methods. These conditions must be met in order for an instructional method to be the most effective alternative. For example, an educator who is considering an instructional method from a category such as "Asynchronous Group Discussion" should consider the instructional conditions that affect the effectiveness of this type of method, such as "Students must have the time available to participate frequently in class discussions." Therefore, the

instructional conditions present in the learning environment (including the participants) should be taken into account as instructional methods are chosen.

Table 11 displays the instructional methods and the associated instructional conditions identified in the case analysis reports.³³ In Table 11, once again, I use the classification category names instead of the original instructional method or condition statements for clarity and to facilitate cross-case comparison. The table displays the categories of instructional methods in the three left-side columns, and the categories of instructional conditions in the two columns to the right (one column for each level of classification)³⁴. The number to the immediate right of each method and condition category name is the number of occurrences of that classification category in each column.

Table 11. Methods and Conditions (by category)

Instructional method			Associated instructional conditions	
Synchronicity	Interactivity	Activity	Focus	Detail
Asynchronous (101)	Student – Student (51)	Discussion (28)	Student (20)	Motivation (9) Time (5) Skills and Ability (2) Values (2) Background (1) Synchronicity (1)
			Instructor (3)	Values (2) Background (1)
			Technology (2)	Access (1) Features (1)

³³ Table 11 is very long, approximately 4 pages. The information in Table 11 is very important to the discussion of the relationships between instructional methods and conditions, and therefore Table 11 is included in the text of this chapter rather than referenced in an appendix.

³⁴ Classification schemes are explained in Chapter 5.

Instructional method			Associated instructional conditions		
Synchronicity	Interactivity	Activity	Focus	Detail	
			Other – Content (1)	Features (1)	
			External Resource (1)	Access (1)	
			Other	Class size (1)	
		Review and Feedback (8)	Student (7)	Motivation (5) Synchronicity (1) Skills and Ability – Technical (1)	
			Technology (1)	Features (1)	
		Social (4)	Student (4)	Values (4)	
		Technical Support (4)	Student (2)	Motivation (1) Technical Support (1)	
			External Resource (1)	Technical Support (1)	
			Technology (1)	Access (1)	
		File Exchange (2)	Student (2)	Skills and Ability – Technical (2)	
		E-mail (2)	Instructor (1)	Class Size (1)	
			Student (1)	Time (1)	
		Collaboration (1)	Student (1)	Motivation (1)	
		Motivation (1)	Discussion – Anonymous (1)	Student (1)	
		Other – Anonymity (1)	Student (1)	Motivation (1)	
		Group (24)	Discussion (16)	Student (11)	Motivation (5) Time (3) Synchronicity (2) Values (1)
				Technology (4)	Access (2) Features (2)
				Instructor (1)	Skills and Ability (1)
			Collaboration (5)	Student (3)	Skills and Ability – Technical (2) Motivation (1)
				Technology (1)	Features (1)

Instructional method			Associated instructional conditions	
Synchronicity	Interactivity	Activity	Focus	Detail
			Other – content (1)	Features (1)
		File Exchange (2)	Student (1)	Skills and Ability – Technical (1)
			Technology (1)	Access (1)
		E-mail (1)	Student (1)	Motivation (1)
	Instructor – Student (21)	Discussion (8)	Instructor (3)	Synchronicity (1) Skills and Ability – Content (1) Time (1)
			Student (4)	Motivation (1) Skills and Ability – Technical (1) Skills and Ability – Content (1) Values (1)
			Technology (1)	Features (1)
		E-mail (5)	Instructor (2)	Time (1) Motivation (1)
			Student (3)	Time (2) Motivation (1)
		Personal Communication (4)	Instructor (1)	Time (1)
			Student (2)	Skills and Ability (1) Motivation (1)
			Technology (1)	Features (1)
		File Exchange (2)	Student (1)	Skills and Ability (1)
			Technology (1)	Features (1)
		Access (1)	Other – Broadcast Message (1)	Student (1)
		Review and Feedback (1)	Instructor (1)	Time (1)
	Student – External Expert (4)	Collaboration (2)	Student (1)	Background (1)
			External Resource (1)	Motivation (1)

Instructional method			Associated instructional conditions		
Synchronicity	Interactivity	Activity	Focus	Detail	
		Discussion (1)	External Resource (1)	Access (1)	
		Review and Feedback (1)	External Resource (1)	Features (1)	
	Other – Mixed (1)	Collaboration (1)	Other – Content (1)	Features (1)	
Synchronous (29)	Group (14)	Discussion (13)	Student (10)	Synchronicity (4) Motivation (3) Background (1) Class Size (1) Location (1) Skills and Ability – Technical (1)	
			External Resource (1)	Access (1)	
			Technology (1)	Access (1)	
			Instructor (1)	Skills and Ability (1)	
		Collaboration (1)	Student (1)	Location (1)	
	Instructor – Student (8)	Discussion (4)	Student (4)	Skills and Ability – Technical (2) Motivation (1) Synchronicity (1)	
			Virtual Classroom (4)	Student (2)	Synchronicity (1) Skills and Ability (1)
				Technology (2)	Access (1) Other - Anonymity (1)
	Student – External Expert (4)	Discussion (3)	External Resource (3)	Synchronicity (1) Skills and Ability (1) Access (1)	
			Technical Support (1)	External Resource (1) Technical Support (1)	
	Student – Student (3)	Collaboration (1)	Student (1)	Motivation (1)	
			Discussion (1)	Other – Content (1) Features (1)	
			Personal Communication (1)	Technology (1) Features (1)	
	Mixed (7)	Group (5)	Collaboration (5)	Student (3)	Skills and Ability (1) Motivation (1) Background (1)

Instructional method			Associated instructional conditions	
Synchronicity	Interactivity	Activity	Focus	Detail
			Technology (2)	Features (2)
	Instructor – Student (1)	Discussion (1)	Student (1)	Location (1)
	Student – Student (1)	Discussion (1)	Other (1)	Class Size (1)
Other (6)	Group (5)	Collaboration (4)	Student (4)	Values (2) Motivation (2)
		Discussion (1)	Student (1)	Background (1)
	Instructor – Student (1)	Other – Group Exercises (1)	Student (1)	Background (1)

Specific relationships

Findings about the relationships between instructional methods and instructional conditions are reported in an order that generally follows the layout of Table 11. Findings associated with methods in the asynchronous category (at the synchronicity level) are described first, followed by findings associated with the synchronous category, then mixed and other categories. Within each synchronicity category, findings are reported following the order of the interactivity level categories: group, instructor-student, student-external expert, and student-student. Within each activity level, findings are reported according to a similar pattern - top to bottom in the activity column.

Asynchronous

Asynchronous group collaboration methods are associated with instructional conditions that focus on students, technology and content features. An important student condition is that students must have the technical skills and ability to use the collaborative groupware provided in the learning environment. Related to this condition, the groupware must have technical features that sufficiently facilitate group

collaboration. Additionally, the course content should be adaptable to collaborative learning activities. In other words, collaborative activities should make sense to the student. Apparently, collaborative group activities may not be effective in certain content domains or course settings.

Asynchronous group discussion methods were associated most frequently with student-focused conditions related to motivation, values, synchronicity, and time. Based on the results of this study, it appears that, for asynchronous group discussions to be effective, student should value the discussion activity, be motivated to participate, have sufficient time to participate, and be able to arrange their participation times in order to interact effectively. For example, if every student values the discussion, is motivated to participate, and has a sufficient amount of time to participate, but all this time is at the end of the discussion timeframe, it is likely that minimal discussion will occur during the beginning and middle of the discussion period, and everyone will post near the end of the discussion. This does not lead to an effective discussion, since there is no opportunity for an interactive exchange of ideas. The relationship between conditions of synchronicity and time is discussed in more detail in the “Sets of Conditions” section of this chapter.

Asynchronous group file exchange methods are associated with both student- and technology-focused conditions. Obviously, students must be able to use file exchange technology (such as web-based or FTP software), in order for file exchange methods to be successful. The learning environment should allow for easy access to and exchange of files, with features such as a web-based folder into which students can upload and from which they can download files easily at any time. These conditions of technical skill and

technology features are consistently associated with file exchange-type methods in all instructional method categories.

Asynchronous instructor-student discussion methods are associated with instructional conditions focused on both instructors and students. Common to both groups is the condition of content skills and ability. For example, a method such as “Provide clear expectations for (and model) appropriate online discussion behavior” requires that an instructor understands online discussion protocol and course content, and can communicate to students how to engage in effective online discussion behavior. As well, students have to know enough about the topic of a discussion in order to engage in meaningful dialogue with others. Discussions are generally more effective when students as well as instructors practice acceptable discussion protocol.

Asynchronous instructor-student e-mail methods are also influenced by both student and instructor conditions. For both instructors and students, time and motivation are conditions often reported. If an instructor chooses an instructional method that relies upon e-mail communication, especially if that method results in the receipt of one or more e-mail messages per student, that instructor must have a significant amount of time available to read (and probably respond to) those messages. In some cases, the time condition for students is focused on the amount of time a student has available to check e-mail frequently. In other cases, the student time condition is focused on the amount of time a student has available to respond to instructor messages that require considerable thought and reflection before a response should be sent. Finally, consistently among many instructional methods, when time is a condition, motivation is a condition for both

students and instructors as well. The relationship between time and motivation conditions is discussed in more detail later in the “Sets of Conditions” section of this chapter.

Asynchronous student-student discussion methods are influenced primarily by student-focused conditions. Six different conditions are reported within the student focus category. Of these, the major conditions are motivation, time, and values. Students must be motivated to participate in discussions. Student values are directly related to student motivation: It is more likely that students will be motivated to participate in a discussion if they value the discussion activity. Time is an important condition since it takes a significant time commitment from students to participate in an interactive, meaningful discussion activity. If students do not have adequate time available, they will not participate. Relationships between motivation and time conditions, and motivation and values conditions are discussed in more detail in the “Sets of Conditions” section of this chapter.

Asynchronous student-student review and feedback methods are influenced primarily by student motivation conditions. These methods require students to be willing to read, think about, and respond to another student’s work. This is a commitment not all students will make. Peer review and feedback methods are ineffective without the commitment (motivation) of student peers. Other conditions affecting review and feedback methods include synchronicity and technology (features and student skill). Students must also be able to coordinate their schedules so peers’ reviews are returned to the original student in time for the student to consider and incorporate the feedback into a final draft of an assignment. Additionally, students must know how to and be able to receive, comment upon, and return files through the course technology’s interface.

Asynchronous student-student social methods are all influenced by conditions regarding student values. Students who value interpersonal connections or building relationships in an online learning community are more likely to participate in online social activities. Since these interactions are not focused on course content, students who have no interest in developing online relationships will probably not participate.

Synchronous

Synchronous group discussion methods are associated primarily with student-focused conditions. As with the conditions associated with asynchronous student-student discussion methods mentioned above, these conditions are classified into many different detail categories, but fall primarily into the categories of motivation and synchronicity. Interacting in a synchronous discussion is sometimes difficult due to technical challenges (e.g., unfamiliar interfaces), connection irregularities (e.g., inability to connect to a chat server), and chaotic communication processes (e.g., disconnected and often-interrupted conversations). Inadequately motivated students may not be able to overcome these challenges, and might not participate effectively. Also, if students cannot coordinate their personal schedules to interact synchronously, they cannot participate at all. This condition of student (and/or instructor, and/or external expert) synchronicity is associated with every synchronous instructional method.³⁵

Other student-focused conditions associated with synchronous group discussion methods include technical skill, background, and class size. Students must have adequate technical skill in using the discussion technology, in order for them to participate effectively. When students cannot use chat features, such as speak, or whisper,

³⁵ Even though “synchronicity” may be an obvious condition for synchronous instructional methods, it apparently is important enough for case authors to consistently address in their case reports. Therefore it is included here.

appropriately, they do not participate effectively. Students who have prior experience with synchronous discussions (chats), are often more effective participants. Finally, discussions among small groups of students are more effective than those among large groups of students, since it is usually easier to follow a synchronous discussion with fewer actively participating students.

Synchronous instructor-student discussion methods are associated with many of these same conditions. Of these conditions, student motivation, synchronicity, and technical skill are the most commonly reported conditions.³⁶ Synchronous instructor-student virtual classroom methods are associated with student synchronicity and technical skill as well, and are also associated with the technology-focused conditions of access and features. Interacting in a virtual classroom requires access to special commercial software (or access to certain commercial websites). Since not every virtual classroom application has an identical set of interaction features, it is important to select one that has the features necessary for the desired set of instructional activities.

Synchronous student-external expert discussion methods are associated with instructional conditions focused on the external experts. External experts must have access to the discussion technology, must have the skills and ability necessary to interact effectively using this technology, and must be able to coordinate their time to meet the scheduling needs of the instructional situation.³⁷

³⁶ It seems reasonable to me to assume that when instructors are involved in synchronous methods, conditions of synchronicity, technical skill, and technology access must be met at the instructor level as well, even though these conditions were not explicitly mentioned in the case reports.

³⁷ No student-focused conditions are reported for these methods, however, many of the same student-focused conditions stated earlier for related methods must be met as well.

Mixed and other

Mixed and other³⁸ group collaboration methods are similarly influenced primarily by student-focused conditions. For mixed methods, student conditions of skills and ability, motivation, and background are important. Mixed methods usually require the use of multiple technologies, which requires higher levels of student technical skill. Directly related to this condition, student familiarity (background) with multiple technologies makes these methods more effective. (See the “Sets of Conditions” section below for more discussion of the relationship between “background” and “skills and ability” conditions.) Student motivation is an important condition as well, since interacting in several different modes using multiple technologies on a regular basis requires student self-discipline and time management – both more likely when a student is motivated to participate.

The effectiveness of an “Other” category of instructional methods such as “Assess student performance with group and peer evaluation” is affected by student conditions of motivation and values. Students who value peer evaluation, which involves both giving and receiving evaluative comments, are more likely to participate meaningfully in this activity. Students who do not value peer feedback, or who are not sufficiently motivated to provide meaningful comments to their peers, may not put forth much effort, reducing the effectiveness of this method.

Conclusion

An educator’s fundamental values about learning influence his or her learning goals. Each category in the value classification scheme is associated with a set of learning goals. Similarly, an educator’s learning goals influence the instructional methods s/he

³⁸ “Mixed” and “Other” categories are defined on page 86 in Chapter 5.

chooses. Each of the goal categories is associated with a set of instructional methods that have been effectively used to accomplish these goals. Lastly, each instructional method category can be associated with a set of instructional conditions that influence the effectiveness of that type of method.

Considering the categories of instructional conditions as they are associated with the various categories of instructional methods reveals important relationships between instructional methods and conditions. Many of these relationships have been described above. Next, I present an overall situationalities framework as a way to display the relationships between associated types of situationality elements and instructional methods. Then I demonstrate how the framework can be used to choose effective instructional methods for a particular learning environment with specific situationalities. After that, in the last major section of this chapter, I describe several inter-related sets of instructional conditions. Understanding these sets of conditions should help an educator use the situationalities framework to design effective online instruction.

Situationalities Framework

The situationalities framework I present here is based on the case analysis data, cross-case analysis, and relationships among situationality elements described in previous sections of this study. My main purpose in developing this overall framework is to present information about situationalities, the relationships among them, and the relationship between situationalities and methods in a format that is more useful to educators (including teachers and instructional designers) than a simple tabular

arrangement. After presenting and describing the framework, I explain it in more detail in the context of a specific online instructional design example.

The Framework

The framework summarizes relationships between pairs of situationality types, or between a situationality type and instructional methods, and is divided into three phases according to these paired relationships: 1) values and goals, 2) goals and methods, and 3) methods and conditions. For each phase, there is a brief statement about what an educator should do in this phase, and a reference to a specific resource that will be useful to him or her. The tables referred to in the framework are the findings tables presented earlier in this chapter. Figure 2 shows the framework. Figure 3 presents six steps for using the framework.

Figure 2. Situationalities Framework (summative)

Phase I: Values and Goals

To do: Evaluate fundamental values about learning and develop learning goals based on these values.
Resources: Table 9. Values and Goals Appendices F. and G.

Phase II: Goals and Methods

To do: Choose alternative instructional methods based upon the learning goals or values about means. Multiple methods may be preferable.
Resources: Table 10. Goals and Methods Appendices G. and H.

Phase III: Methods and Conditions

To do: Consider instructional conditions that influence the effectiveness of alternative methods. Revise methods as needed.
Resources: Table 11. Methods and Conditions Appendices H. and I.

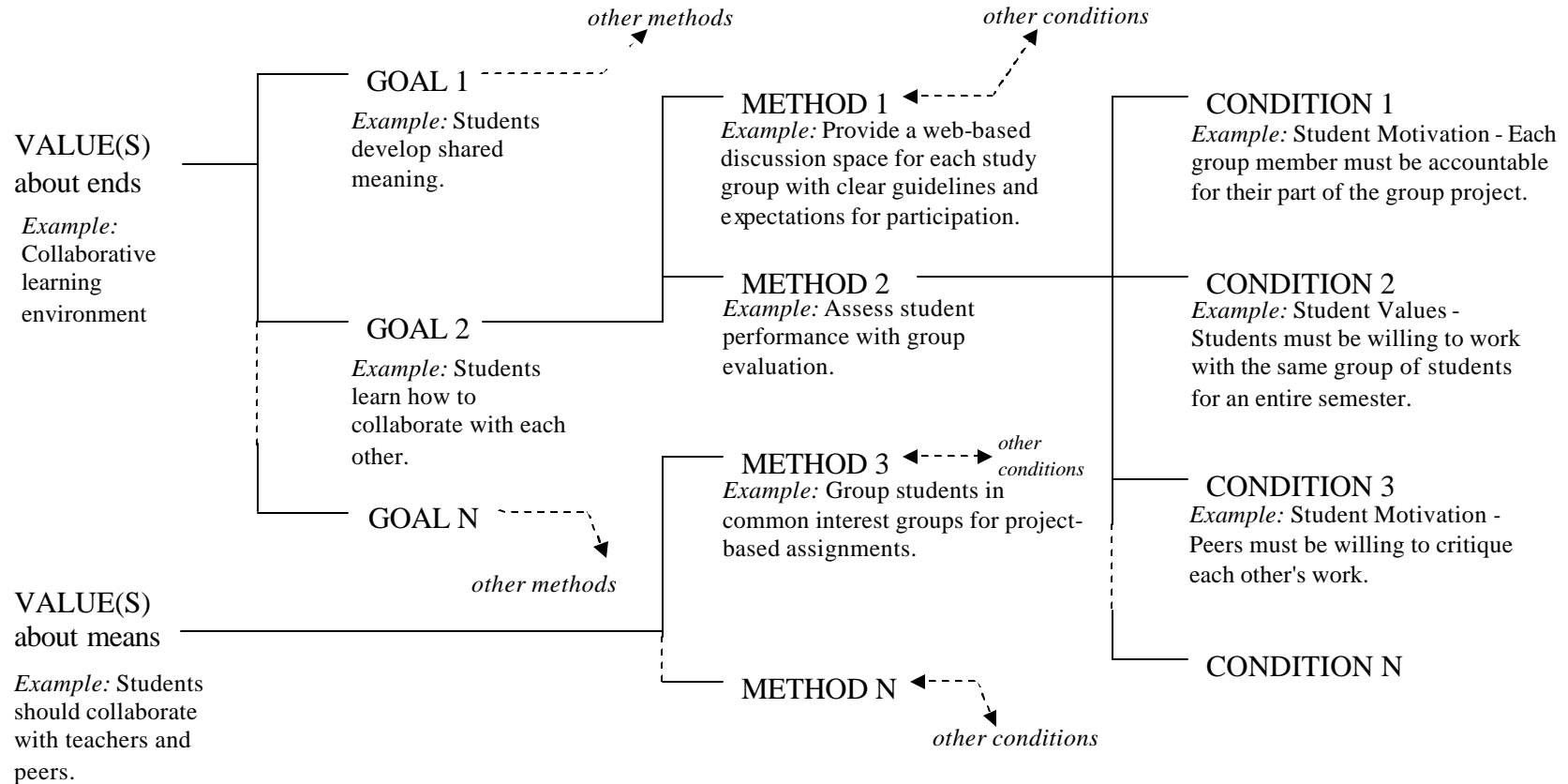


Figure 3. Six Steps for Using the Situationalities Framework

1. **Determine your learning values**, related to social interaction in online learning, that you would like your learning environment to support. For example, do you value forming online learning community? Or, maybe you value students learning through interactive discourse. I suggest you list these fundamental values in preparation for the next step.
2. **Identify the learning goals** that you want students to achieve. These learning goals should reflect your previously determined values. It is important to list at least one learning goal for each value. If you are not very familiar with online instruction, you might need to consult resources such as Table 9 Values and Goals (see page 100) and Appendix G List of Goals. If, in step 1, you stated your values in terms of means – what students should be doing – you do not need to identify specific learning goals in this step. (In this case, you are ready for step 3.)
3. **List alternative instructional methods** that will meet the learning goals you just identified. If you are not very familiar with online instruction, you might need to consult resources such as Table 10 Goals and Methods (see page 103) and Appendix H List of Methods. It's important to consider several instructional methods from which to choose, since it is likely that not every method will fit the specific conditions (see Step 4.) that exist in your online learning environment.
4. For each of the instructional methods you listed in step 3, **assess the instructional conditions** that should be met in order for the method to be effectively employed. I suggest that you list the instructional conditions next to each of the alternative instructional methods. You should use Table 11 Methods and Conditions and Appendix I List of Instructional Conditions to help you complete this assessment. *This is perhaps the most important step in using the situationalities framework. If you try to simply implement instructional methods without assessing whether or not the necessary instructional conditions are met, your online instruction may not be very effective.*
5. **Select specific instructional methods** from the list of alternatives based on your assessment of instructional conditions. For maximum effectiveness, choose methods that have all their associated instructional conditions met. If an important instructional condition is not met for a particular method, you should either choose an alternative method, modify the method to take into account the deficient condition, or add a secondary instructional method that will create the necessary condition for the primary method. For example, if you would like students to engage in interactive asynchronous dialogue, but you assess that your students are not likely to synchronize their participation in online discussions appropriately on their own, your instructional method should attempt to structure this interaction for them. You might assign an initial post on a particular day of a week, with a second deadline, later in the week, for a reply to another student's post, and a third deadline, also later in the week, for a reply to an original comment.
6. **Implement the instruction.** During the course of instruction, you should frequently assess the effectiveness of the methods you've selected. If a method seems to be ineffective, consider whether important instructional conditions have not been met. It is very possible that there are unique, significant conditions associated with the method you are implementing in your specific setting – conditions which are not addressed by the guidance contained in the tables and appendices of this study.

The situationalities framework and the “Six Steps for Using the Situationalities Framework” shown in Figures 2 and 3 summarize the three major phases an educator should go through when using the situationalities of a specific online learning environment to choose instructional methods. In Phase I, the educator should make decisions about learning goals that support their fundamental values about learning. If however, an educator considers a value that is focused on the means of instruction, such as “I value student discussion,” then there may be no reason to try to identify a specific learning goal to fit this particular value, since the value about means implies an instructional method. In this case, the educator should consider his or her other values and make decisions about learning goals for those values, or consider whether there are learning goals associated with this value, such as “Students should learn how to engage in topical discussions.” In the case where an educator’s value(s) is stated as a value about ends (such as a value from the category “online learning community”), Table 9 (Values and Goals), Appendix F (Values), and Appendix G (Goals) are useful resources for the educator to use during Phase I, since fundamental values about learning stated as ends should determine (or influence) the learning goals.

In Phase II, the educator should identify alternative instructional methods that should be effective to meet the learning goal (or fulfill the values about means). Table 10 (Goals and Methods), Appendix G (Goals), and Appendix H (Methods) are useful resources during Phase II. Once alternative instructional methods have been identified, the educator should consider the relevant instructional conditions that are associated with the instructional methods. Table 11 (Methods and Conditions), Appendix H (Methods) and Appendix I (Conditions) are useful resources during Phase III. After considering

whether these instructional conditions are met (or unmet) in the learning environment, the educator may revise, replace, or otherwise rethink the set of alternative instructional methods. Based on this analysis, the educator should select specific instructional methods (from the remaining alternatives) that are most likely to be successful.

In Figure 2, the lines and arrows connecting the values, goals, methods, and conditions represent the connecting relationships among the various types of situationality elements and methods. The directional arrows indicate that most of the relationships move from left to right in the diagram: from values to goals to methods to conditions (or from values to methods to conditions, if the values are stated as means). However, the lines connecting conditions and methods are double-headed, indicating that instructional conditions can (and should) influence the identified alternative instructional methods. An example of this bi-directional association between methods and conditions is included in the application example.

Next, I present an example of how the situationalities framework can aid an educator who is choosing instructional methods for an online learning environment.

Application

How can the framework help an educator design an online learning environment for an educational (or academic) setting? Or, how can the framework help an instructional designer creating an online learning environment for a training setting? In both educational and training settings, the framework should be used in a similar fashion. I will use an example set in an academic environment to illustrate the use of the framework. Implementation in a corporate training situation would be similar.

In this example, I am assuming that an educator is designing an academic online course for a university class in a distance education program. Also, it is important to note that I am only addressing instructional design issues and decisions that relate directly to the selection of instructional methods that use social interaction. In any real situation, there are other systemic relationships (such as faculty relationships, institutional emphases, etc.) that must be considered as well. Here I am ignoring them, since detailed discussion of these systemic issues is beyond the scope of this study.

Phase I

The first decision the educator must make is to decide what he or she values with regard to social interaction in the online learning environment. Is peer collaboration important? Is peer support a guiding concern? Is it important to establish a learning community among students? Is it important to engage students in meaningful dialogue? Questions like these should guide the educator as he or she identifies his or her fundamental values about learning. The educator might use Appendix F or Table 9 to help him or her consider values that others have supported in online learning environments. For this example, I will assume that one of the most important values of the educator is establishing a learning community among students. (The educator will probably identify more than one fundamental value. The subsequent decision-making process should be carried out for the set of all values.)

Once core values have been identified, the next step for the educator is to develop learning goals that will support these values.³⁹ For this (simplified) example, the educator might ask a question such as, “What should students learn how to do that will help them

³⁹ If the value has been stated as a value about means, however, the educator should go right to Phase II, the identification of alternative instructional methods.

develop a learning community?” The answer(s) to this question should be thought of as important goals that the learning environment should help students achieve. For the value of learning community, these goals might include students learning how to collaborate with peers as they learn, learning how to expand the learning community to include international experts and students from other universities and countries, and learning how to build trust and caring relationships with peers. The educator should use a resource such as Table 9 or Appendix G, a compilation of learning goals that have been used to support certain values about learning, to help develop these goals. Once learning goals have been developed, the educator is ready to move to Phase II of the framework.

Phase II

In Phase II, the educator identifies alternative instructional methods that should help students achieve the stated learning goals. While it is important to consider specific methods for each goal, as indicated in the framework, there may be situations when one method (or set of methods) could be useful to achieve several learning goals. (The one-to-many relationships indicated in the framework can also be many-to-one in some settings.) For this example, I will only consider the simple case of one goal leading to several methods. Additionally, as for values, I will only consider one of the learning goals in this example. Selecting methods for other goals should follow a similar process.

For the goal of learning how to develop trusting and caring relationships with peers, the educator should ask the question, “What online interactions should the learning environment include such that students will be likely to learn how to develop trusting and caring relationships with one another?” The educator should use a resource such as Table 10 or Appendix H, a compilation of instructional methods that have been effective to

achieve certain learning goals, to help answer this question. Instructional methods that result in effective interactions might include using an online discussion specifically for socially-focused (non-content-focused) dialogue, using a class listserv to support immediate e-mail access to an entire student group, and requiring only a small amount of content-focused discussion posting while encouraging socially-oriented discussion posting. Once the educator has selected a set of alternative instructional methods, it is time for the educator to consider the relevant instructional conditions associated with these methods, in Phase III.

Phase III

During Phase III, the educator identifies the important instructional conditions associated with the alternative instructional methods, and considers what impact these conditions might have on the effectiveness of the methods in the present learning situation. Each learning situation has its own unique set of characteristics, so the exact instructional conditions that apply in any particular setting cannot be precisely predetermined. However, the educator should use a resource such as Table 11 or Appendix I, a compilation of instructional conditions that have been associated with the effectiveness of certain instructional methods in other settings, since many online learning environments share relevant characteristics. For this example, I will only use one of the instructional methods identified in Phase II. Considering conditions for other methods should follow a similar process.

A method such as using a class listserv to facilitate immediate e-mail access to an entire group of students is associated with several significant instructional conditions. First, the technology system used in the learning environment must provide a listserv

function (technology feature). Related to this, the instructor must be able to use the listserv software to create the class list (instructor technical skill), or the class list must be prepared for the instructor (technical support). Also, students must check e-mail frequently for this method to be effective. This requires that students have access to a network and e-mail accounts (technology access), have the time available to check their e-mail frequently (student time), and are motivated to do so (student motivation). Finally, in order for this method to be effective in achieving the goal of learning how to develop trusting and caring relationships among peers, the students themselves should value their relationships with other students or they are unlikely to share issues, concerns, questions, and responses of the type that develop interpersonal relationships (student values). If any of these conditions is unmet, the listserv may not be an effective method to build community.

For example, if the students in this group are frequent travelers and are often away from e-mail for several days (or even weeks) at a time, they may not be able to respond to relationship-type (or community building-type) e-mail messages in a timely fashion. If an e-mail message is intended to elicit advice or sympathy from fellow students, and the other students are not available to respond within a day or two, it is doubtful that this interaction will be effective in developing trusting and caring relationships. If the educator suspects that the condition of frequent e-mail access might be unmet, s/he should consider choosing another instructional method to meet the goal of students learning how to develop trusting and caring relationships among peers.

Once the educator has considered all the instructional conditions associated with a particular instructional method, s/he should consider the instructional conditions

associated with the other alternative methods, and modify the methods or select different methods as needed. This process should be repeated for all methods, for every learning goal, and for each value (if there are multiple values). When all of this is accomplished, the educator can feel confident that the instructional method design of the learning environment is sound, and that it will facilitate effective learning.

Final Comments

There are many variable factors involved in producing effective learning in any learning environment. Considering the relationships among situationality elements and between situationalities and methods, using the situationalities framework, should help facilitate effective learning. At the very least, a learning environment designed in this way should be more effective than one designed without regard for the relationships between values and goals, goals and methods, and methods and conditions present in the learning environment.

The information in Tables 9-11 and Appendices F-I (listed as resources in the framework) applies most directly to cases of online education such as those included in this study. While this is limiting at one level (and is discussed in more detail in the “Limitations” section of Chapter 7), the usefulness of the framework goes beyond the specific lists of related pairs of situationality elements in Tables 9-11. Social interaction in different learning situations such as college courses, corporate universities, and military training programs is similar in many important ways. If the situationalities framework is used as explained above, educators (and designers) will engage in a design process that should create effective learning environments in any of these instructional settings. In other words, the framework not only provides specific instructional guidance

for social interaction in online academic settings, but can also be used to help educators and designers follow a useful design process, which should lead to effective learning in all instructional settings.

I present a summary of author feedback regarding the situationalities framework next, followed by several additional important insights the authors reported.

Author Feedback

As part of the author interviews and surveys, I asked each author to comment upon an initial draft of the situationalities framework. The seven-page draft summary they received included a one-page description of the case analysis process, a five page description of the situationality classification scheme, and a one page preliminary draft of the situationalities framework summary (see Appendix K).

Sixteen (of 30) case study authors participated in the interviews or surveys. Most of the authors who responded to the survey reported that the situationalities framework seemed like a useful approach for selecting instructional methods or designing online learning environments. Several expressed a strong desire to use this framework to help their colleagues understand how to design more effective online courses.⁴⁰ One author stated that the framework is much more comprehensive than the model she is currently using, and cannot wait to use the final version for staff training at a university.

Even though the responses from authors were generally extremely positive, many remarked that the framework diagram was confusing. They asked for more clarification and further explanation of how it should be used. Many of their remarks centered on their perception that I was trying to present too much information in too little space. After

⁴⁰ Each author was asked whether or not they wished to receive a copy of the final version of this study, when complete. Every author who responded to the survey or participated in an interview asked to receive a final copy.

reviewing the initial framework I had provided to them, I concurred with their assessment and I revised the framework to the format presented earlier in Figure 2, accompanied by the brief “user guide” – Figure 3. The revised framework does not include a comprehensive list of values, goals, methods and conditions, and a process-flow overlay on one page. Rather, the new approach presents a process-orientation for using situationalities to choose alternative instructional methods, and only references the tables of information (Tables 9-11) at appropriate stages in the design process. The major focus of the revised diagram and accompanying user guide is on the steps an educator should follow to use the framework, which is a process-oriented approach.

Finally, two authors commented that the situationalities framework might be useful at some level, but that it presents an oversimplified approach to choosing instructional methods for the online setting. One author asserted that designing effective online instruction was not simply knowing how to choose a method based on a specified goal, but that there were more complicating aspects to consider. Related to this, the other author commented that other systemic issues facing educators who choose to teach online are often more important to the effectiveness of social interaction in the online learning environment than is choosing the right instructional method based on situationalities. Systemic issues such as institutional support, including resources such as development time and money, and administration-driven class size increases were specifically mentioned. The concern expressed by the author was that the effectiveness of online learning can be significantly diminished due to forces outside of the learning environment and beyond the control of the educator. While this is true for all learning environments,

including socially interactive online learning environments, this topic is beyond the scope of this study.⁴¹

In the interviews and surveys, many case authors provided insight into the general online learning environment that goes beyond the methods and conditions reported in their own cases. I describe several of these insights next.

Additional Insights

During the interviews and surveys, authors were given the opportunity to expound upon any aspect of online learning. They responded with many interesting comments, including comments about the role of the online instructor, how much to structure online interaction, the importance of encouraging student involvement in improving the learning environment, why it is important to establish interpersonal relationships among students within an online class quickly, and the special importance that meeting technology and time-related conditions holds when a learning environment spans the world.

One case author reported that, to her, it seemed that the most important consideration for social interaction in online learning was the role of the instructor. Her main point was that good instruction requires a good instructor, no matter the medium. In her opinion, a poorly prepared or, uninterested instructor cannot create an effective learning environment, no matter what the setting. Other authors mentioned the importance of instructor motivation and desire to connect to students if establishing online learning community was a fundamental value or learning goal.

Several authors reported that it was extremely important to scaffold student learning with structured support, especially with regards to pacing. When left to their

⁴¹ Expanding the framework to address systemic issues is discussed in the “Further Research” section of Chapter 7.

own pacing control, many students wait until the last minute to complete their reading assignments and other course activities, including participating in online discussions. When online discussions rely upon interaction between students to create an engaging (and effective) discussion, it is important that student contributions to the discussion are frequent and spaced regularly during a given time period, not “jammed” into the last day or two. Receiving frequent reminders that encourage regular discussion contributions and structured participation requirements that include regularly spaced contributions can help students pace their efforts appropriately.

Several authors emphasized the importance of including student feedback in the evolving design of the learning environment. In addition to the end-of-course feedback commonly solicited from students, these authors requested feedback from students at regular intervals throughout the course. These authors noted that it was important for students to experience the suggested changes quickly, so they could see their suggestions were truly valued. In at least one case, an author stated that this quick implementation helped create a broader sense of learning community, since it was clear she was learning how to better teach online as the students learned course content.

One author stressed the importance of establishing interpersonal relationships with and among online students quickly, within two or three weeks of the start of a new course. This author consistently valued forming online social learning communities, with a major goal of engaging students to a greater degree than is possible in traditional face-to-face settings. She stressed that technology should be used to establish as much social contact as possible, including the exchange of photographs, the use of video-conferencing, sharing (appropriate) personal information, and the creation of a peer

network among class members. For these reasons, access to, and skill at, using communications technology are paramount instructional conditions in her learning environments.

Finally, many authors stressed the importance of technology- and time-related conditions for global learning environments. Inadequate access to modern computing power, affordable high speed connections to the Internet, and software that fits user preferences were mentioned as continuing obstacles for some learning environments. Even when access to appropriate technology is available, the extension of a learning environment around the world leads to significant (and obvious) difficulties in arranging synchronous learning activities. Several authors also described that wide variation in student time zones led to difficulties with asynchronous activities that required significant student interaction and collaboration. When a collaborative partner can be out of “time sync” by up to 12 hours, every exchange of communication may take up to a full 24-hour day to complete. For this reason, these authors have changed their instructional methods to limit requirements for interactive collaboration among students when they have globally dispersed participants.

Sets of Conditions

In the final section of this chapter I present several significant sets of conditions I noticed while developing the situationalities framework.⁴² These sets include conditions that occur together frequently in cases, or that seem related to each other in interesting

⁴² There are other sets of conditions that are less important to explain because they are more obvious. For example, location and synchronicity are closely related: If students must be located in the same place for social interaction (the location condition), it seems obvious that they must also be there at the same time (the synchronicity condition).

and important ways. I present five sets of conditions here, including 1) synchronicity and time, 2) skills and ability and background, 3) motivation and values, 4) motivation and time, and 5) class size and time.

Synchronicity and Time

Conditions of synchronicity reflect the fact that, when considering temporal relationships among learning participants, it is not enough just to decide whether or not an instructional method will be used in a synchronous or asynchronous fashion. It is also important to understand the temporal relationships that must exist between the participants in an instructional interaction. Conditions of time are closely related to conditions of synchronicity, but address the need for a certain amount of time for participation rather than the synchronicity of the time.

Obviously, synchronous methods require synchronous temporal relationships and require a certain amount of time. However, as the data in this study reveal, asynchronous methods require a certain synchronicity in the temporal relationships among participants as well. For example, a method that requires student participation in weekly discussions is likely to fail if there is no temporal coordination among the students. In most cases, students tend to post (and reply to posts) near the end of a pre-specified time frame. When all messages are “crammed” into the end of the discussion, the discussion is not very effective. It is better to structure the discussion (using an instructional method) to require student participation throughout a specified timeframe to ensure there is an opportunity for meaningful replies (and replies to replies, etc.) in the discussion.

Of course, it is also important that a participant have enough time available to interact as an instructional method requires. If a student has time available at just the right

times (for example, every afternoon), but does not have enough time available to interact as required (perhaps only 5-10 contiguous minutes), a method may be ineffective. In a situation where conditions of synchronicity are met, but conditions of time are unmet, the resulting online discussion may be very interactive but shallow, with short, “sound-bite” sized posts and replies. Therefore, when considering instructional methods that may require substantial amounts of participation time (such as large discussions, lengthy synchronous sessions, large volumes of e-mail, etc.) an educator should consider both of the time-related conditions: synchronicity and amount of time.

Skills and Ability and Background

The instructional conditions of “skills and ability” and “background” are associated with many instructional methods. These conditions are closely related, since a participant’s background helps establish his or her skills and ability. In general, an instructional condition is classified as “background” for general characteristics and as “skills and abilities” for specific characteristics. Some methods are associated with conditions from both categories.

A participant’s background becomes an important condition when an instructional method requires (or is more effective when) that participant has had certain experience(s). Sometimes this is experience related to technical or online environments in general, such as the importance of instructor background (experience with CMC discussions) when using the instructional method of allowing students to select and moderate discussion topics. At other times, this experience is related to academic or educational background, such as when an instructional method calls for students to communicate with external experts on a course topic. In this case, students must have

enough background with the course content to engage in meaningful dialogue with domain experts.

The instructional condition of skills and abilities is more commonly associated with the specific skills or ability of a participant. For example, the ability to moderate an online discussion is a specific skill that a student must have if an instructional method requires student moderation. Many other instructional methods require specific technology skills and abilities such as being able to use chat software, file exchange protocols, and common web browsers. A student who has a strong technical *background* may be more likely to have many of these technology *skills and abilities*.

Motivation and Values

Instructional conditions of motivation were reported in 23 of 30 case reports. A total of 39 (of 143 across all cases) conditions of motivation were reported. All but two of these conditions were associated with conditions of student motivation rather than instructor or external expert motivation. Clearly, motivating students to participate in instructional activities, especially when the students are remotely located (in time and space), is one of the great challenges to educators in most settings. In order to be effective, many instructional methods require conditions of student motivation to be met. If students do not enter with the required motivation, the instructor will have to revise the instructional approach to include methods that will establish and maintain the required level of student motivation. While instructor conditions of motivation were reported explicitly only once, it seems to make sense that there are still instructor motivation issues that need to be addressed for many instructional methods. For example, if an

instructional method calls for an instructor to respond to many student posts in a discussion, an unmotivated instructor is unlikely to participate at an effective level.

Sometimes, cases report significant conditions of values in addition to those of motivation. For example, when an instructional method such as requiring peer evaluation, review, and feedback is used, one of the conditions is student motivation. In addition to student motivation, however, perhaps at a more fundamental level is the condition of student values. If a student does not believe that peer feedback is valuable, then this student is not likely to be motivated to participate in this method effectively.⁴³

Motivation and Time

Motivation and time are two conditions that are common to many cases. Every participant has a limited amount of time available for instruction-related activity, and many students discover severe demands on their time during academic semesters especially. Decisions about what to “spend time on” are often made based on motivational factors. If students have sufficient motivation to participate in an instructional activity, and they have time to do it, they will then participate, and the instructional method may be effective. If, on the other hand, a student is not sufficiently motivated towards the instructional activity, s/he will probably allocate time to other activities instead, and the instructional method will be ineffective.

Even when there does not seem to be enough time to participate in an instructional activity, with strong enough motivation, some students will redistribute time normally allocated to other activities (such as sleep) towards participation in the instructional activity. At least for some students, then, an entry condition of very high

⁴³ There are, of course, other important motivation sources other than values, such as rewards (usually grades) based on participation.

student motivation may overcome an unmet condition of student time. In other cases, supplementary instructional methods designed to establish and maintain the required level of student motivation may be necessary.

Class Size and Time

Larger classes often generate a larger volume of social interaction, since there are more participants. For instructional methods that require substantial instructor interaction (such as instructor-student e-mail or file exchange), larger class sizes therefore require more instructor time. In the situationality framework, this condition is sometimes reported as class size, and sometimes reported as instructor time, depending on the case author's focus. When using the framework, when an instructional method is associated with the instructional condition of class size, the instructional condition of instructor time should be considered as well. It may be possible to meet conditions of instructor time (or class size) by modifying an instructional method to reduce the number of instructor-student interactions by using more student-student interaction, such as peer evaluation or student discussion moderation.

In a similar fashion, instructional methods that require student-student interactions, such as whole-class discussions, are often associated with class size and (or) student time conditions. When students engage in online discussions with many class members, there are significant time requirements on students as they just read all the discussion posts. Even more time is required to reflect upon and respond to the posts of others. Sometimes, modifying an instructional method to reduce the discussion size, such as assigning students to smaller discussion groups, can reduce the amount of time required of students for effective participation.

Final Comments

The findings reported in this study are significant for educators who design, implement, or teach in online learning environments. As I have shown above in the situationalities framework, there are recognizable patterns among the situationality elements and methods I found in the descriptive case study literature – patterns which can be used to create effective, socially interactive online learning settings in both education and training contexts. Figure 2 displays a summary of the situationalities framework and focuses on a process-level view of the framework. Using the framework effectively requires the information in Tables 9-11 and Appendices F-I as well, since these resources contain information about specific situationalities and the relationships between situationality types and methods.

Additionally, I have described several sets of related conditions that regularly occur together, affect each other, and should be considered together when choosing instructional methods for socially interactive online learning. These sets of conditions include synchronicity and time, skills and abilities and background, motivation and values, motivation and time, and class size and time. Of course, there may be other sets of conditions that are important for some learning situations (and to some readers) that I have not reported on in this study. This may be a promising topic for future research.

Chapter 7 concludes this study with a summary of other relevant author feedback, and a discussion of implications, limitations, prospects for further research, and finally a few concluding remarks.