

ATHABASCA UNIVERSITY

PARTICIPANT PERCEPTIONS OF THE IMPORTANCE OF SITUATED  
LEARNING DESIGN IN THE DELIVERY OF ON-LINE TRAINING

BY

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A Thesis submitted to the  
Athabasca University Governing Council in partial fulfillment  
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# ATHABASCA UNIVERSITY

The undersigned certify that they have read and recommend to the Athabasca University Governing Council for acceptance a thesis "PARTICIPANT PERCEPTIONS OF THE IMPORTANCE OF SITUATED LEARNING DESIGN IN THE DELIVERY OF ON-LINE TRAINING" submitted by MICHAEL T. PRICE in partial fulfillment of the requirements for the degree of MASTER OF DISTANCE EDUCATION.



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## DEDICATION

This thesis is dedicated to my wife, Anne, and our son Christian. Without their support and encouragement I would not have undertaken and completed this project. Life long learning and goal setting requires a resolve that necessitates understanding and the support of many. To both of you, thanks so much for your patience.

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## ABSTRACT

Situated learning has been recognized as an important approach to the design of programs for professional training and development programs. Knowledge is gained in the context of problem situations that are representative of the group's professional practice. Participants gain knowledge and interact with program content that reflects the day-to-day reality of their experience. The intent of this study was to explore the perceptions of members of the addictions counseling profession in Canada, relative to the situated learning design features they felt were important elements in training programs delivered on-line. A case study approach was employed in this study, utilizing two questionnaires and a telephone interview to ascertain which situated learning elements they perceived as being important in their program delivery. There were nine situated learning elements that they considered. The feedback from the sample group suggested that on-line training programs should consider including the "provision of authentic context" and that facilitation should ensure "coaching and scaffolding at critical times". These were deemed as being very important instructional design elements that should be present in their training programs. A number of other design elements were also indicated as being of importance, including: "promotion of articulation, provide access to expert performance, promote reflection, provision of multiple perspectives and the provision of authentic activities". The situated learning elements least valued by the addiction counselors were: "provision of collaborative construction of knowledge and the provision of integrated assessment of knowledge". The ongoing formative and summative evaluation of programs delivered on-line training might consider gaining participant feedback on the design elements that they feel are important to their situated learning.

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# CHAPTER 1

## INTRODUCTION

### Background

*Building a skilled work force must be a national effort... Canada must see at least one million more adults pursue learning opportunities during the next five years.*

*---Speech From The Throne, January 30, 2001*

The Conference Board of Canada (2001) has indicated that employers, in a move to create self directed, lifelong learners that are more productive and innovative, are embracing e-learning for delivery of training and development of their employees. This approach to learning and training provides an opportunity to integrate learning into the workplace effectively. The emergence of distance learning, including advances in technology and tools, has increased the opportunity for quality, flexible lifelong learning that addresses personal and professional development needs. As economic conditions shift from an industrial model to the digital age, organizations need to assess the inherent paradigms relating to how and when training is provided and what the learning outcomes should be.

Distance education and workplace training have a surprisingly long affiliation. Moore (1997) suggest that prior to the explosion and impact of technology, distance education had existed for at least one hundred years in varying forms including correspondence schools. He outlines that there have been three distinct stages or generations of development that distance education has gone through, each reflective of advances in technology. These stages include correspondence study (print based using the postal system), broadcast and teleconferencing (use of radio, television and satellite delivery)

and currently, expanding the possibilities of distance delivery using computers with multimedia capabilities. Spenser (1998) suggests that many of these programs, which were often government initiatives, supported the acquisition of skills and knowledge through formal, informal and non-formal education and training. The intended outcome was skills acquisition and a form of human capital resulting from deliberate investment. Watkins (as cited in Malloch, Cairns & Hase, 1998) takes the view that past workplace learning was primarily skills training based on immediate jobs and integrally tied to performance and production. With the dissemination of skills training there was not a need to engage the learner in the learning process and program relative to their contextual training situation and needs. Training and development programs tended to be prescriptive in nature. This traditional approach to workplace learning and development can still be reflected by organizations using this industrial model and its hierarchical systems.

The value and importance of sustained learning throughout a life-time is increasingly becoming apparent as it relates to economic growth and societal and social well being. Derrick (2003) indicates, now that we have opportunities to engage in learning anytime or anywhere, we must address the issue of how to foster the desire for sustained and enduring learning, and, more important, create environments that are conducive to this lifelong learning process. Derrick goes on to suggest that perspectives regarding teaching and learning have seen a subtle shift over the past decade. There is a greater emphasis on the learner and on the structures and mechanisms that sustain and develop the skills and attitudes needed for the future.

The Conference Board of Canada (2001) recognizes that there has been a radical shift in approaches to economic practice and activity. The global, knowledge based economy places unprecedented demands on Canada's labor force. Globalization, human capital development and information and communications technology are driving an expansion of e learning for employee training and development. Organizations recognize that to remain competitive they must embrace innovation and enhance productivity. The Conference Board goes on to state that to accomplish this there must be improved and consistent investment in the rates of lifelong learning. Statistics Canada suggests that knowledge is a key determinant of sustained economic growth because knowledge, unlike other factors of production, is not subject to diminishing returns (Industry Canada).

The Conference Board stresses that the overriding goal of Canadian society is to maintain and enhance a high quality of life. Quality of life not only encompasses economic performance, but social performance as well. Without a well-educated and healthy labor force, it becomes more difficult to generate economic success. The Conference Board reports that 38% of organizations surveyed were using Internet technology for training in 2000. In addition, 32% of Canadian households use the Internet from home for formal education and learning.

The Alcohol and Drug Recovery Association of Ontario facilitates and monitors the professional development for counselors in the addiction field in Canada. It administers the program on behalf of the Canadian Addiction Certification Federation. The organization initiated a successful proposal through the Office of Learning Technologies in 2001, for the development of an on-line learning portal that would support the career

education and professional certification needs of counselors and therapists working in the addictions field. This study explored the perceptions of participants interested in engaging the new programs relative to the importance of situated learning design in the delivery of the training. By embedding subject matter in the ongoing experiences of the learners and by creating opportunities for learners to live subject matter in the context of real-world challenges, knowledge is acquired and learning transfers from the classroom to the realm of practice (Stein, 1998). The participants in the study provided their perceptions on how the instructional design could best meet their professional development and learning needs.

### Study Rationale

The purpose of this study is to assess the importance that learner's place on the characteristics of a situated learning design. [This study included various stakeholders of the A.D.R.A.O. organization involved with the professional development program that will be delivered on-line. Participants are members that have prior experience and participation in professional development offerings by the organization or intend to participate in the future. They have a vested interest in the professional development opportunity that will be offered on-line.

**Comment [mfc1]:** Mike – this still sounds a bit awkward to me. Could you reword to make it clearer? How about “to assess the importance students place on the characteristics of a situated learning design”

### Theoretical Framework for Proposed Study

There are nine situated learning components recommended by Herrington and Oliver (1995). Their work suggests that if all nine components are present, it will enhance the learning environment. The nine components are:

- An authentic context
- Authentic activities from practice
- A model of expert practice
- Presentation of multiple perspectives
- Individualized coaching
- Reflection on developing knowledge
- Articulation of learning
- Collaboration with peer learners
- Assessment integrated with learning activities

Participants were asked if they feel the presence of these nine critical elements of situated learning assist in “situating” the learning in the professional development courses they are engaged in.

The instruments used in the study consist of a questionnaire in which the participants completed a scale (Likert-type attitudinal inventory) as well as a categorical scale in which they would rank the nine situated learning components from highest to lowest in importance. A semi-structured interview followed with the respondents. This phase explored various themes that emerged from the questionnaire regarding learners’ perceptions of the importance of situated instructional design elements present or not in the course.

The research by Herrington and Oliver on situated learning, its’ critical characteristics and the implications for the instructional design of on-line program delivery provided an important cornerstone for this study.

## Organization of the Thesis

The thesis will first present a review of the literature. This will provide a foundation for assessing and documenting the philosophical shift from a behaviorist framework of learning theory to one that is constructivist in nature. The constructivist philosophy, advances in technology and delivery of programs on-line, provide for a professional development environment that will promote and foster authentic learning for addiction counselors and therapists. The research problem that was addressed and the two research questions employed in the study follow the literature review. An overview of the pertinent operational definitions is contained in this section as well.

Subsequent chapters in the thesis will present an overview of the methodology, which includes a description of subject recruitment and demographic characteristics, data collection techniques and analysis. An in-depth overview of the results from both of the questionnaires employed and the interview data are provided. This section includes the conclusions and observations drawn from the study results and analysis.

## Statement of The Research Problem

The Alcohol and Drug Recovery Association of Ontario (A.D.R.A.O.) is developing a training program that will be delivered online to enhance professional development of its membership. This delivery approach is a new initiative. The organization must address the issue of how best to design, structure and deliver this online training to professionals working in the addiction treatment field. Cervero (1998), suggests that professional development should improve practice not merely update professionals on new information related to their field. It should develop a critical and analytical way of

considering knowledge and provide practice using judgment skills (Nicene & Kanuka, 2002). The instructional design implemented by A.D.R.A.O. will need to consider these contextual issues for the program development and delivery.

Traditionally, the certification programs and professional development opportunities offered by A.D.R.A.O. used teacher and content focused sessions delivered in lecture/classroom formats. The organization has recognized the need to reach more practitioners with professional development training. The traditional approaches have limited practitioner involvement due to the barriers of time, distance and cost to attend centralized training. The research problem to be addressed is, “what are the design considerations for courses offered to professionals in the addictions field that will provide for a meaningful professional development experience, and will encourage application in participant’s practice?” Brown, Collins and Duguid (as cited in Herrington and Oliver, 1995) argue that meaningful learning will only take place if it is embedded and situated in the social and physical context within which it will be used.

This study will inform the profession as to what the significant instructional design components are that stockholder’s feel should be present in on-line course delivery. The integration of content, context, community and participation are the necessary considerations that allows for the placement of the learner in the center of an instructional process that focuses on their professional development (Stein, 1998). Situated cognition suggests that on-line course instructional design can provide for a shift from the traditional classroom in which knowledge is transferred from instructor to learners. The opportunity is present to allow for on-line courses to be designed for meaningful professional development that will be a resource for interpreting, challenging, and



creating new knowledge for the field. As an instructional strategy, situated cognition has been seen as a means for relating subject matter to the needs and concerns of the learners (Shor, 1987). The challenges facing the addiction practitioner are many and the opportunity for providing professional development programs on-line will allow for a dynamic and applied approach to the realm of practice.

### Research Questions

This study assessed perceptions of course takers regarding the applicability of situated learning design components in online programs developed for their professional development. The study addressed the following research questions pertaining to the nine constituent elements of situated learning design outlined by Harrington and Oliver (1995):

1. How important are the nine individual situated learning elements present in the instructional design of a professional development course to the participants and why do they attribute that importance?
2. How do participants rate the relative importance of individual situated learning elements in the design of a professional development course?

A.D.R.A.O. monitors and facilitates the process that provides certification based on professional development activity of Canadian practitioners in the addictions field. The introduction of on-line course delivery is seen as an important and timely development. The intent of the study was to gain an understanding of participant's perception of the importance of situated learning design components in the instructional design of courses delivered. The two questions were developed to ascertain which instructional design

components stakeholders feel are important to be present in the courses offered and how they rank the relative importance of the components.

The purpose of professional development for the Canadian addictions field is to improve the way it can increase the body of knowledge, identify and solve work-related challenges through sharing of the rich resources offered by other professionals. When professionals search for similarities from across the profession, it can yield a fresh exchange of ideas, practices, and solutions to common problems (Cervero, 1988). The questions asked provide insight into the design features of courses offered on-line deemed important by the participating professionals. The purpose for delivery of professional development courses on-line is the maintenance and enhancement of knowledge, competence and sharing of expert practice. The research questions were developed to inform how the instructional design of courses can best meet these learning objectives.

#### Definition of Terms

Critical Characteristics of Situated Learning For Instructional Design. Usable knowledge is best learned in learning environments, which feature the following characteristics (Herrington and Oliver, 1995).

. The learning will:

- ❑ Promote articulation. A situated learning environment promotes articulation to enable tacit knowledge to be made explicit.
- ❑ Promote reflection. Situated learning environments promote reflection to enable abstraction to be formed.

- Provide access to expert performance. Situated learning environments provide access to expert performances and the modeling of processes, allowing students to observe the task before it is attempted.
- Provide authentic activities. A situated learning environment provides authentic activities, which are ill defined – students find as well as solve the problems.
- Provide authentic context. A situated learning environment provides an authentic context that reflects the way the knowledge will be used in real life, that preserves the full context of the situation without fragmentation and decomposition, that invites exploration and allows for the natural complexity of the real world.
- Provide coaching and scaffolding at critical times. The learning environment provides for coaching at critical times, and scaffolding of support, where the teacher provides the skills, strategies and links that the students are unable to provide to complete the task. Gradually the support (scaffolding) is removed until student is able to stand-alone.
- Provide for integrated assessment of learning. A situated learning environment provides for integrated assessment of learning within the tasks.
- Provide multiple perspectives. The learner is provided with the opportunity to investigate multiple roles and perspectives.
- Support collaborative construction of knowledge. A situated learning environment supports the collaborative construction of knowledge.

Instructional Design. The systematic and reflective process of translating principles of learning and instruction into plans for instructional materials, activities, information resources and evaluation (Smith and Ragan, 1999).

On –Line Training and E Learning. Delivery and transfer of skills, learning and knowledge through information and communication technologies (The Conference Board of Canada, 2002).

Perceived Usefulness/Importance. The degree to which a person believes that using a particular system would enhance his or her job performance (Davis, 1989).

Situated Learning. Clancy (1995) defines situated learning, as “the study of how human knowledge develops in the course of activity, and especially how people create and interpret descriptions (representations) of what they are doing”.

Workplace Learning. The acquisition of knowledge, and skills resulting from participation in authentic tasks, with support and guidance (Smith, 2003).

#### Limitations of the Study

In this study the participants will represent a convenience sample. The study involved professional members of the Alcohol and Drug Recovery Association of Ontario. The sample included stakeholders from the membership and included front-line and management staff as well as administrators of programs whose staff will engage the courses as part of their professional development. The study was a single case study that explored the experience of professionals working in the addictions field, with respect to their perceptions of required teaching and learning components of professional

development courses. Yin (1994) suggests that case study approach is an empirical study that investigates a contemporary phenomenon within its real life context, especially when the boundaries between the phenomenon and the context are not clearly evident. In this case, A.D.R.A.O. is offering professional development courses on-line for the first time and design/development considerations will be assessed as part of the ongoing formative and summative evaluation approaches employed.

One limitation of the study is the sample size. Over five hundred invitations to members were extended to participate in the study. Initially there were twenty individuals that indicated a willingness to engage the study. From the initial group, seven individuals were unable to respond to the questionnaires in a timely manner or did not complete all of the material as requested. The sample size for the study as a result was 13 participants who self selected to participate. A larger sample would have benefited the study in that it would have provided more perceptions and perspectives of professionals in the addiction field. The loss of seven sample members is substantial but their non-participation was beyond the control of the researcher.

Another limitation of the study is the nature of the group questioned. The participants represented a number of regions of Canada, both rural and urban. It is unclear as to whether the sample group was representative or inclusive of the addiction profession and the learning needs they might have, from a demographic perspective.

The sampling procedure used in the study will not allow for the generalizability of the findings to other social service sectors implementing online training. The findings can however be a starting point for future investigation. The collection of quantitative and

qualitative data from the addiction professionals sector in Canada for this study will allow for, and perhaps contribute to, other case study comparison by social services or assist in the ongoing formative evaluation of the program delivery.

### Summary

The Alcohol and Drug Recovery Association of Ontario (A.D.R.A.O.) has taken the lead in implementing an on-line training program for professionals in the addiction field. The programs offered will support the career education and certification needs of the community of counselors and therapists who treat Canadians suffering from addictions.

For individuals working in the addictions profession in Canada, geographic location and limited financial resources available can be barriers to attending traditional classroom training sessions or conferences in major centers. The development and delivery of courses on-line will provide easier and more efficient access to quality professional development courses. The courses are approved and recognized for professional certification requirements. The development of the program will decrease the barriers of time and distance for participating members of the profession in accessing the learning and knowledge required by the profession.

On-line delivery of programs must consider the instructional design and how it can be adapted for computer-mediated delivery. The courses developed will be for professionals and will assist in the development of new knowledge based on practice and the sharing of experience. Situated learning is a model that is very applicable for professional development. Learning becomes a social process dependent upon transactions with others placed within a context that resembles as closely as possible the practice environment.

Situated learning integrates content, context, community and participation (Stein, 1998). Situated learning design allows for professionals to identify areas of interest and concern and apply solutions to work-related problems through interaction with the community of practice.

This study is timely in that programs are just being initiated for delivery. Formative and summative evaluation will be on going over the first year. The findings of this study will provide A.D.R.A.O. with additional data regarding the perceptions of course participants relative to the importance of situated learning design components in the delivery of their professional development programs.

## CHAPTER 2

### REVIEW OF RELATED LITERATURE

#### Theoretical Framework

Workplace learning and related professional development has developed into an area of research over the past fifteen years. A number of factors have influenced this interest.

Heightened awareness that workplace knowledge and skills contribute to enterprise and national competitiveness, but it is also due to the increased focus on the connections to be made between theory and practice as part of an education or training experience (Smith, 2003). Continuing professional development has been recognized as increasingly important among professional organizations and employers in a community of practice. Madden & Mitchell (1993) define continuing professional development as: “Continuing Professional Development is the maintenance and enhancement of the knowledge, expertise and competence of professionals throughout their careers according to a plan formulated with regards to the needs of the profession, the employer, the profession and society”. Brown, Collins, & Duguid suggest that the design of continuing professional development based on a situated learning model is appealing in that it incorporates elements of everyday cognition, informal learning, authentic learning experiences, and cultural influences (as cited in Wilson, 1995).

The approach taken with this study employed a socially constructed knowledge claim. Assumptions used in previous work (Berger and Luckman (1967), Lincoln and Guba (1985), Schwandt (2000), Neuman (2000), Crotty (1998), hold that individuals seek understanding of the world in which they live and work. They develop subjective



meanings of their experiences – meanings directed towards certain objects and things (Cresswell, 2003).

Constructivism is a learner centered educational theory, which contends that to learn anything, each learner must construct his or her own understanding by tying new information to prior experience. The disposition that education should be experience based has a lengthy history. John Locke (1632 – 1704) believed that the only way an individual can learn is through experience. He viewed the mind as a blank slate at birth and the only way to fill it is through having experiences, feeling these experiences and reflecting on them. This experienced based educational philosophy eventually evolved into the experiential education model. Lev Vygotsky (1896 – 1934) believed that all learning involves connecting new information to previous experiences. His study of children’s interaction observed that when working in small groups to solve problems, children would help each other to collectively solve the problem efficiently. Bacon, Montessori, Rousseau, Froebel, and Piaget believed that the best experience is occurs when learners are manipulating objects and problem solving. John Dewey is known for his expression, “Learning by doing”, an expression used a century earlier by John Locke (Henson, 2003). This focus on social interaction and its relationship to learning has been an active educational theory since the early 1900’s. Henson goes on to suggest that learner centered education can be traced back much further in history perhaps at the dawning of education itself. The Chinese philosopher Confucius (551 B.C. – 479 B.C.) stressed character and good citizenship. Ozmon & Craver (as cited in Henson, 2003) indicate that Confucius believed that every person should strive for continual

development of self until excellence is achieved. The Greek philosopher Socrates (469 – 399 B.C.) stressed the importance of the individual and his maxim was “Know thyself”.

Situated learning is the study of how human knowledge develops in the course of activity, and especially how people create and interpret (representations) of what they are doing (Clancy, 1995). Clancy goes on to provide a historical perspective of situated learning which has many origins in many fields, including:

- Sociology of knowledge (Marx, Durkheim, Mannheim)
- Functionalism (anti-associationism) (Dewey, Bartlett)
- Activity Theory (Vygotsky, Leontiev, Luria, Cole, Wertsch)
- Cybernetics and systems theory (Bateson, von Foerster)
- Ethnomethodology (Garfinkel)
- Ecological psychology (Gibson, Jenkins, Bransford, Neisser, Barker)

Recent research has been designed to determine how computer mediated communication (CMC) can be used to provide for human interaction in a context of flexibly delivered workplace learning. The capacity of on-line technologies such as computer conferencing to provide students with a means of developing and sharing their construction of knowledge in a course, while they socially construct group knowledge within a collaborative learning environment, is one of the greatest advantages of CMC. This is consistent with the constructivist view that knowledge is collaboratively constructed (Smith, 2003).

Herrington and Oliver have provided a number of studies relating to the context of design considerations for situated learning and computer-mediated delivery. The situated learning framework for instructional design as proposed by the authors (1995, 1998), has

been utilized as a template for the implementation of this study. They describe critical design elements for effective on-line learning environments as including attention to the content, learning activities and learner support systems included in the instructional design. They argue that, by developing on-line learning through that framework of critical elements, one can achieve the representation of information through the multiple modes available with new technologies, together with authentic learning tasks that can be pursued collaboratively among learners (Young, as cited in Smith, 2003).

### Instructional Design and Situated Learning

Avey (2003) suggests that we have moved from an industrial age and economy to a “teconomy”. The digital age requires a new infrastructure and way of thinking. One of the fundamentals suggested is the recognition that learning must shift from being content driven to a learning process that occurs by acting and interacting. Leonard (1999) conveys that current reality reflects workers that must learn all of their lives and learning is integral to their success on the job. He goes on to indicate that learner-centric approaches must be used recognizing the importance of the learner over the instructor in the instructional activity. The purpose of learning should include and encourage learners to become self-directed, independent and autonomous in their decision-making (Derrick, 2003).

Mingail (2003) states that the economics of business now require workers to process new information at lightening speed. This would also be reflected in the health care profession, including the professionals working in the addictions field who continually need to incorporate new knowledge and adopt new approaches in their practice through

ongoing training. Learning has become a perpetual endeavor. Corporations and organizations that do not promote acquisition of new knowledge and skills risk losing ground to competitors or becoming redundant. Mingail argues that the solution to keeping intellectual capital informed, groomed and razor sharp is to integrate learning, training and development initiatives to the organization and deliver knowledge to the desktop. Fluctuating organizational objectives demand a more flexible learning agenda.

With this capacity for the rapid deployment of training and development initiatives, it is of considerable importance to consider the framework and format in which the material will be designed and delivered to optimize learning potential. In the area of workplace training and development there is a philosophical shift from the traditional behaviorist model to a constructivist model and framework. The purpose of workplace training can be discovered in an analysis or assessment of practice. Elias and Merriam (as cited in Spenser, 1998) indicate that a behaviorist philosophy of education has definite behavioral objectives, being linked to skill training, planning and evaluation. It is competency based. A constructivist view has long been associated with self-directed learning and human resource development. Content is drawn from life situations, the preferred method is problem solving and teachers and learners are partners in the task of learning. This shift in philosophical perspective may begin to address the growing rift between formal school learning and meaningful real-life learning (Herrington & Oliver, 1995).

Instructional development in distance learning cannot merely replicate classroom based learning and traditional approaches if the intent is to have the learning sustained and applied in meaningful ways for the learner. Bridgland and Blanchard (2001) indicate that flexible learning and delivery of technology-supported programs must include a

focus on the learner. This includes an environment where learner motivations are understood, the support systems build and encourage self-confidence and esteem and promote self-direction and empowerment. Learner-centered, activity centered, situated, and participatory models of instructional design and development focus on demographic and cognitive profiles of learners, prior knowledge, perceptions, preferences, needs, goals, characteristics, and experiences of learners. A commonality with the three models is that there is a shift away from primary concern for what will be taught and toward carefully examining learner characteristics and ensuring that learners will perceive content as worth knowing. Subsequent development activities are focused on ensuring that essential content is contextualized in learner experiences and / or goals so that learners will be motivated to value it (Parchoma, 2003).

The history of learner –centered, experiential and situated learning models have a long history and they have evolved into a program or philosophy now referred to as constructivism. Individuals make sense of knowledge in an interpretative and constructive way rather than internalizing externally derived knowledge (Smith, 2003).

Situated learning was first described as an emerging model of instruction in 1989. The principal proponents, Brown, Collins, & Duguid (1989) identified key elements for their model derived from observations of successful learning environments. Common elements present in these environments are apprenticeship, collaboration, reflection, coaching, multiple practice, and articulation of learned skills. The authors work was influenced by the great educational thinkers – credits include Vygotsky, Leontiev, and Dewey. Resnick (1987), Lave and Wenger (1991) have also made contributions to the area of situated learning theory and practice. Resnick pre-empted situated learning discussion by

proposing that “bridging apprenticeship” be designed to bridge the gap between the theoretical learning in the formal instruction of the classroom and the real life application of the knowledge in the workplace. The various authors argue that learning should be situated within the context of practice and that learning is a function of the activity, context and culture in which it occurs. These theories that underpin the notion of situated learning generally argue that meaningful learning will only take place if it is embedded in the social and physical context within which it will be used (Herrington & Oliver, 1995). Lave suggested that situated learning is not only reflecting upon and drawing implications from previous experiences but is immersion in and with the experience. Learning becomes a social process dependent upon transactions with others placed within a context that resembles as closely as possible the practice environment. Situated learning integrates content, context, community and participation (Stein, 1998).

The theory embodied in situated learning is relatively easy to understand and to grasp its relevance for workplace training and professional development programs. Brown, Collins, & Duguid (1989), define situated learning, as “the notion of learning knowledge and skills in contexts that reflect the way the knowledge will be useful in real life”. By definition, a situated learning design framework suggests it would be ideal for workplace training and professional development applications. The challenge for interactive multimedia delivery is to incorporate the elements in the instructional setting and to embed them in the instructional design. The Conference Board of Canada (2001) defines multimedia as any document or application that uses multiple forms of communication, such as text, audio and video.

Wilson (1995) suggests that situated instructional design adapts itself to the constraints of a particular situation in ways that traditional instructional design models do not. Traditional instructional design is sometimes criticized for being overly proceduralized and rigid. A situated approach to instructional design would be more sensitive to local conditions in prescribing both methods and outcomes for instructional design. As an instructional strategy, situated cognition has been seen as a means for relating subject matter to the needs and concerns of the learners (Shor, 1987). In general terms, situated learning places the learner at the center of learning and how it occurs everyday. Clancy (1995) suggests that the nature of situated learning requires a different approach to instructional design. Studying how problems arise in everyday experience and practice and how learning successfully occurs requires consideration for designing tools and activities in the context of use, by a participatory, inclusive process. This can be referred to as activity based design, designing for the non-routine, within a community of practice.

The elements and characteristics of situated learning are well positioned for instructional design that addresses professional development and lifelong learning. Clancy indicates that, rather than delivering to learners what has already been preconceived and designed, the approach should consider developing tools and skills for addressing what is problematic about situations and allow for the development of alternative approaches and problem solving schema in an environment where there are various interpretations possible.

In recent years there have been a number of studies that address the area of developing instructional design for multimedia delivery based on situated learning

foundations. Herrington & Oliver (1995) have suggested a design framework that identifies the role and importance of each of the three learning process elements, the program, the learner and program implementation and how they can contribute to a situated learning environment. Their framework identifies the nine design components that should be present in a situated learning program design and delivery. This framework has been used as the foundation for this study. Additional research by Herrington and Oliver has examined the design of interactive multimedia from the perspective of situated learning and the critical characteristics that are present in learning environment using this theory. Their research focuses on the role of the teacher, and the importance of allowing for collaboration between teachers and learners (Herrington & Oliver, 1996). The authors suggest that abstract knowledge taught in schools and universities is not retrievable in real life, problem-solving contexts, because this approach ignores the interdependence of situation and cognition. When learning and context are separated, knowledge itself is seen by learners as the final product of education rather than a tool to be used dynamically to solve problems (Herrington & Oliver, 2000). Their work promotes the need for authentic learning environments that is context based. Their work in this regard is applicable to professional development programs using multimedia approaches for program delivery. The use of context-laden strategies can foster meaningful learning for the professional engaged in training and development. Some of their most recent work has focused on the role of authentic learning activities in the design of on-line learning programs. The influence of a constructivist philosophy, of problem based and case based learning, use of immersive scenarios and role – play have placed the activity student’s



complete as they study at the heart of the curriculum (Reeves, Herrington, & Oliver, 2002).

### Professional Development and Situated Learning

A literature search yielded few examples of applied situated learning design and professional development. It would appear that there has not been any study that has addressed on – line instructional design considerations in the delivery of professional development programs for professionals in the addiction field.

The research reviewed appears to be shifting its attention in recent years from the concept of workplace learning to the area of Continuing Professional Development (C.P.D.). The literature suggests that both approaches can and often do incorporate elements of situated learning in the instructional design of the training and development of employees.

Workplace learning and skill development have been an important element of enterprise for many years. More recently new learning technologies have enhanced the delivery of programs and learning resources. A number of studies reviewed focused on vocational education and training. Interest in situated learning has been growing since about 1990, as has the recognition that workplaces provide a fertile opportunity for learners to appropriate knowledge that connects theory to practice in a realistic and efficient way (Smith, 2003). Billett (1992) conceptualizes workplace learning as the acquisition of knowledge and skills and treated it as a function of participation of authentic tasks, with support and guidance, either direct or indirect, from others more skilled (as cited in Smith, 2003).

Much of the literature regarding workplace learning and skill development emanates from Australia and the United Kingdom where Industry Training Boards are influential in the development of flexible training programs for various vocational education and training sectors. Zirkle (2003) conducted a review of the research literature pertaining to distance education and career and technical education. His review observed that there has been little research regarding the use of distance education in career and technical training of teachers in Australia. Zirkle (2002) observes that there has been a continual decrease in teacher education and preparation programs in post-secondary institutions to prepare people to teach in the trade and industrial education sector in Australia. He suggests that distance education approaches could make a valuable contribution towards the preparation of teacher's involved in trade and industrial education. A barrier that he comments on is that a full distance teacher preparation program in trade and industrial education may never become a reality simply because technical skills, such as the psychomotor skills found in many trade and industrial programs can be very difficult to teach at a distance. Malloch, Cairns, & Hase (1998) state that there is a need for increased validity and relevance of workplace training with regards to situativity and generalizability of training and learning for work in Australia.

Work based learning can be described as including the informal modes of coaching, mentoring and participation in working groups focused on specific tasks. This model of learning is supported by the notion of cognitive apprenticeship. Farmer, Buckmaster & Legrand (1992), suggest that with this approach, experts share their expertise and provide scaffolds for early learning by novices. The assistance and support is gradually withdrawn as the novice constructs and develops a knowledge base and a level of

competency. The gradual withdrawal of expert provided is consistent with Dreyfus's postulated five stages of skills development, from novice through expert, and the progression of the learner from dependence on the expert to independent learning and knowledge construction (as cited in Smith, 2003).

Dreyfus (1982) describes the process where an individual moves through 5 stages of skill development. Initially the learner is a novice, characterized by rule-governed behavior. As an advanced beginner the learner begins to learn some of the situational aspects of the task but may not be able to differentiate the importance of those aspects. Stage three sees the learner as competent and one who sees actions in terms of goals and plans based on selection of important features of the situation. It is not until stages four and five (proficient and expert levels) that the learner begins to act intuitively from a deep understanding of the situation and performs with high proficiency. Smith (2003) suggests that learners do not necessarily move in a linear progression from stage to stage. He suggests that in constructing required knowledge, the learner may move from a level requiring little assistance from a proximal guide at any point in the process. The need for a proximal guide decreases as knowledge becomes more internalized and nears completion of its construction.

The early models and approaches to workplace training and development can be viewed as somewhat behaviorist in approach in that they promote behaviors as outcomes rather than the development of conceptual application and idea formulation. The presence of an expert or guide suggests that there is a centralized process in place. Smith (2000) indicates that flexible delivery of learning should be client controlled. Learners should have some control and input over what is learned and at what pace it is learned. Cervero

(2001) expresses that continuing professional development is intended to keep professionals up to date with the latest knowledge in their professions. In his analysis there has been an expansion of what is now considered necessary for professional competency. Continuing professional development should not only focus on only primarily technical skills. The inclusion of such areas as management skill enhancement, business application knowledge and training in the area of ethical behavior are areas that are now frequently part of professional development training curriculum.

Situated learning is of relevance for education and training for work. Lave and Wenger (1990) suggest that the notion of facilitation rather than training is an important consideration. Learners inevitably participate in communities of practitioners and the mastery of knowledge and skill requires newcomers to move toward full participation in the socio cultural practices of community (as cited in Malloch, 1998). These elements suggest a need for a constructivist approach to professional development and are consistent with the situated learning model.

Herrington and Oliver (2000) suggest that the instructional technology community is in the midst of a philosophical shift from a behaviorist to a constructivist framework, a move that may begin to address the growing rift between formal school learning and real life learning. One theory of learning that has the capacity to promote authentic learning is that of situated learning.

Stein (1998) argues that the main elements of situated cognition, (content, context, community and participation) offer unique opportunities to engage with learners in novel and meaningful ways. The learning environment can be transformed from a source,

which traditionally transfers knowledge from instructor to learners to a resource for interpreting, challenging and creating new knowledge.

Wilson (1995) makes the point that there is a need for more study regarding situated instructional design and its application. He notes that there are many advantages to a situated model of instructional design. He lists the advantages as:

- More meaningful learning outcomes that are likely to be used in relevant contexts
- More meaningful participation of the learner in the learning process
- More independent problem solving capability
- More flexibility in design activities
- More flexibility in instructional activities
- More acknowledgement of social and motivational factors in learning

Wilson also prophetically states that there is one large risk that can result if a situated instructional design model is poorly designed and implemented – chaos and confusion for the learners.

O'Sullivan ((2003) makes the point that it is increasingly important for professional bodies to demonstrate that they have an effective structure in place for continuing professional development in order that their members maintain their skills and competence and are able to respond to a demanding and changing work environment. She conveys that initial education is not sufficient to equip individual professionals with the knowledge and skills needed for a lifetime's employment.

Derrick (2003) comments that given we now have the opportunity to engage in learning anytime or anywhere, we must address the issue of how to foster the desire for

sustained and enduring learning and, more important, create environments that are conducive to this life long leaning process.

Meyer & Marsick (2003) comment on how approaches to training and professional development are changing. They note that effective training and development programs are more often embedded in ongoing work. There is a need to modularize learning so that it is truly learner centered. There needs to be the capacity to model the skills of reflective practice and joint learning. Experiential learning can help people learn effectively in context.

The situated learning model can be applied effectively with professional development program delivery. The learner centrist approach and philosophy allow for a learning experience that is meaningful and is sustained through practical contextual application.

### Summary

Situated learning design incorporates a constructivist approach that is experiential and learner centered. Each learner must construct his or her understanding by tying new information with past experience and connecting that to their present context.

The model is an attractive one when considering the design and delivery of a program addressing professional development and training on-line. It promotes learning in the context of problem-based situations. It focuses on how knowledge and learning can be used practice in a way that is meaningful to each individual. The use of authentic context, authentic activity, access to expert performance and the inclusion of multiple perspectives assist in this process. The design should consider the role of the student. The opportunity to collaborate, reflect on their unique learning needs and experience and have the

opportunity to articulate the problem and solutions they experience are part of a situated learning design. The implementation of the design and delivery should provide for coaching and scaffolding and integrated assessment that builds on the learning in a meaningful way. Inclusion of the design components can assist professionals in developing new knowledge based on practice. To achieve this the learning opportunity must provide for ways to increase their unique body of knowledge. The approach should allow for a critical and analytical process that facilitates the acquisition of new knowledge allow for application to their practice.

There were no literature examples found that focused on situated learning and the delivery of professional development programs in the health care or social service sector. There were a number of studies that did address situated learning or aspects of the model as it relates to professional education and adult education in general. Much of the literature reviewed addresses the area of situated learning in the context of pre-service education.

The importance of continuing development for professionals working in their field of interest has had increasing attention in recent years. There is a need to ensure that professional members are accountable and have up to date skills and knowledge. Increasingly there is a need to have statutory registration with a professional group and individuals must maintain certification to practice in the field. This is the case with the professionals working in the addictions field in Canada. The absence of literature that addresses the delivery of situated learning in the continuing professional development area suggests that additional research would be timely and valued in this area. The situated learning design framework proposed by Herrington and Oliver (1995) was

chosen to assess perceptions of professionals in the addiction field as to the design considerations they felt important in the delivery of their on-line training.

The researcher was unaware if participants had previous experience with training programs designed using the situated learning model. All participants indicated they had previous experience with on-line professional training and development. This experience ranged from university and college delivered courses as well local and regional agencies that provided in-service training and development programs. It is felt that the participants understood the concepts and could relate to the nine individual situated learning elements discussed in the study.



## **CHAPTER 3**

### **Research Procedures**

#### Research Methodology

This was a case study, which used a combination of written questionnaires and a structured interview for data collection purposes. The intent was to gather data that reflected the perceptions of professionals in the addictions field regarding the importance of design elements in professional development courses offered on-line. Yin (1994) suggests that a case study approach is effective in investigating a contemporary phenomenon within its real life context, especially when the boundaries between the phenomenon and context are not clearly defined.

#### Synopsis of the Study

The Alcohol and Drug Recovery Association of Ontario (A.D.R.A.O) is the certification-providing agency for professionals working in the addictions field in Canada. The agency monitors activity and facilitates professional development as an umbrella organization for the Canadian Addiction Counselors Certification Federation. Certification is a requirement to practice in the field and requires proof of completion of a minimum of 20 hours of in-service training every two years. In this regard A.D.R.A.O. has recently implemented a learning portal that will provide for delivery of courses on-line to members. This is viewed as an important enhancement to the access and convenience for members engaged in the certification process.

The research problem to be addressed was, “what are the design considerations for courses offered to professionals in the addictions field by the Alcohol and Drug Recovery

Association of Ontario (A.D.R.A.O) that will provide for a meaningful professional development experience and will encourage application in participant's practice?

This study assessed perceptions of course takers regarding the applicability of situated learning design components in online programs developed for their professional development. The study addressed the following research questions pertaining to the nine constituent elements of situated learning design outlined by Harrington and Oliver (1995):

1. How important are the nine individual situated learning elements present in the instructional design of a professional development course to the participants and why do they attribute that importance?
2. How do participants rate the relative importance of individual situated learning elements in the design of a professional development course?

#### Procedure

An invitation was extended to members in the profession actively involved in obtaining or maintaining their certification designation to participate in the study. The Executive Director of A.D.R.A.O. forwarded a letter providing an overview of the study delivered via e-mail. The initial e-mail message explained the parameters of the study and the benefits that the study would have for the membership. It was explained that participation would provide insight and member feedback on instructional design considerations for programs to be delivered. Interested members were asked to indicate their interest by confirming the e-mail initiative directly to the Executive Director, who would then forward affirmative interest to the study researcher for follow up and contact.

Upon confirmation of a member wishing to participate in the study, each was forwarded a package electronically that included a “ Letter of Introduction” (Appendix A), “Letter of Consent” (Appendix B), and the two questionnaires used in the study (Appendix C).

Potential participants were informed that involvement would involve the completion of two questionnaires and a brief telephone interview. It was explained that a confirmation of the information outlined in the Letter of Consent was necessary to engage and continue in the study. The initial request for participation was issued in mid December 2004.

Recipients interested in participation indicated their interest by mid January 2005.

Initial indications and confirmation of participation suggested that twenty individuals wished to participate in the study. Each of the potential participants were forwarded a package of information including the Letter of Consent necessary to continue in the study by mid January, with a request to complete and return no late than February 1, 2005.

From the original group of twenty who indicated interest, there were seven dropouts that indicated various reasons for non-completion. A contact was made with each that had indicated initial interest in study involvement. Participants that had not completed the material forwarded were sent an e-mail reminder after 5 days. Workload demands, the time of the year being inconvenient and personal inability to meet the requested timelines for submission of material requested were evidenced as reasons for withdrawal from study participation.

### Sample

Participants were solicited through an e-mail forwarded by the Executive Director of the Alcohol and Drug Recovery Association of Ontario. A.D.R.A.O. has over ninety

organizational members, representing Ontario institutions and agencies that provide addiction support services in both residential settings or out patient services and facilities. In addition, the agency facilitates and monitors the professional development activity on behalf of the Canadian Addiction Counselors Certification Federation.

The organization facilitates and sets standards for professional development in the addictions field of practice. Members include counselors and therapists who provide treatment, counseling and referral services for persons suffering from addiction to alcohol, drugs, tobacco, gambling, etc. They work in hospitals, institutions, clinics, corporations and government agencies.

To obtain and retain professional certification to work in the field, there is a requirement that members commit to and complete a minimum of 40 hours of approved professional development activity every two years.

There were thirteen members that self selected to participate in the study. Each participate completed the questionnaires and participated in the follow up telephone interview that provided the data for this study. Six of the participants were female and seven were male. There was a range of years of professional experience in the addictions field. It was unclear if the sample group had experience with situated learning models in their previous professional development on-line course delivery. It was conveyed through the telephone interviews however, that the sample group members had an understanding of the situated learning elements and could relate to the relevance of each element relative to instructional design.

The data regarding year's experience of the thirteen participants in the sample is outlined in the following table:

**Table 1**  
**Years Experience**

		Frequency	Percent	Valid percent	Cumulative percent
Valid	10+	1	7.7	7.7	7.7
	2+	1	7.7	7.7	15.4
	20+	2	15.4	15.4	30.8
	3+	1	7.7	7.7	38.5
	5+	1	7.7	7.7	46.2
	5+	7	53.8	53.8	100.0
Total		13	100.0	100.0	

Instrumentation

Two questionnaires (Appendix C) were distributed to thirteen counselors who are obtaining their certification and professional recognition through on-line courses to be offered by A.D.R.A.O. In questionnaire #1, respondents were asked to indicate their level of agreement with statements on a 5-point Likert scale relative to situated learning elements present in on-line course design. The nine situated learning design components as proposed by Herrington & Oliver (1995), were used to frame the questionnaire. Participants were asked to rank in questionnaire #2 in order of importance, the 9 instructional design features. Two measurement processes were utilized in the study to ascertain participant perceptions of the importance placed on situated learning elements present in professional training course offerings. The adjectival scale and a ranking of the nine situated learning elements were utilized to gain insight into participants perceptions relative to training programs provided on-line and the instructional design. An individual telephone interview was conducted with each participant upon receipt of the

questionnaires to clarify their feedback and to gather additional data regarding their personal thoughts on instructional design considerations.

The first questionnaire was designed to assess participants' perceptions and experience in on-line learning as it relates to professional development. The intent of the question asked was to assess perceptions of the participants regarding the importance of instructional design elements present in a course. The question asked for the first questionnaire was: "how important do you find the nine individual situated learning elements, present in the instructional design of a professional development course offered on-line?" A five-point adjectival scale was used for the responses, ranging from "Not Important at All", through "Not Very Important", "Undecided", "Important" to "Very Important". Nine situated learning design features were addressed in the questionnaire as outlined below in Table 1:

**Table 2**

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**Instructional Design Feature**

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Promote articulation.

Learners have the opportunity to articulate, negotiate and defend their knowledge and views on the topic.

Promote reflection.

Learners are encouraged and enabled to consider and deliberate on both their learning and learning processes.

Provide access to expert performance.

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Learners are allowed to observe the task before it is attempted or observe an experienced practitioner at work through example.

Provide authentic context.

Material and resources reflects the way that the knowledge will be used in real-life and invites learners to explore application to their world.

Provide coaching and scaffolding at critical times.

Learners are provided coaching at critical times whereby the facilitator provides the skills, strategies and links to complete the task. Gradually the support is removed until the learner is able to stand alone

Provide for integrated assessment of learning.

A number of assessment methods are considered. Self-assessment, portfolio development, case study analysis, summary statistics of learner involvement can be used in addition to tests.

Provide multiple perspectives.

The learner is provided with the opportunity to investigate multiple roles and perspectives.

Support collaborative construction of knowledge.

Learners are encouraged to predict and hypothesize and then suggest a solution to a problem after collaboration with other learners.

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The second questionnaire asked respondents to rate the relative importance of the nine individual situated learning elements (as outlined above) in the design of a professional development course, delivered on-line. Participants were asked to rank the design elements in descending order, with 1 being the highest level of importance, 9 being the lowest.

Upon completion and submission of the questionnaire data the participants were interviewed by telephone. The first two questions in the interview schedule were designed to gain an understanding of the level of professional development that participants have engaged in over the past two years and the level of experience with on-line professional development courses taken over the same period. The remaining three questions were designed to gain insight into the themes expressed in the questionnaire data and to explore the perceptions felt by the participants relative to the instructional design features contained in professional development courses offered on-line. The interview schedule (Appendix D) was used as a guide for the interview structure and as a log sheet with the responses to the telephone interviews recorded manually. Candid comments by the participants were also recorded and collected as part of the data if relevant to the area of instructional design.

### Data Collection

A case study approach was taken in the study. The background, development, current conditions, and environmental interactions of one or more individuals were observed, recorded, and analyzed for stages and patterns in relation to internal and external influences (Mauch & Birch, 1998). Data was collected from the two questionnaires using



electronic recording and storage as it was received from each participant. The Statistical Program for the Social Sciences was used to ascertain validity and reliability of the data.

The statistics collected and recorded are outlined in the table below:

**Table 3 - Statistics**

Table 3  
Statistics

	Case	Gender	Years Exp.
<i>N</i> valid	13	13	13
<i>N</i> missing	0	0	0
Mean	7.00	1.54	
<i>SEM</i>	.080	.144	
Median	7.00	2.00	
Mode	1 <sup>a</sup>	2	
<i>SD</i>	.894	.519	
Variance	.167	.269	
Range	12	1	
Minimum	1	1	
Maximum	13	2	

Table 3 (Continued)  
Questionnaire 1 Results

	PA	PR	PAEP	PAC	PCSCT	PIAL	PMP	SCCK	PAA
<i>N</i> valid	13	13	13	13	13	13	13	13	13
<i>N</i> missing	0	0	0	0	0	0	0	0	0
Mean	3.00	2.92	2.54	3.69	3.31	2.69	2.85	2.31	2.92
<i>SEM</i>	.340	.348	.369	.175	.237	.208	.191	.308	.239
Median	3.00	3.00	3.00	4.00	3.00	3.00	3.00	2.00	3.00
Mode	3	3 <sup>a</sup>	3	4	3 <sup>a</sup>	3	3	1 <sup>a</sup>	3
<i>SD</i>	.225	.256	.330	.630	.855	.751	.689	.109	.862
Variance	.500	.577	.769	.397	.731	.564	.474	.231	.744
Range	4	4	4	2	3	3	2	3	3
Minimum	0	0	0	2	1	1	2	1	1
Maximum	4	4	4	4	4	4	4	4	4

Table 3 (Continued)  
Questionnaire 2 Results

	PA-R	PR-R	PAEP-R	PAC-R	PCSCT-R	PIAL-R	PMP-R	SCCK-R	PAA-R
<i>N</i> valid	13	13	13	13	13	13	13	13	13
<i>N</i> missing	0	0	0	0	0	0	0	0	0
Mean	4.62	5.08	5.23	3.85	3.31	5.69	5.00	6.23	5.54
<i>SEM</i>	.859	.804	.802	.741	.524	.654	.519	.622	.739
Median	6.00	5.00	5.00	4.00	3.00	6.00	5.00	7.00	7.00
Mode	7	1 <sup>a</sup>	3	1	3	4	5	7 <sup>a</sup>	7 <sup>a</sup>
<i>SD</i>	.097	.900	.891	.672	.888	.359	.871	.242	.665
Variance	.590	.410	.359	.141	.564	.564	.500	.026	.103
Range	8	8	8	7	6	7	7	7	8
Minimum	1	1	1	1	1	2	2	2	1
Maximum	9	9	9	8	7	9	9	9	9

Data from the telephone interviews was recorded manually and then reviewed according to emerging themes and comments. The frequency of comments relating to the various themes was measured.

#### Treatment of The Data

Statistical analysis comparing the case responses for each question in the questionnaires, were performed using SPSS for Windows. The responses of the participants were assessed for each of the situated learning design components in each questionnaire. For each of the questions regarding the instructional design elements, a table representing the data has been developed for the two questionnaires.

Each table describes the frequency distribution of the responses to each question. For each table there is the simple or ungrouped frequency distribution of the responses. The columns that follow provide details of the grouped frequency distribution for the same data expressed in percentage of responses as well as the cumulative percentage for the

responses. The data treatment using a frequency distribution format allows for an analysis of the range of responses of the subjects regarding their perception of levels of importance relative to instructional design features.

For each of the questions in the questionnaire a histogram has been developed to visually indicate how many times any given score appears in the data set. With each histogram the horizontal axis is labeled to correspond with observed scores on the dependent variable. The vertical axis is labeled with frequencies providing for columns indicating how often each of the scores was observed.

The qualitative data resulting from the individual telephone interviews used a coding system that reflected the regularities and patterns or themes that emerged in the discussion. The descriptive data that emerged from the data collection was sorted into coding categories that general information from the responses could be sorted. There were five context or general codes identified for this analysis.

Situational codes were developed that allowed for individual units of data that reflected the subject's thoughts relative to the importance of instructional design elements to be identified and their frequency noted.

The qualitative data collected was done manually at the time of each telephone interview. The researcher mechanically handled the data, including the sorting of case files, inputting the data for each case and analyzing the data for coding purposes.

### Summary

The study used both qualitative and quantitative data collection. The method explored the problems that addiction counselors perceive as important considerations relative to

the instructional design of on-line professional development courses. The statistical data provided from the questionnaires and the data resulting from the interview provided two sources of detailed and personal observations, all of which could be used for the analysis and to inform the results of the study.

## CHAPTER 4

### FINDINGS

#### Plan of the Study

The study employed a case study approach. It provided a detailed study of thirteen counselors working in the addiction field from across Canada, and their perceptions regarding the importance of situated instructional design components in the delivery of their professional development programs offered on-line.

This study employed a method that included both quantitative and qualitative components. The following section outlines the specific data outcomes from the questionnaire questions. An overview of the qualitative procedure follows the quantitative analysis. This data is emergent and uses both inductive and deductive reasoning processes by the researcher in the interpretation. Both of the data sources and analysis are tied to the research theme and problem to be addressed.

#### Subjects

Thirteen addiction counselors responded to the questionnaires and completed the telephone interview. Their range of experience in the field ranged from more than two years to more than 20 years. The majority of subjects had a minimum of five years experience in the profession at the time of the study.

All of the subjects were involved in the maintenance of their professional development through the Canadian Addiction Counselors Certification Federation. Subjects represented addiction field practice in Nova Scotia, Ontario, Alberta and British

Columbia. Their professional activity was conducted in hospital environments, private practice and in community clinics.

### Research Questions

This study assessed perceptions of course takers regarding the applicability of situated learning design components in online programs developed for their professional development. The study addressed the following research questions pertaining to the nine constituent elements of situated learning design outlined by Harrington and Oliver (1995):

1. How important are the nine individual situated learning elements present in the instructional design of a professional development course to the participants and why do they attribute that importance?
2. How do participants rate the relative importance of individual situated learning elements in the design of a professional development course?

A.D.R.A.O. monitors and facilitates the process that provides certification based on professional development activity of Canadian practitioners in the addictions field. The introduction of on-line course delivery is seen as an important and timely development. The intent of the study was to gain an understanding of participant's perception of the importance of situated learning design components in the instructional design of courses delivered. The two questions were developed to ascertain which instructional design components stakeholders feel are important to be present in the courses offered and how they rank the relative importance of the components.

## Questionnaire 1

This instrument was designed to assess subjects' perceptions regarding the importance of instructional design elements present in a professional development course.

The subjects were asked to respond to the following question using a 5 point scale that ranged from 'Not Important At All (0)' to "Very Important" (4):

"How important do you find the following 9 individual situated learning elements, present in the instructional design of a professional development course offered on-line?"

The key for subject's responses is outlined in Table 5 below.

**Table 4**  
**Questionnaire 1**

Instructional Design Feature	Not important at all (0)	Not very important (1)	Undecided (2)	Important (3)	Very important (4)
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**Table 5 - Integrated Data for Questionnaire 1**

Components of Situated Learning	Very important (4)	Important (3)	Undecided (2)	Not very important (1)	Not important at all (0)	<i>M</i>	<i>SD</i>
Promote articulation	38.5%	46.2%	0%	7.7%	7.7%	3.00	1.22
Promote reflection	38.5%	38.5%	7.7%	7.7%	7.7%	2.92	1.25
Provide access to expert performance	23.1%	46.2%	0%	23.1%	7.7%	2.54	1.33

Provide authentic context	76.9%	15.4%	7.7%	0%	0%	3.69	.630
Provide coaching and scaffolding at critical times	46.2%	46.2%	0%	7.7	0%	3.31	.855
Provide for integrated assessment of learning	7.7%	61.5%	23.1%	7.7%	0%	2.69	.751
Provide multiple perspectives	15.4%	53.8%	30.8%	0%	0%	2.85	.689
Support collaborative construction of knowledge	15.4%	30.8%	23.1%	30.8%	0%	2.31	1.10
Provide authentic activities	23.1%	53.8%	15.4%	7.7%	0%	2.92	.862

#### Subjects Response To “Promote Articulation”

The majority of subjects (11 or 84.7%) expressed that this aspect of instructional design was an important/very important aspect of their professional development courses offered on-line. The standard deviation is .225 and indicates a small variation among the scores.

#### Subjects Response To “Promote Reflection”

Subjects rated this aspect of instructional design as valuable to their learning on-line. The majority of subjects (10 or 77%) rated it as important/very important. The standard



deviation is .256 and indicates a small variation among the scores.

Subjects Response To “Provide Access To Expert Performance”.

The majority of subjects (9 or 69%) expressed that the presence of expert performance in the instructional design was a valuable contribution to their learning. The standard deviation is .330 and indicates a small variation among the scores.

Subjects Response To “Provide Authentic Context”.

The majority of subjects (12 or 92%) rated this element of instructional design as being important/very important. The standard deviation is .630 and indicates that there is moderate variation among the scores.

Subjects Response to “ Provide Coaching and Scaffolding at Critical Times”.

The majority of subjects (12 or 92%) indicated that this element of instructional design was important/very important. The standard deviation is .855 and indicates a large difference among the scores.

Subjects Response To “Provide For Integrated Assessment of Learning”

The majority of the subjects (9 or 69%) expressed that this element of instructional design was important/very important. The standard deviation is .751 and indicates a large amount of variation in the scores.

Subjects Response To “Provide Multiple Perspectives”.

The majority of subjects (9 or 69%) indicated that multiple perspectives provided by a course would offer a valuable contribution to their learning. Thirty percent of subjects were undecided regarding the importance of this element. The standard deviation is .689 and indicates a large amount of variation among the scores.

Subjects Response To “Support Collaborative Construction of Knowledge”

This element was not highly rated by the majority of subjects. More than 50% (7) of the respondents expressed that this element was not very important or that they were undecided regarding its importance. Forty six percent (6) indicated that this was important/not important. The standard deviation is .109 and indicates a small deviation among the scores.

Subjects Response To “ Provide Authentic Activities”

The majority of subjects (10 or 77%) indicated that this element was important/very important to their learning. The standard deviation .862 and indicates a large amount of variation among the scores.

#### Questionnaire 1 – Graph Indicating Differences In Average Scores For Each Variable

In the following graph the vertical axis indicates the mean or average score provided for each of the nine instructional design features identified on the horizontal axis.

**Graph 1**



**Table 6 -Integrated Data for Questionnaire 2**

Components of Situated Learning	1	2	3	4	5	6	7	8	9	M	SD
Promote articulation	23.1	23.7	0	0	0	7.7	30.8	7.7	7.7	4.7	.097
Promote reflection	15.4	7.7	15.4	0	15.4	15.4	0	15.4	15.4	5.2	.900
Provide access to expert performance	7.7	7.7	30.8	0	7.7	7.7	23.1	23.1	15.4	5.3	.891

Provide authentic context	30.8	7.7	7.7	23.1	0	7.7	7.7	15.4	0	3.7	.672
Provide coaching and scaffolding at critical times	15.4	23.1	30.8	0	15.4	7.7	7.7	0	0	3.3	.888
Provide integrated assessment of learning	0	7.7	7.7	30.8	0	15.4	7.7	15.4	15.4	5.7	.359
Provide multiple perspectives	0	7.7	7.7	23.1	38.5	7.7	0	7.7	7.7	5	.871
Support collaborative construction of knowledge	0	7.7	7.7	7.7	7.7	15.4	30.8	0	23.1	6.3	.242
Provide authentic activities	7.7	7.7	15.4	7.7	7.7	0	23.1	23.1	7.7	5.6	.240

*Note. In this table the ranking of 1 is highest and 9 is lowest. The variables in the table represent the percentage of responses.*

### Questionnaire 2

This instrument was designed to rate the relative importance of the individual situated elements in the design of a professional development course, delivered on-line.

The subjects were asked to rank the instructional design elements in descending order, with 1 being the highest level of importance and 9 being the lowest.

#### Subjects Ranking of “Promotes Articulation”.

The subjects ranked this instructional design feature relatively low. The majority of subjects (7 or 54%) ranked this design feature as being lower in importance. The ranking had a mean score of approximately 4.7. The importance placed by the subjects on this design feature in Questionnaire 1 indicated a relatively high mean score of 3. The standard deviation of .097 indicates a small variation among the scores.

#### Subjects Ranking of “Promotes Reflection”

The subjects ranked this instructional design feature relatively high (7 or 54% ranking it as being high). The ranking had a mean score of approximately 5. The importance placed by the subjects on this design feature in Questionnaire 1 indicated a relatively neutral mean score of 2.9. The standard deviation is .900 and indicates a large amount of variation among the scores.

#### Subjects Ranking of “Provide Access To expert Performance”

The subjects ranked this instructional design feature relatively high (7 or 54% ranking it as being high). The ranking had a mean score of approximately 5. The importance placed by the subjects on this design feature in Questionnaire 1 indicated a relatively low mean score of 2.5. The standard deviation is .891 and indicates a large amount of variation among the scores.

#### Subjects Ranking of “Provide Authentic Context”

The subjects ranked this instructional design feature relatively high (9 or 69%

ranking it as being high). The ranking had a mean score of approximately 3.6. The importance placed by the subjects on this design feature in Questionnaire 1 indicated a high mean score of 3.7. The standard deviation is .672 and indicates a large amount of variation among the scores.

#### Subjects Ranking of “ Provide Coaching and Scaffolding At Critical Times”

The subjects ranked this instructional design feature high (11 or 85% ranking it as being high). The ranking had a mean score of approximately 3.3. The importance placed by the subjects on this design feature in Questionnaire 1 indicated a high mean score of 3.1. The standard deviation is .888 and indicates a large amount of variation among the scores.

#### Subjects Ranking of “Provide Integrated Assessment of Learning”

The subjects ranked this instructional design feature moderately high (6 or 46% ranking it as being high). The ranking had a mean score of approximately 5.7. The importance placed by the subjects on this design feature in Questionnaire 1 indicated a moderately high mean score of 2.7. The standard deviation is .359 and indicates a moderate variation among the scores.

#### Subjects Ranking of “Provide Multiple Perspectives”

The subjects ranked this instructional design feature moderately high (10 or 77% ranking it as being moderately high/ high). The ranking had a mean score of approximately 5.2. The importance placed by the subjects on this design feature in

Questionnaire 1 indicated a moderately high mean score of 2.9. The standard deviation is .871 and indicates a large amount of variation among the scores.

#### Subjects Ranking of “Support Collaborative Construction of Knowledge”

The subjects ranked this instructional design feature as low (9 or 69% ranking it as being moderately low/low). The ranking had a mean score of approximately 6.3. The importance placed by the subjects on this design feature in Questionnaire 1 indicated a low mean score of 2.3. The standard deviation is .242 and indicates a small variation among the scores.

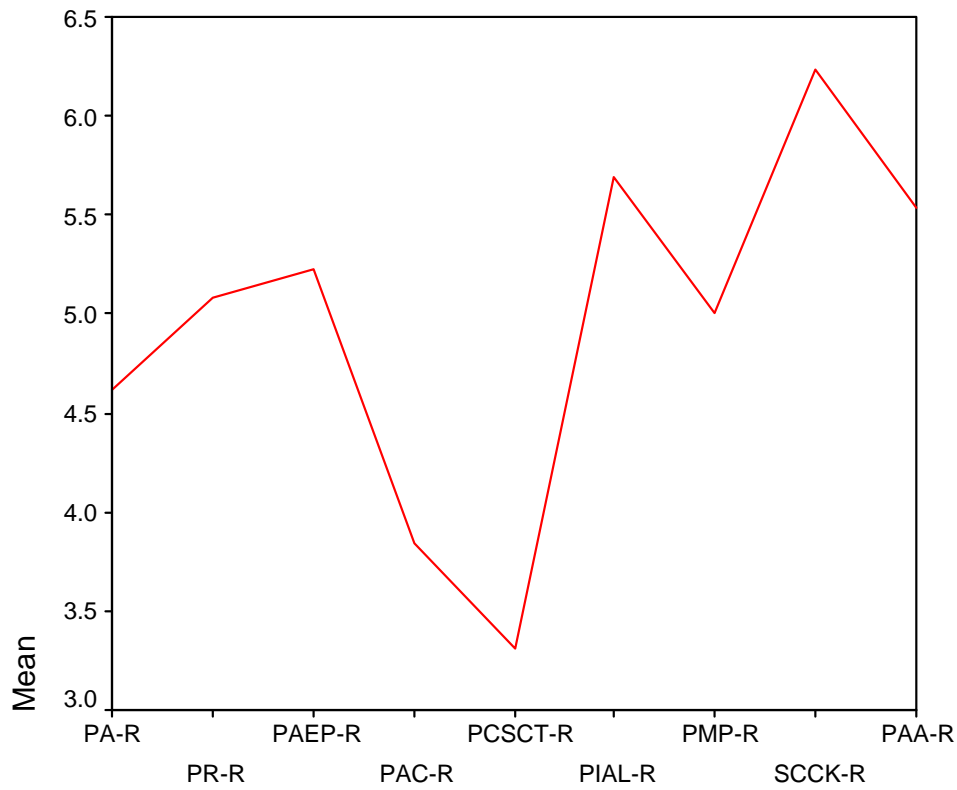
#### Subjects Ranking Of “Provide Authentic Activities”

The subjects ranked this instructional design feature as low (6 or 69% ranking it as being moderately low/low). The ranking had a mean score of approximately 5.7. The importance placed by the subjects on this design feature in Questionnaire 1 indicated a medium high score of 2.9. The standard deviation is .665 and indicates a moderate variation among the scores.

#### Questionnaire 2 – Graph Indicating Differences in Average Scores For Each Variable.

In the following graph the vertical axis indicates the mean or average score provided for each of the nine instructional design features identified on the horizontal axis.

**Graph 2**



Telephone Interviews

Thirteen subjects were interviewed by telephone for the study. There were five questions that comprised the interview schedule:

**Table 7 - Interview Schedule**

- 1) Please describe your level of involvement with professional development activity/courses over the past two years.



- 2) Outline your experience with on-line courses taken for professional development over this same period of two years.
  
- 3) What do you believe are the most significant differences with traditional professional development courses offered in a class environment and taking courses on-line?
  
- 4) With regards to instructional design and facilitation of the on-line course (i.e. teaching), please describe your adjustment to on-line learning that you have/anticipate experiencing.
  
- 5) What do you feel are the significant factors contained in the design of a course offered on-line, that will make the learning applicable to your work situation.

The researcher collected the data manually. An analysis after data collection resulted in the coding system employed. A number of phrases, subject's comments and way of thinking were noted. This resulted in the development of codes that represented these topics and patterns. The transcription of comments was then sorted under the units of data that could appropriately be coded under categories represented by the main family of codes developed.

The coding categories and the frequency of subject comments are noted below. The transcript comments of each case member in the study can be found in Appendix E.

**Table 8 - Interview Coding and Frequency**

Coding categories	Codes	Frequencies
Situational context of professional development and training access over the past two years	University	3
	Outside agency provider	6
	Profession conferences	1
	Community college	1
	Workplace training	2
Situational context of online courses taken for professional development in past two years	No experience	0
	Recent experience (within 2 years)	12
	Past experience (more than 2 years)	1
Situation codes – data to do with how the participants define the setting for particular topics	Time commitment	3
	Accessibility/convenience	8
	Reflection	3
	Isolation	3
	Role of facilitator	5
	Contextual application	9
	Technology support/issues	3
	Learner support/issues	2
	Group interaction/networking	8
	Articulation	2
	Content focus	4
	Feedback to learners	2
	Instructional design considerations	12
Perspectives – particular views held by all or some participants towards particular topics	Online advantages	1
	Face-to-face advantages	10
	Professional development online	9
Strategy codes – refers to tactics, methods, skills and other ways participants accomplish various things	Self-directed learning	5
	Goal setting	2

### Summary of Findings

The purpose of this study was to investigate addiction counselor's perceptions about

situated learning design in the delivery of their on-line training.

Descriptive analysis of the two questionnaires and telephone interviews indicated that a number of design components were important consideration for on-line delivery of training courses.

The scale that assessed learner's perceptions and experience regarding instructional design components in on-line learning as it relates to professional development (Questionnaire 1), indicates the following:

- "Promote Articulation" with a mean score of 3.0 is regarded as important
- "Promotes Reflection" with a mean score of 2.9 is regarded as important.
- "Provide Access To Expert Performance" with a mean score of 2.5, suggests many of the participants were undecided relative to its importance.
- "Provide Authentic Context" with a mean score of 3.7 is regarded as important/very important.
- "Provide Coaching and Scaffolding at Critical Times" with a mean score of 3.2 is regarded as important.
- "Provide For Integrated Assessment of Learning" with a mean score of 2.7 suggests that participants were undecided or felt that this component was moderately important.
- "Provide Multiple Perspectives" with a mean score of 2.8, suggests that this component is moderately important.
- "Support Collaborative Construction of Knowledge" with a mean score of 2.3 suggests that this design component is lower in importance.
- "Provide Authentic Activities" with a mean score of 2.9 is regarded as important.

Questionnaire two had participants rate the relative importance of individual situated learning elements in the design of a professional development course, delivered on-line. The rankings (1 being the highest level of importance, 9 being the lowest) of the design components indicate the following:

- “Promote Articulation” with a mean score of 4.7 indicates a moderate level of importance.
- “Promote Reflection” with a mean score of 5.2 indicates a moderate level of importance.
- “Provide Access To Expert Performance” with a mean score of 5.3, indicates a moderate level of importance.
- “Provide Authentic Context” with a mean score of 3.7, indicates a high level of importance.
- “Provide Coaching and Scaffolding At critical Times” with a mean score of 3.3, indicates a high level of importance.
- “Provide For Integrated Assessment of Learning” with a mean score of 5.7 indicates a lower level of importance.
- “Provide Multiple Perspectives” with a mean score of 5, indicates a moderate level of importance.
- “Support Collaborative Construction of Knowledge” with a mean score of 6.3, indicates a lower level of importance.
- “Provide Authentic Activities” with a mean score of 5.6, indicates a lower level of importance.

The qualitative data contributed another dimension to the data collection and analysis. The comments collated from the telephone interviews suggest a number of themes regarding addiction counselor's perceptions regarding on-line training and instructional design.

Some of the descriptive comments made by subjects regarding aspects of on-line training and instructional design included the following:

- Contextual application is an important design feature.
- There is a desire by participants to have the instructional design include and facilitate group interaction and networking.
- Instructional design consideration is important for the development of courses delivered on-line for the profession.
- A number of comments related to the perceived absence of social connectedness with on-line delivery, deemed important in the delivery of training in the addiction-counseling field.
- A number of participants commented on the importance of on-line training for the addiction profession and the significance it had for their personal training and development.

There are a number of instructional design elements that were viewed as significant and of importance in all of the data sources. The subjects in the study expressed that providing an "Authentic Context" in the instructional design and the activities is important. In addition, there is consistency in the perception of the importance of "Coaching and Scaffolding at Critical Times". One of the instructional design areas that

were expressed as being a low priority was “Collaborative Construction of Knowledge”. Comments collated in the telephone interviews by counselors suggested coordination of collaborative activity and group work was not a high priority, perhaps as a result of their day-to-day activity, which is very collaborative. The instructional design feature of “Promote Articulation” was regarded as being of medium importance. The design feature of “Promote Reflection” was generally perceived as being of lower importance. The “Access to Expert Performance” was not regarded as being of real importance. The “Integrated Assessment of Learning” was not expressed as being a design feature rated highly by the subjects. The design element of “Provide Multiple Perspectives” was expressed as being of medium importance. The design element of “Provide Authentic Activities” was expressed as being a mid - high level of importance.

## CHAPTER 5

### DISCUSSION AND CONCLUSIONS

This study did not find that subjects attributed equal and significant importance to having all of the situated learning instructional design features present in their on-line training programs. There is however a number of consistent trends across the three data sets derived from the instrumentation used in the study.

In general the subjects rated a number of the design features as being of importance or medium importance. The highest ratings of importance were, “Provide Authentic Context” and “Provide Coaching and Scaffolding at Critical Times”.

In regards to “Provide Authentic Context”, the instructional design for professional training and development courses should employ the real – world tasks and activities of professionals in practice. To provide authentic context the instructional design could utilize problem-based learning derived from real case situations that are authentic. With this approach a number of case problems can be introduced. The group members can apply their knowledge and experience; share with each other their proposed approaches and successes in the context of real practice.

The provision of coaching and scaffolding at critical times can be included in the design in several different ways. With a situated learning model the role of the instructor assumes a different role than that of the traditional teacher lecturing or delivering tools and activities. Herrington & Oliver (1996) suggest that this is present when the learning environment provides for coaching at critical times, and scaffolding of support, where the teacher provides the skills, strategies and links that the students are unable to provide to complete the task. Gradually, the support (the scaffolding) is removed until the learner is

able to stand-alone. Learners are coached, individuals and the group process is observed, with hints, reminders, on-going feedback being provided in a timely manner. The instructional design using on-line delivery for training needs to acknowledge the shift to a coaching role and this needs to be acknowledged and conveyed to learners.

Instructional design features that were indicated as being of medium importance included: “Promote Articulation”, “Promote Reflection”, ‘Provide Multiple Perspectives”, and “Provide Authentic Activities”.

Herrington & Oliver (1995) suggest that “articulation” can be enhanced in the situated instructional design by ensuring there is a social context, with students working in groups, discussing the issues, reporting back, presenting findings, interviewing and debating the issues. The design should provide the learner with the opportunity to articulate, negotiate and defend their knowledge. They go on to recommend that “reflection’ can be part of the instructional design by ensuring that in order to solve problems or complete tasks, the learner would be required to reflect upon the whole resource by predicting, hypothesizing and experimenting to produce a solution.

The provision of “multiple roles and perspectives” according to Herrington & Oliver, can be introduced in the design by ensuring the program is not too linear in design and delivery. There are many opportunities for learner to explore the program from a number of perspectives. This requires that the resources and delivery have an integrity and design, which enables learners to engage rich learning situations, time and time again.

The inclusion of “authentic activities” can be included in the design by ensuring that the learners can explore the resources with all of the complexity and uncertainty of the real world. Herrington & Oliver suggest that the learners should have a role in



determining the tasks and how it might be broken up into smaller tasks, selecting which information is relevant, and finding a solution that meets their specific learning needs.

The data from this study suggests that the design elements of “Provide Access to Expert Performance”, “Provide For Integrated Assessment of Learning” and “Support Collaborative Construction of Knowledge” were of low importance relative to inclusion in the on-line training programs.

In regards to the data that measured participants ranking of situated learning design, the following trend emerged: The design features of “Provide Authentic Context” and “Provide Coaching and Scaffolding at Critical Times” were ranked as being the most important design features by the subjects. The design feature, “Promote Articulation ”was rated as being of mid importance in the instructional design of on-line course delivery. The ratings indicate that the following are ranked lower relative to perceived importance: “Promote Reflection”, “Provide For Integrated Assessment of Learning”, “Provide Multiple Perspectives”, Support Collaborative Construction of Knowledge”, “Provide Access To Expert Performance”, and Provide Authentic Activities”.

The comments made by the subjects in the telephone interviews reinforced that the contextual application of material and activity is important for on-line training in the participants training. A number of comments indicated that the instructor must be experienced in the profession and facilitate a group learning experience that is comparable to a traditional classroom environment. Members, supporting the need for attention to this design feature, noted the importance of networking and group interaction. Clancy (1995) comments that the facilitator must understand the student’s point of view. There needs to be a sensitivity to how the learners create representation, perceive

symbols, and attribute meaning through the manipulation of the resources and learning materials.

In addition, there were number of comments that were supportive of on-line training delivery for the profession. It is seen as an accessible and convenient approach to their training. There are a number of instructional design considerations mentioned in their comments. The inclusion of group communication and discussion opportunities are mentioned as well as the need for creative and spontaneous activities, such as brainstorming activities and instant interaction and feedback are valued. Nocente & Kanuka (2003) comment that many professionals wishing to participate in continuing professional development experience barriers as they try to juggle work, family, and their professional development activities. The elimination of time and distance barriers is seen as a very important consideration for. Many occupations that are specialized have unique bodies of knowledge and have mandatory association membership, are now moving towards on-line program delivery. The development of a design for on-line delivery should employ technology that has the capacity to provide interaction at a distance with real members of their profession. In this way a learning culture that embodies a ‘community of learners’ can be developed. A number of study participants indicated that this is present in the traditional learning environment and should be duplicated as much as possible in the on-line delivery.

It appears that the situated learning design framework has a role to play in the development of the instructional design and delivery of training courses for counselors working in the addictions profession. The on-line training initiative recently implemented by the Alcohol and Drug Recovery Association of Ontario for counselors is a new

initiative that has been embraced by the profession. Similarly, situated learning can be considered an emerging model of instruction and instructional design in a relative sense, particularly in its application for on-line training design and delivery. Counselors that participated in the study indicated that they appeared to value relevant, contextually practical and authentic learning activities in the design of programs offered. In addition the subjects indicated the desire to have the instructional design have facilitators that will provide coaching and scaffolding at critical times. A number of other design features should be considered in the delivery of programs as the systems are developed and more counselors engage the programs. The value of collaborative learning through multi-media approaches does not appear to be important for this professional group. As well the provision of integrated assessment of learning does not seem to be of importance at this time for this professional group.

The implementation of summative and formative evaluation over the next period of time will continue to provide A.D.R.A.O. with information relative to instructional design considerations and program delivery. Evaluative data assists in the planning and design of programs. The evaluation instruments developed could use situated learning elements as part of the design to solicit information and feedback relative to the design and effectiveness of the program delivery of professional programs. Using situational learning components in the evaluation instruments could provide important information regarding the valuation of experience of the learners regarding their professional development programs.

In conclusion, on-line training and development for professional members of various sectors, has tremendous potential. As with the on-line medium itself, the instructional

design for programs needs to be innovative and address the needs of the learners and the profession involved. The Conference Board of Canada (2001) suggest that forward thinking employers are starting to embrace on-line learning to become more productive and innovative, regardless of the size, resources or sector of their organization. They are using on-line delivery approaches to create self-directed, lifelong learners among their employees, and to save money. There is no doubt that the provision of on-line training for professional development will continue to grow given the economic potential that results when members acquire, create and apply knowledge and skill they have acquired.

Herrington & Oliver (1996) indicate that there are many interactive programs being delivered today that are designed as self-contained learning packages, which visualize the learners as individuals, working independently and privately. This approach does not embrace a constructivist philosophy, which recognizes the importance of the close relationship between situation and cognition. Herrington and Oliver (2000) go on to suggest that when learning and context are separated, knowledge itself as seen by learners as the final product of education rather than a tool to be used dynamically to solve problems.

The characteristics of situated learning design have definite implications for on-line delivery of courses and training. Herrington and Oliver go on to say that learning with computers can be considerably enhanced through applications where communicative and social factors are included as integral components of the instruction.

The data from this study suggests that a number of the design features of the situated learning model are applicable in the professional development training for counselors in the addiction field. The data suggested that several features are deemed as critical in the

instructional design. The provision of authentic context that reflects the way that knowledge will be used in real-life practice was indicated as an important element. Implementation of program design and delivery should ensure that it reflects the way knowledge will be used in the learner's work and practice. The role of the facilitator for the course delivery must be considered as well. Implementation of program design and delivery using on-line technology should attempt to promote and replicate aspects of the group experience found in the traditional methods of delivery. The professional modeling of behavior and observation of approach to practice can be seen as important features that need to be considered when delivering the program. This function will satisfy a number of needs expressed by the participants in the study. Good facilitation will augment discussion and sharing of ideas as well as nurture a sense that participants are part of a learning community. One design features, was indicated as being less important or of little importance. The design element "Support Collaborative Construction of Knowledge" was rated low in both of the questionnaires. This could possibly be interpreted as a reflection of a professional group that is engaged in social work and group activity as a function of their daily work and more group activity in their training is not desired. The participants also noted that "Integrated Assessment of Learning" was not valued as an instructional design element.

Clancy (1995) suggests that situated learning suggests a view of the nature of people, learning and their work that is different than design models developed in the 1970's and before. Rather than delivering training that is has already been preconceived and designed, we should attempt to develop tools fro representing what's problematic about a situation and encourage alternative views to be explored. He goes on to say that situated

learning design benefits from having ongoing participative and inclusive input from the field and practitioners.

Learning is an individual and knowledge based process and is also a social communication process. The challenge for organizations wishing to utilize on-line approaches for training and development is to consider how these learning elements can be captured in the design to ensure the creation of a stimulating and interactive teaching and learning experience.

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## APPENDIX A: LETTER OF INTRODUCTION

Dear Addiction Services Practitioner:

I am a student at Athabasca University enrolled in the Master of Distance Education Program. I am currently working on the thesis component of the program, which will complete my degree. In addition I am a consultant whose business focuses on work palace training and professional development using on-line approaches and multi-media delivery.

You are being sent this questionnaire packet as part of a research project that my thesis focuses on. The administrative staff at the Alcohol and Drug Recovery Association of Ontario (A.D.R.A.O.) has referred your name to me. Participants being contacted have been active in professional development activity supported by the agency and C.A.C.C.F.

A.D.R.A.O. and C.A.C.C.F. is currently developing and implementing a number of professional development courses that will be delivered through their learning portal, ApCampus. The purpose of this study is to assess the importance that students place on the characteristics of a situated learning design. This study will question various stakeholders of the A.D.R.A.O. / C.A.C.C.F. organization involved with the professional development program that will be delivered on-line for the first time. Stakeholders will include members that have prior experience and participation in professional development offerings by the organization or intend to in the future. They have a vested interest in the professional development opportunity that will be offered on-line.

Comment [mfc2]:

Your participation in the study is entirely voluntary. Your responses and input will be kept strictly confidential and any results will not disclose names, positions or place of work of the contributors.

I would very much appreciate your help in completing the following questionnaire and participating in a follow up telephone interview.

The first questionnaire is called an attitude scale. It will ask you to respond to a set of statements that reflect your personal views about the instructional design in courses that offer meaningful and applied professional development. You will be asked to use a five-point scale in responding to the ten instructional design statements offered. In addition you will be asked to rank the most important design statement to the least important. The questionnaire will take approximately 15 –20 minutes.

Finally, you will be asked to participate in a telephone interview with myself that will follow up on the themes that emerge from the questionnaire. You will be asked questions that will provide demographic information, provide an overview of your professional development course taking experience. In addition I am interested in general thoughts about what makes a course “meaningful” and what are the features that promote application of skills/attitudes to the workplace upon completion.

The confidentiality of your participation is assured. Your name or personal details will never appear as part of the results. Only the researcher (myself) and my thesis supervisor will see your responses. It is anticipated that the results of this completed research project will be published in Athabasca University Library

sometime in 2005. The results and an “executive report” will be provided to each participant upon completion and approval.

Thank you in advance for your participation in this study.

Michael Price

Athabasca University, Master of Distance Education Program

## APPENDIX B: LETTER OF CONSENT

Dear Addiction Services Practitioner:

I am a student at Athabasca University enrolled in the Master of Distance Education Program. I am currently working on the thesis component of the program, which will complete my degree. In addition I am a consultant whose business focuses on work palace training and professional development using on-line approaches and multi-media delivery.

You are being sent this questionnaire packet as part of a research project that my thesis focuses on. The administrative staff at the Alcohol and Drug Recovery Association of Ontario (A.D.R.A.O.) has referred your name to me. Participants being contacted have been active in professional development activity supported by the agency and C.A.C.C.F.

A.D.R.A.O. and C.A.C.C.F. is currently developing and implementing a number of professional development courses that will be delivered through their learning portal, ApCampus. The purpose of this study is to assess the importance that students place on the characteristics of a situated learning design. This study will question various stakeholders of the A.D.R.A.O. / C.A.C.C.F. organization involved with the professional development program that will be delivered on-line for the first time. Stakeholders will include members that have prior experience and participation in professional development offerings by

Comment [mfc3]:

the organization or intend to in the future. They have a vested interest in the professional development opportunity that will be offered on-line.

Your participation in the study is entirely voluntary. Your responses and input will be kept strictly confidential and any results will not disclose names, positions or place of work of the contributors.

I would very much appreciate your help in completing the following questionnaire and participating in a follow up telephone interview.

The first questionnaire is called an attitude scale. It will ask you to respond to a set of statements that reflect your personal views about the instructional design in courses that offer meaningful and applied professional development. You will be asked to use a five-point scale in responding to the ten instructional design statements offered. In addition you will be asked to rank the most important design statement to the least important. The questionnaire will take approximately 15 –20 minutes.

Finally, you will be asked to participate in a telephone interview with myself that will follow up on the themes that emerge from the questionnaire. You will be asked questions that will provide demographic information, provide an overview of your professional development course taking experience. In addition I am interested in general thoughts about what makes a course “meaningful” and what are the features that promote application of skills/attitudes to the workplace upon completion.

The confidentiality of your participation is assured. Your name or personal details will never appear as part of the results. Only the researcher (myself) and

my thesis supervisor will see your responses. It is anticipated that the results of this completed research project will be published in Athabasca University Library sometime in 2005. The results and an “executive report” will be provided to each participant upon completion and approval.

Thank you in advance for your participation in this study.

Michael Price

Athabasca University, Master of Distance Education Program

## APPENDIX C: STUDY QUESTIONNAIRES

### Questionnaire 1

This instrument is designed to assess your perceptions and experience in on-line learning as it relates to professional development. The following questions will assist me in assessing your perception regarding the importance of instructional design elements present in a course. Your responses will be held in strict confidence. Your identity will not be revealed to anyone other than the researcher conducting the study.

Please complete all the questions of the questionnaire. Answer the following questions by placing an "X" in the appropriate response box. It is anticipated that this will take approximately 20 minutes.

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**Using the scale provided, please place an X in the box that best represents your response to the following question:**

**How important do you find the following 9 individual situated learning elements, present in the instructional design of a professional development course offered on-line?**

Instructional Design Feature	Not important at all	Not very important	Undecided	Important	Very important
<i>Promote articulation.</i>  Learners have the opportunity to articulate, negotiate and defend their knowledge and views on the topic.					



<p><i>Promote reflection.</i></p> <p>Learners are encouraged and enabled to consider and deliberate on both their learning and learning processes.</p>					
<p><i>Provide access to expert performance.</i></p> <p>Learners are allowed to observe the task before it is attempted or observe an experienced practitioner at work through example.</p>					
<p><i>Provide authentic context</i></p> <p>Material and resources reflects the way that the knowledge will be used in real-life and invites learners to explore application to their world.</p>					
<p><i>Provide coaching and scaffolding at critical times.</i></p> <p>Learners are provided coaching at critical times whereby the facilitator provides the skills, strategies and links to complete the task. Gradually the support is removed until the learner is able to stand alone</p>					
<p><i>Provide for integrated assessment of learning.</i></p>					

<p>A number of assessment methods are considered. Self-assessment, portfolio development, case study analysis, summary statistics of learner involvement can be used in addition to tests.</p>					
<p><i>Provide multiple perspectives.</i></p> <p>The learner is provided with the opportunity to investigate multiple roles and perspectives.</p>					
<p><i>Support collaborative construction of knowledge.</i></p> <p>Learners are encouraged to predict and hypothesize and then suggest a solution to a problem after collaboration with other learners.</p>					
<p><i>Provide authentic activities</i></p> <p>Activities allow a range and diversity of outcomes. There are a number of solutions that could be considered. There is not a specific correct response.</p>					

## Questionnaire 2

How would you rate the relative importance of individual situated learning elements in the design of a professional development course, delivered on-line?

Please rank the following design elements in descending order, with **1** being the highest level of importance, **9** being the lowest.

Instructional Design Feature	Ranking
<i>Promote articulation.</i>  Learners have the opportunity to articulate, negotiate and defend their knowledge and views on the topic.	
<i>Promote reflection.</i>  Learners are encouraged and enabled to consider and deliberate on both their learning and learning processes.	
<i>Provide access to expert performance.</i>  Learners are allowed to observe the task before it is attempted or observe an experienced practitioner at work through example.	
<i>Provide authentic context</i>  Material and resources reflects the way that the knowledge will be used in real-life and invites learners to explore application to their world.	
<i>Provide coaching and scaffolding at critical times.</i>  Learners are provided coaching at critical times whereby the facilitator provides the skills, strategies and links to complete the task. Gradually the support is removed until the learner is able to stand alone	
<i>Provide for integrated assessment of learning.</i>  A number of assessment methods are considered. Self-assessment, portfolio development, case study analysis, summary statistics of learner involvement can be used in addition to tests.	

<p><i>Provide multiple perspectives.</i></p> <p>The learner is provided with the opportunity to investigate multiple roles and perspectives.</p>	
<p>Support collaborative construction of knowledge.</p> <p>Learners are encouraged to predict and hypothesize and then suggest a solution to a problem after collaboration with other learners.</p>	
<p>Provide authentic activities</p> <p>Activities allow a range and diversity of outcomes. There are a number of solutions that could be considered. There is not a specific correct response.</p>	

## APPENDIX D: INTERVIEW SCHEDULE

### Interview Schedule

*1) Please describe your level of involvement with professional development activity/courses over the past two years.*

*2) Outline your experience with on-line courses taken for professional development over this same period of two years.*

*3) What do you believe are the most significant differences with traditional professional development courses offered in a class environment and taking courses on-line?*

*4) With regards to instructional design and facilitation of the on-line course (i.e. teaching), please describe your adjustment to on-line learning that you have/anticipate experiencing.*

*5) What do you feel are the significant factors contained in the design of a course offered on-line, that will make the learning applicable to your work situation.*

## APPENDIX E: INTERVIEWEE COMMENTS

### Interview Schedule – Interviewee Comments

1) Please describe your level of involvement with professional development activity/courses over the past two years.

C1: Ongoing training at the hospital and programs offered through the Center for Addiction and Mental Health. **Outside Agency Provider**

C2: Various courses focusing on addiction training. **Outside Agency Provider**

C3: Recently completed Masters' degree in Counseling Psychology. **University**

C4: Ongoing courses taken towards certification and attendance at 4 conferences a year which focus on addictions issues. **Professional Conferences**

C5: Completed requirements for Certified Employee Assistance Professional (C.E.A.P.) offered through McMaster University. **University**

C6: Ongoing professional development through the local college. **Community College**

C7: Ongoing professional development courses in addictions area and management. **Outside Agency Provider**

C8: Courses taken that focus on Ethics, Eating Disorder Addictions Counseling. **Outside Agency Provider**

C9: Taking ongoing courses offered through a regional training committee for allied services. Currently taking courses that focus on Horticulture Therapy. **Workplace Training**

C10: Agency/employer provides ongoing training and development. **Workplace Training**

C11: Ongoing courses taken to maintain certification (40 hours of coursework every two years). Courses provided by local agencies, University Dept. of social Work, Police department etc. **Outside Agency Provider**

C12: Recently completed an MBA and has completed a Trainer designation program focusing on elder abuse. **University**

C13: Various courses and workshops on various forms of therapy including hypnotherapy. **Outside Agency Provider**

2) Outline your experience with on-line courses taken for professional development over this same period of two years.

C1: Have taken courses that will prepare me to assist in the instructional design of courses that I will be the Subject Matter Expert. **Recent Experience**

C2: An Assessment course offered through the Center for Addiction and Mental Health. **Recent Experience**

C3: Masters' degree was taken on-line through a University in Vermont. **Recent Experience**

C4: Have not taken a strictly on-line course. Have taken courses that used mixed delivery approaches including written material, teleconferencing and regional group meetings. **Recent Experience**

C5: None in the past two years but did complete a course about 5 years ago. **Past Experience**

C6: Have taken 5 courses on-line. **Recent Experience**

C7: Have taken several courses on-line that utilized e-mail, written material, and Internet for research. **Recent Experience**

C8: Have taken several courses and currently taking a course on General Pharmacology. Recent Experience

C9: Completed course on Substance Abuse Training offered by the American Transportation organization. Recent Experience

C10: Have taken courses on “Catalyst Training” and others focused on administration/management. Recent Experience

C11: Have taken the Substance Abuse Professionals course focusing on transportation and trucking. Recent Experience

C12: Have taken courses working towards PHD. Recent Experience

C13: Have taken various workshops and webinars. Recent Experience

3) What do you believe are the most significant differences with traditional professional development courses offered in a class environment and taking courses on-line?

C1: On-line is convenient and allows for easy access. **Accessibility/Convenience**  
A negative issue is that role-playing is limited due to the group not meeting face to face. A facilitator in a class situation has a better idea of who in the group is engaged. **Face-To-Face Advantage**

C2: On-line experience has been good. Interaction with the group and connection with the instructor was good. **Interaction/Networking**  
The amount of work on-line can be more than class situation. The required readings, review and comments in the discussion area can be difficult if you are a full time student. **Self-Directed Learning**

C3: Feelings of isolation with on-line delivery. **Isolation**  
The traditional method of course delivery allows for physical contact and presence. With on-line there is a lag in individual/group reaction. Missed the reaction and body language of the group. **Face-to-Face Advantage**



C4: On-line approach allows for courses to fit into schedule. The flexibility is great.

[Accessibility/Convenience](#)

Personal preference would be for “direct contact” courses that promote visual learning.

[Face-to-Face Advantage](#)

C5: Classroom setting allows for spontaneity, brainstorming and instant interaction. On-

line approach should try to build these elements in to the design. [Instructional Design Considerations](#)

On-line delivery provides an opportunity for more involvement and fuller participation by all members. [Interaction/Networking](#)

On-line delivery is very important for personal professional development and access to courses. [Professional Development On-Line](#)

C6: With on-line delivery you can focus on areas of personal interest and be self-directed.

On-line approach requires more self-discipline and management. [Self-Directed Learning](#)

C7: On-line delivery requires more self-discipline and there is potential for a sense of isolation. You do not have colleagues that will give immediate feedback. [Isolation](#)

You need to be very self-directed. [Self-Directed Learning](#)

C8: With on-line delivery you miss the immediate feedback and participation of others in the class with you. [Feedback To Learners](#)

C9: On-line delivery does not allow for immediate feedback from peers. [Face-To-Face Advantage](#).

Experience has been with American course delivery and there was frustration with clarification and ascertaining Canadian experience and examples. [Contextual Application](#)

C10: Felt that the interaction and connection with colleagues was not as good as classroom setting. [Face-To-Face Advantage](#)

The response time for problems and concerns with on-line delivery approach is good.

There was very good support with the Profs. [Learner Support](#)

C11: Preference is for direct contact with the group, the social component is important.

[Face-To-Face Advantage](#)

On-line approach can be isolating. [Isolation](#)

On-line approach can be more spontaneous and the programs should have a “Chat rooms”. [Interaction/Networking](#)

On-line delivery has great economical benefits. [On-Line Advantage](#)

On-line delivery is very important for delivery and access to the profession. **Professional Development On-Line**

C12: Socializing and practicing presentation skills of therapeutic approaches is lacking in on-line delivery. Skill development can be difficult to duplicate. **Contextual Application**  
The networking element is absent on-line delivery. **Interaction/Networking**

C13: On-line delivery needs to ensure that ‘articulation’ of the concepts is evident. **Articulation**

Students need to have input and provide feedback to ensure that the course is relevant and meets the learning needs of the profession. **Content Focus**

The course design should not just have a “talking head” lecturing but should encourage group communication and discussion. **Instructional Design Considerations**

4) With regards to instructional design and facilitation of the on-line course (i.e. teaching), please describe your adjustment to on-line learning that you have/anticipate experiencing.

C1: With on-line delivery there is a need to be more creative, using “outside of the box” consideration for design and delivery approaches. **Instructional Design Considerations**

There is a limitation of what activities can be used, such as role playing that is effective in traditional classrooms. **Face-To-Face Advantage**

There is a larger time commitment required with on-line approach however it is more convenient. **Time Commitment, Accessibility/Convenience**

C2: Reading material on-screen is more difficult and it is not easy to print off all of the learning materials and resources. This format is more difficult when student uses an “instant messaging” tool such as a “Palm” or “Blackberry” or digital screens for review of material. **Technology Support/Issues**

C3: On-line delivery allows for new skills to be developed for individuals. **Professional Development On-Line**

Learners need to be very self-directed. **Self-Directed Learning**

Learners need to commit to a learning plan, confirm it and stay with it. This is a very interesting part of the learning process. **Goal Setting**

C4: On-line delivery requires adjustments that allow for availability at synchronous times. Flexibility of time can be imposed and rigid. **Time Commitment**

At the same time, it allows for individuals to establish and maintain communication and sharing over a longer period of time compared to traditional approaches. [Group Interaction and Networking](#)

C5: Adjustments with on-line delivery requires absorbing of new communication skills and overcoming apprehension of technical systems used in the delivery. [Technology Support/Issues](#)

C6: The group work projects with on-line delivery are time consuming, onerous and a waste of time. It is too difficult to coordinate time across several time zones. [Time Commitment](#)

The real social aspect of working with a group face to face is missing. [Face-To-Face Advantage](#)

C7: On-line delivery makes it difficult to ask for instant clarification of material or when you need it the most. [Learner Support](#)

These barriers are less in a traditional setting when the instructor can be approached. [Role of Facilitator](#)

C8: On-line approach requires a focus that must be maintained. In traditional delivery the learner can have their focus wander. [Self-Directed Learning](#)

C9: On-line delivery requires learner to be self-directed and organized. [Self-Directed Learning](#)

It forces participants to share their opinions and respond. [Reflection](#)

The examples used in the course need to relate to ‘real life’ experiences, such as crisis intervention. [Contextual Application](#)

There needs to an awareness of cultural sensitivity in the course design. [Instructional Design Considerations](#)

C10: Individuals are responsible for their individual learning with on-line approach. [Self-Directed Learning](#)

Learner must set goals and learning standards meaningful to them. [Goal Setting](#)

Time is “precious”. [Time Commitment](#)

C11: There is no real adjustment from past learning experience. On-line delivery is convenient and practical. [Accessibility/Convenience](#)

C12: The adjustments are the same as traditional delivery approaches.

[Accessibility/Convenience](#)

One adjustment is the need for allowing for and providing technical support for success and completion. [Technology Support/Issues](#)

On-line delivery requires the learner to be better prepared and acute in their understanding of the material so they can share and contribute. [Self directed Learning](#)

C13: The program will need to consider what computer upgrades are needed and if there is broadband access. [Technology Support/Issues](#)

Many participants can only use “dial up” and the program needs to consider this in the design. [Instructional Design Considerations](#)

5) What do you feel are the significant factors contained in the design of a course offered on-line, that will make the learning applicable to your work situation.

C1: The application of real life situations is important to engage learners and make learning practical for application. [Contextual Application](#)

Learners should be asked for input into what would make their learning meaningful when designing the course content. [Content Focus](#)

The courses need to address learner’s needs and design the course to address these.

[Instructional Design Considerations](#)

C2: True-life examples are important. [Contextual Application](#)

The courses need to allow for reflection of the professionals experience with opportunity to share these examples. [Reflection](#)

C3: Programs and content should focus on past experience in the field and on “those things that really matter”. [Content Focus](#)

Ongoing feedback is important for motivation to continue. [Feedback to Learners](#)

C4: Reflection on past experience is important and it allows for critical thinking.

[Reflection](#)

Learners should be challenged with activity that allows for practical application.

Authentic application is important to allow for learners to reflect, elaborate and apply the ideas for their work environment. [Contextual Application](#)

C5: The course content needs to reach the right target market for each topic. [Content Focus](#)

It is important the program allows for learners to “challenge, negotiate and defend” in the dialogue and discussion. [Group Interaction/Networking](#)  
The program should allow for a “eureka” experience. [Instructional Design Considerations](#)

C6: Using authentic context and examples is important. [Contextual Application](#)  
Examples and activity need to reflect the “real world” of addictions counseling. Using case studies and assignments that are realistic is important. [Reflection](#)  
Allow for the course pace being negotiable and individual learning needs to address. [Instructional Design Considerations](#)

C7: The “language of the profession” needs to be used. [Instructional Design Considerations](#)  
Learners need to be able to “articulate” and defend their thoughts and therapeutic approaches. [Articulation](#)  
Collaboration with group members and sharing of ideas and support of the continuation of knowledge development is important. [Group Interaction/Networking](#)

C8: The quality and professional experience of the facilitator is important.  
Access and support by the facilitator is important. Should be able to contact at any time electronically. [Role of Facilitator](#)

C9: The awareness of the facilitator with individual learning styles is important. Their (facilitator) group management style should be influenced by their “hands on” experience in the field. You should see a “professional at work” by the way they facilitate. [Role of Facilitator](#)

C10: The authentic context is important to be included. It needs to be pragmatic and realistic. Employers need to know that you will learn practical skills in therapy. [Contextual Application](#)

C11: All of the design considerations provided in the questionnaires is important. The course should allow for and understand “how I learn”. I learn best by reflection. [Instructional Design Considerations](#)  
The real “job” provides supervision and the course should provide “practical application” and supervision of my practical learning. [Role of Facilitator](#)

C12: Coaching and scaffolding is important. The learning should be managed for the group. Individuals and the group should be encouraged to “stretch” and try new skills. [Role of Facilitator](#)

C13: Activities and learning events need to be practical and realistic. “No one size fits it all”, so the course design needs to allow for different approaches to meet many needs and varied perspectives. [Instructional Design Considerations](#)  
Training needs to be relevant to the individual situation so they can apply it to their own circumstance. [Contextual Application](#)

6) General comments by individual case members.

C1: Time is an issue. [Time Commitment](#)  
Access to on-line courses will need to be expanded to the profession to allow for 20 hours of instruction to maintain certification. More courses are needed to meet the time requirements. [Accessibility and Convenience](#)

C2: On-line training is very important for professionals that are in the ‘near’ north and do not have access to professional development activity. [Professional Development On-Line](#)  
Travel to large cities for training is cost prohibitive. [Accessibility and Convenience](#)

C3: Experience to date with on-line courses has been very favorable. [Professional Development On-Line](#)

C5: On-line training for the addictions field is a “breakthrough” educational opportunity. The course access is a great professional development resource. [Professional Development On-Line](#)

C7: The course design needs to consider the language and reflect the “culture” of addiction professionals. For instance the word “should” is a shame based word when working with clients and should not be present in-group counseling courses. [Instructional Design Considerations](#)

C9: The connection with other people in the profession and sharing ideas and successes is an important outcome of on-line delivery. [Group Interaction/Networking](#)  
The access of additional professional development through on-line delivery is very important. [Professional development On-Line](#)

C10: On-line delivery is an important development for the profession. [Professional development On-Line](#)

People are busy with jobs that entail shift work in hospitals. It is not always easy to get to courses and workshops even if they are in the same city. On-line allows for access when it fits my schedule. [Accessibility/Convenience](#)

C11: Life long learning has been an important aspect of my professional experience for over 25 years. On-line delivery is a welcome addition to course access and professional development. [Professional Development On-Line](#)

C12: On-line access to courses is very important for the field and for the profession to development to meet the expanding health care needs of society. [Professional Development On-Line](#)