CHSE Guidebook for Designing CPD Activities

McMaster University

HEALTH SCIENCES
Continuing Health Sciences Education

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Dear Colleagues,

The Continuing Health Sciences Education (CHSE) Program within the Faculty of Health Sciences (FHS) has a mandate to support schools, departments, programs and faculty members within the FHS in the design of engaging and effective CHSE activities. Our mission is to provide exceptional continuing professional development opportunities for healthcare professionals.

CHSE is defined as the education of healthcare professionals following completion of formal training. CHSE activities consist of any educational activity, which serves to maintain, develop or increase knowledge, skills, competency or performance. The goal is to provide better services for patients, the public and the profession. For our program, the term CHSE encompasses continuing professional development (CPD), Continuing education (CE), Continuing Medical Education (CME) and Interprofessional education (IPE).

The CHSE Guidebook for designing educational activities, was designed to be an approachable process with educational theory embedded within it. The overall intention is to empower health professionals to create educational activities that meet the standards, follow educational theory, are learner-centered and ensure that the learning outcomes intended are supported by the activity's design. To do this we use Bigg's[1] Constructive alignment.

"Constructive" in the context of education, refers to a paradigm of learning called constructivism. In constructivism learning is viewed to occur through the learner actively constructing meaningful experiences. This is important in continuing education because quality learning means learners finding relevance in the CPD activities in relation to their practice.

"Alignment" refers to the high degree of structural consistency across the three major aspects of curriculum. These include the intended learning objectives, the teaching and learning activities, and the feedback and assessment methods. A constructive alignment approach to designing CPD activities is key to creating a learner-centric curriculum. This provides rich learning opportunities and helps the learner to achieve the intended learning outcomes. Constructive alignment is also a design approach that works to ensure the development of learning outcomes, which is important in competency-based education.

CPD that uses constructive alignment as a core design principle facilitates a learning objective driven design. It also encourages a decision-making process that continually asks the designer, how can we align what we do in the curriculum with the learning objectives and will there be evidence to support that the alignment is achieved in our design? In our guidebook, we provide a brief theoretical background of constructive alignment, methods to assess learning needs, and how to turn the needs into a solution by translating them into learning objectives. The Guidebook also includes constructive alignment checks. These checks are prompts to help applicants consider, to what degree have they achieved constructive alignment at each stage of the design process.

The CHSE Program has expert faculty and staff that can help you transform your ideas into effective educational offerings. The CHSE program provides educational consultation to members of the FHS. We also recommend that you consult your CHSE Program representative and/or our staff and faculty in the process of planning, developing and delivering CHSE activities.

We look forward to working with you.

Yours truly,

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Assistant Dean

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CPD Curriculum Developer and Education Research Lead

Angela Silla
Special Projects Manager

1 1 Biggs, J. (1996). Enhancing teaching through constructive alignment. Higher Education, 32, 347-364

Getting started

The purpose of this guidebook is to assist you in designing a continuing professional development (CPD) activity that will meet the educational and ethical standards of the Royal College of Physicians and Surgeons of Canada's (RCPSC) Maintenance of Certification (MOC) and/or the College of Family Physicians of Canada's (CFPC) Mainpro+.

To help you get started, please answer the following questions to determine what processes are helpful to achieve your accreditation/certification goals:

Question 1: Are you representing a physician organization?

If yes, please answer **Question 2**

If no, please review our Co-Development Policy.

Question 2: Do you have a CPD activity already existing or designed that you wish to have accredited/certified?

If yes, please select the option that best describes your situation:

☐ I have had substantial involvement from the McMaster University Faculty of Health Sciences regarding planning, organization, development, and implementation

If you checked this box, then please review our APPLICATION REVIEW POLICY (next page) and then click this link: https://www.xcdsystem.com/mcmasterchse/abstract/index.cfm?ID=NxK8BJE to submit an application to apply for MOC accreditation for the RCPSC and/or Mainpro+ certification for the CFPC.

☐ I have not had substantial involvement from the McMaster University Faculty of Health Sciences

If you checked this box, then please review our APPLICATION REVIEW POLICY (next page) and then click this link to submit an application: https://www.xcdsystem.com/mcmasterchse/abstract/index.cfm?ID=NxK8BJE to apply for MOC accreditation for the RCPSC . Your activity is not eligible for the CFPC Mainpro+ certification through CHSE.

If no, please answer **Question 3**

Question 3: Do you have an idea for a CPD activity and wish to develop it into a CPD activity and have it accredited or certified?

If yes, use this guidebook to design your CPD activity. You may contact the CHSE office for educational consultation and logistical support.

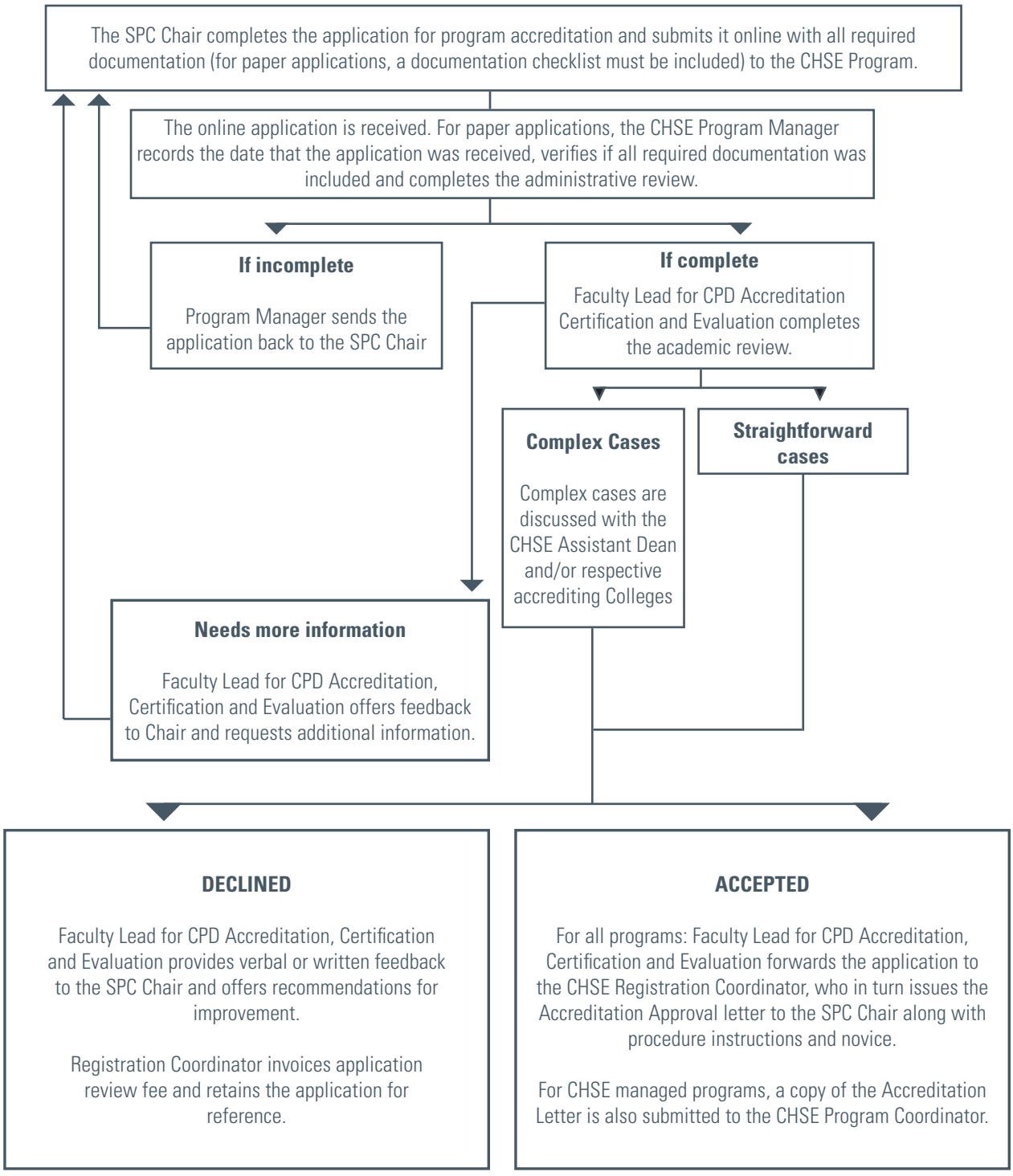
Below is the table which summarizes the options described in the previous checklist:

Table 1: Summary of applicant criteria and corresponding accreditation/certification process

	Physician Organization	Non-Physician Organization
Substantial Involvement from McMaster Faculty	Apply Online	Contact the CHSE office to review on case-by-case basis for eligibility for accreditation/certification
Substantial Involvement from McMaster Faculty	Use this Guidebook to design a CPD activity and then submit it online	Co-develop a CPD activity with the CHSE Department

Application review policy

Below is a diagram that outlines our application review policy. This policy applies to those applicants who apply directly online and omits those who co-develop with the CHSE department.



Overview[1]

The College of Family Physicians of Canada (CFPC) and the Royal College of Physicians and Surgeons of Canada (RCPSC) each use their own CPD program credit system. The CFPC uses a credit system called Mainpro+ and the RCPSC uses the Maintenance of Certification (MOC).

McMaster University's Continuing Health Sciences Education Program (CHSE) is fully accredited by the Committee on Accreditation of Continuing Medical Education (CACME) to provide services to health professionals to design, develop, certify or accredit, implement and enhance CPD programs. We base our approval on the standards set by the CFPC, the RCPSC and McMaster-specific policies.

Accreditation vs Certification

Each college uses different terms to describe their credit system. Accreditation refers to the processes of obtaining Maintenance of Certification (MOC) credit from the RCPSC. Certification refers to the processes of obtaining Mainpro+ credits from the CFPC. Each system has levels of credits (i.e., credits per hour) and their corresponding categories (i.e., group learning, assessment etc.). The CHSE Program at McMaster University's Faculty of Health Sciences can certify or accredit specific levels of credits and categories. These are shown in the table below with the exception of those highlighted in grey. Accreditation or certification for grey sections requires a direct application to the RCPSC or CFPC.

Table 2: Overview of the credits that CHSE can offer accreditation/certification

Target Audience	Credit Type	Credit Category	Learning Format	Content and Frequency	Audience Range	Credit Longevity From time of approval
Specialists	MOC Section 1	Group Learning	Conferences, workshops	Fixed; repeatable	Provincial or National	12 months
	MOC Section 1	Group Learning	Live seminar series or online synchronous/ asynchronous modules	Fixed; sequential	Provincial or National	12 months
	MOC Section 3	Performance Assessment	Simulation	Fixed; repeatable	Provincial or National	3 years Requires annual update of curriculum
	MOC Section 3	Knowledge Assessment	Small groups, eLearning modules	Fixed; repeatable	Provincial or National	3 years Requires annual update of curriculum
	MOC Section 1	**Group Learning**	**Self-Accredited Rounds-Register with RCPSC**	**Dynamic; regularly scheduled**	**Provincial or National**	
Family Physicians	Mainpro+ 1 credit/hour	Group Learning	Conferences, workshops	Fixed; repeatable	Provincial	12 months
	Mainpro+ 1 credit/hour	Group Learning	Seminar series	Fixed; sequential	Provincial	12 months
	Mainpro+ 1 credit/hour	Group Learning	Rounds	Fixed; repeatable	Provincial	12 months
	Mainpro+ 1 credit/hour	Assessment	Online synchronous/asynchronous modules	Fixed; repeatable	National	12 months
	Mainpro+ 2 and 3 credits/hour	**Assessment**	**Apply directly to CFPC**	**Fixed; repeatable**	**Provincial or National**	

1 UBC CPD - Continuing Professional Development Planning Guide August 2018

Glossary of CHSE terms

CPD Program: an overarching body of activities that has a broad objective and disseminates through activities to meet more specific learning objectives.

CPD Activity: an experience designed for learning a focused topic that uses a specific delivery method where learners gain specific values, skills and/or knowledge.

CPD Session: within an activity, time is allotted to learning a subtopic.

Managed CPD activity: CHSE works with the applicant at each stage of the design, implementation and delivery process.

Non-managed CPD activity: CHSE is not involved with the design, implementation or delivery but is able to offer support at any of these stages upon request.

Internal: CPD program or activity which has substantial involvement from the Faculty of Health Sciences at McMaster.

External: CPD program or activity which has no substantial involvement from the Faculty of Health Sciences at McMaster.

Substantial Involvement: when a Scientific Planning Committee is chaired by a faculty member from the Faculty of Health Sciences at McMaster University and the Chair of a Clinical Department or the Vice Dean/Associate Dean of a Program who signs the accreditation/certification application.

Educational standards[1]

Educational standards and quality criteria

Educational standards are used to ensure that all accredited/certified CPD programs developed through the CHSE Program at McMaster University are of high quality and satisfy the requirements of the RCPSC and the CFPC for educational activities. To help make it an approachable process, we have integrated principles of adult learning theory, curriculum design theory, constructive alignment, and combined the standards which can be applied for both accreditation with MOC credits and certification of Mainpro+ credits.

The CFPC uses a unique set of standards, called the Quality Criteria that overlap with the educational standards of the RCPSC. Listed below are each set of baseline standards (i.e., each credit system assumes that these standards will be met and any additional requirements will help graduate to the next credit level and/or category):

RCPSC MOC Section 1 and 3

Educational Standards

Needs assessment
Target audience
Learning objective
Educational strategies
Content development and implementation
Evaluation

CFPC Mainpro+

Quality Criteria

Needs assessment and practice relevance
Interactivity and engagement
Incorporation of evidence
Addressing barriers to change
Evaluation and outcome assessment

Combining the two sets of standards, the following comprehensive educational elements are required in an application for both credit types:

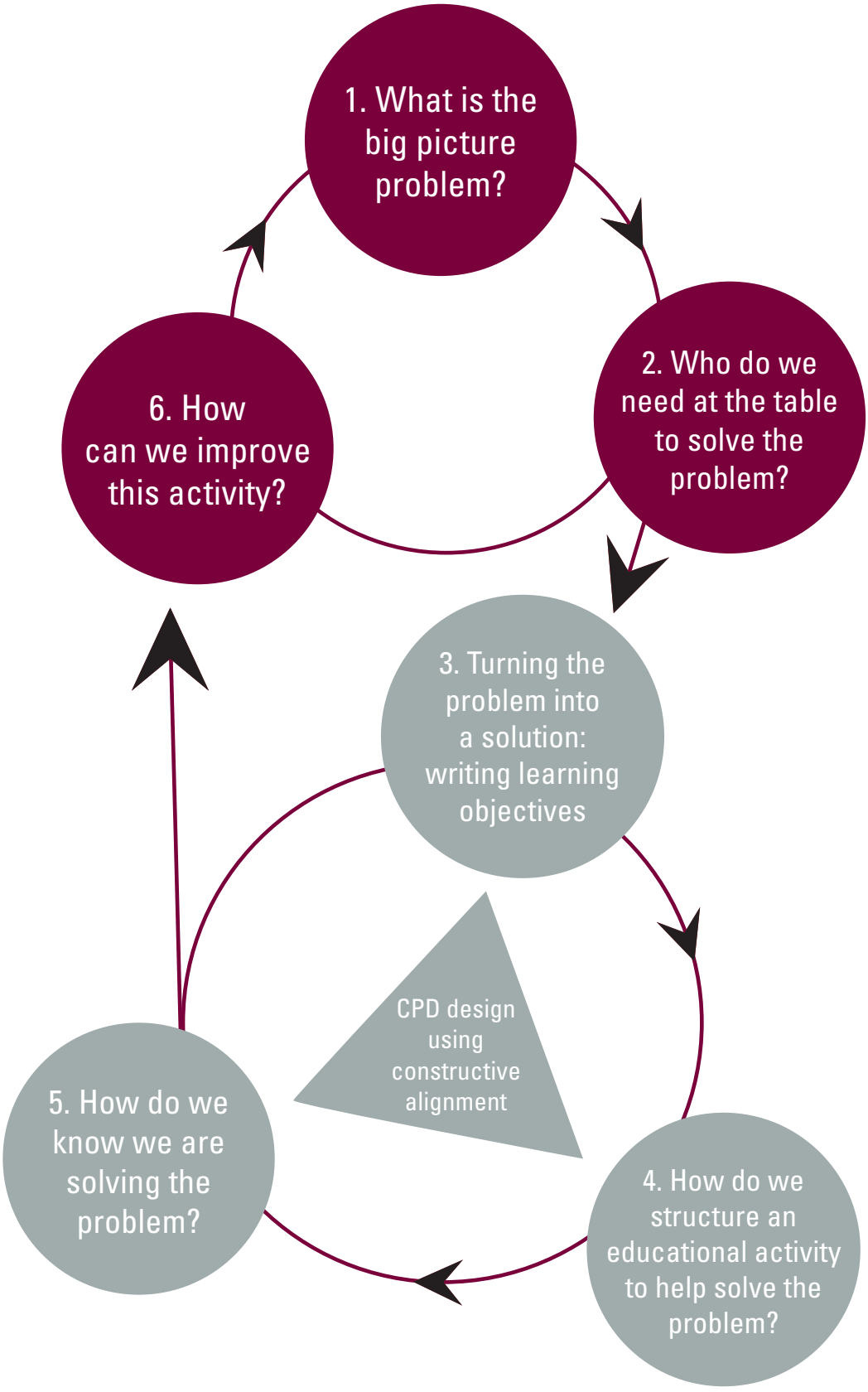
- Needs assessment & practice relevance
- Target audience
- Learning objectives
- Educational strategies (interactivity, assessment)
- Content development, including incorporation of evidence & addressing barriers
- Evaluation & outcome assessment

1 UBC CPD - Continuing Professional Development Planning Guide August 2018

Meeting the standards using our design process

There are many standards that are required by the RCPSC and the CFPC in order to receive accreditation or certification of CPD activities. We have created a process that embeds meeting many of the standards along with best practices in educational design. Below is a general overview of our design process that will outline the following sections of this guidebook. While the diagram (right) illustrates a linear and cyclical process, we would like to highlight that there will be overlap between phases and that the process is relatively fluid. This diagram (right) is a general outline of phases 1 through 6.

Developing a CPD activity



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Overview of the design process

The following is what we will cover in this guidebook and in the next six sections:

1 Phase 1: What is the big picture problem?

- Defining the problem at the most general level
- Conducting a needs assessment
- Defining the professional practice gap

2 Phase 2: Who do we need at the table to solve the problem?

- Defining the target audience
- Scientific Planning Committee

3 Phase 3: Turning the problem into a solution: writing the learning objectives

- Using the gap analysis to help define the target audience
- How to write learning objectives
- Constructive alignment check
- Session-specific learning objectives

4 Phase 4: How do we structure an educational activity to help solve the problem?

- Designing learning activities
- Choosing the format
- Constructive alignment check
- Interactivity
- Choosing the content
- Choosing the speakers
- Managing conflicts of interest
- Delivery and logistics to achieve ethical standards

5 Phase 5: How do we know we are solving the problem?

- Choosing feedback methods
- Developing activity evaluation tools
- Supporting commitment to change
- Measuring effectiveness

6 Phase 6: How do we improve the activity?

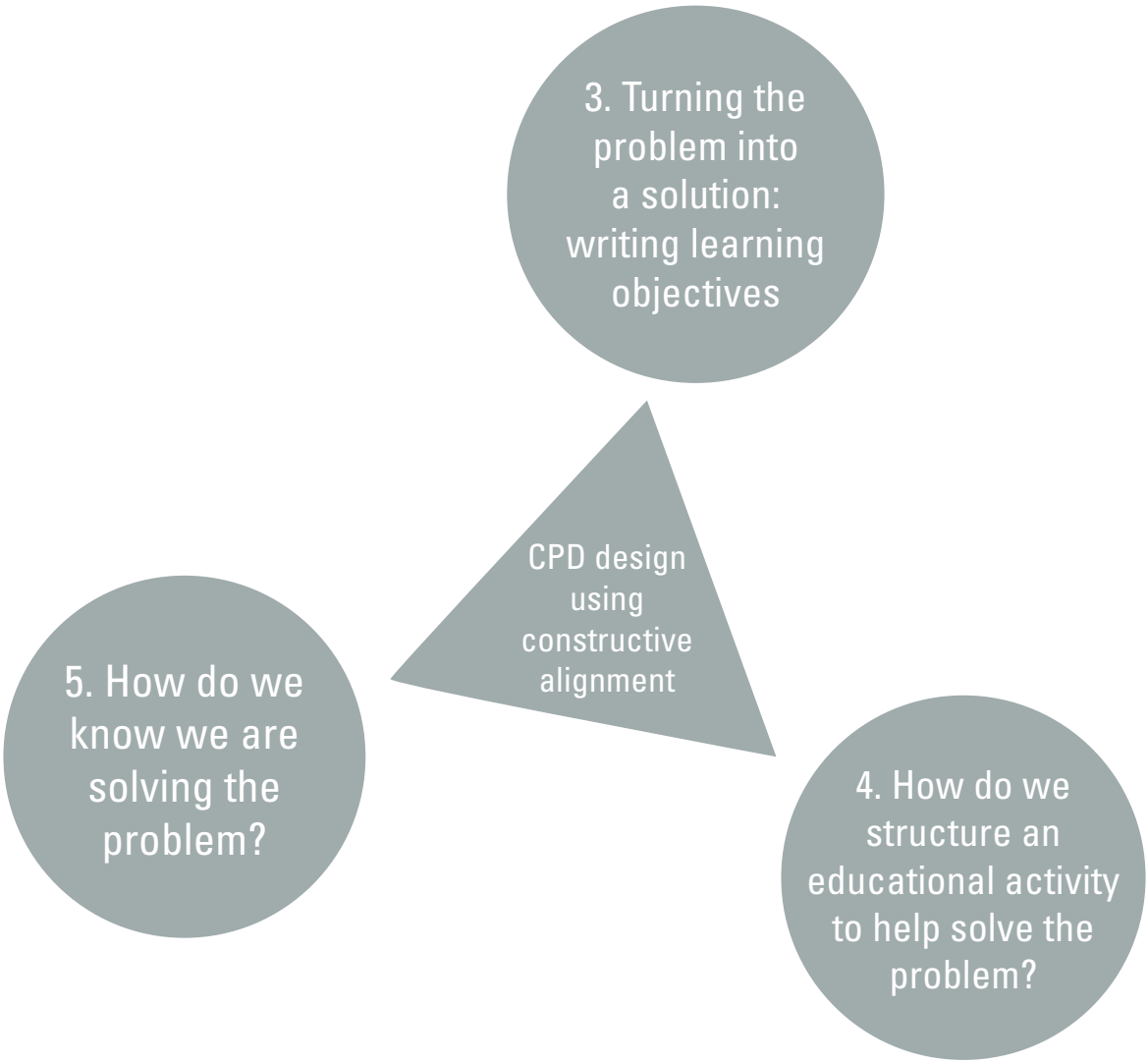
- Moving forward

Designing a CPD Activity using constructive alignment

Making our process simple

Our design process for CPD activities is based on a combination of adult learning theory, Kern's[1] outline for designing curriculum and Biggs'[2] Constructive Alignment. To help make our process more user-friendly, focusing on achieving constructive alignment accomplishes many of the standards of the Colleges while also encouraging the development of quality, learner-centered educational activities.

The ultimate goal of CPD is to improve patient outcomes by changing the practice behaviours of healthcare professionals. To change the behaviours through an educational means, we need to design activities that are relevant to practice, engage the learner in a way that is meaningful to them, and that are transferable to practice. By using constructive alignment along with an assessment of what learning needs are, it helps to accomplish these change-supportive design elements.



1 Kern, D. E., Bass, E. B., Thomas, P. A., & Howard, D. M. (1998). Curriculum development for medical education: a six step approach. JHU Press.
2 Biggs, J. (1996). Enhancing teaching through constructive alignment. Higher Education, 32, 347-364

Making it learner-centric

Using constructive alignment as a core design principle systematically considers the viewpoint of the learner's experience in the decision-making process when designing the educational activity, making it a learner-centric approach. Moreover, "constructive" refers to a view of learning called constructivism, that describes how learners play an active role in constructing meaning of the experiences they have. This view of learning also shapes ideas of teaching. The constructivist approach means that the teacher's role is to create the setting, activities and opportunities that will support a learner driven meaning making process. "Alignment" refers to harmony across all efforts of teaching to support the learner's meaning-making process. It also ensures that delivery and assessment methods enable learners to achieve the intended learning outcomes (Harden, 1999 as cited by Lawrence, 2019).[1]

Applying constructive alignment to the development of CPD activities

Bigg's constructive alignment principle is a principle of curriculum design that refers to the level of coherence and harmony between the three major components of curriculum: intended learning outcomes, learning activities and, feedback and assessment methods. When developing a CPD activity, how do we decide at every level of the curriculum what is the most effective to help change behaviour? In constructive alignment, we use the learning objectives like a compass. Using the learning objectives like a compass means making decisions about what learning activities and feedback and assessment tools based on what the learning objectives have defined as the intended outcomes. Knowing the intended outcomes helps to inform what types of activities, learning formats and assessment methods are meaningful for learning these outcomes. The intended outcomes help create an intentional pathway for learning known as educational scaffolding (see **Figure Educational scaffolding**), and is defined as what learning structures are needed for the learner to achieve what was intended for them to learn. For example, asking how will this activity help the learner meet the objective or how this evaluation will measure if they have met the objective.

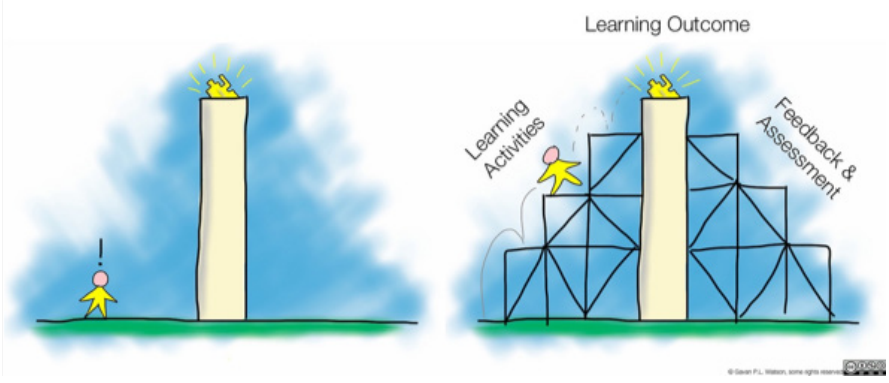


Figure: Educational scaffolding

1 Lawrence, E. J., (2019). Designing a Unit Assessment Using Constructive Alignment, Journal of International Teaching Teacher Education and Professional Development, 2 (1): 30-31, DOI: 10.10.4018/IJTEPD.2019010103

When constructive alignment is achieved, it should be clear to the learner that the learning objectives—what we are hoping the learner to be able to do—is supported by the structure and content of the learning activities, and feedback and assessment methods. The Scientific Planning Committee (SPC) is also required to have documentation of their decision process for how the learning objectives shaped the design of the activity.

Having alignment in curriculum is especially important when the learning outcomes necessitate that learners are able to perform more than one stage of learning in order to achieve advanced stages they outline (i.e., evaluating). Stages of learning can be demonstrated in the recent modified cyclical model of Bloom's taxonomy[1] (i.e., knowing, understanding, applying, analysing etc.) (see Figure 4). In this cyclical model, knowing is the beginning of the cycle, but depending on the learner's experience at the time of participating in a given learning activity, they may enter the cycle at a different point. Whereas in the hierarchical model, it is assumed that the learner has to move from the bottom up. The hierarchical model of Bloom's taxonomy has been criticized to reduce learner motivation and it has been suggested that a cyclical model is a more conducive model for adult learning (Hyder, 2016).

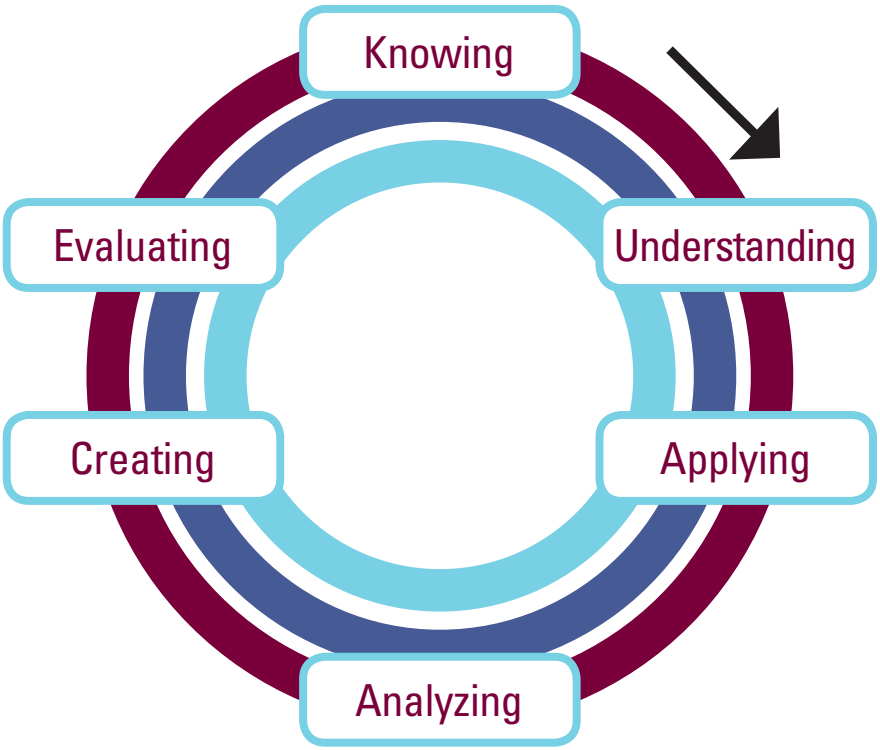


Figure 4. Student Learning Motivation - The Free Facilitated Way

By considering what phases the learner may be entering, educators can consider the design of the educational experience and how to help learners get from one phase to the next. For example, expecting that by the end of a learning activity a learner is able to analyse is achievable once the learner has a foundation of knowledge, understands the knowledge and is able to apply the knowledge. Knowing where the learner is entering the cycle is important in CPD for improving knowledge, attitudes, skills and behaviours of healthcare professionals and ensure that the design supports the expectations of the learner.

As educators, when we think about learning through the eyes of the learner, we can think about the gaps between the learner's current performance capacity and the desired level of performance outlined by the learning objectives. Our responsibility as the educator is to ensure that we provide the proper scaffolding, or "bridges," between where the learner is and what we expect the learner to be able to do.

Now that you have an understanding of how writing learning objectives is core to designing CPD using constructive alignment. Above is a diagram to help you consider different verbs for each domain of learning within each stage of learning. If you are designing an activity that hopes to focus on the **attitudes/values domain, cognitive domain** or **technical domain** of health professionals, consider what verbs describe the stage of learning you hope the learner to accomplish (i.e., By the end of the learning activity the learner will be able to _____)

1 Hyder, I. (2016), Bloom's Taxonomy (Cognitive Domain) in Higher Education Settings: Reflection Brief, Journal of Education and Educational Development, 3 (2): 288-300

Phase 1:

What is the "Big Picture" problem?

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Phase 1: What is the "Big Picture" problem?

General overview of Phase 1: What is the "big picture" problem?

Defining the problem at the most general level

Conducting a needs assessment to help define the professional practice gap

Defining the problem at the most general level

The big picture problem is the high-level perspective of the problem. Our design process for creating a CPD activity involves attempting to take the "big picture" problem, translate it into a specific kind of problem and into an outline for a solution (i.e., learning objectives).

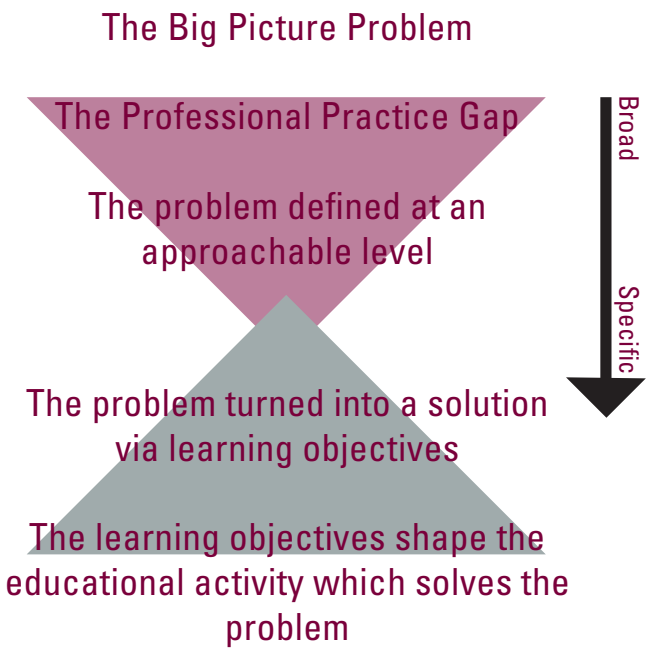
A big picture problem may be an issue that has been identified through informal discussion with colleagues, brought up at a meeting, a challenge in practice from personal experiences, themes at a conference, a public health issue, or a new trend or technology in practice. Defining the "big picture" problem is about articulating a general description of where there are challenges in medical practice that can be remedied by creating a CPD educational activity. This is essential for health professionals to engage as learners, to see the relevance of the learning activity will help improve current practice. For example, it might be "*healthcare providers struggle to… and this could be improved by…"* or *" the new government legislation has come with some implications to medical practice and so we need to educate practitioners how to…"* The "big picture" problem is documented in the first section of our EDNA tool where it requests the rationale for your CPD activity.

By defining the "big picture" problem, you are taking the first step in translating that problem into a solution. It is an important step because it shapes how the solution will be defined and provide clues for how to design an effective CPD activity.

To define the problem more specifically, it is required that you are able to show where the gap between current practice and the ideal practice exists (i.e., the professional practice gap). We strongly recommend using multiple sources (i.e., surveys, literature, conversations, themes discussed during clinical team meetings, public health data etc.) for defining the problem and providing evidence to show that there is a need for an educational solution. The professional practice gap can be included in the EDNA needs assessment tool in the first section under your "big picture" problem in the rationale. The next section will cover conducting a needs assessment which refers to the rest of the EDNA form.

Conducting a needs assessment

A needs assessment at the broadest level, involves in gathering information to identify the learning needs of a target audience. The learning needs are the basis for identifying appropriate learning objectives and forms the basis of the learning objectives, the activity design and content. As part of the documentation for the application for activity accreditation, the chair of the planning committee will be required to provide details of the needs assessment process and their findings. It should be noted that while we require that you perform a needs assessment from the "big picture" perspective, if you are planning to accredit or certify for higher credits you may need to perform a needs assessment at the level of the individual.



Types of learning needs

The CHSE Program requires that all developed, accredited and/or certified activities be planned based on identified learning needs. All CHSE activities should have relevance to the target audience and to their practice.

Sources of learning needs can be categorized in three ways: 1) inferred; 2) verbalized; 3) proven.

Inferred learning needs are those that might include, but are not limited to, the following: the emergence of a new disease, new diagnostic methods or technologies, advances in medical knowledge or legislation, regulatory or organizational changes effecting patient care.

Verbalized learning needs may be derived from individuals' self-assessment and may include, but are not limited to, the following: evaluation forms, surveys, comments, patient problem inventories or consensus of faculty members within a department or service.

Proven learning needs are those that are derived from an objective external data source that may include, but not limited to, the following: epidemiological data, quality assurance/audit data, peer assessments, mortality or morbidity data, or journal articles.

Prior evaluation of CPD/CME activity

Both perceived and unperceived learning needs are important to identify for the purposes of helping to design learning activities that learner's perceive as relevant to their learning needs. Multiple sources of information must be considered when determining needs so that we do not design an educational activity based only on what individuals think they know. Research has shown that self-assessment may not be an accurate form of judging performance[1] and there are intellectual blindspots for not knowing what they don't know[2] and so we recommend that at least one objective (unperceived) and/or one subjective (perceived) learning need be identified for each topic.

Below are two lists of the types of needs assessment for perceived and unperceived:

Perceived learning needs: I think this is what I need to learn

- Survey of Target Audience
- Focus Group
- Opinion of Planning Committee Members

Unperceived: I don't know that I need to learn this

- Self-Assessment Tests
- Practice Data
- Peer Performance Review/Audit
- Direct Observation of Practice Performance
- Expert Advisory Group
- Patients Feedback
- Chart Audits
- Clinical Incidence Reporting
- Quality Assurance Data from Hospitals or Regions
- Provincial Databases
- Published Literature
- M&M Rounds

1 Eva, K.W. and Regehr, G., (2005). Self-assessment in the health professionals: a reformulation and research agenda, Academic Medicine, 80 (10):S46-S54,

2 J.Luft and H Ingham, (1955)"The Johari window, a graphic model of interpersonal awareness". Proceedings of the western training laboratory in group development, Los Angeles: University of California, Los Angeles.

PLEASE NOTE: The needs assessment process CANNOT be driven or conducted by industry or commercial sponsors.
Transforming Unperceived learning needs to perceived learning needs

Adult learners need to relate to what they are required to learn. When they are not aware of their need to learn something new, it is unlikely that they will feel motivated. Healthcare professionals are known to aim for best practices and providing best patient care. Providing a non-threatening method to help identify the gap in knowledge, attitude, skills or practice usually works to motivate learning. Useful methods such as presenting a case or a new finding to reflect on, or the use of an Audience Response System to answer questions related to the unperceived learning needs are some strategies that can help learners realize their learning needs. These strategies help learners see the gap between what they think they know and what they actually know.

Defining the professional practice gap

Where does the gap between actual practice and ideal practice exist? This question can be answered by performing a general needs assessment. There must be evidence that the identified performance gap has been used as the basis for establishing learning objectives, activity content, and educational interventions and activities. This is first established through the development of learning objectives that clearly define how the activity will improve physician competence, physician performance, and/or patient outcomes. To help you meet this criteria, and follow constructive alignment, these next four steps can be used as a guide for defining the professional practice gap and are recorded in the first two boxes on the Educational Design and Needs Assessment (EDNA) Mapping tool:

1

Step #1
Identify/clarify what is currently happening with patients or health care professionals in a specific therapeutic area

2

Step #2
Define the "Gold Standard" – or what is defined as Best Practices in this therapeutic area.

3

Step #3
Clarify the gap/discrepancy between Step #1 and Step #2- these are the health care issues. Are these gaps related to knowledge, skills, attitudes or practices?

4

Step #4
From the identified gaps or health care issues - decide on the broad curriculum objectives f or your anticipated CPD endeavours. A gap analysis is a very thorough approach to determining that a gap does exist.

Now that we have identified the specific professional practice gap which may refer to a group of individuals (i.e., physicians, nurses or psychiatrists/cardiologists etc.), we need to translate the problem (defined at the group level) into an educational solution by articulating the problem as a learning need. A learning need is:

> *the gap in knowledge, skill, attitude and/or practice between what currently exists and what is desired.*

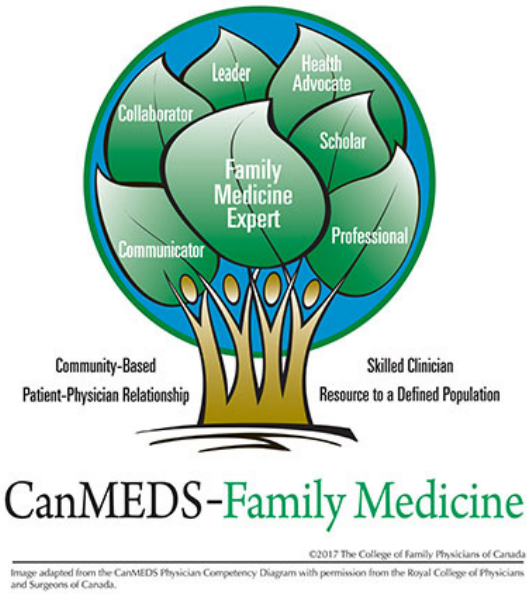
Now that you have defined the professional practice gap, you have identified the type of learner that will benefit from the educational activity. The next step is inviting the right people to the table—the planning committee—to help design the educational experience for the learner.

University of Toronto Faculty of Medicine, Continuing Professional Development.(2019) Conducting a Gap analysis: Quick Tips [PDF file]. Retrieved from: http://distribute.cmetoronto.ca.s3.amazonaws.com/QuickTips/How-to-Conduct-a-Gap-Analysis.pdf

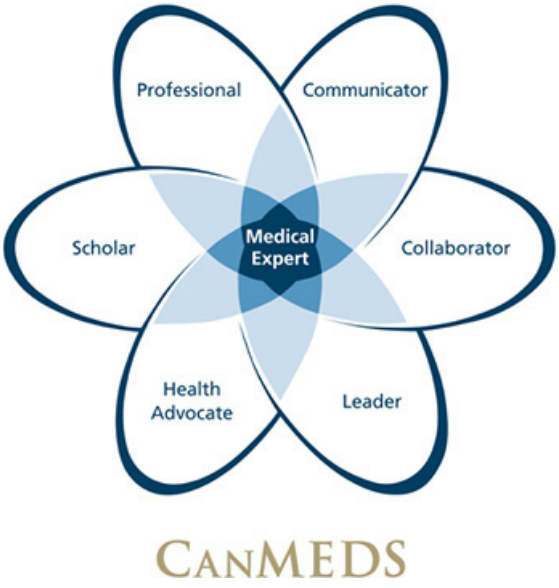
CanMEDS and CanMEDS-FM Physician competency framework

When assessing learning needs and defining the professional gap in practice, we recommend performing it across multiple roles of the CanMEDS and CanMEDS-FM Physician Competency Framework. Traditionally, CPD has focused on imparting or updating clinical knowledge–enhancing the role of physicians as medical experts. Over time, we have learned that while this type of professional development is essential to good medical practice, so too are the other six domains. We strongly encourage considering more than one of the CanMEDS and/or CanMEDS-FM roles.

Role	General Role Description
Leader	Coordinating team care
Collaborator	Working effectively within a team
Professional	Practicing accountability to ethical practice and leadership
Expert	Obtaining medical expertise
Communicator	Conveying information effectively with patients and team
Health Advocate	Advocating for improved care
Scholar	Contributing to medical knowledge domain



https://www.cfpc.ca/canmedsfm/



https://www.cfpc.ca/canmedsfm/


es, Cr, CBC, +/–troponin, +/– BNP)
NT-proBNP
100–400 pg/ml
BNP 300–900 pg/ml
(age 50–75)
NP 300–1800 pg/ml
(age >75)
r use of AHF Score*
BNP > 400 pg/ml
NT-proBNP > 900 pg/ml
(age 50–75)
NT-proBNP > 1800 pg/ml
(age >75)
Likely to be AHF
Treat
Can J Cardiol 2017;33:1342-1433
INTERNAL MEDICINE

Phase 2:

Who do we need at the table to solve the problem?

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Phase 2: Who do we need at the table to solve the problem?

General overview of Phase 2: Who do we need at the table to solve the problem?

- Defining the target audience
- Selecting individuals for the planning committee who represents the target audience and who will be able to provide insight into the learner's unique context (i.e., challenges, focus, work culture, level of training etc.)
    - ◊ Expectations of the Planning Committee Members
    - ◊ Responsibilities of the Chair

Defining the target audience

The CHSE Program encourages inter-professional education. Our learners include family physicians, specialist physicians, general practitioners, nurses, nurse practitioners, pharmacists, midwives, social workers, laboratory technologists, researchers, physician assistants, physiotherapists, occupational therapists, paramedics, chiropractors, optometrists, health sciences, students and medical residents.

Identifying potential learners must be determined at the onset of the development and design of an educational offering. This will ensure the needs of all participants are addressed and more effective learning based on the principles of adult learning theory.

Scientific Planning Committee

When making decisions about the educational experience of the learner, one way this can be accomplished is to have those at the table who represent the target audience be a part of the design process. Forming a planning committee ensures that the learning needs of the target audience are identified, recognized and addressed. When required, the Planning Committee Members should reflect diversity and the principles of interprofessional education . Interprofessional education can be defined simply as occasions when two or more professions learn with, from and about each other to improve collaboration and quality of care.[1]

When a CPD activity has more than one profession represented in the target audience, we strongly encourage that the different professions are represented in the planning committee and among the presenters of the learning activity.

In the process of CPD development, the planning committee could be split into Scientific Planning Committee (SPC) and Logistical Planning Committee (LPC). This section discusses the SPC which is also referred to here as "the Planning Committee".

Logistical Planning Committee manages the logistics of delivering a CPD activity and has no input in the scientific content or curriculum design. If combined with the SPC, all the rules and requirements of the SPC applies to the combined planning committee.

REPRESENTATIVES FROM SPONSORS CANNOT BE MEMBERS of the SCIENTIFIC PLANNING COMMITTEE.

1 (The Center for Advancement of Interprofessional Education (CAIPE), 1997)

Diversity in the Planning Committee Membership

The Continuing Health Sciences Education Program, in alignment with the values of fairness, equity, and inclusion, encourages the Scientific Planning Committee to comprise compositional diversity and gender balance. The SPC should strive to encompass equal participation of women and other underrepresented groups, aiming to be representative of the target audience and to consider the community in its diversity. Evidence from both, the educational and medical fields, have shown the advantages of an equitable, diverse, accessible and inclusive environment, which range from learning enhancement[1] to better patient outcomes.[2]
When composing the SPC, members are encouraged to ask themselves: "Who is missing at this table?" This reflection increases awareness of the conscious and unconscious biases that could be preventing the inclusion of equally skilled professionals in the committee. The same consideration should be done when selecting speakers and moderators. These reflections should be translated into efforts to compose a committee that is representative of the broad diversity of our faculty, clinicians, researchers, learners and community.

Responsibilities of the Planning Committee

All Planning Committee members must have substantial involvement in developing the CPD activity including:

- Conducting a general needs assessment
- Developing learning objectives
- Identifying activity content
- Choosing learning methods
- Selecting faculty and speakers
- Developing evaluation tools

It is the responsibility of the Chair and Planning Committee Members to abide by all CHSE and FHS policies related to any CPD activity. They must ensure that these policies are followed in the planning, design, delivery and evaluation of all CPD activities. The policies include (but are not limited to) the following:

- CHSE Policy for Reviewing Approving CHSE Application for Accreditation
- CHSE Policy for Reviewing and Accrediting Single Sponsor Offerings
- CHSE Policy on Support of Continuing Health Sciences Education Activitiesfrom External Sources
- CHSE Policy on Conflict of Interest Management and Disclosure
- Policy Governing the Use of the McMaster University/Faculty of Health Sciences (FHS) Name and/or Logo in Continuing Health Sciences Education (CHSE) Activities
- McMaster University Copyright policy
- McMaster Senate policy on McMaster Certificates and Diplomas
- National Standard for Support of Accredited CPD Activities

All SPC members representing the various groups of the target audience should have substantial input into the activity development including content, speaker selection and format.

SPCs are required to maintain documentation of their proceedings outlining the design of the CPD activity and any decisions that have been implemented in the development of the activity . This could be fulfilled through meeting minutes. The CHSE Program require completing the EDNA tool for accreditation/certification application which could replace the SPC minutes.

1 Marie A. Chisholm (2004). Diversity: A Missing Link to Professionalism. American Journal of Pharmaceutical Education: Volume 68, Issue 5, Article 120. Available at https://doi.org/10.5688/aj6805120
2 Marcella Alsan & Owen Garrick & Grant C. Graziani, 2018. Does Diversity Matter for Health? Experimental Evidence from Oakland: NBER Working Papers 24787, National Bureau of Economic Research, Inc.

Chair's Affiliation to McMaster University:

The Chair of the Planning Committee must have an active appointment in the Faculty of Health Sciences, McMaster University for all CPD Activities that are accredited or certified by the CHSE CPD. If the Chair is not a faculty member, the activity should be co-developed with the CHSE Program. Alternately, an active faculty member at the academic rank of Associate or Full Professor in the Faculty of Health Sciences at McMaster University on the Planning Committee could accept the responsibility to ensure that all of the Chair's responsibilities are complied with and signs the Application for Program Accreditation.

Responsibilities of the Chair

- Ensure that the Scientific Planning Committee is representative of the target audience
- Accountable for the planning, developing and delivery of the CHSE activity
- Ensure that all the teaching content in the CPD activity has scientific validity, integrity, objectivity and is evidence-based
- Responsible for accurately completing and submitting the CHSE Application for Program Accreditation/Certification with all the required attachments and signatures
- Ensure that the Declaration of Conflict of Interest forms are obtained from planning committee members and sent to the CHSE Program with the Application for Program Accreditation/Certification
- Ensure that the Declaration of Conflict of Interest forms are obtained from all speakers, moderators, presenters, and authors and are reviewed by the planning committee prior to the activity
- Ensure that any potential Conflict of Interest is managed in accordance with the CHSE policy
- Ensure full compliance with the Freedom of Information and Protection of Privacy Act (FIPPA)
- Ensure that all sponsors/exhibitors sign Sponsor Agreement form prior to the activity
- Activities not managed by the CHSE Program must submit the following upon the completion of the activity:
    - ◊ Accurate final budget including revenues and expenditures
    - ◊ Electronic copy of the speakers/presenters and attendees list with full names, addresses, and professional titles or designation
    - ◊ A scanned copy of the attendees signatures that attended the activity
    - ◊ Copy of the participants evaluation summary

Phase 3:

Turning the problem into a solution: writing the learning objectives

McMaster University | HEALTH SCIENCES Continuing Health Sciences Education

Phase 3: Turning the problem into a solution: writing the learning objectives

General overview of Phase 3: Turning the problem into a solution: writing the learning objectives


Using the gap analysis to help define the target audience


How to write learning objectives


Collecting learning objectives from speakers

Using the gap analysis to help define the target audience

The target audience is the ideal learner. The ideal learner is based on the gap we have identified in the first paragraph of EDNA. By defining what the gap is, we also highlight who experiences the gap.

By using EDNA to define the problem experienced by those who experience the gap, we can then think about how these individuals can learn (i.e. what are the learning objectives) to "build a bridge" which helps close the gap. EDNA answers, what the gap is, what the problem is and who is impacted by the problem and thus, who can be part of the solution through education.

How to write learning objectives

The development of learning objectives is one of the most important steps of creating an educational learning activity. It is mandated that the learning objectives be linked to the learners needs. Objectives should be written from the perspective of the learner and describe what the participants will be able to do following the educational activity. The SPC should actively participate in developing learning objectives by reviewing the needs assessment and identifying the needs gap and ensure that the content and/or materials presented provide (where applicable) a balanced view across all relevant options related to the content area.

It should be noted that the Scientific Planning committee (SPC) and Speakers in addition to the learning objectives, must ensure that they develop session specific learning objectives for each presentation or workshop in the activity. You can use your EDNA to satisfy this requirement.

When writing learning objectives please consider:

- Begin with the end in mind. What would the ideal learner completing your activity be able to do, think or perform? Or what would you be disappointed that they did not learn?
- When writing your objectives start with: "At the end of this learning activity the participants will be able to …"
- Describe them as SMART objectives (Specific, Measurable, Achievable, Realistic and Time based).
    *Try to avoid words like: "understand", "appreciate" unless you have tools which have been shown to measure these accurately. Instead consider what domain of learning your objectives fall under (i.e. values, knowledge or skills). Within these domains, you can use a list of measurable action words that fall within Bloom's taxonomy.

To meet the standards, learning objectives need to be communicated clearly with speakers by including the objectives in the speakers' invitation letter AND it must be made available to participants prior to the activity and be incorporated into the evaluation strategy.

Constructive alignment check

Now that you have defined your learning objectives, here are some questions to make sure that you are applying constructive alignment:

- Are the learning objectives something that you can evaluate/measure?
- Will your learning activities give the learners a chance to practice what you want them to be able to do by the end of the activity? (i.e. are you asking them to be able to evaluate but are choosing an activity that only has them practice gaining knowledge?)

Session specific learning objectives

All accredited and certified CPD activities that include more than one session (that is more than lecture, workshop, simulation, etc.) are required to provide the potential learners with session specific learning objectives prior to the start of the activity and preferably at the time of registration. It is the responsibility of the SPC to ensure the session specific learning objectives are available to the learners. See EDNA for documentation during development and application process.

In the case where the SPC is collaborating with the speaker to develop the learning objectives, it is required to share the needs assessment with the speaker, to help them understand the rationale for the overarching learning objectives. This can be done by sharing the learning objectives defined in the needs assessment, in the speaker letter along with the EDNA which outlines literature and other sources supporting the gap analysis. This is to encourage constructive alignment by giving the speaker context to develop the session specific learning objectives.

When writing the overarching learning objectives, use broad and general action words and when working with the speaker to write the session specific objectives, work at can describing the more specific actions that fulfill the larger objectives. For example:

> *Overarching learning objectives (broad): i.e. At the end of this activity learners will gain knowledge about best practices for prescribing medication.*
>
> *Session specific (more specific): i.e. By the end of this presentation the learners will be familiar with three gold standard drugs and know the reasons why they are the gold standard.*


Michael G. DeGroote
SCHOOL OF MEDICINE

Phase 4:

How do we structure an educational activity to help solve the problem?

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Phase 4: How do we structure an educational activity to help solve the problem?

General overview of Phase 4: How do we structure an educational activity to help solve the problem?

Designing Learning Activities

- Choosing the format
- Choosing the content
- Choosing the speakers
- Choosing how to collect and give feedback
- Level of interactivity and engagement in the learning activities

Delivery and logistics to achieve the ethical standards

- Marketing and promotional material
- Budget and sponsorship
- Certificate of attendance

Designing learning activities

When designing learning activities, the SPC needs to ensure that the activity has scientific validity, integrity, objectivity and is evidence-based. It should be clearly presented and learner-centered and the activity and/or brochure should identify the opportunities for interactive learning. In this section, choosing the format before choosing the content in order to support constructive alignment, is one way to consider a more learner-centric design. This means that before we select the content, we consider how the format may influence the learner's ability to learn the content.

Choosing the format

Learning methods should aim to address the identified learning needs and objectives of the target audience. When choosing the learning format, the SPC needs to consider choosing delivery methods that best facilitates the identified need and incorporates the 25% interactivity requirement. It is advised to use multiple learning methods that align with the intended outcomes to encourage developing the CanMEDS/CanMEDS-FM roles in learners more holistically. The CHSE Program recommends that each activity include at least two complementary learning methods. For example, if you are hoping to focus on learning for "Collaborator" and "Medical Expert" roles, consider choosing a format that helps learners practice collaboration skills while and focusing on gaining a knowledge base of the desired topic.

Constructive alignment check

A prompt to help check whether there is constructive alignment of the learning activities with the learning objectives: You may be asking learners to implement a new technique into practice: what skills, attitudes or knowledge are required to do this effectively? Consider if the learning format will help facilitate an experience that learners can reflect on and recognize as a familiar process when they attempt to apply it in the intended setting.

Listed below are examples of educational delivery options:

Educational Delivery Methods	Description
Conference	A formal meeting of people with a shared interest using primarily lecture and interactive formats.
Rounds for healthcare professionals (grand rounds)	Regular departmental didactic teaching clinical experience, research and/or review of a topic.
Case-based presentation	Presentation of a patient history, physical findings, diagnosis and management.
Demonstration of techniques	Providing a visual example of a technique to learners.
Panel Discussions	A public exchange of ideas, giving experts and audience members the chance to discuss a particular topic.
Seminar Series	A series of meetings where a group of people discuss a problem or topic who are often asked to prepare material in advance.
Debates	A discussion on a particular topic in a meeting or conference, in which opposing arguments from two or more speakers are put forward.
Plenary sessions	A session of a conference which all members at the conference are to attend which may include broad range of content, from keynotes to panel discussions, and is not necessarily related to a specific style of presentation.
Breakout sessions	A workshop, discussion or presentation on a specific topic that serves as a portion of the agenda of a larger program, seminar, conference or convention.
Roundtables	A form of academic discussion where participants agree on a specific topic to discuss and debate. Each participant at the table is expected to participate.
Audit and Feedback	Summary of clinical performance of healthcare over a specified period of time aimed at providing information to health professionals to allow them to assess, reflect and, adjust their performance.
Online module	Online learning activities that are a smaller part of a larger program of learning.
Practice-based small group	Four to 10 physicians willing to reflect on their individual practices and to recognize gaps between their current practice and best practice. These groups have a trained group facilitator and use reflection tools.
Webinars	Seminars conducted online that integrate lecture and interactive formats.
Workshops	A meeting at which a group of people engage in intensive discussion and activity on a particular subject or project.
Simulation	The use of a device or series of devices to emulate anatomy, real-life clinical situations, and clinical procedures for the purposes of education or evaluation.
Coaching/Mentoring programs	A form of development in which an individual supports a learner in achieving a specific personal or professional goal by providing training and guidance.

Interactivity

Interactivity describes a time during the learning activity where learners are able to take what they have learned and demonstrate by showing a translation of their understanding through applying the content to the scenarios they encounter in practice.

By incorporating interactivity in addition to using various delivery methods, this has shown an increased positive impact on practice[1] Interaction builds a relationship between (and among) participants and the faculty, contributes to a supportive learning atmosphere and enables speakers to determine the degree to which participants understand the content.

Examples of ways to facilitate interactive sessions to meet this standard:

- question and answer periods
- case discussions
- audience-response system
- skills training
- case studies
- quizzes
- small-group discussion
- simulation-based activities
- immersive learning

Group learning

For all group learning activities, 25% of the total activity time must be allocated to interactivity. For example, for every 45 minutes of didactic teaching there should be 15 minutes dedicated to interactivity.

In order to meet the interactivity standard for online formats, whether they are synchronous or asynchronous, there must be a system that allows participants to track their attendance, interaction with the group, participate in discussion forums and provide evaluation feedback.

Assessment activities

Assessment activities exclude the requirement for the 25% interactivity. There are two types of assessment activities that include: knowledge assessment (i.e. online modules) and performance assessment (i.e. simulation, coaching).

For knowledge assessment:

MOC Section 3 Knowledge Assessment (Self-Assessment Program) credits and/or Mainpro+ 1 cr/hr (Assessment) credits are eligible. In order to meet the certification and accreditation standards, the following are additional elements that need to be satisfied:

- Correct and incorrect answers, plus explanations of why they are correct or incorrect
- The learner should receive a copy of their scored assessment
- Suggested further resources for more information

1 Davis D, O'Brien MA, Freemantle N, et al. (1999). Impact of formal continuing medical education: do conferences, workshops, rounds, and other traditional continuing education activities change physician behavior or health care outcomes? JAMA, 282:867-874.

For performance assessment:

MOC Section 3 Performance Assessment (Simulation) credits and/or Mainpro+ 1 cr/hr (Assessment credits) are eligible. In addition to being used for surgical skills, they can also be used for communication skills, coaching or mentoring.

For these types of activities, it is expected that:

- Learners will be under observation while practicing skills and receiving feedback immediately afterwards. A self-reflection tool could also be provided to allow participants to create an action plan for continued self-improvement.
- The program must include a plan for how instructors will provide individualized feedback for learners that is constructive and timely with respect to competencies, skills and attitudes
- Instructors provide a reflective tool that can be used onsite by learners to reflect and create an action plan to help improve their skills and how they will address barriers to change. The purpose of this tool is to help learners and does not need to be submitted to instructor.

Choosing the content

Now that you have chosen the format(s) to best to facilitate the learner's experience and help accomplish the learning objectives, choosing the content for the educational activity is the next step.

SPC must have mechanisms in place to support the development of content and/or materials that address the identified educational needs of the intended target audience. Specific interests of any sponsor must have no direct or indirect influence on the content and/or materials of an accredited CPD activity.

A process must be in place to ensure that those responsible for developing or delivering content (ie. speakers, moderators, facilitators, instructors, authors) are informed of the accreditation/certification standards. This can be communicated in the format of a Speaker Letter to ensure they consider the following when developing content:

- the identified needs of the target audience
- the need to ensure that the content and/or materials presented provide (where applicable) a balanced view across all relevant options related to the content area
- the intended learning objectives for the activity
- ensuring that the description of therapeutic options utilize generic names (or both generic and trade names) and not reflect exclusivity and branding
- delivering practice relevant content that is evidence based including evidence of Canadian practice when available
- identifying barriers to implementation of knowledge or skills if applicable

The SPC must have a process to collect from participants their assessment of the degree to which the accredited CPD activity:

- met the stated learning objectives
- achieved appropriate balance
- was perceived to be biased

The SPC must have a process in place to deal with instances where CPD activities are not in compliance with the Standard.

Choosing the speakers

This section will discuss the criteria we recommend you use when selecting speakers for your CPD activities:

***Selecting faculty who can present content that meets the learning objectives is important to maintain scientific integrity.**

Characteristics of a desirable speaker/presenter include:

- Expert on the activity topic
- Skilled and engaging presenter
- Credible
- Learner-centered
- Reliable and punctual
- Absence of conflict of interest

The CHSE Program encourages planning committees to select faculty from within the expert faculty at McMaster FHS for local programs.

Speakers/presenters must be assigned specific topics to teach and given specific learning objectives to meet when requested to speak.

All speakers/presenters must abide by CHSE policies related to ethical practices and McMaster copyright policy: http://milo.mcmaster.ca/faqs/copyright_mac and policy on Academic integrity: http://www.mcmaster.ca/policy/Students-AcademicStudies/AcademicIntegrity.pdf

In activities managed by the CHSE Program, the CHSE Coordinator provides support to the chair and planning committee in correspondence with potential speakers. It is highly recommended that once a potential faculty is identified, the initial request for participation is sent from the planning committee chair. Once request is accepted, further follow-up could be done by the CHSE Coordinator. Sponsors, for-profit or not-for-profit should have no input in the selection of speakers. It is allowed for a sponsor to provide a list of suggested speakers if requested by the planning committee, however, the final decision of the choice of the speaker should be made by the planning committee after deliberation to ensure independence and scientific integrity.

Compensation and Honoraria

The planning committee may consider offering a reasonable honoraria to speakers for their participation in a CPD activity. Expenses incurred for travel may be reimbursed. Small gifts are also acceptable. It is appropriate for guest faculty and visiting speakers to accept both reasonable honoraria and reimbursement for personal travel, lodging, and meal expenses. Faculty may not be paid directly by sponsors. Speakers and presenters should be paid through the planning committee chair or the CHSE Program. The planning committee and the CHSE Program should have control over all payments. Travel, lodging or other out of pocket expenses of spouses, partners or other family members of: the SPC, speakers, moderators, facilitators or authors cannot be paid for or subsidized by the CHSE Program, sponsor or any organization hired by a sponsor.

Managing conflict of interest

Conflict of interest (CoI) in CHSE activities may arise when an individual has a role in the design, planning or delivery of the activity and where there may be competing interests or loyalties that could impact the educational content in a real or perceived manner.

The CHSE Program does not view the financial or in-kind support from for-profit or not-for-profit organizations to an activity, nor the financial relationship with a program faculty as necessarily implying bias, decreasing the value of an activity, or diminishing the individual's participation. However, as apparent, potential or actual conflict of interest may arise in these situations, any support and/or relationship should be disclosed and appropriately managed and when needed mitigated in order to uphold transparency, objectivity and scientific validity.

Organizers and individual presenters of a CPD activity must disclose to participants any financial affiliations that may lead to potential, apparent, or actual conflict of interest. This transparency to learners helps to ensure scientific validity, objectivity and completeness of a CHSE activity.

Details of the CHSE Program procedures are outlined in the CHSE Policy on Conflict of Interest Management and Disclosure as well as the Element 3 of the National Standards of Support. It is mandatory to abide by this policy for all CPD activities. As part of the CHSE Application for Program Accreditation process, the Declaration of Conflict of Interest Form must be completed by anyone in a position to control or influence the content of the CPD activity. This includes planning committee, all speakers, presenters, moderators, authors and other faculty. It is required to disclose any relationship and/or affiliation with any for-profit and not-for-profit organization over the previous two years prior to the activity.

For accredited and certified oral or poster presentations, when there are multiple authors involved, the planning committee must collect completed CoI forms from all authors and not only the presenters. Summary of conflict of interests of all authors must be shared by the attendees of the activity.

Delivery and logistics to achieve the ethical standards

This section outlines the logistics to be considered after designing your CPD activity in order to move it into the delivery phase.

Maintaining financial records

The documentation of financial activities relating to revenues and expenditures for CHSE activities, including accounting and reporting processes, must adhere to the accounting principles and policies of the Faculty of Health Sciences at McMaster University.

A budget with all projected revenues and expenses must be prepared by the SPC and submitted to the CHSE Program as part of the Application for Program Accreditation/Certification. Revenue. The budget must include all sponsorship amounts, department funding, and registration fees. Expenses can vary, however, detailed general expenses such as venue, honoraria, catering, travel, etc. need to be included. If the budget has a surplus or deficit, please indicate how these will be handled. A final budget with actual revenues from all sources and expenses must be submitted to the CHSE Program within 60 days of completing the activity.

CHSE Coordinators and Administration will assist the SPC in completing a projected and actual budget and ensure compliance with all policies.

The SPC is responsible for the overall accountability of the finances when planning a CHSE activity and should aim to be financially self-sustaining.

Registration policies for all CHSE activities

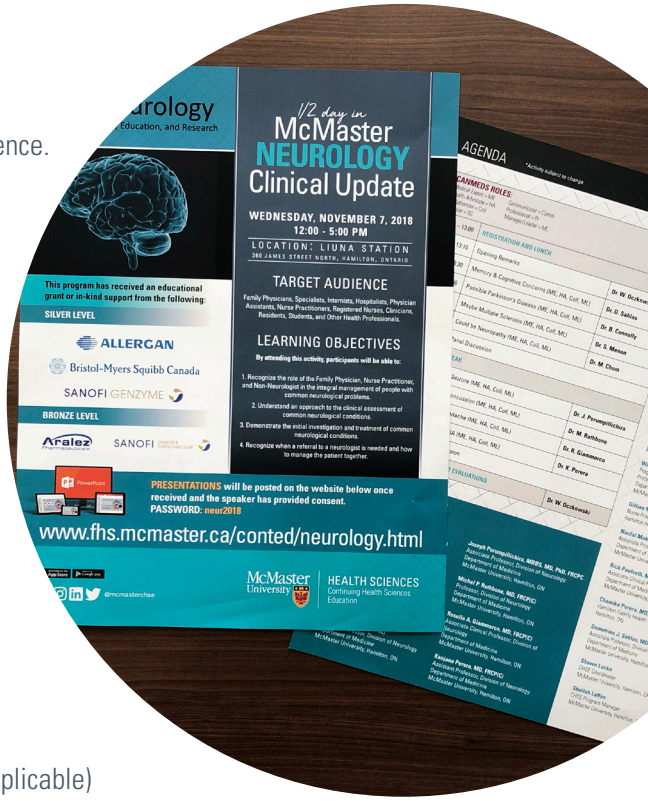
For all FHS activities, registration information for all CHSE activities should be processed by McMaster University staff and should be managed according to the University policies for confidentiality and privacy protection.

- Responsibility for registration and the collection of information pertaining to registrants should not be delegated to an external agency especially an industry sponsor or an identified communications company or consultant group.
- Personal information from registration should not be shared or provided to sponsors, industry representatives or external communication companies.
- Registration and attendance information must be retained for a 6 year period and must be in compliance with the Freedom of Information and Protection of Privacy Act FIPPA http://www.mcmaster.ca/univsec/fippa/fippa.cfm.

Cancellation and refund

It is recommended that planning committees establish policies with regard to registration cancellation and refunds. The policy should indicate the amount of the refund and the timelines refunds will be honored and processed. It is suggested that a specified amount as a percentage of the registration fee be identified as non-refundable and retained for administrative and processing purposes.

Marketing material



Various strategies could be used to disseminate information about upcoming CHSE activities; this should be linked to various known methods to reach the target audience. Using a multipronged approach including print, mail, electronic and social media is recommended. If you use electronic channels to promote or market your activity, ensure to take into consideration Canada's anti-spam legislation (CASL).

The CHSE Program provides marketing expertise and operation that is available to all activities developed or managed by the CHSE Program. This service is also available upon request for a cost-recovery fee for all FHS activities.

Materials for the marketing and promotion of CHSE activities, in print or electronic, MUST include the following:

- Title of activity (must be the exact title as approved at time of accreditation/certification
- Learning objectives
- Target audience
- Names of Speaker(s) and Moderator(s)
- Venue, location, date and time
- Start and end times - including times that meals/food will be served (if applicable)
- Accreditation/Certification statement (WHEN APPROVED)
- Identification of accredited/certified provider organization
- Approved accreditation/certification statement with assigned credit value
- Financial support statement (for further information go to Recognizing Financial and In-Kind Support)
- Registration fees
- Cancellation and refund policies

Marketing and promotional material MUST NOT contain any comments regarding the Accreditation/Certification status of an activity prior to it being reviewed and officially accredited/certified by the CHSE Program. The CHSE Program provides specific accreditation/certification statements once an activity has been reviewed and approved.

Use of McMaster University Imprimatur (Logo)

The use of McMaster University imprimatur is controlled by the FHS Policy Governing the Use of the McMaster University/ Faculty of Health Sciences (FHS) Name and/or Logo in Continuing Health Sciences Education (CHSE) activities Individual faculty members are not permitted to use the McMaster University Faculty of Health Science imprimatur in CHSE activities without authorization.

Certificates of attendance

The CHSE Program must provide a Certificate of Attendance to participants upon completion of an accredited/certified program. This document complies with the CFPC and RCPSC requirements. McMaster University Certificates of Attendance for CHSE Activities cannot be issued without receiving permission from the CHSE Program. Maintenance of attendee/registrant database information for auditing of accredited activities must be kept for seven years.

Upon completion of your activity you must submit to CHSE:

1. A complete list of ALL program attendees, regardless of profession. This list must be submitted using the Excel template, provided by the CHSE (no other template will be accepted). We will use this list to email your attendees their certificates. It is the CHSE policy that ALL attendees receive a certificate of attendance. A $15-$25 per registrant fee will be invoiced once certificates have been sent. This registration information will be retained by the Continuing Health Sciences Education Program for audit purposes (for a 7 year period) and in compliance with the Freedom of Information and Protection of Privacy Act (FIPPA).
2. Signatures. A scanned copy of your participants' signatures, collected upon arrival at the event.
3. Final Budget. A final budget must be submitted to CHSE upon activity completion. Where applicable, CHSE will refer to your budget to calculate the 3% Tithe. Certificates should meet the requirements of McMaster University Policy on Certificates and Diplomas.

Funding from external sources

All funds from for-profit and not-for-profit organizations must be in the form of an unrestricted educational grant. For the FHS activities, grants should be payable to McMaster University. Funding should have 'no strings' attached and be provided without stipulations linked to content or delivery.

For activities managed by the CHSE Program, it is recommended that the initial request for funding for a specific activity be initiated by the SPC. The CHSE Coordinator provides support with correspondence and follow-up.

For all activities that receive funding from for-profit organizations (i.e. pharmaceutical companies, medical supply companies, and other businesses) and not-for-profit organizations (i.e government, government agencies, and other professional or education organizations). The SPC must ensure adherence to the recommendations and guidelines set forth by:

- National Standard for support of Accredited CPD Activities
- CMA Policy Summary on Physicians and Pharmaceutical Industry 2007 Update
- Recommendations for Managing Conflict of Interest for Faculty and Students in Educational Programs in the Faculty of Health Sciences – McMaster University

And the following related CHSE Policies:

- CHSE Policy on Conflict of Interest Management and Disclosure
- CHSE Policy for Review, Accreditation and Certification of Continuing Health Sciences Education (CHSE) offering with single industry funding (Sponsorship or co-development)
- CHSE Policy for Non-Physician Co-developing with CHSE Program

These policies apply to all Continuing Health Sciences Education activities in the FHS. This includes activities that are developed and/or accredited/certified by the CHSE Program as well as activities that are not accredited/certified or reviewed by the CHSE Program.

It is mandatory that a CHSE Sponsorship Agreement must be signed between CHSE (or the Scientific Planning Committee) and the sponsoring organization that outlines the terms, conditions and purpose of sponsorship.

Recognizing financial and in-kind support

The SPC must recognize and disclose to participants all financial and in-kind support verbally, in transcript or as a slide show. Any acknowledgment must be separate from the educational content and material. Sponsor logos on advertising and promotional material must be appropriately sized and positioned. The linking or alignment of a sponsor's name or logo to a specific educational activity or session is prohibited. When acknowledging sponsorship, the following statement must be used:

"This program has received an educational grant or in-kind support from [names of funding organizations]"

Product-specific advertising, promotional materials or branding strategies cannot be included or appear in locations where accredited CPD activities occur. The location of promotional displays must be determined by the SPC with no influence from for-profit or not-for-profit sponsors. Displays should be clearly and completely separate from the accredited educational activity area. Sponsors are not permitted to provide product or product-specific promotional material in the sponsor display areas or the educational areas. Any incentive provided to the participants must be approved by CHSE or Chair of the SPC.

In-kind and financial support must be disclosed at the beginning of the activity both verbally and visually if applicable on a slide and in printed material. All speakers, faculty and planning committee must adhere to the CHSE Policy of Conflict of Interest Management and Disclosure.

Unaccredited CPD activities cannot be scheduled to take place at times and locations that interfere or compete with accredited CPD Activities. Unaccredited CPD activities cannot be listed or included within activity agendas, programs or calendars of events this includes preliminary and final.

The McMaster CHSE Program discourages developing educational programs with single source for-profit or not-for-profit sponsors. Under exceptional situations, and with prior consultation with the Assistant Dean, CHSE and/or the CHSE Faculty Lead for Continuing Professional Development Accreditation, the CHSE Program would consider co-developing or accrediting programs with other physician organizations based on the educational value. For further information, please refer to the CHSE Policy for Review, Accreditation and Certification of Continuing Health Sciences Education (CHSE) Offerings with Single Industry Funding (Sponsorship or Co-development).

Budget reconciliation

A final budget with actual revenues from all sources and expenses must be sent to CHSE Program within 60 days of completing the activity. This applies to all programs that are accredited by the CHSE Program. This final budget must include all sponsorship received and actual registration revenues.

For activities managed and accredited/certified by the CHSE program, this final budget will be prepared by the CHSE Coordinator. Surplus funds generated from an activity will be forwarded to the Department Academic Chair and be used to support continuing health sciences education activities in the department/division/program. Alternatively, funds could be earmarked for a future CHSE activity with approval of the planning committee chair and/or the Assistant Dean.

Phase 5:

How do we know we are solving the problem?

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Phase 5: How do we know we are solving the problem?

General overview of Phase 5: How do we know we are solving the problem?

- Choosing feedback methods
- Developing Evaluation tools
- Supporting commitment to change

Choosing feedback methods

Assessment of the learner can be through formative and summative assessment methods. These forms of assessment are for higher level of credits and are not necessary at lower levels of credits but are helpful for learners to know if they are on track and how they performed at the end of the learning activity.

Having a formative (i.e. assessment for learner awareness of ongoing progress of their learning) and summative assessment (i.e. assessment of learning progress) methods are helpful for creating a learner-centric educational activity and are important for constructive alignment. To ensure that there is constructive alignment between your learning objectives, learning activities and assessment, we suggest that you provide ways for learners to be assess in their progress of achieving the learning outcomes during the activity to provide a formative assessment (i.e. assessment to help the learner gage where they are in the learning progress) and summative assessment (i.e. to let the learner know if they achieved the learning outcomes).

While it is important to assess the learner for the learner's benefit, it can also provide information for how well the curriculum was designed to help learners achieve the intended outcomes. For the purposes of accreditation and certification the CHSE requires that you collect feedback to serve the purpose of program evolution and not necessarily for the learner.
In the next phase, we provide an overview of how to collect and design evolution tools to meet accreditation and certification standards of program evaluation.

Developing activity evaluation tools

Developing evaluation tools should be considered early in the planning and design of a CHSE accredited/certified activity. All of the activities that we manage, accredit or certify must allow participants the opportunity to evaluate the individual sessions and overall program in a meaningful and confidential manner. We request participants to complete an evaluation and to provide feedback at the end of an activity. Please review the standard and quality criteria for specifics regarding evaluation at the individual level.

The evaluation processes are to be modeled after Dixon's four[1] levels of evaluation to help decide on what level is appropriate based on the learning objectives:

- **Level 1** – Perception and opinion data;
- **Level 2** – Knowledge, skills, and attitudes (competency);
- **Level 3** – Performance data (Impact on behaviour); and
- **Level 4** – Outcome data (impact of patient care and health status).

All evaluations should have a minimum requirement of Level 1 (Perception and opinion data). The CHSE Program strongly encourages the development of evaluation tools beyond level 1, with a focus on knowledge translation and patient and population outcome.

1 2. Dixon, N. M. (1996). New routes to evaluation. Training and Development, 50(5), 82-86.

Evaluation and feedback forms

Evaluation and feedback forms must outline the learning objectives so when participants are asked if stated learning objectives for the activity were met they are able to evaluate whether there was connection between the learning objectives and the activities. For learners to see this connection is evidence of successful constructive alignment.

It is also required that the feedback forms specifically identify the perception of industry influence or bias within the educational materials. Evaluation forms should be based on the 7-point Likert scale, which provides more options and effectively differentiates truly outstanding offerings. This also complies with the Faculty teaching effectiveness evaluations.

Accredited and certified group learning activities must provide participants with an opportunity to evaluate each individual session and overall CPD activity. The evaluation and feedback forms must:

- Allow participants to identify whether the individual session and overall CPD activity learning objectives were met
- Ask participants to identify whether the content was balanced and free of commercial bias
- Provide opportunities for participants to identify the potential impact of the CPD activity for their practice

CHSE Evaluation and Feedback Form: This standardized form should be used for all CHSE managed activities. It meets all the above requirements and it could be used for all CHSE accredited and certified activities if desired by the planning committee.

Supporting commitment to change

Participants in all CHSE activities should be asked on the evaluation form to provide one to three changes that they plan to implement in their practice as a result of the CHSE activity. This knowledge translation tool, used to bridge the knowledge to action gap, is based on work by Dr. Jocelyn Lockyer. (Lockyer, et. al.[1]), found that a commitment to change predicts actual change in practice. The CHSE Evaluation and Feedback Form contains the following open-ended item, which asks participants to document commitment to change: "This course will cause me to make these changes in my practice…". Long-term evaluation is needed to assess the extent to which the learning outcomes have been met.

Physicians are also encouraged to complete a personal learning project (MOC) or "Linking Learning to Practice" project (Mainpro+) to encourage reflecting learning as knowledge translation.

Measuring effectiveness

For all CHSE managed activities, we perform a Post-Program Follow-Up Evaluation. Twelve weeks after the completion of the educational activity, we disseminate an evaluation survey to participants via email and the collected responses are analyzed. The purpose of this evaluation is to assess the knowledge translation of concepts learned by participating in our activities. This activity evaluation approach also explores changes in learners' attitude and practice. We also examine barriers to implementation of the desired change.

We strongly encourage planning committees to consider higher levels of evaluation that is not self-reported by learners, to assess change knowledge, attitude, skills, and performance and to assess the degree to which the intended outcomes were achieved. Such evaluation strategies could involve observation of performance in simulation activities, pre- and post- activity knowledge assessment and measuring change in attitude and skills.

We recognize the complexity and challenges in evaluating the impact of CPD offerings on patient and healthcare outcomes. We believe that demonstrating such impact is of significant academic and practice implications. To promote and support higher level of evaluations for CPD activities we designated CPD evaluation and outcome measures as CHSE research priorities for CHSE Research and Innovation Fund (RIF) Grants funding. Please contact the CHSE Program or visit our website for details.

1 Lockyer, J, Fidler, H, Hogan, D, Pereles, L, Wright, B, Lebus, C, Gerritsen, C. Assessing Outcomes Through Congruence of Course Objectives in Reflective Work. JCHEP 2005; 25: 76-86.

Feedback to speakers

To support continuous improvement and CPD related faculty development, we provide speakers with an individual evaluation summary of their presentation. Speakers can use this feedback for their personal development and to help implement any changes, if identified, for future presentations.

The CHSE Program staff enters records of faculty teaching and contributions to CHSE activities in STAR-CV (Faculty Activity Reporter) for programs that are managed by the CHSE Program. Reporting of faculty contributions for involvement in CHSE activities not managed through the CHSE Program is the responsibility of the chair of the planning committee.

Phase 6:

How do we improve the activity?

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Moving forward

A successful CHSE activity is continually developing. This is mostly true for reoccurring activities. It is also true for non- reoccurring activities as the learning activity can be a trigger to recognize new learning needs. Planning committees are encouraged to implement changes in their future activities based on lessons learned from a current activity.

A successful CHSE activity must respond to:

- Evaluation and feedback
- New and emerging knowledge and evidence
- Changes in target audience learning needs
- Changes in societal needs
- Changes in resources

Please contact McMaster University, Continuing Health Sciences Education for further details regarding implementing evaluation feedback for activity improvement and regarding your interest in reapplying for next year.


Oral Opioid Equivalence
Morphine 10 mg 30 mg 90 mg
Codeine 60 mg 180 mg 540 mg
Oxycodone 7 mg 35 mg 55 mg
Hydromorphone 2 mg 10 mg 18 mg
Fentanyl (transdermal) 25mcg/hr
When switching between opioids it is recommended to use only 50% (if on high dose) or 75% (if on low dose) of the equivalent dose when initiating the new opioid.
INTERNAL MEDICINE

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