A practical model of faculty development in medical education: 
Make it accessible, versatile, and easy to use!

Un modèle pratique de développement du corps enseignant en médecine : le rendre accessible, polyvalent et facile à utiliser !

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Article abstract

Implication Statement
Faculty development programs should provide transformative resources and prioritize the unique needs of faculty. However, if faculty members face difficulty in accessing these programs, the potential impact of the valuable resources may be limited. To alleviate this issue, we designed a faculty development program that is available to anyone at any time and in any configuration. By allowing faculty to choose from a diverse range of medical education topics, they may promptly apply crucial concepts in their teaching and education leadership roles. This program allows faculty members to engage in personalized professional development, enhance their teaching practices, and foster professional growth. Also, program coordinators and administrators can seamlessly integrate our resources into their existing faculty development program. These resources can serve as self-study materials, supplements for existing programs, or a stand-alone curriculum with high accessibility, versatility, and ease of use.
A practical model of faculty development in medical education: make it accessible, versatile, and easy to use!
Un modèle pratique de développement du corps enseignant en médecine : le rendre accessible, polyvalent et facile à utiliser !

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Introduction
Faculty development is crucial for fostering academic excellence and innovation in solving the existing challenges encountered by medical student learners. Well-designed faculty development programs empower faculty members to effectively fulfill their educational roles and enhance the overall quality of teaching and learning in various settings. However, traditional settings often pose challenges for faculty members in accessing professional development resources. Some faculty development programs have been characterized by limited accessibility, prescribed sequencing, and passive training activities. Moreover, multiple authors have highlighted the value of practicality in faculty development programs. Recognizing the significance of practicality in faculty development, we created a set of faculty development modules called the Concepts as Online Resources for Accelerated Learning (CORAL) Collection. The CORAL Collection embraces practicality as a critical characteristic, ensuring its seamless integration into existing programs.
Description of the Innovation

The CORAL Collection is a faculty development program that focuses on accessibility, versatility, and ease of use. It utilizes the Fundamental Teaching Activities (FTA) framework, which outlines the target domains, key tasks, and learning activities to guide faculty development. The program emphasizes a learner-centered approach through the principles of self-determination and active learning. The CORAL Collection includes 15 modules that cover foundational topics in medical education. A team of authors, reviewers, IT specialists, and instructional designers have collaboratively created and maintained these modules. The program has been available since December 2019 through a web-based interactive platform, freely accessible at https://teaching.usask.ca/articles/coral-collection.php. Faculty members at any level are encouraged to select topics based on their interests and needs, fostering a sense of ownership over their professional development. Each module incorporates practical application and self-reflection activities, allowing faculty to apply the concepts directly to their teaching practices. Once the faculty completes the orientation module, ‘The Central Purpose of Teaching,’ they can select their learning modules either independently in any sequence, in groups or clusters of modules, or to do them all in any order. Additionally, the program provides concept maps that assist faculty to delve deeper into topics of interest. (See Fig. 1).

Table 1. User activity analysis by each cell

<table>
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<td>30,295</td>
<td>61,244</td>
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<td>12,502</td>
<td>3,843</td>
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<td>Surface and deep learning</td>
<td>1,076</td>
<td>744</td>
<td>918</td>
<td>2,738</td>
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<tr>
<td>Logic models purpose and parts</td>
<td>883</td>
<td>1,027</td>
<td>995</td>
<td>2,905</td>
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<td>Methods of assessment</td>
<td>804</td>
<td>1,577</td>
<td>3,024</td>
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<td>Writing learning outcomes</td>
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<td>Learning environment and climate</td>
<td>717</td>
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<td>Adoption implementation institutionalization</td>
<td>425</td>
<td>747</td>
<td>590</td>
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<td>Small group learning</td>
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<td>506</td>
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<td>Prior learning and cognitive load</td>
<td>302</td>
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<td>93</td>
<td>693</td>
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<tr>
<td>Logic models creating and using</td>
<td>187</td>
<td>273</td>
<td>233</td>
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<tr>
<td>Workplace based assessment</td>
<td>178</td>
<td>277</td>
<td>493</td>
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<td>Interprofessional problem-based learning</td>
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<td>40</td>
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<td>230</td>
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<td>Resistance to change</td>
<td>62</td>
<td>49</td>
<td>85</td>
<td>196</td>
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<tr>
<td>Effective feedback</td>
<td>51</td>
<td>56</td>
<td>56</td>
<td>352</td>
</tr>
</tbody>
</table>

This study was considered exempt from review by the Augusta University IRB.

Outcomes

To evaluate the effectiveness of the CORAL Collection, we analyzed data from Google Analytics and anecdotal data over the past three years. The results from the Google Analytics web activities indicated a notable increase in the unique views over the past three years with a total view of 104,332 and an annual average view of 34,703 (M = 6,940, MIN = 196, MAX = 61,244). The average learning time per module was more than five minutes with a range from 3.48 to 7.37 minutes (M = 5.24, SD = 1.15) (see Table 1).
Among the topics, ‘Bloom’s Taxonomy: The Cognitive Domain’ received the highest number of views, followed by ‘The Central Purpose of Teaching’ and ‘Methods of Assessment.’ On average, module visitors spent the most time with the topics, ‘Small Group Learning,’ ‘Learning Environment and Climate,’ and ‘Adoption, Implementation, Institutionalization.’ Several topics have consistently increased views over time, including ‘Bloom’s Taxonomy: The Cognitive Domain,’ ‘Methods of Assessment,’ ‘Workplace-based Assessment,’ and ‘Effective Feedback.’ In addition, the anecdotal feedback from faculty learners indicated that the web-based faculty development resources were concise, comprehensible, and interactive.

**Implications and suggestions for the next steps**

To support faculty advancement and address emerging challenges in medical education, it is vital that faculty development programs are accessible, versatile, and user-friendly. While there are various approaches to faculty development, our program as a practical model offers the distinct advantages of being low-cost, versatile, and flexible as a primary and supplementary resource. The CORAL Collection can be incorporated as part of, or the whole of, a faculty development program or provided to faculty for their self-directed learning. While the CORAL Collection is available to other institutions, it is important to consider the necessary infrastructure required to implement it in their settings. For example, institutions should have access to a suitable web platform to host and deliver the faculty development modules. The platform should also support interactive features that can increase engagement. To ensure the success of the faculty development program, it is crucial to involve different groups of experts, including subject matter experts, instructional designers, IT specialists, and marketing professionals. The next phase of the CORAL Collection is to develop new emerging or in-depth topics while continuously refining existing content. Furthermore, incorporating various learning modalities and aids can enrich the faculty development experience.

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**References**


