Project 3

Field Manual for Blended Learning

Douglas Koch, Linda Lampert, Carol Munn, Susan Van Alstyne

New Jersey City University

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Introduction

Technological advancements have come a long way in the educational system. From textbooks to e-books, interactive websites to webinars, wikis to blogs, and online learning to e-learning. Each resource can create a different educational environment to support future-ready students. Ultimately, the goal is to infuse these resources into the classroom and the curriculum seamlessly. One method that helps to achieve this is blended learning. Horn & Staker (2015) define blended learning as "any formal education program in which a student learns at least in part through online learning, with some elements of student control over time, place, path, and/or pace" (p. 34).

Misusing the term blended learning is common. It is important to know that it does not merely refer to any instruction that incorporates an online component. Blended learning combines both online and in-person experiences for the learner. Both parts have assignments or activities that align with the course. To qualify as blended learning, the student has control over some of the elements of the online component of the course, such as the time and pace (Horn & Staker, 2015). The purpose of this field manual is to serve as a guide to ensure the learning and the course design indeed reflect one of the blended learning models.

Blended Learning Models

Blended learning models can vary from one circumstance to the next. The most common blended learning environments are categorized as Rotation, Flex, A La Carte, or Enriched Virtual model (Horn & Staker, 2015). A brief description of each of these is below.

Rotation. This model involves students rotating from one modality to another. Online learning must be present in one of them. This model has four sub-models including station rotation, lab rotation, flipped classroom, and individual rotation, therefore, how it looks can vary.

Flex. This model involves a significant amount of online learning that takes place in a building, such as a school.

A La Carte. This model involves offering online courses in addition to learning that takes place in a building, such as a school. There is no face to face component for the online course.

Enriched Virtual. This model involves learning that is face-to-face with the flexibility to continue learning with an online modality.

None of these models are perceived to be better than the other. There are many factors involved in the decision of which model to use. The model that a district should implement should address their goals, objectives, setting, budget, and their students. There are six essential questions to consider that can help you decide: "(1) What problems are you trying to solve? (2) What type of team do you need to solve the problem? (3) What do you want students to control? (4) What do you want the primary role of the teacher to be? (5) What physical space can you use? (6) How many internet-connected devices are available?" (Horn & Staker, 2015, p.220).

The models do not need to be independent of each other. Blended learning environments can evolve as schools become more competent with this approach. If desired, it is okay to use more than one model at the same time (Horn & Staker, 2015). It is important to use whatever model or models that will help the students succeed.

For our Clinical Training learning environment, the enriched virtual model best suits our needs. Using this model will allow students to get hands-on experience and support in the clinic and continue their learning through the online modules that they will complete at home. The following guide will facilitate implementation of a blended learning program at your institution.

What problems are you trying to solve?

Clinical rotations do not provide a consistent learning experience due to the variety of settings ranging from rural county clinics to inner-city urban hospitals. With students spending a limited amount of time at one site, typically four weeks, their total clinical experience, exposure to patient populations and clinical presentations can vary wildly. With an increased emphasis on core competencies across clinical professions by the end of undergraduate professional education by licensing bodies, it is important to expose students to a core base of content to prepare them for their licensing exam, as well as life post-graduation.

What type of team do you need to solve the problem?

There are several key players one must consider when putting together a blended learning program for a clinical experience. These include program leadership, clinical preceptor, members of the educational technology department or equivalent. Additional members may include those involved with network security, registrar's office, human resources, training departments, and information technology support.

Roles of the program leadership include identifying core content to be delivered online; coordinating with clinical sites to ensure buy-in on the process; managing expectations for students, members of the clinical site, as well as those at the home institution. Program leadership should ensure that the preceptors understand the blended learning model which

includes the underlying pedagogy, the use of technology, and the role of the students in the process. Preceptors have a responsibility to ensure the students' onsite schedule aligns with appropriate clinical experiences and allows for at home self-paced instruction. They also have a role in assessing the students at the end of the rotation based on their performance. The educational technology team is there to assist in the development of the experience from a systems point of view. It should address issues related to the integration of the content into the LMS, coordinating access for preceptors and other clinical staff. By doing this, it addresses issues related to training at the various clinical sites as well as allows for troubleshooting issues of system compatibilities to ensure matters of privacy and security.

What do you want students to control?

In this model, students can control the time and place at which they learn the core content.

What do you want the primary role of the teacher to be?

The clinical years of programs run like an apprenticeship where new members or learners learn content and gain hands-on practical experience under the supervision of a licensed member of the professional community. This is similar to the LPP model discussed by Lave and Wenger (1991). As experienced members of the community, they have a responsibility to see that the students have time to engage with content as well as appropriate experience levels of clinical exposure. At the same time, they have a crucial role in bridging the gap between content knowledge and practice. At the end of the clinical rotation, they provide summative feedback to both the students and the clinical coordinators as part of a formal learning environment.

What physical space can you use?

Limited to a clinical setting as well as the student's residence. Students are already required to have laptops and the ability to connect to the LMS.

How many internet-connected devices are available?

It is crucial for the clinical coordinator at the institution to make sure that there devices at each clinical rotation location so that students can access content. Otherwise, students are required to have their own devices and ability to access the LMS.

Additional Considerations

Online content can be created through the curation of resources readily available. Some of these include learning objects, such as journal articles and texts, provided by the institutional library, instructional videos created by faculty. In addition, there are question banks that institutional libraries license. The core content can be created and delivered through the LMS to the students to be accessed on non-clinic days.

Formative assessments are implemented through question banks and used at the discretion of the student. The preceptor provides the summative assessment for evaluating the student that has been through the rotation. An example of an end of rotation evaluation is in the Appendix.

Conclusion

This scenario of the enriched virtual, blended learning model provides a unique solution to a problem common to clinical learning experiences as well as a shift in the learning paradigm. The blended learning experience ideally uses the emerging and changing technologies to encourage active learning and participation in face-to-face and online frameworks.

References

Horn, M. B., & Staker, H. (2015). *Blended: Using disruptive innovation to improve schools*. San Francisco, CA: John Wiley & Sons.

Lave, J., & Wenger, E.(1991). *Situated learning: Legitimate peripheral participation.* Cambridge, MA: Cambridge University Press.

Appendix

(Sample) Clinical Rotation Evaluation

Preceptor Name: _____

Institution: _____

Student being evaluated: _____

Describe your experience with the student:

- Superficial contact with student. Minimal ability to assess this student.
- Enough time to generally evaluate.
- Sufficient amount of time. Feel very comfortable about my ability to assess this student.

Assessment of student's performance:

1. Patient Care: Ability to establish humanistic rapport with patient. Ability to gather essential and accurate information about patients and their conditions through history-taking and physical examination
   - Unable to assess
   - Below expected
   - Expected
   - Above expected

2. Knowledge for Practice: Able to demonstrate appropriate knowledge base and understanding of diseases and pathophysiology. Able to apply established and emerging principles of clinical sciences to diagnostic and therapeutic decision making, clinical problem solving, and other aspects of evidence-based health care. Apply principles of epidemiological sciences to the identification of health problems, risk factors, treatment strategies, resources, and disease prevention/health promotion efforts for patients. Able to apply knowledge in clinical situations and synthesize data to construct a cohesive differential diagnosis. Able to formulate a prioritized treatment plan.
   - Unable to assess
   - Below expected
   - Expected
   - Above expected

3. Practice-based Learning and Improvement: Able to identify own strengths and areas for improvement. Able to accept feedback, and incorporate into the daily practice of medicine to improve own practice.
   - Unable to assess
   - Below expected
   - Expected
   - Above expected

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4. Interpersonal and Communication Skills. Able to communicate with team about clinical, administrative, and personal tasks. Ability to report data in both oral and written form in clear, succinct, and organized manner. Able to maintain a clear, legible, and appropriate medical record. Able to engage patients in education.
   - Unable to assess
   - Below expected
   - Expected
   - Above expected

5. Professionalism. Able to demonstrate compassion, integrity, and respect for others. Demonstrates sensitivity and responsiveness to a diverse patient populations. Demonstrates integrity and commitment to ethical principles. Respects patient confidentiality.
   - Unable to assess
   - Below expected
   - Expected
   - Above expected

6. Systems-based practice. Able to effectively utilize available resources. Advocates for patient safety. Aware of concepts of cost, quality, and patient safety.
   - Unable to assess
   - Below expected
   - Expected
   - Above expected

7. Interprofessional collaboration. Works with other health professionals and staff to establish and maintain a climate of mutual respect. Personal and professional development. Demonstrates personal accountability. Manages competing needs of personal and professional responsibility. Demonstrates trustworthiness to one's colleagues regarding the care of patients
   - Unable to assess
   - Below expected
   - Expected
   - Above expected

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Summative Feedback: please provide some comments about the student's performance with respect to their medical knowledge, clinical care skills, communication abilities, and overall professionalism. Provide specific observation of what the student did well and what the student could improve upon. Please avoid generic terms and phrases such as "outstanding student", "great team player", or "should read more."

Constructive Feedback: How could the student improve in order to become an excellent physician? While the purpose of these comments is to provide concrete feedback to the student, these comments may be included in the MSPE if they represent a pattern of behavior across multiple clerkships. (REQUIRED)

Final Grade

- Fail
- Marginal
- Good –
- Good
- Good +
- Excellent
- Honors

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