CBVE Newsletter 11 – April 2025

Welcome back to another edition of the AAVMC CBVE Newsletter! The focus of this issue is on **assessment for CBVE**. Assessment is a critical educational component and drives student learning. In the CBVE Model, the focus is on evaluating outcomes of student learning and determining if competence has been achieved. To this end, we have selected three important principles to incorporate when developing assessment programs within a CBVE-focused DVM program.
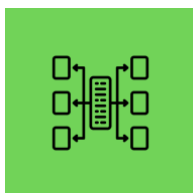
 Principles

Principle #1

Assessment over time = Longitudinal Assessment:

- Assessment of learners over time is typically measured using the same instrument at multiple time points across the program.
  - Many programs demonstrate longitudinal assessment using an ITER (in-training evaluation report) to assess student performance and growth across clinical training.
  - The progress test is another example of an assessment tool administered at multiple time points in the curriculum (i.e., the same test is administered repeatedly) to demonstrate learner achievement or need for additional support/remediation to meet the benchmarks of their peers at the same stage of training.
  - Milestones can be useful in evaluation of learner progress over time in both the pre-clinical and clinical curriculum.

Principle #2

Multiple tools/Multiple times = Programmatic Assessment:

- According to Google AI Overview, programmatic assessment is "A systematic approach to gathering and analyzing assessment data to inform learning and decision-making."
- The term "programmatic assessment" is a core component of competency-based education programs (Van Melle et al, Acad Med 2019;94:1002-9) – and can be roughly summarized as the process of collecting data from multiple types of assessments across multiple time points across the program to assess learning.
- This collection of data from an individual learner could be used by a Competency Committee to make decisions on learner progression or need for additional educational opportunities to ensure a learner is progressing as expected. The decision-making for progression is based upon the collection of data, not on an individual assessment.
- To help a veterinary college or school develop a program of assessments, the CBVE 2.0 Model has a toolkit that outlines the many types of assessments available and those that are best suited for assessment of a specific competency. Please find the CBVE Toolkit as a component of the CBVE 2.0 Model at https://cbve.org/assessment
- It is necessary to ensure learners are progressing along the learning continuum and to identify those individuals in need of educational support or remediation.

Principle #3

Learner-centered Assessment = Coaching and Feedback:

- One of the central tenets of competency-based education is the emphasis on learner-centeredness and the provision of ongoing feedback to help progression towards competence.
- Coaching is an important approach that facilitates and reinforces learning through feedback.
- Coaching focuses on supporting learner's professional and personal development and growth, thus helping them to reach their potential (Cornell and Salisbury, "Coaching and Feedback: Creating the Master Adaptive Learner." *In* Veterinary Medical Education: A Practical Guide, 2nd edition, 2024).
- Coaching is supported by delivery of feedback, which is used as both an educational tool to provide information to the learner in order to improve performance, as well as a social interaction between the learner and the supervisor in the context of a trusting and respectful relationship.
- One aim of coaching is to empower learners to reflect upon how how they "think and do", with the end goal of the learner being able to self-monitor, self-instruct, self-reinforce and ultimately be able to apply their knowledge and skills to novel problems.
- The educator's responsibilities in coaching and feedback include assisting the learner to develop clear goals and objectives, providing feedback related to learner goals at different levels conforming to the learner's needs, and conveying specific suggestions for how to improve future performance.
- A number of resources are available regarding coaching and feedback including the "Just in Time" CBVE Educational Videos

Assessment in the Pre-clinical Program – What about those hard to assess Competencies?

Assessments during the pre-clinical programs are often dominated by exams involving Multiple Choice Questions (MCQ-s also called Single Best Answer).

While these assessment tools may be a valid and feasible assessment tool to use in many instances, they are not suitable for some of the competencies which are included in the CBVE Collaboration (Domain 6) and Professionalism/Professional Identity Formation (Domain 7).

Below we have outlined some quick tips and examples that may help with these assessments.

Collaboration (CBVE Domain 6):

- Group work is a common student learning activity in pre-clinical curricula and is often used for assessing the CBVE Competencies in the CBVE Collaboration Domain of the CBVE Competency Framework.
- When evaluating students for their ability to work as part of an effective team, it is important to remember that you should not equate high scores for a group activity with the ability of the individual within the group to have acquired team-building/working skills.
- Rather, it is important to evaluate the collaboration competencies of the individual learner directly alongside the groupwork task output.
- **Resources** to help you with evaluating teamwork and collaboration include:
  - **Team Communication Training in Surgery** (Hanley et al, 2019 *JVME* 46(1):45-55),
    - This study evaluates a Teamwork Rubric for assessing goal setting, task assignment and timeline development for sophomore students undergoing surgery training.
    - This rubric could be adapted for other competencies in the CBVE Collaboration Domain.
  - **CATME (Comprehensive Assessment of Team Member Effectiveness)**
    - CATME is an online tool that uses a number of features to train and evaluate students in teams including:
      - CATME Team-Maker to assign students to better functioning teams;
      - CATME Teamwork Behavior Training to train students to work in teams;
      - Identifies teams having teamwork difficulties and
      - CATME Peer Evaluations and CATME Rater Practice Tool to train students to rate teamwork behaviors.
    - Combined together, these features can be used to evaluate teamwork over time in various pre-clinical scanarios.

Professionalism and Professional Identity Formation (CBVE Domain 7):

- One challenge to incorporation of reflections in the assessment strategy is that students tend to think of professional identity assignments as 'busy work' and fail to see how reflection will help them as veterinarians. One way to help reframe this is by incorporating reflective assignments into an e-portfolio. At the University of Georgia, reflections are incorporated into an e-portfolio over their first two years of the DVM curriculum. The e-portfolio is designed as a way for the student to showcase themselves to future employers and even clients. Some example e-portfolio assignments have included personal and professional values, career planning, and strengths assessment.
- An example tool from Pharmacy Education: a peer evaluation instrument to assess teamwork in a pharmacy TBL curriculum was developed by Matthew Fete. His tool is found in table 1 of his publication in The American Journal of Pharmaceutical Education: [Peer](#) [Evaluation Instrument Development, Administration, and Assessment in a Team-based Learning Curriculum - ScienceDirect](#)

Professionalism Improvement Program – University of California-Davis School of Veterinary Medicine:

- This program was developed to address issues of significant professionalism lapses identified in the 4th year of the program, but can be applied to earlier years including the pre-clinical program.
- The goal was to provide a framework to understand lapses in professional behavior, assist in coaching for improvement, record events with specific information for the learner and provide an opportunity for commendation when an individual engages in and demonstrates meaningful professional development. The desired outcome is that the learner understands the professionalism lapse and can receive specific coaching for improvement.
- The process is as follows:
  - Professionalism lapse identified by instructor or staff
  - Faculty or staff fill out professional improvement plan form and offer student form (optional)

  Faculty meets with student to discuss Critical Learning Event
  - May refer to Student Affairs Committee and/or Associate Dean (AD) for professionalism consultation or for commendation

  Professionalism Critical Learning Event Report forwarded to AD, and becomes part of student internal record (formative)

Assessment in the Clinical Program

Assessment in the clinical year may also be achieved using a variety of tools and involves evaluation of all the CBVE Competencies. As discussed earlier, it is important to remember that this evaluation of the learner must be done over time, using a number of assessment tools. One of the approaches that is commonly used to assess learners in the clinical environment is a combination of Entrustable Professional Activities and an ITER.

Let's talk about:

Entrustable Professional Activities (EPAs):

- An EPA is a complex professional activity that can be assessed using an entrustment scale. The EPA integrates multiple CBVE Competencies and should be assessed only in the authentic workplace (i.e., not in the pre-clinical or simulated/standardized environment).
- Most commonly, EPAs are used as a method of providing low stakes, in the moment, formative feedback to students during clinical experiences, and they have been adopted across several AAVMC member institutions.
- There are eight published CBVE EPAs, which should be applied in their unaltered form for use across clinical experiences at any given program.
- The Entrustment-Supervision (ES) scale is a tool used in medical education to assess a student's readiness for independent practice by determining the level of supervision necessary for a specific activity.
- Some veterinary programs are developing dashboards to facilitate faculty use of the tool and improve quality and timelines of student feedback.
- Some programs have uniquely modified their approach to implementation of EPAs in the clinical setting, for example, Colorado State University, University of Minnesota, Louisiana State University, The Ohio State University

In-Training Evaluation Report (ITER):

- A universal ITER that is based on the CBVE Competencies and CBVE Milestones is under development and will soon be available for use across veterinary training programs.
- An ITER is a form of summative assessment commonly used in the clinical setting. Many AAVMC member institutions use ITERs based on the American Veterinary Medical Association Council on Education (AVMA COE) Standard 11 (Outcomes Assessment) and AVMA COE 9 Clinical Competencies.
- For a program to be accredited by the AVMA COE, it must have processes to ensure students are observed and assessed formatively and summatively, with timely documentation demonstrating achievement of competence in the nine clinical competencies.
- The AVMA COE 9 can be directly crossmapped to the AAVMC CBVE Framework. Since the CBVE Model covers all nine clinical competency areas from the AVMA COE in addition to two other important domains (Collaboration and Financial and Practice Management), the use of the CBVE Model is considered acceptable for ensuring graduates meet the requirements outlined by the AVMA COE.

Remediation

Another important tenet of competency-based education is remediation, the process of guiding learners who are struggling to get back on track. In order to implement an effective remediation process, it is important to identify the deficit(s), set performance goals, create a training and monitoring plan, and conclude with performance assessment (Ellaway et al, Acad Med. 2018;93:391-8). Remediation may involve multiple competencies, as struggling learners often face challenges in more than one area.

In the CBVE Model, learner performance can be compared to expected milestone progress to identify learner deficits. Student cohort performance can be used to develop realistic targets for individual student performance. Formative assessment of Entrustable Professional Activities can provide important feedback that helps pinpoint specific areas for growth. Ideally, feedback data across a variety of assessment types should be incorporated to create a remediation plan. Sharing milestone progress with learners fosters a shared understanding of areas for improvement and supports self-directed learning (https://cbve.org/cbve-20).

It is important to recognize that not all learners can be remediated back to expected performance. To determine next steps with a learner, it can be helpful to divide learner performance into zones:

- expected performance
- below expected performance (correction)
- below acceptable level (remediation) below
- unacceptable level (probation) below
- unacceptable level (dismissal

These zones can be used to assess whether a student can move from remediation back into the area of successful performance, or whether further actions such as probation or removal from the program are required (Ellaway et al, Acad Med. 2018;93:391-8).

News to Share

Specialty milestones are being constructed by the Council on Outcomes-Based Veterinary Education and will be presented at AAVMC (April 10, 2025) by members of the Council of Outcomes-based Education: "CBVE Specialty: Expanding the CBVE Model into Post-Veterinary Graduate Training".

The CBVE Outreach Working Group is currently developing a Guidance Document to help external stakeholders wishing to align their discipline or content specific sub-competencies with the CBVE Competency Framework. We will share this document in an upcoming Newsletter.
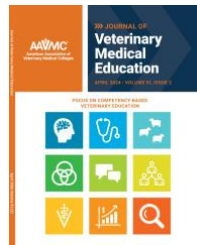
Must Reads (Recent Publications)

Entrustable professional activities and transitions across the continuum of training and practice. **Olle ten Cate, David A. Turner, Martin V. Pusic, Daniel J. Schumacher.**

Chapter from the book: ten Cate, O *et al.* 2024. *Entrustable Professional Activities and Entrustment Decision-Making in Health Professions Education.* **Implementing Entrustable Professional Activities (EPAs) in Veterinary Education to Support Transition to Practice**

Entrustable Professional Activities (EPAs) can play an important role in workplace learning for trainees in health professions education. **EPAs are units of professional practice** that trainees must be prepared to perform without supervision after a period of training. They are not educational exercises or 'tests', they are authentic tasks that occur in a professional workplace. This distinction is crucial for understanding their role in educational programs. The goal of the program is to assist the trainee to arrive at **EPA entrustment** prior to the trainee's transition to unsupervised practice. An **entrustment decision** assesses whether a developing learner can be trusted to perform a specific professional activity independently. This decision is one point of assessment within a broader suite of assessments throughout the health educational program. It is important to note that didactic instruction, in the classroom, cannot prepare trainees for EPA entrustment.

The AAMC has a set of 13 **core EPAs** for entering residency, and COVE has a set of 8. These are designed to represent the full scope of the profession, generally. These sets of EPAs must prepare trainees for a diverse range of fields post-graduation. When implementing EPAs it should be recognized that the trainee is developing on a continuum, where **formative entrustment decisions** can provide rich feedback for the trainee's progress. In addition, **summative entrustment decisions** that indicate readiness for practice may also play a role. By integrating a series of EPAs into health professions education, we can assist the trainees' transition to practice by supporting their **growth towards autonomy**. The role of the supervisor in this system is critical, to both safe guard the quality of care and foster the professional development of the learner.

Updates from the Working Groups

CBVE Analyze

The Analyze Working Group is currently doing final analysis of qualitative data from a survey comparing student versus faculty perception of final year clinical feedback. A commentary on assessment of the CBVE domains of communication, collaboration, and professionalism has been revised and returned to a journal's review process. A manuscript on Entrustable Professional Activities (EPAs) requires finishing touches to go out to a journal for review. Work continues on new algorithms for the Toolkit which map function as decision trees to assist instructors in determining appropriate assessment tools for pre-clinical and clinical assessment of various competency areas.

CBVE Activate

The Activate Working Group finalized four new videos related to feedback and entrustable professional activities that are now available on the CBVE website. They include: The Importance of Feedback, What are EPAs?, How to Implement EPAs, and Entrustment Decisions and EPAs. We now have 7 videos posted and 5 others are in various stages of production. Activate is developing ideas for Grab-and-Go kits that can be used to train faculty and staff.

CBVE Outreach

CBVE Outreach continues to focus their efforts on creation of the quarterly newsletter. Please reach out to cbve@cbve.org with ideas and suggestions—we value your feedback!

CBVE Collaborate

Collaborate convenes bi-weekly across three different geographical regions (USA, UK, and Australia). Collaborate members discuss, adopt and adapt insights from the education literature to practical challenges.

AAVMC American Association of Veterinary Medical Colleges

ACADEMIC VETERINARY MEDICINE SYMPOSIUM

JUNE 3-6, 2025

TEXAS A&M UNIVERSITY Veterinary Medicine & Biomedical Sciences

CBVE Competency-Based Veterinary Education — **AAVMC** American Association of Veterinary Medical Colleges — **SOCI** The Spectrum of Care Initiative — **COWBEL**

Register

CBVE Workshop is June 4-5

- **AAVMC Annual Conference & Iverson Bell Symposium (Catalyze)** ○
  Save the date: April 10th-12th 2025.

  - **Location**: The Grand Hyatt, DC.

  - **More Information:** Click here.

- **VetEd Downunder**

  - **Save the date**: June 30-July 2, 2025.
  - **Location:** James Cook University, Townsville, Australia.

  - **More Information:** Click here.

- **Veterinary Education Symposium (VetEd)** ○
  Save the date: July 2nd-4th, 2025. ○
  Location: Bristol, UK.

  - **More Information:** Click here.

- **AMEE 2025 (The International Association for Health Professions Education)** ○ Save
  the date: August 23rd-27th 2025

  - **Location**: Barcelona, Spain.

  - **More information:** Click here.