

Topic: Developing Targets and Reporting Findings for Academic Programs



Office of Assessment
and Evaluation
at Virginia Tech

Achievement Targets

Achievement targets define the achievement expectations for each outcome-measure pair established in an academic program's assessment plan. Achievement targets are usually expressed as percentages or numbers expected. The program faculty use their professional, expert judgment to determine what these benchmarks are and what is considered to be "acceptable performance." Achievement targets reflect a community judgment about what is appropriate for the program. When programs decide to use standardized tests as a measure, target development can be informed by previous test scores or national averages. Targets should be realistic for the degree level of the program and should be rigorous yet achievable. Targets are not "predictions" of how students will perform but rather what achievement level is deemed as acceptable given the program's expectations. Academic programs should report findings in the same manner and format as the achievement targets developed.

Academic program targets include the level of acceptable performance and the percentage of students expected to achieve that level. Each outcome-measure pair should specify a predetermined achievement target. Examples:

- Student learning outcome: 80% of students will meet or exceed expectations on the rubric items for this outcome.
- Program outcome: 75% of students completing the BS degree will continue on to an advanced degree program or obtain employment in a related field.

Two-Level Achievement Targets

At times it is helpful for programs to develop more complex targets. For instance, when a program only has a few students, simply having one student not meet the desired level can greatly affect percentages. In this case it might be beneficial for the program to create a two-level target to help identify areas for improvement. An example of this would be when a graduate program uses a rubric to measure performance on a learning outcome. Often, graduate students will meet basic expectations. However, if the program uses a two-level achievement target, it might be able to determine if some student learning areas are lower than others, even if basic expectations are met on all outcomes. The program might have an achievement target where "90% of the students will meet or exceed expectations and 50% of the students will be at the highest performance level."

Reporting Assessment Findings

Programs should report their findings for each outcome-measure pair on the same scale as the achievement target. The findings presented need to be specific enough to examine all components of the student learning or program outcome. It is helpful for programs to present the actual numbers of students assessed and achieving the target. Programs should report whether or not they met their achievement target. For example:

- Student learning outcome: Students will be able to explain the core biological concepts related to evolution and the principles of genetics.
- Measure: Students are required to complete a capstone paper in BIOL 4030 that requires them to explain the core biological concepts related to evolution and genetics. The faculty member will use a 4-point rubric to evaluate each student's ability to explain each concept. (Rubric scale: 1 = not meeting expectations, 2 = slightly below expectations, 3 = meets expectations, and 4 = exceeds expectations.)
- Target: 80% of the students will meet or exceed expectations on the rubric items pertaining to evolution and genetics.
- Findings: 70% of the seniors taking the BIOL 4030 course were rated as meeting or exceeding expectations for the rubric items related to evolution and 60% were rated as meeting or exceeding expectations in the area of genetics. Target: Not Met.

Examples from Outcome to Findings

- Student learning outcome for an undergraduate program: Students will be able to design thermal, fluid, and mechanical control systems to meet project constraints.
 - Direct Measure: On the manufacturing course final exam students will be given case studies requiring them to design thermal, fluid, and mechanical control systems to meet project constraints. Faculty will rate these designs with a 5-point rubric. (Rubric scale: 1 = significantly below expectations, 2 = slightly below expectations, 3 = meets expectations, 4 = slightly above expectations, and 5 = significantly above expectations.) Each case study is rated separately and the program analyzes each design area independently.
 - Targets for Direct Measure: For each area, 85% of the students will be rated at 3 or higher and 25% of the students will receive a rating at or above a 4.
 - Findings for Direct Measure: Thermal: 82% scored 3 or higher and 18% scored 4 or higher. Fluid: 88% scored 3 or higher and 32% scored 4 or higher. Mechanical: 84% scored 3 or higher and 15% scored 4 or higher. Targets met for fluid control system design but not for thermal or mechanical.
 - Indirect Measure: Senior students complete an exit survey prior to graduation. The exit survey contains items pertaining to how important the students feel the areas of thermal, fluid, and mechanical control system designs are and how they would rate their level of preparation in each of these areas. (Rubric scale for importance: 1 = not important, 2 = somewhat important, 3 = important, and 4 = very important. Rubric scale for preparation: 1 = not prepared, 2 = somewhat prepared, 3 = prepared, and 4 = very prepared.)
 - Targets for Indirect Measure: For each area, 80% of students will say that control system design is “important” or “very important” and that they are either “prepared” or “very prepared.”
 - Findings for Indirect Measure: Thermal: 85% rated as important or higher and 82% felt they were prepared or very prepared. Fluid: 79% rated as important or higher and 85% felt they were prepared or very prepared. Mechanical: 90% rated as important or higher and 75% felt they were prepared or very prepared. For thermal and fluid design, targets were met or very close. For mechanical design the target for preparation was not met.
- Student learning outcome for a master’s degree program: Students will be able to effectively communicate in written and oral formats.
 - Measures: Written communication: Thesis committee uses a 5-point rubric to evaluate student performance on the master’s thesis in regards to written communication. Oral communication: Final oral exam is evaluated by the thesis committee using a 5-point rubric designed to evaluate student performance in oral communication. (Rubric scale: 1 = significantly below expectations, 2 = slightly below expectations, 3 = meets expectations, 4 = slightly above expectations, and 5 = significantly above expectations.)
 - Targets: Written communication: 75% of the students will receive an average committee rating of 3 or higher indicating that the student is meeting the performance standard and 35% of the students will receive an average rating of 4 or higher. Oral communication: 65% of the students will receive an average committee rating of 3 or higher and 20% of the students will receive an average rating at or above a 4.
 - Findings: Written communication: 71% of the students received an average committee rating of 3 or higher and only 26% of the students received an average rating at or above a 4. Targets not met for this year. Oral communication: 68% of the students received an average committee rating of 3 or higher and 22% of the students received an average rating at or above a 4. Targets met.
- Program outcome for an academic program: Students enrolled in the Criminology BS program will be accepted into an advanced degree program in a related field or have obtained employment within one year of graduation.
 - Measure: Alumni will be contacted by the department one year after completing the program.
 - Target: 50% of students completing the undergraduate program will report obtaining employment and 35% of students will report being accepted to an advanced degree program in a related field.
 - Findings: 55% of the students reported obtaining employment within one year of graduation but only 25% of students were accepted to or started an advanced degree program. Target for employment was met but target for advanced degree was not.

Contact: If you need assessment assistance or have questions regarding assessment, please feel free to contact the Office of Assessment and Evaluation by email at oea@vt.edu or calling 231-6823.