How Much Have Assessments in Psychology Courses Changed Over Time? A Descriptive Study

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Abstract: Researchers have demonstrated formative assessments are valuable, yet little is known about whether faculty are requiring formative assessments. The purpose of this study was to determine the average number and types of assessments required in psychology classes, and to determine if there have been changes in assessments over time. I conducted a descriptive study of psychology syllabi published on the Society for the Teaching of Psychology Project Syllabus website. I compared assessments in 63 syllabi published in 1999-2005 to assessments in 66 syllabi published in 2016-2022. Exams and papers were the most required type of assessments. Recent syllabi (2016-2022) had more assessments and were more likely to include projects and extra credit. Faculty were also less likely to require exams and more likely to require formative assessments such as quizzes and drafts of papers in recent years. Fewer than half of all syllabi reviewed included formative assessments as requirements. Assessments have changed over time, with faculty using more varied and more formative assessments in recent years. Faculty are encouraged to go beyond the exam and find other ways to assess learning and to require numerous formative assessments.

Keywords: assignments, formative assessments, summative assessments, exams, papers

Researchers have demonstrated the limitations of traditional assessments such as exams. It has long been acknowledged that exams can be biased (Rosales & Walker, 2021) and that exams, a high-stakes assessment, can activate stereotype threats (Steele, 2010). Stereotype threat often results in poorer performance because of the anxiety the person, who is a member of a stereotyped group, experiences related to confirming the stereotype (Steele, 2010). Stereotype threat is activated in high stakes situations such as tests. For example, a woman in an engineering program who is about to take an exam will likely perform lower than her ability level due to stereotypes that men are better in math and science than women.

Singer-Freeman et al. (2019) reported that racial gaps varied based on the type of assessment. On a multiple-choice exam, the average score for students from underrepresented ethnic minority groups who were taking a Theater Appreciation course was 69 while the average score for students who were not from an underrepresented ethnic minority group was 82. When these same students were asked to complete an inclusive writing task, however, the difference in performance was not as substantial. On this inclusive writing task, students from underrepresented ethnic minority groups had an average score of 88 while students who were not from underrepresented ethnic minority groups had an average score of 93.

Given the evidence-based concerns about traditional assessments such as exams, scholars of teaching and learning have encouraged faculty to look beyond the exam and use alternate assessments to determine if students have achieved the course learning outcomes. Saucier et al. (2022), for example, suggested that exams may not be needed and that alternative assessments such as projects, podcasts, and videos might better provide students with the opportunity to "demonstrate their learning in ways that are applicable to (and fulfilling for) them" (para 7). Burns et al. (2020) recommended that faculty use culturally responsive assessment approaches that include giving students choices in how they demonstrate their learning and using holistic assessments such as capstone projects or portfolios.

In addition to using alternatives to exams, faculty have also been encouraged to use formative assessments. Formative assessments take place during the learning process and are aimed at providing feedback rather than assessing the achievement of learning outcomes. Summative assessments, on the other hand, are required after learning has occurred, to determine if the course learning outcomes were achieved (Burns et al., 2020). Researchers have found that faculty have acknowledged several benefits of using formative assessments. In a study conducted by Yüksel and Gündüz (2017), for instance, faculty noted student motivation increased when formative assessments were used. In addition, faculty shared that the feedback they received via formative assessments helped them determine what course adjustments, if any, were needed to increase student learning. Students have also indicated several benefits of formative assessments. For example, in a study conducted by McCallum and Milner (2021), students shared that the formative assessments motivated them to regularly engage with the course content throughout the semester and that they believed the formative assessments improved their learning. Students specifically noted that the ongoing feedback associated with formative assessments was helpful. There is extensive research evidence illustrating the power of feedback (Hattie & Timberley, 2007) and formative assessments are designed to increase feedback opportunities.

There is also a body of literature demonstrating that formative assessment techniques improve learning (Agarwal et al., 2021; Bhavsar, 2020; Yang et al., 2021). For example, there are numerous studies on the testing effect that show that testing is not just a way to demonstrate learning, but that testing promotes learning because the act of retrieving content learned strengthens memories (Karpicke & Roediger, 2006, Roediger et al., 2011). Giving students opportunities to engage in retrieval practice through quizzes or other retrieval activities significantly improves learning (Agarwal et al., 2021; Trumbo et al., 2021; Yang et al., 2021). Similarly, researchers have found that other formative assessments such

as reading assignments were associated with increased reading and academic performance. For example, Bhavsar (2020) reported that the reading compliance rate ranged from 83%- 90% when reading assignments were used and that there was a significant relationship between completing the reading assignments and the final exam grade. Formative assessments have tremendous value and faculty have therefore been encouraged to incorporate numerous formative assessments into their courses.

Despite the important role of assessments in learning, there are no studies, to my knowledge, providing information about what types of assessments students are asked to complete. Although a recent study by Richmond et al. (2019) explored whether syllabi have become more learner-centered, this study did not provide specific descriptive data on the number and types of assessments students are asked to complete. I was interested in learning whether psychology faculty have relied less on exams and more on other creative projects or assessments to determine if students achieved the learning outcomes of the course and if more formative assessments were being used in courses taught in recent years. This descriptive research study was conducted to answer the following research questions:

- 1. What was the average number of assessments in psychology courses and has this changed over time?
- 2. What types of formative and summative assessments were students in psychology courses required to complete and has this changed over time?

Method

Because I was relying only on publicly available data and was not providing any identifying information in the reporting of the data, the Institutional Research Board deemed this study to be exempt. I used a qualitative descriptive data analysis approach. I decided to review psychology syllabi that were publicly available via the Society for the Teaching of Psychology (n.d.) Project Syllabus website because these syllabi met three of four of Flick's (2018) document selection criteria. The first criteria, authenticity, was met because these were actual syllabi that were used in college courses. The second criteria, credibility, was met because the syllabi on this website went through a peer-review process where the syllabus was evaluated, using a rubric, by two reviewers. The third criteria, meaning, was met because these syllabi would provide the data needed to answer the research questions. An additional reason for using this data was that the syllabi on this website included the date of publication, and this information was needed to answer the research questions related to whether assessments changed over time. The syllabi did not meet Flick's (2018) fourth criteria, representativeness as these syllabi were considered exemplars and are not likely representative of all psychology classes.

I then needed to determine what years to review. The classic study on the testing effect by Roediger and Karpicke (2006) led to an extensive number of publications focused on the value of formative assessments. I wanted to review syllabi prior to this surge of research on formative assessments. I therefore decided to review syllabi from the first seven years of Project Syllabus, 1999-2005. To confirm that there were limited studies published on formative assessment, I conducted a PsychINFO search from the years 1999-2005 using the term formative assessment and discovered this

yielded only 67 articles. I then needed a matched sample so selected the most recent seven years, 2016-2022. To confirm that there were substantially more articles on formative assessment during this time and during the years 2005-2015, I conducted another search using PsychINFO. There were 378 articles on formative assessment published between 2006-2015 and 277 articles between 2016-2022.

After I removed all duplicates and excluded non-downloadable syllabi, I had a total of 129 syllabi to review. Sixty-three syllabi were published during the first seven years (1999-2005) and 66 were published during the past seven years (2016-2022). Most of the syllabi were for undergraduate psychology courses (n = 116). Thirteen syllabi were for graduate courses in psychology.

I followed Bowen's (2009) three steps of document analysis. First, I skimmed the syllabi. Then, I read each syllabus, specifically looking for assessment information. Finally, I interpreted the assessment information using a combination of deductive and inductive codes and documented this in a codebook. The deductive codes were exams, papers, presentations, projects, quizzes, and homework assignments. As I encountered assessments that did not fit these codes, I created additional ones that captured the nature of the assessments listed on the syllabi. I documented whether it was an undergraduate or graduate course, the number of assessments in each syllabus, and the type of assessments in the codebook. When counting the number of assessments, I counted quizzes or weekly homework assessments as one assessment because many of the syllabi did not indicate how many quizzes or homework assessments were required. There was therefore no way to accurately capture the total number of quizzes or homework assessments.

After all the data was entered into the codebook, I calculated the overall average number of assessments for all syllabi in the study along with averages of specific assessment types. I then calculated the averages separately based on year (1999-2005 and 2016-2022). Next, I conducted a t-test to determine if there was a difference in terms of the average number of assessments based on year. I then created a frequency table of all assessments and identified the most common types of assessments. These included non-cumulative exams, final exams, research papers, non-research papers, projects, presentations, participation and attendance, and extra credit. Next, I conducted a series of chi-square tests of independence to determine if there was a relation between the frequencies of the most used assessment types and year. Finally, I conducted chi-square tests of independence to find out if there was a relationship between formative assessments such as quizzes and drafts of papers and year.

Results

The results of this study have been organized into two sections. The first section focuses on the average number of assessments and provides data that answers the first research question. The second section provides information on what types of formative and summative assessments were required, answering the second research question.

Research Question 1: What was the average number of assessments in psychology courses and has this changed over time?

To answer this research question, I calculated the average number of assessments overall and separately by year category (1999-2005 and 2016-2022). I then conducted a t-test to determine if there was a significant difference between the average number of assessments in syllabi from 1999-2005 and syllabi from 2016-2022.

The average number of assessments for all syllabi reviewed was 6.98 (SD = 2.91), with a range from 2 to 16. Quizzes and weekly homework assessments were counted as one assessment rather than 15 for a 15-week semester as the number of quizzes or weekly homework assessments was not always indicated on the syllabi. Thus, the actual number of assessments is higher than what is reflected by the averages. All other assessments such as exams and papers were counted individually, with three exams being counted as three assessments.

A t-test was conducted in Jamovi to determine if there was a significant difference between the average number of assessments in syllabi dated 1999-2005 and syllabi dated 2016-2022. Results of the t-test indicated that there was a statistically significant difference between the average number of assessments in syllabi from 1999-2005 and syllabi from 2016-2022. There was a higher number of assessments in more recent syllabi (2016-2022), t = 2.02 (127), p = .046, d = .36. According to Cohen (1988), an effect size of .36 is small to moderate. See Table 1 for the average number of assessments by year.

Table 1Average Number of Assessments by Year

Dates	Number of Syllabi	Mean	Standard Deviation
1999-2005	63	6.46	2.21
2016-2022	66	7.48	3.41
All Syllabi	129	6.98	2.91

Research Question 2: What types of formative and summative assessments were students in psychology courses required to complete and has this changed over time?

To answer the second research question, I created a frequency table that listed all types of assessments indicated on the 129 syllabi reviewed. After identifying which assessments were most frequently used, I conducted a series of chi-square tests of independence to determine if there was a relationship between these assessments and year. I also conducted chi-square tests of independence to determine if there was a relationship between formative assessments such as quizzes and drafts of papers and year. Syllabi year data was divided into two seven-year periods of time, 1999-2005 and 2016-2022. Specifically, chi-square tests of independence analyses were conducted for final exams, non-cumulative exams, quizzes, papers, drafts of papers, presentations, projects, attendance and participation, and extra credit.

Assessment Types and Frequency

The most frequent types of assessments were exams and papers. Non-cumulative exams were the most frequent assessment on the syllabi reviewed, with 55.8% of all the syllabi reviewed indicating non-cumulative exams were required. Research papers were the next most frequently required assessment, with 51.9% of all the syllabi reviewed indicating this as a requirement. Other assessments that were frequently identified in the syllabi included non-research papers, attendance and participation, presentations, final exams, quizzes, and projects. See Table 2 for assessment types and frequencies.

Table 2Assessment Types and Frequency

Non-Cumulative Exam	Frequency(Percent) 72 (55.8%)	Frequency(Percent)	Frequency(Percent)
Non-Cumulative Exam		42/66.7)	
		42(66.7)	30(45.5)
Research Paper	67(51.9%)	31(49.2)	33(50.0)
Non-Research Paper	62(48.0%)	28(44.4)	34(51.5)
Attendance/Participation	60(46.5%)	27(42.9)	33(50.0)
Presentation	48(37.2%)	20(31.7)	28(42.4)
Final Exam	46(35.6%)	28(44.4)	18(27.3)
Quizzes	42(32.5%)	15(23.8)	27(40.9)
Projects	41(31.8)	12(19.0)	29(43.9)
Extra Credit	38(29.5)	11(17.4)	27(40.9)
Drafts of Papers	26(20.2)	7(11.1)	19(28.8)
Weekly Reflections or Summaries	17(13.2)	7(11.1)	10(15.2)
Lead Discussion	11(8.5)	4(6.3)	7(10.6)
Discussions	9(7.0)	3(4.8)	6(9.0)
Homework Problems	8(6.2)	5(7.9)	3(4.5)
Field Placement Journal	7(5.4)	3(4.8)	4(6.0)
Debate	5(3.9)	2(3.2)	3(4.5)
Peer-review	5(3.9)	2(3.2)	3(4.5)
Online Publisher Activities	4(3.1)	3(4.8)	1(1.5)
Lab Experiment Participation	2(1.6)	1(1.6)	1(1.5)
Exam Wrapper	2(1.6)	1(1.6)	1(1.5)
Portfolio	1(.8)	0(0)	1(1.5)

Exams and Quizzes

Non-cumulative exams were the most frequently required assessment when all syllabi were grouped together. A total of 72 (55.8%) out of the 129 syllabi indicated that non-cumulative exams were required. Non-cumulative exams were also the most frequently required assessment for the 1999-2005

(66.7%) reviewed syllabi. In syllabi published in 2016-2022, other assessments such as papers and attendance or participation were the most frequent assessments and non-cumulative exams were listed as requirements in less than half of the reviewed syllabi.

Contrary to non-cumulative exams, final exams were not listed as a requirement frequently in the syllabi. Only 46 (35.6%) out of the 129 syllabi indicated a final exam was required. For syllabi published from 1999-2005, 28 of the 63 (44.4%) required final exams whereas only 18 of the 66 syllabi (27.3%) published in 2016-2022 required a final exam. Although final exams are often cumulative, this was not always explicitly stated on the syllabi reviewed so it is not clear if all final exams were indeed cumulative.

Two chi-square tests of independence were performed to determine if there was a relationship between non-cumulative exams and year. First, a chi-square test of independence was performed to determine if there was a relationship between non-cumulative exams and year. A significant relationship was found, with non-cumulative exams being more frequently cited in syllabi from 1999-2005 as compared to syllabi from 2016-2022, X^2 (1, N = 129) = 5.88, p = .015, V = .214. According to Pallant (2020), this was a small to medium effect size. Another chi-square test of independence was then performed to examine the relation between final exam and year. The relation between these variables was also significant, X^2 (1, N = 129) = 4.14, p = .042, V = .179. Final exams were more frequently required on syllabi published in 1999-2005 as compared to syllabi published in 2016-2022, but the effect size was small (Pallant, 2020).

Only 42 out of the 129 (32.5%) syllabi indicated that quizzes were required. I conducted a chi-square test of independence to explore if there was a relationship between quizzes and year. Results indicated that there was a significant relationship between these variables, with more quizzes being required in recent years, X^2 (1, N = 129) = 4.05, p = .044, V = .178. According to Pallant (2020), this is a small effect size.

Papers and Drafts of Papers

Sixty-three (48.8%) of the 129 syllabi listed a research paper as a required assessment. Based on the results of a chi-square test of independence, there was no significant relationship between research papers and year, $X^2 = .962$ (1, N = 129), p = .928, V = .008. Approximately half of the syllabi in both the 1999-2005 and 2016-2022 syllabi required research papers. Sixty-two (48%) of the 129 syllabi had non-research paper requirements. Another chi-square test of independence indicated that there was no relation between non-research papers and year, $X^2 = .646$ (1, N = 129), p = .422, V = .071.

Twenty-six (20.2%) of the 129 syllabi indicated that students were required to submit drafts of the paper. One additional syllabus explicitly stated that drafts of papers could be submitted for feedback, but it was not a requirement. Results from a chi-square test of independence revealed that there was a relation between draft and year, $X^2 = 6.26$ (1, N =129), p = .012, V = .220. More drafts were required in recent years. The effect size of .220 indicated a small to moderate effect size (Pallant, 2020).

Presentations

Forty-eight (37.2%) of the 129 syllabi included a presentation as part of the student's final grade. Results from a chi-square test of independence revealed no relation between presentation and year, $X^2 = 1.57$, (1, N = 129), p = .210, V = .110.

Projects

Forty-one (31.8%) of the 129 syllabi included a project assessment. A chi-square test of independence was conducted to determine if there was a relation between project assessment and year. Results indicated that there was a significant relationship, $X^2 = 9.21$ (1, N = 129), p = .002, V = .267. Projects were more likely to be required in recent years and the effect size was moderate (Pallant, 2020).

Attendance or Participation

Sixty-one (47.2%) of the 129 syllabi had attendance and participation as graded components of the course. Only syllabi that included attendance or participation as part of the final grade calculation were identified in this way even though most syllabi stated that attendance and participation were expected. A chi-square test of independence revealed no relation between attendance or participation and year, $X^2 = 1.77$ (1, N = 129), p = .413, V = .117.

Extra Credit

Only 38 (29.5%) of the 129 syllabi indicated an option for extra credit. To determine if there was a relationship between extra credit and year, a chi-square test of independence was conducted. There was a significant difference between 1999-2005 and 2016-2022 syllabi in terms of extra credit, with extra credit being offered more in recent years, $X^2 = 8.53$ (1, N =129), p = .003, V = .257. This was a moderate effect size (Pallant, 2020).

Discussion

This study provided descriptive data illustrating that the number and nature of psychology assessments have changed over time. Although non-cumulative exams were the most frequently required type of assessment overall and in the 1999-2005 syllabi, there is evidence of a shift away from the use of exams in more recent years. Results indicated that faculty were significantly less likely to assign non-cumulative and final exams in recent years (2016-2022) as compared to earlier years (1999-2005). This shift is encouraging as there has been a call for faculty to develop a variety of engaging assessments that provide evidence of the achievement of learning outcomes rather than relying mostly on high-stakes exams (Parmer, 2021). Exams have many limitations and may not be the best way for students to demonstrate their learning. Research has demonstrated that timed tests are not valid indicators of student knowledge, are not reliable measures of knowledge, and are fraught with equity and inclusion challenges (Gernsbacher et al., 2020).

There was no relationship, however, between research and non-research papers and year. In other words, faculty who published syllabi in 2016-2022 were just as likely to assign papers as faculty who published syllabi in 1999-2005. Although the frequency of the papers was not different across years, the

nature of the writing tasks may have varied. An analysis of the specific nature of the writing assessments was beyond the scope of this study so it is not clear if the nature of the writing assessments has changed over time. This finding does suggest that writing continues to be an emphasis in psychology courses.

Recent syllabi (2016-2022) had more assignments than the 1999-2005 syllabi and faculty were more likely to assign projects in recent years. This suggests that faculty are shifting away from relying on a few traditional assessments such as exams to more and different types of assignments such as projects. In 1999-2005, only 19% of the syllabi had project assessments required, but in 2016-2022, 43.9% of the syllabi included a project assessment. Researchers have found that alternative assessments can be effective for demonstrating learning. Cavazos et al. (2021), for instance, asked students to create an infographic related to a psychological myth. Students in this study were more likely to correctly answer quiz questions connected to the myth they explored, providing evidence that the infographic project facilitated learning. In addition to learning the content, students also learned a skill, creating infographics, that will likely be useful in their careers. Projects may also be a better vehicle for students to develop essential skills described in the learning outcomes and desired by employers. A quasi-experimental study by Crespí et al. (2022) showed that students who engaged in project-based learning had better developed interpersonal and communication skills. Employers have identified interpersonal and communication skills as essential (Deepa & Seth, 2013).

Research has shown that students have responded positively to assessments that have relevance beyond the classroom and that projects are an excellent way to build skills and knowledge in the context of real-world applications. The positive impact of assessments with real-world applications was illustrated in a study conducted by Wolschleger (2019). In this study, students reported a positive experience with a course that required a project for a local organization. One student commented "If we did not work with an actual [organization] I wouldn't have been as motivated or seen the value of it" and another said, "This was the most useful class of my major." (p. 321). In a study conducted by Riordan et al. (2022), students reported that a multi-media project was more engaging than a paper assignment. Although this evidence suggests that assigning projects can increase motivation, Martine et al. (2015) found that first-year psychology students did not always see the career relevance of assignments. Thus, they recommended that faculty explicitly communicate the connection between the skills and knowledge that are being developed by completing the project and the skills and knowledge needed in various careers.

Another key finding was that faculty were more likely to require formative assessments in recent years. This provides evidence that the body of literature in the scholarship of teaching and learning is informing classroom practices. Quizzes, for example, were more frequently assigned in recent years (2016-2022), with 40.9% of the syllabi listing quizzes as a requirement. In comparison, only 23.8% of the 1999-2005 syllabi required quizzes. Given the abundance of data on the testing effect and the value of formative assessments, it is encouraging to see that faculty are requiring quizzes more in recent years. Students appreciate and learn from formative assessments such as quizzes. In a study conducted by Mittal (2019), over 80% of the students said they preferred to take quizzes instead of tests. Numerous

researchers have found that students perform better on summative assessments when formative assessments such as quizzes are used (Dawar & Murphy, 2020).

Faculty were also more likely to require drafts of papers in recent years, with drafts being required in 28.8% of the 2016-2022 course syllabi reviewed. Only 11.1% of the 1999-2005 syllabi had a draft requirement listed. This data provides further evidence that faculty have adjusted their course design to include more formative assessment techniques. Researchers have found that students perform better on summative assessments when they submit a draft of a paper and receive feedback (Cobbold & Wright, 2021). Giving students multiple opportunities to submit drafts of papers, receive feedback, and revise their work can be an especially helpful way to improve student performance (Stellmack et al., 2015).

The findings of this study are consistent with what Richmond et al. (2019) reported. Using a rubric shared by Cullen and Harris (2009), Richmond et al. (2019) found that psychology syllabi were more learner-centered in 2010-2018 as compared to 1999-2009. Despite the shifts toward more varied assessments and the incorporation of more formative assessments, it is, however, concerning that most syllabi reviewed did not indicate the use of formative assessments such as draft submissions of papers, quizzes, or homework. It is possible that faculty are using these strategies in the classroom but not grading them and therefore they do not appear in the syllabi. Researchers have found that a variety of formative assessments such as writing-to-learn assignments, where students are regularly expected to write about key concepts from the textbook, have increased student learning (Bersamin et al., 2013; Stevenson, 2020). Similarly, homework assignment completion has been linked to higher exam performance (Latif & Miles, 2020). Students have also indicated appreciating opportunities to revise and resubmit their work (Garner & Shank, 2018). Despite the value of formative assessments, only 40.9% of the 2016-2022 syllabi included quiz requirements, only 28.8% required drafts of papers, and 4.5% had homework requirements.

Extra credit was also more likely to be offered in recent years, with 40.9% of 2016-2022 syllabi listing extra credit options. Only 17.4% of the syllabi published in 1999-2005 had extra credit options listed. Lei (2013) noted that extra credit can provide struggling students with pathways to success and can also enhance the learning experience of high-performing students. Although researchers have found that students with high grades were more likely than students with low grades to complete the extra-credit assignments (Harrison et al., 2011), Junn (1995) found that reaching out individually to struggling students to encourage them to complete an extra credit assignment worked well. Students in this study who were in the extra credit assignment condition had higher grades (not including points earned from the extra credit assignment) and lower withdrawal rates as compared to students in another condition who were provided with similar support but not extra credit. It is therefore encouraging to see more faculty giving extra credit opportunities to students.

Limitations and Future Directions

This study was conducted using only psychology syllabi that were posted publicly on The Project Syllabus website. It is possible that faculty who submitted their syllabi for peer review use assessments that are different from those who did not submit their syllabi for peer review. The results may therefore not

generalize to other psychology courses. Similarly, only the psychology discipline was represented in this study so these findings may not generalize to other disciplines.

Future researchers interested in assessments could replicate this study with psychology syllabithat have not been published on The Project Syllabus website and with other disciplines. In addition, it would be interesting for a future researcher to explore if the nature of assessments such as papers and projects have changed over time and if so, in what ways. Another possible line of research could be to explore student, faculty, and employer perceptions of syllabi with different assignment structures. Disaggregating data by race, gender, and other demographic variables, especially when gathering student perception data, could be a way to explore the inclusiveness of assessments.

Conclusion

Results of this descriptive study illustrate that the number and nature of assessments in psychology courses have changed over time. Psychology faculty who had their syllabi published in 2016-2022 were more likely to have more assessments and more varied assessment requirements as compared to those who published their syllabi in 1999-2005. Projects were more likely to be required in recent years, while exams were less likely to be required. Formative assessments such as quizzes and drafts of papers and extra credit opportunities were also more likely to be seen as requirements in syllabi posted in recent years. There were no significant relationships discovered between year and papers, presentations, or attendance and participation.

The findings suggest that faculty are putting the scholarship of teaching and learning into practice in their classrooms. Faculty are relying less on exams and more on projects to determine if students have achieved the learning outcomes. In addition, there is evidence of increased use of formative assessments in recent years. Having more varied assessment options and increased learning opportunities via formative assessments are excellent ways to foster inclusivity in the classroom.

Educational Implications

Faculty are encouraged to put the scholarship of teaching and learning into action in their classrooms by identifying creative assessments that enable students to demonstrate that they have achieved the course learning outcomes while also building essential skills desired by employers. Some examples of creative assessments include infographics, websites, multi-media projects, podcasts, executive summaries, and presentations. To further foster a culturally responsive classroom, faculty are encouraged to also consider ways to give students choices related to assessments (Burns et al., 2020). Finally, it is hoped that faculty will continue to find more ways to incorporate formative assessments, such as quizzes, drafts of papers, and homework activities into their course design. Formative assessments are an excellent way for students to receive feedback that will help them be successful. The feedback from formative assessments can also be useful to faculty as they determine if instructional changes are needed to promote high levels of student learning.

Faculty may be reluctant to make substantial modifications to their assessment practices as these changes tend to require time, a precious resource in academia, and they may not be fully aware of why these changes are needed. Teaching and learning center directors are encouraged to highlight the importance of varied assessment types as well as the critical role that drafts of papers and other formative assessments play in learning when determining and delivering their professional development offerings. At professional development events, teaching and learning center directors can also provide faculty with support around how to make these changes in a way that is not too taxing on their time. To further support faculty, teaching and learning centers can provide individual consultation to faculty who would like to reimagine how their assessments could be used to foster inclusiveness and higher levels of learning. Researchers have shown that even brief professional development can assist faculty with making course design changes (Schmid et al., 2021).

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