Defining Different Modes of Learning: Resolving Confusion and Contention Through Consensus

Nicole Johnson
Executive Director, Canadian Digital Learning Research Association

Jeff Seaman
Director, Bay View Analytics

Russ Poulin
Executive Director, WCET & Vice President for Technology-Enhanced Education, WICHE

Abstract
There has been longstanding contention about how terms related to online and hybrid learning should be defined. In this study, we report survey findings on how administrators and faculty apply the following terms in practice: online learning, hybrid learning, hyflex learning, in-person learning, synchronous learning, and asynchronous learning. Drawing upon the literature, the research team developed survey definitions for each of these terms. The survey then asked participants to rate the extent to which they agreed with the survey definitions. A total of 987 faculty and 1,051 administrators participated in the study. Participants represented the full range of higher education institutions in the United States. The key finding from the study is that there was widespread agreement with the survey definitions, which is contrary to much of the literature that indicates confusion and contention about how online and hybrid learning terms should be defined. In light of the findings, we provide a framework for categorizing common learning modes and the variations that exist within these modes. This study provides a foundation for establishing common language and shared understandings as online and hybrid course offerings (and learning technologies, in general) continue to evolve.

Keywords: Definitions, online learning, hybrid learning, hyflex learning, teaching modes

Finding consensus when defining online learning has been challenging for scholars, higher education institutions, and faculty for over two decades (Singh & Thurman, 2019). As technology has evolved, the integration of technology into teaching and learning practices has increased. New words such as blended learning, hybrid learning, and hyflex learning have emerged to describe the various ways institutions can deliver learning experiences to students. There continues to be a lack of consensus among institutions, their policies, and individuals regarding what these words mean and the type of learning experiences these terms describe.

The onset of the COVID-19 pandemic added to the confusion as phrases like "emergency remote teaching" (Hodges et al., 2020) entered the broader vernacular as many educators with no previous online teaching experience had to deliver their courses online (Johnson et al., 2020). In the wake of the pandemic, there now appears to be more receptiveness toward online learning as a mode of instruction (Seaman & Johnson, 2021), leaving institutions wondering how to best name and describe their changing instructional practices. Agreement on modality definitions also have deep policy implications. In the United States, the term "distance education" is defined differently by the Veterans Administration, armed forces, accrediting agencies, and states. The U.S. Department of Education has at least three versions of definitions. This causes confusion and does not even consider the different variations of digital learning that have emerged. The purpose of this study is to move beyond the longstanding scholarly debate about how the terms online learning, hybrid learning, hyflex learning, and in-person learning "should" be defined and to investigate the application of these terms in higher education settings. The research questions guiding the study are as follows: What is the level of agreement on the meanings of commonly used terms related to online and hybrid learning? Where is there disagreement and what are the reasons for any disagreement? What does the data related to agreement and disagreement tell us about the ability of higher education to coalesce on the meanings of terms related to online and hybrid learning?

Literature Review

Online learning and hybrid learning (and the offshoots of these terms) have their origins in distance education. The U.S. National Center for Education Statistics (NCES) defines distance education as "education that uses one or more types of technology to deliver instruction to students who are separated from the instructor and to support regular and substantive interaction between the students and the instructor synchronously or asynchronously" (para 1). In the 1990s, higher education institutions in the USA gained access to the Internet (Saba, 2011). Distance education materials could then be accessed via the Internet rather than through communications technologies or mailed to students, creating a learning experience commonly referred to at that time as e-learning or online learning.

At the turn of the millennium, as Internet technologies advanced and became part of people's everyday lives, e-learning gradually became the predominant form of distance education. There was also an increasing interest in combining elements of online learning with a traditional on-campus learning experience which led to the rise of learning experiences referred to, mostly interchangeably, as either hybrid or blended learning (Garrison & Vaughan, 2008). As faculty and institutions experimented with different ways that learning experiences could be delivered and accessed, new terms like hyflex and multi-access learning appeared in the vernacular (Beatty, 2019; Irvine et al., 2013). A side-effect of having an expansion in delivery modes over a relatively short span of 30 years was the simultaneous eruption of naming

conventions to describe idiosyncrasies in course delivery. Despite decades of scholarly debate on how terms like online learning and hybrid learning should be understood and applied, there has been no clear consensus (Johnson, 2021; Singh & Thurman, 2019; Smith & Hill, 2019).

Ample literature offers opinions on how online learning should be defined; however, research investigating how online learning and related terms are put into practice is lacking. We begin the literature review with an overview of four research studies focused on defining online and hybrid learning, then progress into a discussion of prominent scholarly perspectives on how to define different learning modes.

Specific to online learning, Moore et al. (2011) used a mixed-methods approach, combining an analysis of the literature on e-learning, online learning, and distance learning with a small-sample survey to investigate whether the scholarly community was using these terms consistently. They found "great differences in the meaning of foundational terms that are used in the field" (p.134). They noted that loose meanings lead to challenges when comparing similarly-named learning environments for research or scholarly collaborations. Singh and Thurman (2019) conducted a systematic literature review of the definitions for online learning over a 30-year span. They identified "forty-six definitions of online learning with 18 synonymous terms," which they added "is indeed a fertile ground for confusion among scholars and researchers" (p. 301). They noted that scholars often used in-person learning as a point of contrast in defining online learning.

Specific to hybrid learning, Smith and Hill (2019) performed a systemic review of the literature on the definition of blended learning, acknowledging that the word *blended* is often used interchangeably with hybrid learning. Through their analysis, they identified the four most frequently cited definitions of blended learning, three of which simply defined it "as the combination of face-to-face and online learning" (p.387). The fourth frequently cited definition identified by Smith and Hill (2019) was a definition put forth by Allen and Seaman (2014) that stated, "30-79% of content is delivered online" (p.7). This definition is based on Allen and Seaman's (2003) earlier work on defining online learning to track online enrollments. As Dr. Seaman is a co-investigator and co-author of the present study, he offers the following comment about the percentage approach to defining blended learning being a widely cited definition:
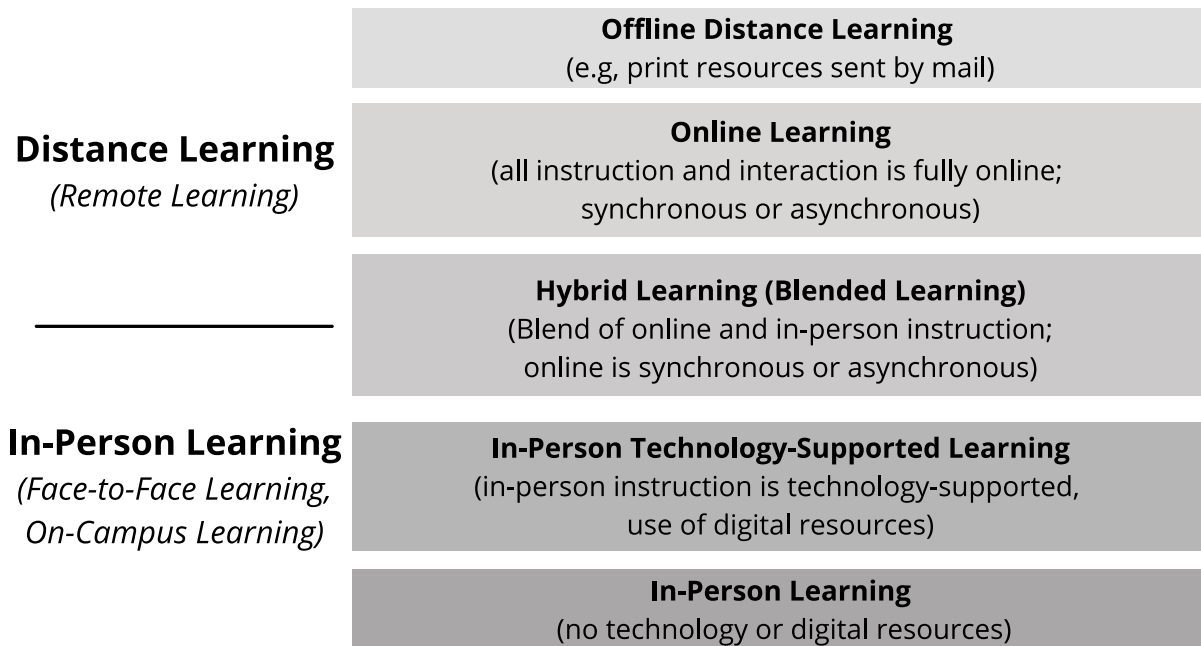
> The percentage-based definition for blended/hybrid learning in the 2014 report stems from our early work tracking online enrollments. When we piloted the first survey in 2003, asking about online enrollments, we used the term "fully online." This was the first time that most institutions were being asked for online enrollments, and most did not have tracking mechanisms in place. We found that institutions needed far more guidance to know which courses qualified as "online." A large proportion of institutions responded with questions if a particular instance would qualify or not. The "fully" portion of the definition caused the confusion—any item that was not online might, therefore, eliminate a course as online. For instance, some institutions questioned whether students using a printed book caused the course not to be online. We decided to use a percentage-based approach to distinguish "fully online" from other learning modes so that ANY small exception could be included and still be considered an online course. The decision to use "course content" was critical, as many questions were about non-course-related items. On the other hand, the choice of 80% or more to differentiate online learning from blended/hybrid learning was arbitrary. While the results from later surveys showed that virtually all the reported "online" courses were 100% online, we did not know this at the time. The percentage approach proved unsuccessful for tracking blended/hybrid courses, and the blended course definition was never used for data reporting.

Smith and Hill (2019) concluded that the literature related to blended learning showed "a lack of definition, clarity, and consistency" (p. 390), varying practices, and a tendency for such practices to be developed by individual instructors rather than at an institutional level. They identified a "need for shared understandings across the sector of what blended learning looks like in practice" (p.393).

Examining definitions related to digital learning more broadly, Johnson (2021) conducted a research study designed to identify and understand the inconsistencies, varying terms, and definitions for online and hybrid learning. In response to the variance in how terms were being applied (within and across institutions), Johnson introduced the Modes of Learning Spectrum (Figure 1) to categorize commonly used terms for digital learning. Johnson defined digital learning as "an overarching term that captures all kinds of technology-supported learning" (p.2). According to Johnson (2021), the Modes of Learning Spectrum uses definitions provided by institutions to provide a framework that offers "clarity where there has previously been confusion, contradiction, and ambiguity" (p.10). She added that the Modes of Learning Spectrum is "deliberately broad and enables consistent clarification of different modes of learning based on the characteristics of that mode, despite what that mode might be called at an individual institution" (p.7).

Figure 1
Modes of Learning Spectrum (Johnson, 2021)

Distance Learning
(Remote Learning)

Offline Distance Learning
(e.g, print resources sent by mail)

Online Learning
(all instruction and interaction is fully online; synchronous or asynchronous)

Hybrid Learning (Blended Learning)
(Blend of online and in-person instruction; online is synchronous or asynchronous)

In-Person Learning
(Face-to-Face Learning, On-Campus Learning)

In-Person Technology-Supported Learning
(in-person instruction is technology-supported, use of digital resources)

In-Person Learning
(no technology or digital resources)

Note: Johnson (2021), the lead author of this report, is the creator of the Modes of Learning Spectrum, which was published in a report by the Canadian Digital Learning Research Association (CDLRA) under a "CC BY-ND" license. Dr. Johnson and the CDLRA have granted permission to publish the revised version of the Modes of Learning Spectrum (above), a derivative work of the original. https://creativecommons.org/licenses/by-nd/4.0/

Collectively, the authors mentioned above make the point that there are a variety of meanings attached to these terms and that the lack of consensus within the scholarly community creates problems for conducting and communicating research and for collaborative efforts. Different types of online learning (e.g., asynchronous online, synchronous online) and hybrid learning (e.g., flipped learning, hyflex learning) add to the confusion.

Hyflex learning is a term that is currently gaining popularity in the post-pandemic higher education landscape, and it warranted special investigation as part of this study. According to Beatty (2019), a hyflex learning experience allows students to choose their mode of learning on any given day and move fluidly between attending their classes in-person, synchronously online, and asynchronously online as they see fit. A key characteristic of hyflex learning is that the locus of control lies with the student.

Similarly, Irvine et al. (2013) and Irvine (2020) described multi-access learning, which is sometimes used synonymously with hyflex learning (Beatty, 2019). Irvine (2020) positioned multi-access learning as a model with four possible levels of access (that are driven by student choice): face-to-face learning, synchronous online learning, asynchronous online learning, and open-access learning. She clarified, "While the first three are modalities, the fourth is concerned with open access to course materials and/or discourse. Full choice of modality or inclusion of open access is recognized as not always being possible to implement" (para. 8). Irvine's multi-access model allows for only some access options to be made available to students in any given course. In contrast, Beatty's hyflex model requires that all the possibilities (in-person, online synchronous, and online asynchronous) be made available to the students for every class within the course.

Ultimately, the varying definitions for key terms related to online and hybrid learning have come into being in a "top-down" manner with individual scholars assigning meanings to these terms based on theoretical and philosophical discourse. The present study takes a "bottom-up" approach, exploring how these terms are being used in practice and investigating the extent to which consensus exists for these terms within the broader higher education community.

Methods

WCET (the WICHE Cooperative for Educational Technologies) funded the survey and analysis. Bay View Analytics conducted the survey in partnership with the co-authors, WCET, the Canadian Digital Learning Research Association (CDLRA), Online Learning Consortium (OLC), Quality Matters, and the University Professional and Continuing Education Association (UPCEA). The research team, listed as the authors of this report, had sole responsibility for the survey design and data analysis. Only the research team had access to the raw data.

Participants

The data for this report comes from survey results of two complementary national samples of higher education administrators and teaching faculty. The primary sample for the study used email lists from a commercial source, Market Data Retrieval. The sample selection process was multi-stage, beginning with selecting all records that matched the criteria for this study (faculty teaching at least one course and academic administrators). Individuals were then randomly selected from the master list to match national proportions by the size of the institution, control of institution, and Carnegie Classification to produce a second-stage selection of teaching faculty and academic administrators representative of the higher education universe. All records in this primary sample included full contact information for the individual and

identification of the institution. The resulting list was checked against opt-out lists, as well as for non-functioning email addresses.

Additionally, a secondary sample was constructed from open calls for participants sent to the memberships of WCET, OLC, Quality Matters, and UPCEA. Each organization was provided with a survey link that they shared through member communications and newsletters. Respondents for the secondary sample were asked to provide the name and location of their institution. To ensure that the respondents came from U.S. higher education institutions, their institutional responses were matched to the National Center for Educational Statistics' IPEDS database, and their email address was checked to ensure they matched the correct pattern for that institution. The final analysis file excluded records that did not pass these tests. As a further check, the pattern of responses from each partner was checked to ensure that they did not significantly differ from the patterns observed in the primary sample. In addition, all records that were incomplete or that had an excessive number of missing entries were excluded from the analysis file.

General personal information (such as name, email address, and IP address) was removed from all survey responses prior to analysis. Only the lead researchers holding human subject research certification had access to the survey responses—they were not shared with other researchers, sponsors, or any other organizations. Open-ended survey responses are quoted if and only if the respondent explicitly granted permission. All such responses were reviewed and edited to ensure that no personally identifiable information is included.

The final analysis file included a total of 987 faculty and 1,051 administrators. The respondents represent the full range of higher education institutions (two-year, four-year, all Carnegie classifications, and public, private nonprofit, and for-profit). Respondents represent 870 different institutions from all fifty states, Puerto Rico, and the District of Columbia.

Materials

Since 2017, the CDLRA has been conducting research on defining key terms related to online and hybrid learning. The present study used past survey instruments and findings from the CDLRA as a foundation for developing the survey instrument. The survey instrument used in this study included a series of questions related to learning modes directed to faculty and administrators about whether their institution had definitions for key terms (online learning, remote learning, distance learning, hybrid learning) as well as the extent to which they agreed with definitions put forth by the research team for the following terms: online learning, hybrid learning, hyflex learning, in-person learning, synchronous learning, and asynchronous learning. The survey was primarily quantitative; however, participants were invited to provide an open-ended comment if they disagreed with one or more of the survey definitions.

The research team developed the definitions used for the survey by drawing upon the existing literature. The survey definitions for online, hybrid, and in-person learning were from the Modes of Learning Spectrum (Johnson, 2021). Johnson developed these definitions using the data describing the various definitions used at Canadian post-secondary institutions. For hyflex learning, Beatty's (2019) stated characteristics of that learning mode formed the survey definition. The researchers generated definitions for synchronous and asynchronous learning based on the general usage of these terms concerning online learning. The exact wording of each survey definition is shared in the findings.

Procedures

The questionnaire was purposefully kept short to encourage the widest possible participation; the median time to complete was 5.25 minutes. Respondents could skip any question they wished, with question skip rates of 0.5% to 1.5% depending on the question. Data were collected from May 11th to June 3rd, 2022.

The research team checked the numeric data for completeness, missing values, or erroneous codes. The frequency of responses is presented in aggregate and summary statistics to ensure confidentiality. To protect anonymity, the research team removed any identifiable information from the qualitative data (open-ended comments related to disagreement with survey definitions). The survey asked participants whether the research team could quote their comments. Any comments included in this report are from participants who provided consent to be quoted anonymously.

The qualitative data were analyzed using a constant comparative method to generate codes that captured the various reasons for disagreement with the survey definitions. The iterative process of identifying reasons for disagreement and assigning codes continued until a list of codes emerged that described all the data. The frequency for each code was then calculated to determine the prevalence for each reason for disagreement. The research team lightly edited some comments for grammar, punctuation, or spelling to improve readability.
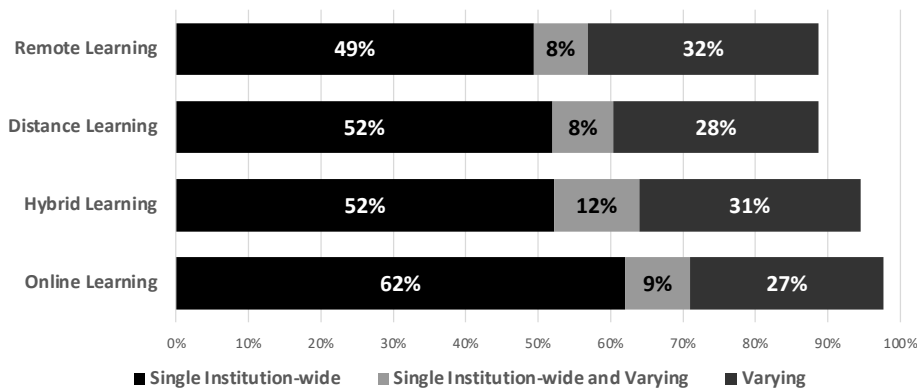
Results

The research team analyzed 2,024 participant responses by role, institution type, and institution size. Except where noted otherwise, the findings were consistent across participant roles and different types and sizes of institutions.

Presence of Definitions

The survey asked participants whether they had a single institution-wide definition or varying definitions (by department, program, or individuals) for the following terms: online learning, remote learning, distance learning, and hybrid learning. Approximately one-half of participants had a single institution-wide definition for remote learning, distance learning, and hybrid learning, and nearly two-thirds had a single institution-wide definition for hybrid learning. Roughly 10% of participants indicated that they had both a single institution-wide definition in addition to varying definitions (e.g., by departments, faculty, etc.) at their institution.

Figure 2
Presence of Definitions

The findings varied by type of institution. Two-year institutions were more likely than four-year public and private institutions to have a single institution-wide definition for each term, with 75% of two-year institutions having a single institution-wide definition for online learning.
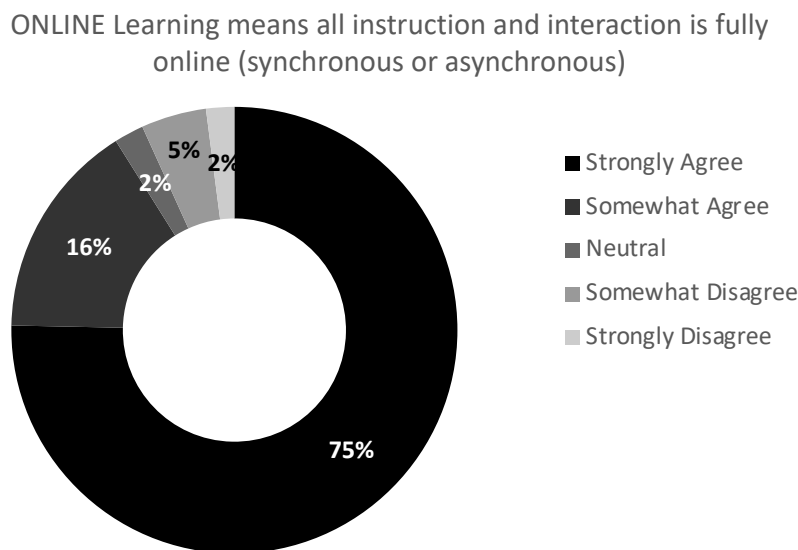
Agreement with Survey Definitions

The survey provided participants with definitions for the following terms: online learning, hybrid learning, hyflex learning, in-person learning, synchronous learning, and asynchronous learning. Participants rated the extent to which they agreed with the definitions. If a participant reported disagreement with a definition, the survey gave them the option to write an open-ended response to share how they would define that term instead.

Online Learning

Nearly all participants agreed with the survey definition of online learning: "ONLINE LEARNING means all instruction and interaction is fully online (synchronous or asynchronous)." Three-quarters of participants strongly agreed with this definition, and an additional 16% somewhat agreed. Less than 10% of participants reported neutrality or disagreement.

Figure 3

Agreement with Online Learning Definition

ONLINE Learning means all instruction and interaction is fully online (synchronous or asynchronous)

Legend:
- Strongly Agree
- Somewhat Agree
- Neutral
- Somewhat Disagree
- Strongly Disagree

Analysis of Disagreement. Within the 7% of participants who disagreed with the survey definition of online learning, 118 provided comments answering how they would define online learning instead. The reasons for disagreement were scope of the definition (e.g., participants' definitions were either broader or more granular than the survey definition), phrasing of the definition, and other.

Most participants who disagreed with the survey definition of online learning provided an alternate definition that differed in scope (n=102). Of this group, 46 participants provided a definition with a broader scope, and 56 provided a definition with a more granular scope.

Definitions that were broader in scope suggested that online learning is an overarching term inclusive of hybrid learning and the use of digital technologies (e.g., learning management systems, video recordings, online learning resources) in on-campus learning contexts. For example, one participant from a four-year private institution wrote, "Online learning occurs even in F2F classes at my institution; it isn't unusual for instructors to utilize Blackboard courses and other online resources to a large extent. I wouldn't limit this terminology to online-only courses." Conversely, of the 56 participants that provided definitions that were more granular in scope, most (49) held the position that the term online learning should only describe learning that is asynchronous and delivered in a fully online context.

Seven participants, although they reported disagreement with the definitions, provided comments that defined online learning in the same way as the survey definition but using different phrasing. One faculty member from a four-year public institution, who strongly disagreed with the survey definition, described online learning as "ANY class that is totally online, asynchronous or not," which is nearly identical to the definition put forth in the survey.

An additional nine participants provided responses that the research team categorized as "other." Within the "other" category, several participants described online learning as not being fully online but having a certain percentage of the course online (e.g., 50-100% of the course online, 75% or more online, or 80% or more online, according to these participants). A couple of participants defined online learning as being completely asynchronous and self-paced (without any deadlines). The final few participants in the other category provided responses that tended to be very specific and did not easily fit into another category, as seen in the examples below:
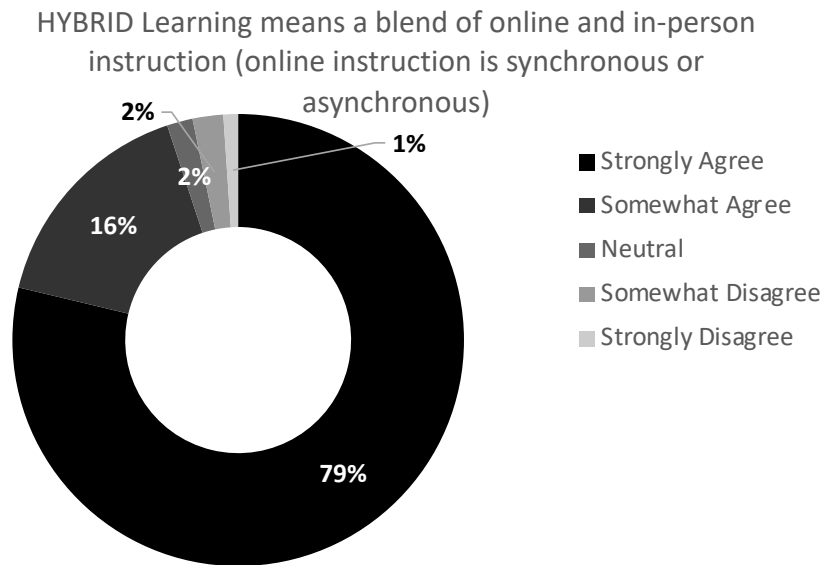
> All course content, resources, assignments and assessments are online (usually via Moodle). There are no required meeting times on campus or on Zoom (the courses are asynchronous). Student-to-student interaction, teacher-to-student interaction and social community are hallmarks of online learning. [Faculty, two-year institution]

> Online learning is a form of credit-generating instruction offering instruction by an authorized, qualified instructor that a business employs. Learners who enroll or register have access to the resources of that instruction via sponsored electronic portals, usually with controlled access (passwords, user names, etc.). [Faculty, four-year private institution]

Hybrid Learning

Similar to the definition for online learning, there was mostly agreement (95%) with the definition put forth in the survey that hybrid learning "means a blend of online and in-person instruction (online instruction is synchronous or asynchronous)." Only 3% of survey participants responded that they disagreed with the definition.

Figure 4

Agreement with Hybrid Learning Definition

HYBRID Learning means a blend of online and in-person
instruction (online instruction is synchronous or
asynchronous)

- Strongly Agree
- Somewhat Agree
- Neutral
- Somewhat Disagree
- Strongly Disagree

Analysis of Disagreement. Within the minuscule minority of participants who disagreed with the survey definition of hybrid learning, 54 provided comments answering how they would define hybrid learning instead. The research team analyzed and categorized these remarks, which naturally fell into the same categories as the ones that emerged in the analysis of disagreement for online learning: the scope of the definition, the phrasing of the definition, and other.

As with online learning, most of the disagreement related to the scope of the definition for hybrid learning: a total of 31 participants commented that they either held a broader definition (18 participants) or a more granular definition (13 participants) for hybrid learning. Nine participants with a broader definition for hybrid learning suggested that the term hybrid should also encompass a mix of synchronous and asynchronous learning in a fully online learning context (with no in-person component). The participants with a more granular definition for hybrid learning agreed that hybrid learning involved a mix of online and in-person instruction. Contrary to the survey definition, some participants held strong views that the online elements could only be asynchronous. Other participants argued that the online elements in a hybrid course could only be synchronous.

Seven participants also provided alternate definitions for hybrid learning that essentially held the same meaning as the survey definition but had different phrasing. One administrator from a four-year public institution wrote the following alternate definition for hybrid learning:

> A portion (0.01% – 99.9%) of the direct instruction of the course section's curricular content is delivered to the student via an online communication method, and the remaining portion of the direct instruction is required to be delivered face-to-face.
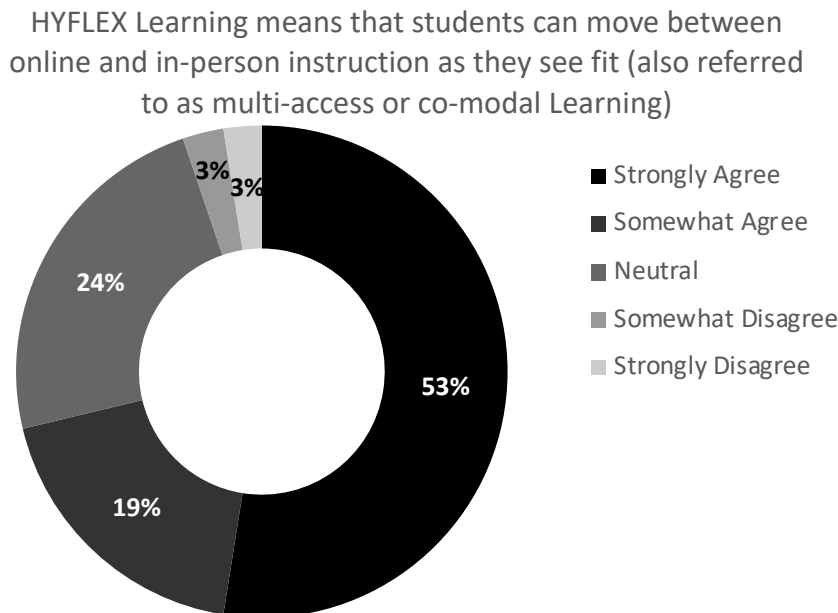
Another 16 participants disagreed with the survey definition of hybrid learning and provided comments that the research team placed in the "other" category. These comments tended to center on participants' opinions about hybrid learning rather than offering an alternative definition to the survey definition. As an example, one teaching and learning leader at

a four-year public institution said, "This is the most problematic term—since the administration defines it and uses it quite differently than the faculty . . . the faculty advertise HYBRID but are not in support of its use."

Hyflex Learning

There was little disagreement (6%) with the definition put forth in the survey for hyflex learning, that it "means that students can move between online and in-person instruction as they see fit (also referred to as multi-access or co-modal learning)." Most participants (72%) agreed to some extent with the survey definition of hyflex learning; however, a substantial minority (24%) reported that they neither agreed nor disagreed.

Figure 5
Agreement with Hyflex Learning Definition

HYFLEX Learning means that students can move between online and in-person instruction as they see fit (also referred to as multi-access or co-modal Learning)

- Strongly Agree
- Somewhat Agree
- Neutral
- Somewhat Disagree
- Strongly Disagree

Analysis of Disagreement. The reasons for disagreement with the terms online learning and hybrid learning fell into the same categories; however, different categories emerged when analyzing 93 comments provided by those who disagreed with the survey definition for hyflex learning. These comments mainly fell into two categories: not fluid and opinion.

There were 27 participants whose comments fell into the "not fluid" category. These participants gave alternative definitions for hyflex learning that lacked the fluidity characteristic of hyflex learning according to the original definition put forth by Beatty (2014). Within the "not fluid" category, four additional sub-categories emerged that captured how these definitions deviated from Beatty's definition: hybrid learning, limited movement, no asynchronous, and sections. The "hybrid learning" sub-category consisted of seven comments describing hyflex learning as a prescribed mix of in-person and online learning. The "limited movement" sub-category had five comments that indicated that students had some choice of learning mode and the ability to switch between modes, but not to the full extent of the survey definition. The "no asynchronous" sub-category had six comments stating that hyflex learning could only include in-

person and synchronous online learning. The "sections" sub-category had nine comments that said that hyflex learning requires students to select either a fully online or fully in-person learning environment upon registration and to remain in that learning environment for the duration of the course.

An additional 34 participants who reported disagreement with the survey definition of hyflex learning offered an opinion about hyflex learning rather than an alternate definition. The opinions shared included participants stating their dislike of the concept of hyflex learning or sharing their experiences with hyflex learning (and their subsequent attitudes toward it). A teaching and learning leader at a four-year public institution wrote, "This format was attempted in my institution, and it was rejected by the students and faculty."
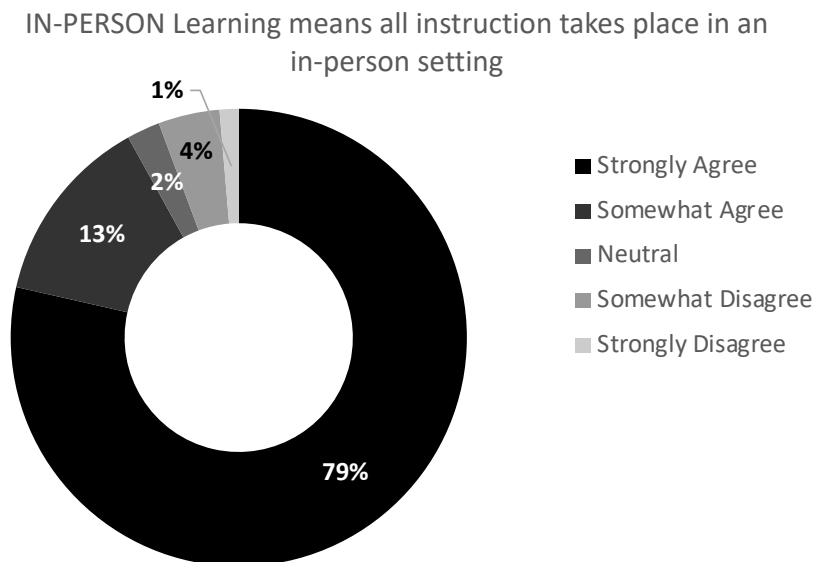
Some participants also left comments indicating unfamiliarity with the term hyflex learning (11 participants). Others remarked that they held an alternate definition for hyflex learning that was unique (12 participants). For example, one faculty member defined hyflex learning as "Learning that is done at the instructors' wish. More online than face-to-face." Nine participants also provided alternate definitions for hyflex learning that were the same as the survey definition, despite reporting disagreement with that definition.

In-Person Learning

The vast majority of participants (92%) agreed to some extent with the survey definition for in-person learning, which stated that "IN-PERSON LEARNING means all instruction takes place in an in-person setting." There was minimal disagreement (5%) or neutrality (2%).

Figure 6
Agreement with In-Person Learning Definition

Analysis of Disagreement. For the other terms included in the survey, there were multiple reasons for disagreement among the minority participants who disagreed with the survey definition. For in-person learning, the disagreement mainly centered on a single topic: integrating technology into the in-person learning experience. Of the 5% of participants who disagreed with the survey definition of in-person learning, 104 wrote comments describing how

they would define in-person learning instead. Most of these participants (75) remarked that online materials and technologies (such as a learning management system) would supplement in-person learning. For example, a teaching and learning leader at a four-year public institution said:

> Even when students and faculty come together in person, they also collaborate, share resources, complete assessments, etc., using online services and tools. The definition offered here does not include this. For instance, looking at log files for our digital learning services, we see the same level of use for in-person and online courses. On the other hand, our system administration provides funding as if only online courses use these services, which is highly problematic.
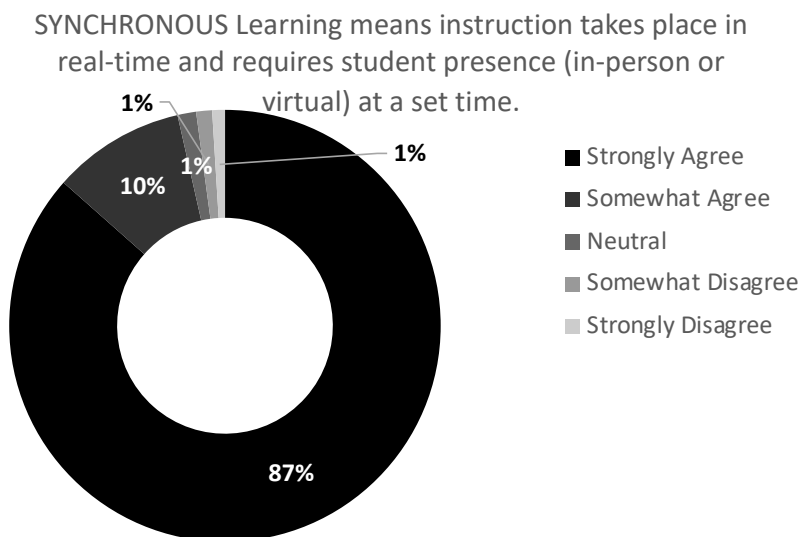
The remaining 29 comments describing disagreement with the survey definition included seven definitions describing in-person learning as having components that occur remotely and seven that required in-person learning to have a prescribed percentage of on-campus classroom time. Eight alternate definitions provided by participants held the same meaning as the survey definition. Another seven comments were opinion-based or had a very different meaning from the usual use of the term (e.g., in-person learning means "one-to-one teaching").

It is important to emphasize that hardly any participants reported disagreement with the survey definition of in-person learning. Among those who disagreed, there is a clear pattern of disagreement, which centers on whether using technology or online materials in an in-person learning context impacts the term's meaning.
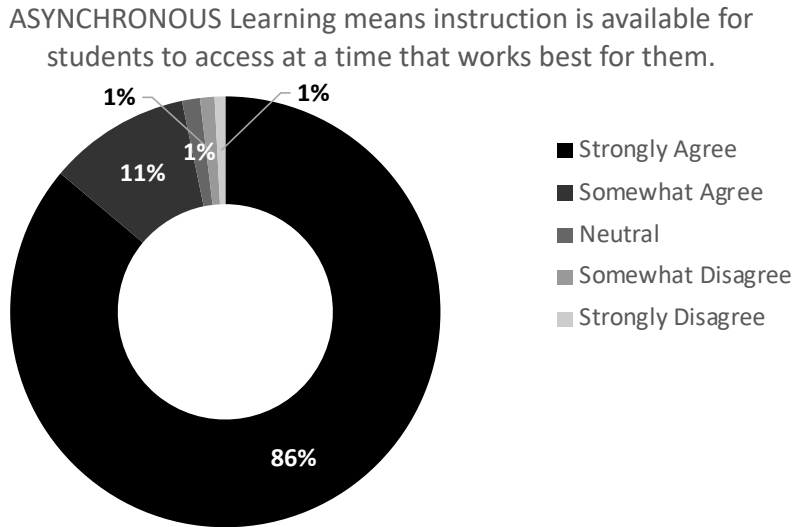
Synchronous and Asynchronous Learning

Most participants strongly agreed with the survey definitions for synchronous and asynchronous learning seen in the figures below. Only 2% of participants disagreed with the survey definitions for both terms.

Figure 7
Agreement with Synchronous Learning Definition

Online Learning Journal – Volume 26 Issue 3 – September 2022

Figure 8

Agreement with Asynchronous Learning Definition

ASYNCHRONOUS Learning means instruction is available for
students to access at a time that works best for them.

■ Strongly Agree
■ Somewhat Agree
■ Neutral
■ Somewhat Disagree
■ Strongly Disagree

Analysis of Disagreement. Any disagreement with the survey definitions for synchronous and asynchronous was almost non-existent. Of the participants who reported disagreement, 34 provided comments for disagreement with synchronous learning and 28 provided comments for disagreement with synchronous learning.

The most common reason for disagreement with the survey definition of synchronous learning, as stated by 18 participants, was the conviction that one should only label learning as synchronous if it took place in an online context. In other words, those who disagreed with the survey definition took the position that in-person learning was inherently synchronous and that synchronicity should not need to be stated. Since another six participants provided an alternate definition that was the same in meaning as the survey definition, the majority of those who disagreed with the survey definition (24 participants) did not actually disagree with the essence of what synchronous learning means.

For asynchronous learning, the most common reason for disagreement was the issue of having a set schedule for the course (e.g., assignment deadlines) (13 participants). Again, the comments revealed that these participants did not actually disagree with the survey definition of asynchronous learning. Instead, they wanted it stated that asynchronous learning included both courses with deadlines and self-paced courses.

Summary

For each term, only a small proportion of the participants disagreed with the stated definition (ranging from 2% to 7%). Except for in-person learning, no patterns related to the disagreement suggested that an alternate definition would be more appropriate than the survey definition. For instance, with online and hybrid learning, the number of participants wanting a broader definition is nearly matched by those who wanted a narrower one. In contrast, disagreement with the survey definition of in-person learning centered on using technology and

online materials within this learning mode. The categories and distribution were consistent regardless of whether the participant disagreed or strongly disagreed.

Discussion and Implications

This study investigated how digital learning terms are understood by faculty and administrators. Instead of confusion and contention about what these terms mean (as suggested by the literature), the findings revealed widespread agreement. We begin the discussion by asserting how the findings indicate a need for a "big bucket" approach to definitions. We then present a method for addressing the ever-evolving nomenclature when categorizing digital learning terms. We conclude by providing recommendations for future research.

A "Big Bucket" Approach

Most attempts to define key terms related to online and hybrid learning have been top-down, with scholarly opinions about how others "should" name different learning experiences dominating the literature (Moore et al., 2011; Singh & Thurman, 2019). Conflicting views within the academic community have led to the perception that there is not much consensus about what these terms mean. In contrast, the present study's findings provide clear evidence that there is widespread agreement when learning modes are described in terms of their most basic characteristics.

Although the survey findings show overwhelming agreement with the meanings put forth for common terms, there are several contradictions in practice. For example, the results related to the presence of a single institution-wide definition for online learning showed that 62% of participants had a single definition at their institution, 27% had varying definitions, and 9% had both a single definition and varying definitions. Similarly, only 52% of participants reported having a single institution-wide definition for hybrid learning (with 31% reporting varying definitions and 12% reporting both). These findings tell us that although there is broad consensus, it does not necessarily result in the use of common language to describe course offerings at the institutional level.

Regarding the presence of a definition for distance learning, only 52% of institutions reported having an institution-wide definition for the term. This finding highlights an interesting paradox since virtually all the institutions represented by the sample of participants are required to report enrollments for distance learning to the Integrated Postsecondary Education Data System (IPEDS) survey conducted by the National Center for Education Statistics (NCES) using the NCES definition (stated in the literature review).

Consequently, we cannot ignore the expansive list of labels that describe online and hybrid learning experiences already being used in practice. There is a pressing need to end the debate that any one label is conclusively the correct term and to enter into discussions about definitions from the level at which there is consensus. For this reason, we propose a "big bucket" approach that builds upon the Modes of Learning Spectrum put forth by Johnson (2021).
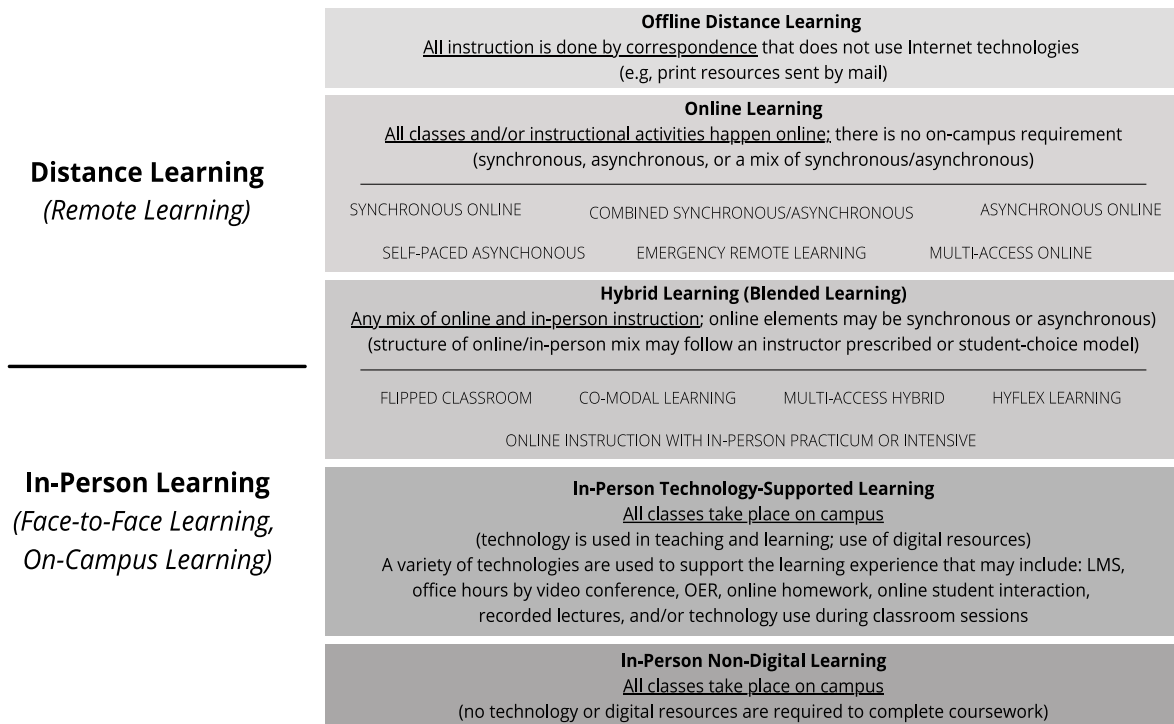
Although there are many terms in use that describe various implementations of learning modes, these terms can be easily sorted into the "big buckets" of online learning, hybrid learning, and in-person learning. Each big-bucket learning mode (online learning, hybrid learning, in-person learning) captures the location of instruction. The "when" and "how" aspects of instruction can be seen as "variations" within each bucket that represent the different ways that institutions can deliver online, hybrid, and in-person learning experiences.

Revised Modes of Learning Spectrum

The revised version of the Modes of Learning Spectrum (Figure 9) follows the same format as the original put forth by Johnson (2021). Distance learning is separate from in-person learning (deemed interchangeable with face-to-face and on-campus learning). The extreme end of distance learning is "offline distance learning" also called correspondence learning, which is consistent with the original version; however, the extreme end of in-person learning has been changed from "in-person learning" to "in-person non-digital learning." This change aims to address the points raised by the participants who disagreed with the survey definition of in-person learning based on the use of technologies within an in-person learning context. The literature and survey findings collectively indicate that these extremes are a rarity in practice: most learning experiences fall into the big buckets of online, hybrid, and in-person technology-supported learning.

Different online or hybrid learning forms and institution-specific course labels are considered variations within the buckets. The sorting of different variations into overarching buckets provides a path toward shared terminology. The approach also matches how terms are being used in real-world settings while still accommodating idiosyncratic course offerings and granular naming conventions to describe highly-specific types of learning experiences. Importantly, the learner's location is a key determinant in naming the mode.

Figure 9
Revised Modes of Learning Spectrum

Note: Johnson (2021), the lead author of this report, is the creator of the Modes of Learning Spectrum, which was published in a report by the Canadian Digital Learning Research Association (CDLRA) under a "CC BY-ND" license. Dr. Johnson and the CDLRA have granted permission to publish the revised version of the Modes of Learning Spectrum (above), a derivative work of the original. https://creativecommons.org/licenses/by-nd/4.0/

The variations included in each big bucket represent examples, not an exhaustive list. To generate the examples in the figure, the research team took commonly mentioned variations from the literature and sorted them by learning mode. With terms such as multi-access learning (Irvine et al., 2013; Irvine, 2020), which encompass a range of possible offerings, we added identifiers to the term to demonstrate how these terms can be categorized. For example, "multi-access online" refers to a multi-access learning experience where the only choices of learning mode available to the student exist in an online context. "Multi-access hybrid" describes a learning experience, like hyflex learning (Beatty, 2019), where the choices of learning mode include both online and in-person options. Open-access options, also mentioned by Irvine, can fall into any of the big buckets, depending on the nature of the learning experience. As technology continues to evolve and new types of learning experiences emerge, they can be added to the appropriate big bucket.

In using the Modes of Learning Spectrum as a tool for categorizing learning experiences by mode, it is critical to acknowledge that the defining lines from one mode to another are somewhat blurred. While the extremes are easy to delineate, the lines between online and hybrid learning, and hybrid and in-person technology-supported learning are harder to pinpoint. In other words, within any modality, assignment completion, study, and informal communications will likely all include work at a distance, Internet use, and technology work except at the extreme ends of the spectrum. Thus, we encourage scholars and policymakers to refrain from casting online and in-person learning as binaries. Further, we discourage using percentages to distinguish between online, hybrid, and in-person technology-supported learning. Essentially, percentages are an indicator that a course is, in fact, hybrid because it includes a mix of online and in-person instruction.

Future Research

The present study provides a starting point for developing shared understandings of commonly used terms related to online and hybrid learning. Knowing that most participants agreed with the survey definitions for online and hybrid learning enables researchers to use these terms with the confidence that participants do not hold vastly different interpretations of the meaning. With this in mind, researchers may want to explore how faculty are incorporating technologies and online materials into their courses and how faculty label these practices. Similarly, how do students describe the different learning experiences they encounter? Do they agree with the survey definitions? To what extent are students familiar with these terms.

Lastly, there is a pressing need to investigate the policy implications of definitions. For example, the finding that roughly two-thirds of participants have institution-wide definitions for distance learning, despite the requirement by NCES's IPEDS to submit data using a specific definition, highlights the need for further research to explore the gap between policy definitions and those used in practice. Do the definitions used for policy purposes match the definitions used in practice? Does applying a framework, such as the Modes of Learning Spectrum, help narrow the gap between policy and practice, or are other factors at play that need addressing?

Conclusion

Given the discussion about how to best label online and hybrid learning experiences, it is critical to understand that the understanding of these terms is exceptionally consistent among administrators and faculty. Any contention related to key terms appears to be related to the

variations within each big bucket rather than the big-bucket terms themselves. As evidenced by the literature, scholarly debates over semantics are counter-productive, and such debate creates confusion and hampers collaboration amongst institutions and researchers. As a solution, the revised Modes of Learning Spectrum is rooted in the consensus that exists for the broader terms (online learning, hybrid learning, in-person learning) while accommodating the emergence of new variations over time.

We recommend that academic leaders place a greater emphasis on which big bucket a unique learning experience fits into rather than labelling emerging variations as entirely new categories. When administrators, faculty, and students can communicate with a shared understanding of common terms, we (as researchers) can better investigate day-to-day digital learning practices and how these are evolving over time. Those who teach and administer these courses do not typically pay attention to the finer points in the academic articles about the philosophical and theoretical underpinnings of naming conventions. Rather, these act as a distraction and add confusion when the focus needs to be on the clear articulation of the nature of the learning experience for students. Any method or framework for defining or categorizing digital learning terms must accommodate and encompass differing institutionally-situated offerings and their respective labels. Policy leaders would also be well advised to examine the definitions they use in compliance rules and data collections. Without more commonality across agencies, both the compliance expectations and the statistics gathered will be of questionable reliability.

We acknowledge the issue of there being multiple and competing definitions related to online learning: it will take time and effort for these systemically ingrained definitions to be replaced. Although there is substantial agreement on the meanings of the key terms discussed in this report, we expect that the mere act of sharing the existing agreement through this report will likely lead to more agreement. There may always be individuals who want definitions for key terms stated in their own way (e.g., in accordance with their personal philosophical or theoretical opinions) or institutional reporting requirements that demand the use of specific terms. However, the current state of widespread consensus leaves us with the hope that confusion resulting from divergent meanings will diminish over time.

References

Allen, I. E. & Seaman, J. (2003) *Sizing the opportunity: The quality and extent of online education in the United States, 2002 and 2003*. Bay View Analytics. https://www.bayviewanalytics.com/reports/sizing-the-opportunity.pdf

Allen, I. E. & Seaman, J. (2014) Grade change: Tracking online education in the United States. Bay View Analytics, https://www.bayviewanalytics.com/reports/gradechange.pdf

Beatty, B. J. (2019). *Hybrid-flexible course design: Implementing student-directed hybrid classes* (B. J. Beatty, Ed.), EdTech Books. https://edtechbooks.org/hyflex/book_intro

Garrison, D. R., & Vaughan, N. D. (2008). *Blended learning in higher education: Framework, principles, and guidelines*. John Wiley & Sons.

Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A. (2020, March 27). *The difference between emergency remote teaching and online learning.* Educause Review. https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teaching-and-online-learning

Irvine, V. (2020, October 26). *The landscape of merging modalities.* Educause Review. https://er.educause.edu/articles/2020/10/the-landscape-of-merging-modalities

Irvine, V., Code, J., & Richards, L. (2013). Realigning higher education for the 21st-century learning through multi-access learning. *Journal of Online Learning and Teaching, 9*(2), 172-186.

Johnson, N. (2021). Evolving definitions in digital learning: A national framework for categorizing commonly used terms. *Canadian Digital Learning Research Association*. http://www.cdlra-acrfl.ca/2021-cdlra-definitions-report/

Johnson, N., Veletsianos, G., & Seaman, J. (2020). US faculty and administrators' experiences and approaches in the early weeks of the COVID-19 pandemic. *Online Learning*, *24*(2), 6-21. https://olj.onlinelearningconsortium.org/index.php/olj/article/view/2285/930

Moore, J. L., Dickson-Deane, C., & Galyen, K. (2011). e-Learning, online learning, and distance learning environments: Are they the same? *Internet and Higher Education, 14*, 129-135. doi:10.1016/j.iheduc.2010.10.001

National Center for Education Statistics. (n.d.) *Distance education in IPEDS.* IPEDS: Integrated postsecondary education data system. https://nces.ed.gov/ipeds/use-the-data/distance-education-in-ipeds

Saba, F. (2011). Distance education in the United States: Past, present, and future. *Educational Technology,* 11-18. https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.365.9558&rep=rep1&type=pdf

Seaman, J. & Johnson, N. (2021). Pandemic-era report card: Students, faculty, and administrators reflect upon the academic year. *Bay View Analytics.* https://www.bayviewanalytics.com/reports/pulse/pandemic-era-reportcard.pdf

Singh, V., & Thurman, A. (2019). How many ways can we define online learning? A systematic literature review of definitions of online learning (1988-2018). *American Journal of Distance Education*, *33*(4), 289–306.

Smith, K., & Hill, J. (2019). Defining the nature of blended learning through its depiction in current research. *Higher Education Research & Development, 38*(2), 383-397. https://doi.org/10.1080/07294360.2018.1517732