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Survey Fatigue— What Is Its Role in Undergraduates' Survey Participation and Response Rates?

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ABSTRACT

Undergraduates' low participation/response rates on interdisciplinary (campus-wide) and disciplinary (specific department) surveys have been attributed to survey fatigue. To investigate this attribution's merits, the present study conducted a systematic literature search (five electronic databases plus one search engine) and critiqued findings of relevant publications returned by the search. This study found that (a) survey fatigue has not been rigorously defined, (b) the number of relevant peer-reviewed publications is unexpectedly limited, and (c) their findings are contradictory. These results have implications for policies and practices that restrict undergraduate survey administrations to minimize survey fatigue and boost participation/response rates. The present report recommends improving undergraduates' participation/response rates by requiring instruction about surveys combined with assessments of student learning outcomes.

Keywords: higher education, response rate, survey, survey fatigue, undergraduates

Surveys are used ubiquitously by decision makers (Groves, 2011; Pew Research Center, n.d.-a; Presser & McCulloch, 2011). Uses for surveys range from measuring customer satisfaction (Birkett, 2020) to predicting election outcomes (Pew Research Center, n.d.-b). An additional use for surveys is in higher education's interdisciplinary (university-wide) and/or disciplinary (specific department) assessments or evaluations of postsecondary students'

engagement, learning outcomes, satisfaction, and other education imperatives (Harvey, 2003; Klemenčič & Chirikov, 2015; Pike, 2007; Thielsch et al., 2018). Because surveys are used so widely in higher education globally, the possibility exists that their administrations could become excessive and have a negative impact on their results' validity and/or educational meaningfulness (e.g., Chen, 2011; Steeh, 1981). This possibility prompted the present study.

Prospective survey participants' low participation rate has been attributed in the research literature to various causes. They include (but are not limited to) refusal (Steeh, 1981); respondent burden (McCarthy et al., 2006; Sharp & Frankel, 1983); inaccessibility, inability, carelessness, and noncompliance (Rogelberg et al., 2003); perceived unimportance of the survey, low interest in the survey's research, little trust that the data will be used and maintained properly, insufficient reward for participation, (Dillman, 2007); and leverage-saliency (Groves et al., 2000). Another cause that has been cited is *survey fatigue*. If "fatigue," by definition (Oxford Reference, n.d.), is intended to signify extreme tiredness due to mental or physical exertion, then survey fatigue would imply that prospective participants' non-responding is attributable to their extreme tiredness of survey invitations and/or participations.

Statement of the Problem

Undergraduate students' low participation and/or response rates (e.g., Steeh, 1981) could lead to results with reduced statistical power, credibility, and generalizability (Rogelberg et al., 2003). Such results in turn could produce biased (non-representative) population estimates and interpretations (Groves, 1987; Hansen & Hurwitz, 1946; Lynn, 1996; Reio, 2007; Sivo et al., 2006; Steeh, 1981). Although attributing low participation and/or response rates to survey fatigue ostensibly makes sense, this attribution could be problematic in higher education.

Survey fatigue could compel postsecondary educators and administrators to become concerned that, if a specific population of students (e.g., first-year undergraduates) were recruited for an excessive number of surveys within a short time span, an undesirably increasing percentage of the prospective respondents might become non-responders (Olson, 2014). This concern then could result in a decision to restrict and/or coordinate survey administrations to a particular student population within a particular time frame in attempting to prevent or minimize survey fatigue as a strategy for maximizing participation/response rates. Survey restriction could negatively impact workloads if the necessary planning and coordination resulted in faculty and/or staff expending additional time and/or resources (Gansemer-Topf & Wohlgemuth, 2008). Alternatively, educators and administrators might decide to discourage or ban some of their campus' survey administrations as a strategy for maximizing participation/response rates. Survey discouragement or bans could result in students losing opportunities

to effect change by providing feedback about their experiences, opinions, and/or perceptions regarding campus climate, accountability, or other vital issues (Tschepikow, 2012). Consequently, the extent to which survey fatigue plays a role in students' survey participation and response rates has implications for higher education decision-making about policies and practices related to survey administrations.

Purpose and Thesis of the Study

The present study's purpose was to investigate the research literature's evidence about survey fatigue's role as a cause of undergraduate students' low participation and response rates on interdisciplinary (e.g., National Survey of Student Engagement, 2020) and/or disciplinary (e.g., course evaluations) surveys. The following three questions, prompted by the above stated problem, were addressed:

1. To what extent does the research literature provide evidence that survey fatigue actually is responsible for students' low participation and/or response rates?
2. If survey fatigue instead plays little or no meaningful role, should university administrators', instructors', and/or staff members' decisions nevertheless be guided by it?
3. How else could higher education administrators address undergraduates' low participation and/or response rates on essential surveys besides adopting policies and/or practices intended to mitigate survey fatigue?

These questions led to the present study, which consisted of a literature search on survey fatigue's role in undergraduate students' survey participation and/or response rates, and its accompanying implications for higher education policies and practices. This study was conducted to address the above questions by critiquing the results reported in the relevant publications found by the literature search and taking into account certain pragmatic considerations. Its thesis was that if low participation and response rates really are attributable to survey fatigue, then interdisciplinary and/or disciplinary methodologies that reduce undergraduate students' survey fatigue should result in increased participation and/or response rates.

To determine whether this thesis was supported in the extant research literature, the present study specifically focused on searching for publications about survey fatigue rather than ones about low participation (McCarthy et al., 2006; Pike, 2007) or response rates (Fosnacht et al., 2017) per se; survey fatigue is an inferred internal condition while participation and response rates are directly observable and measurable. Therefore, the present study was undertaken with the expectation of finding studies on survey fatigue that had been published in recent years and reported how it could be mitigated

methodologically. The literature search, review, and critique instead unexpectedly produced the following findings:

1. Survey fatigue has not been rigorously defined.
2. Very few reports have been published recently or dating back to the 20th century about systematic studies of survey fatigue.
3. The reported empirical findings are contradictory.

These findings have implications for higher education policies and practices regarding the frequency of survey administrations to undergraduate students.

RESEARCH METHOD

A systematic search of five electronic databases (ERIC, Infotopia, JSTOR, Pub Med Central, and Web of Science) was performed during late 2020 and early 2021 to address this study's three research questions. These searches used the following terms with and without enclosing quotation marks: survey fatigue; survey fatigue students; survey fatigue university; and survey fatigue policy. The following selection criteria were used consistently with the goal of finding as many relevant publications (i.e., ones explicitly discussing and/or mentioning survey fatigue) as possible for consideration in the present study:

- Include all peer-reviewed research articles, book chapters, and presentations at professional conferences which contain both of the words "survey" and "fatigue," regardless of publication date.
- Exclude all peer-reviewed articles which contain either "survey" or "fatigue" alone, in isolation (for example, articles about studies that used surveys as a data collection instrument without any reference to "fatigue"; articles about physiological or mechanical fatigue from exercise, age, or other conditions); all essays, book reviews, editorials, and student theses or dissertations.

An additional search for the term "survey fatigue" in the research literature was performed using Google Scholar. The above selection criteria were applied consistently in this additional search with the goal of finding as many relevant publications (i.e., ones that explicitly discussed and/or mentioned survey fatigue) as possible for consideration in the present study.

All publications found by the literature searches using the above selection criteria were reviewed and subjected to the critique that is presented below.

RESULTS

Literature Search, Review, and Critique

The numbers of peer-reviewed publications returned by the above systematic search of the five electronic databases are summarized in Table 1. Only 10 unique and relevant references were retrieved from these databases. These references explicitly mentioned, referred to, or discussed survey fatigue (other retrieved references were about surveys or about fatigue but did not mention, refer to, or discuss survey fatigue).

In Google Scholar's approximately 5,700 results sorted by relevance, the vast majority proved irrelevant to the present study; they did not mention, refer to, or discuss survey fatigue. However, six of the above 10 found in the electronic databases also appeared in Google Scholar's search results, thus leaving four unique ones from the five electronic databases (Table 1) plus the ones unique to Google Scholar's results (reviewed and critiqued below).

Table 1: Literature Search on Survey Fatigue—Number of Publications Found in Electronic Databases

Electronic database	Search Term†	Publications Found
ERIC	"survey fatigue"	7
	"survey fatigue students"	3*
	"survey fatigue university"	0
	"survey fatigue policy"	0
Infotopia	"survey fatigue"	1
	"survey fatigue students"	0
	"survey fatigue university"	0
	"survey fatigue policy"	0
JSTOR	"survey fatigue"	1*
	"survey fatigue students"	0
	"survey fatigue university"	0
	"survey fatigue policy"	0
Pub Med Central	"survey fatigue"	0
	"survey fatigue students"	0
	"survey fatigue university"	0
	"survey fatigue policy"	0
Web of Science	"survey fatigue"	0
	"survey fatigue students"	0
	"survey fatigue university"	0
	"survey fatigue policy"	0

Note. † Searches performed with and without enclosing quotations marks.
* Number of duplicates of publications extracted by above search term.

All of the above searches' chronologically first published report mentioning or researching survey fatigue was by Vinson (1996), who discussed an alternative performance appraisal process for employees (i.e., 360-degree feedback). This report mentioned survey fatigue as "another potential problem…[employees] experience…from having to fill out countless forms" (Vinson, 1996; p. 12). Subsequent relevant publications among Google Scholar's 5,700 search results similarly mentioned—without defining or addressing—survey fatigue (Bennett & Nair, 2010; Chen, 2011; DePountis et al., 2015; Fan & Yan, 2010; Gofton, 1999; Harvey, 2003; Hill et al., 1997; Krosnick, 1991; Lipka, 2011; McNair, 2009; Porter, 2005; Porter & Whitcomb, 2005; Sinickas, 2007; Van Mol, 2017; Wise & Barham, 2012). Importantly, although the above selection criteria permitted the inclusion of relevant studies without regard to publication date, the searches found few that had been published within the past 10 years. They are cited below.

The chronologically first result/publication that specifically used the phrase "survey fatigue" and addressed it was the chapter "Multiple surveys of students and survey fatigue" (Porter et al., 2004). This chapter defined survey fatigue and reviewed the research literature about it, which existed circa 2004. "Survey fatigue is one component of respondent burden, generally defined as the time and effort involved in participating in a survey (Sharp & Frankel, 1983)" (Porter et al., 2004, p. 64). Respondent burden, in turn, was defined as follows. "The Office of Management and Budget…which was assigned the responsibility of administering the regulations, used the term 'respondent burden' to refer specifically to the time required to complete [surveys]" (Sharp & Frankel, 1983, p. 31). Survey fatigue has been more broadly defined in the literature on travel surveys as the time, energy, and other demands required of the survey's invitees; and respondent burden additionally is the invitee's perceived level of difficulty on multiple dimensions (Ampt, 2003).

Exactly what is survey fatigue?

The above definition of survey fatigue found by the literature search potentially is ambiguous. Does it mean that survey fatigue is the time and effort in survey participation, and as such, is a component of respondent burden? Or does it mean that respondent burden is the time and effort of survey participation, and survey fatigue is one (out of an unstated total number of) component(s) of that burden? Sharp and Frankel (1983) reported a study in which they found that "Of the three correlates we tested experimentally—length, effort, and repeat administration—only length emerged as making a significant difference" (p. 51). Therefore, effort must not have been a characteristic of respondent burden in their definition (Sharp & Frankel, 1983), which in turn implies that effort instead must have been a characteristic of survey fatigue in the quoted definition above (Porter et al., 2004).

If survey fatigue is the time and effort involved in participating in a survey, then this definition raises the following questions. (a) Is survey fatigue an independent variable (i.e., it affects participation/response rate—the dependent variable), is it a dependent variable (it increases or decreases as a result of participation/response rate—the independent variable), is it both, or is it neither (e.g., is survey fatigue instead an intervening variable or hypothetical construct; MacCorquodale & Meehl, 1948)? (b) If one group of students completes hypothetical Survey A in 1 minute and then Survey B in 2 minutes while a second completes Survey C in 1 hour and then Survey D in 2 hours, did the two groups experience equivalent survey fatigue on Surveys B and D relative to A and C? (c) Two groups of respondents' multiple survey participation is interrupted—one by a minute phone call, the other by a minute jog. Did these two groups experience the same survey fatigue? These questions (and others the reader could imagine) would be difficult (if not impossible) to answer conclusively based upon the quoted definition above (Porter et al., 2004). Therefore, this definition of survey fatigue might be limited at best; vague and/or invalid at worst.

The literature search returned a more recent publication (Olson, 2014) stating that "survey fatigue is associated with survey burden, defined simply as the number of survey contacts" (p. 93) and "despite its intuitive appeal, the assertion that burden of multiple surveys leads to survey fatigue and suppresses response rates has received little study" (p. 94). This definition differs markedly from the aforementioned one by Porter et al. (2004)—it excludes time and effort or any other referent to the dictionary definition of fatigue (extreme tiredness), focusing instead upon an observable, manipulable quantity ("survey contacts" presumably means invitations to participate) and thus is tantamount to an operational definition (Vandervert, 1980). It also is tantamount to an independent variable, not a dependent or intervening variable, and not a hypothetical construct. However, the last three of the above four questions would be difficult (if not impossible) to answer conclusively based upon this definition because the questions do not specify the number of survey contacts. Olson's definition might be limited at best, invalid at worst.

The research literature on survey fatigue reviewed in the above chapter (Porter et al., 2004) consisted of three publications in total (Asiu et al., 1998; Goyder, 1986; McCarthy & Beckler, 1999)—the first reported an inverse relationship between the number of survey invitations and the invitee's attitude toward surveys, the second found that 97% of Air Force cadets participating in a survey about survey administrations felt at least "somewhat oversurveyed," and the third reported (contrary to conventional wisdom) that an increase in survey invitations did not result in decreased survey participation. The latter report contradicted Olson's (2014) subsequent definition, which instead would have predicted that an increase in the number of survey contacts should have resulted in decreased participation.

The chapter additionally presented the results of the authors' two experiments measuring the effect of inviting undergraduates to varying numbers of surveys (Porter et al., 2004). The first experiment showed that a group of college seniors who were invited to two surveys (the College Student Experiences Questionnaire and the Senior Survey) administered back-to-back had a 10% lower response rate (57% vs. 67%) than counterparts who were invited to one (Senior Survey). The second experiment showed that college freshmen's response rates varied as a function of how many surveys were administered and their distribution within an academic year—a group invited to only one survey had a 60% response rate, a group invited to two showed a drop in its response rate from 68% to 63%, a group invited to three dropped from 54% to 47%, and a group invited to four dropped from 70% to 47%. All surveys were administered in the fall, except the fourth group's final survey was administered in the spring. The above results were interpreted as evidence that the invitations affected survey fatigue, and suggested that (a) "survey fatigue may have the biggest impact on surveys conducted back-to-back," (b) "surveys conducted in a previous semester may not affect response rates, or the impact may be minimal," and (c) "the impact of multiple surveys is not linear" (Porter et al., 2004, p. 72). These interpretations would not have been predicted by the above definitions of survey fatigue because time and effort (Sharp & Frankel, 1983), and/or the number of survey contacts (Olson, 2014), were not systematically manipulated or held constant as described in the two experiments' review (Porter et al., 2004).

Additional publications focusing specifically on survey fatigue have reported findings that are summarized briefly as follows:

- American universities, especially small ones, began implementing formal policies to regulate student survey administrations because survey fatigue was an increasing concern due to its apparent inhibitory effect on response rate (Porter, 2005).
- Demographic, personality, and engagement characteristics of undergraduate survey invitees affected their response rates; specifically, student surveys' nonresponse rate was higher for males, Hispanics, socially less engaged students, financial aid recipients, and less investigative students than for females, Whites, socially engaged, financially unaided, and investigative counterparts respectively (Porter & Whitcomb, 2005).
- Pragmatic considerations, such as developing a professional looking survey and being sensitive to invitees' time and commitments, could minimize nonresponse rates (Gansemer-Topf & Wohlgemuth, 2008).
- Undergraduates' survey participation rate increased when invited to more surveys; this seemingly counterintuitive finding was attributed to the use of engagement-promoting strategies (Bennett & Nair, 2008).

- An important question is what constitutes an acceptable nonresponse rate (Bennett & Nair, 2010). If a 60–70% nonresponse rate is acceptable (e.g., does not result in biased population estimates), then the imperative to prevent survey fatigue could be moot.
- In addition to its presumptive inhibitory effect on response rate, survey fatigue could be a source of measurement error and misclassification; respondents might answer survey questions but not truthfully or consistently in order to reduce their burden of providing answers (Egleston et al., 2011).
- Evidence of survey fatigue has increased due to technology's facilitation and low cost of survey design and administration. An experiment that manipulated the number of student evaluations of teaching (SET) within a short time frame significantly predicted response rates; the probability of students responding to survey invitations decreased as the number of administered surveys increased (Adams & Umbach, 2012; cf. Thielsch et al., 2018).

Research Question 1: To What Extent Does the Research Literature Provide Evidence that Survey Fatigue Actually Is Responsible for Students' Low Participation and/or Response Rates?

The above published findings on survey fatigue have provided little (if any) evidence that survey fatigue actually is responsible for students' low participation and/or response rates. The authors of the publications found by the present literature search reported and/or interpreted their results in terms of survey fatigue *without having measured and/or systematically manipulated it*. They instead measured (non)response rates, and inferred that survey fatigue (without explicitly defining it) was responsible for observed decreases in those rates. Adams and Umbach, for example, stated:

It also appears that [survey] fatigue, as measured by the number of evaluations requested for completion, is related to the propensity to respond to SETs. …a noticeable decrease in response rates appeared if there were 11 or more SETs administered to the student. (2012, p. 583)

This statement seemingly implies that their experiment used survey fatigue as both a dependent and independent variable—it was measured as an outcome and manipulation. A clearer and more precise statement, however, would have been (clarifying text in italics): It also appears that *response rate*, as *affected* by the number of evaluations requested for completion, is related to the propensity to respond to SETs.

In summary, all of these published findings, taken together, suggest that survey fatigue is more like a belief with a life of its own (cf. Kahan, 2011)

than a phenomenon that has been rigorously defined and studied. Although the research literature contains substantial coverage of respondent burden (reviewed by Downes-Le Guin et al., 2012) and survey (non)response rates (e.g., Fosnacht et al., 2017; Saleh & Bista, 2017), its coverage of survey fatigue is sparse (Olson, 2014) with very few recent publications expressly devoted to it. The coverage consists of some publications which mention survey fatigue without defining or studying it, and others that discuss survey fatigue as if it were the definitive cause of low participation and response rates in spite of contradictory evidence (Bennett & Nair, 2008; McCarthy & Beckler, 1999; Young et al., 2018).

Research Question 2: If Survey Fatigue Instead Plays Little or No Meaningful Role, Should University Administrators', Instructors', and/or Staff Members' Decisions Nevertheless Be Guided by It?

As shown in the present report, the sparse and contradictory published findings supply little (if any) empirical evidence to support campus decision-making, especially decisions about policies and practices that would regulate survey administrations in order to mitigate survey fatigue as a strategy for maximizing undergraduate students' survey participation or response rates. Although survey regulation could be beneficial with regard to quality assurance and/or scheduling efficiencies (Porter, 2005), it also could restrict undergraduate students' opportunities to provide university administrators with feedback about educational imperatives such as accountability, campus climate, or student engagement and satisfaction. Regulatory policies nevertheless were implemented during the early 2000s in the form of survey coordinating committees (separate from human subjects review panels) that not only performed survey quality assurance reviews and scheduling but also had rejection authority (Porter, 2005). As of 2020, a follow-up, web-based search using the terms "university survey approval review" retrieved nine universities on the first page of results alone (followed by numerous others), all of which require a committee's approval prior to survey administration.

Research Question 3: How Else Could Higher Education Administrators Address Undergraduates' Low Participation and/or Response Rates on Essential Surveys Besides Adopting Policies and/or Practices Intended to Mitigate Survey Fatigue?

Instead of deciding to restrict survey administrations as an attempt to mitigate survey fatigue, higher education administrators and educators could pursue other possible strategies. One possibility would be simply to accept students' survey response rates even if they are low (Fosnacht et al., 2017). Statistical and survey design concerns about accepting low response rates (which potentially could be addressed with appropriate sampling, existing best

practices/strategies, and other techniques) have been discussed elsewhere (e.g., Groves et al., 2004; Lynn, 1996; Nulty, 2008; Pike, 2007) and are beyond the present report's scope.

A second possibility would be to implement policies and practices which address only quality assurance and scheduling efficiency issues (Olson, 2014; Porter, 2005), without disallowing survey administrations in an effort to mitigate survey fatigue. This possibility essentially would involve regulating the survey regulators; its practicality and effectiveness remain to be evaluated. A third possibility would be to strive for the highest possible response rates by including survey participation as a mandatory component of undergraduate majors and assessing relevant student learning outcomes. The present report advocates for this third possibility, as discussed below.

DISCUSSION AND CONCLUSIONS

The purpose of the present literature search, review, and critique was to investigate whether survey fatigue's role as a cause of undergraduate students' low participation and response rates on interdisciplinary and/or disciplinary surveys has empirical support. This report consequently addresses the following questions within the context of survey fatigue's implications for higher education policies and practices regarding the frequency of survey administrations to undergraduate students. To what extent does the research literature indicate that survey fatigue is, in fact, responsible for students' low participation and/or response rates? If survey fatigue instead plays little or no meaningful role, should university administrators', instructors', and/or staff members' decisions nevertheless be guided by this concept? How else could educators address undergraduates' nonresponding or low response rates on essential surveys besides adopting policies and/or practices intended to mitigate survey fatigue?

The first of these three questions has been addressed in this report's literature search, review, and critique which update the previous observation that the research literature contains relatively few studies specifically designed to investigate survey fatigue (Olson, 2014). Importantly, the existing sparse literature on survey fatigue provides evidence contrary to the conventional wisdom that excessive survey administrations necessarily lead to increased nonresponding and/or decreased participation/response rates (e.g., Bennett & Nair, 2008; McCarthy & Beckler, 1999; Young et al., 2018). This contradictory evidence could be attributable to differences in how survey fatigue is defined, measured, and/or manipulated. At the very least, however, this apparent lack of consensus among sparse published findings should be grounds for educators to exercise caution in drawing definitive conclusions about survey fatigue's role in undergraduate students' low participation and/or response rates.

The present critique additionally addresses the second question regarding whether university administrators', instructors', and/or staff members' decisions nevertheless should be guided by concerns about survey fatigue's alleged inhibitory effect on undergraduate student participation and/or response rates. Sparse and contradictory findings in the research literature supply little evidence to support campus decision-making, especially decisions about policies and practices that would restrict survey administrations in order to mitigate survey fatigue as a strategy for maximizing undergraduate students' survey participation or response rates. If administrators and educators restrict or ban surveys, are they depriving their students of opportunities to provide input that could influence administrative decision-making? An answer to this question awaits the necessary research.

The third question above asks how else university administrators, instructors, and staff could address undergraduate students' low participation and/or response rates without addressing survey fatigue. The present report advocates that administrators and educators strive for the highest possible response rates by including survey participation as a mandatory component of undergraduate majors and assessing relevant student learning outcomes. Mandating survey participation would exploit the fact that most undergraduate students do work for grades. Consequently, a component of these students' course credits and/or grades could be based upon required learning about and participation in surveys (similar to their required learning and participation in laboratories accompanying science courses). This could be accomplished within existing courses or a newly created one; university directors and faculty could determine which approach makes the most sense for their campus' situation. In either case, the instructor would teach the importance, relevance, and benefits of survey participation. Students would be assessed on student learning outcome statements and participate in interdisciplinary surveys (e.g., National Survey of Student Engagement), so-called course evaluation questionnaires (which essentially are opinion surveys), other surveys approved by an existing coordinating committee or institutional research office, and/or ones assigned by the instructor. This possibility offers unique advantages and disadvantages, which include the following.

The first, and perhaps most important, advantage of mandatory survey participation is that it likely would result in relatively high response rates, perhaps even exceeding 90% (similar to undergraduate students' high participation rates in exams, term papers, etc.; educators reasonably could expect few, if any, students to voluntarily participate in exams and term papers if their incentive was a chance to win a gift card for their campus bookstore instead of grades; Janzow & Eison, 1990). Although high response rates alone do not necessarily guarantee external validity, preclude bias, and/or prevent error (Adams & Umbach, 2012; Nulty, 2008), they are an important step toward obtaining educationally meaningful feedback from students. A second

advantage is that mandatory survey participation could provide undergraduate students with maximal opportunities to give their input to administrators, faculty, and staff members about educational imperatives such as campus climate, accountability, or engagement and satisfaction. Third, teaching students about the importance, relevance, and benefits of survey participation could inspire them to become reliable participants in local, state, and national elections. If elections are viewed as a specialized type of survey, participation rates urgently need improvement; America's participation rates have been below 50% of eligible voters in the past 100 years' midterm elections, and below 65% in the corresponding presidential elections (which have resulted in serious consequences; Tarantola, 2018). By educating undergraduate students on the importance of surveys and participation, they could become more motivated and prepared to vote in the future, thereby improving the participation rate.

Disadvantages of mandatory survey participation include (but might not be limited to) the possibility that it cannot be implemented efficiently and/or effectively, and that it would not work even if it could. This disadvantage might be realistic, and therefore a prudent strategy would be to implement a pilot course involving a limited sample of participating undergraduates that would be used for a preliminary process evaluation and assessment of student learning outcomes. Another disadvantage is that mandatory survey participation could excessively increase students' and/or faculty workload. In reality, students' and instructors' historical workload (due to reading assignments, exams, term papers, quizzes, etc.) has not been considered excessive or resulted in a systematic effort to provide relief. Undergraduate students' motivation to work for grades instead has led most of them to fulfill course and major requirements, regardless of whether they really were excessive. A third disadvantage is that administrators, faculty, and/or staff members might view mandatory survey participation as coercive and/or exerting undue influence. To address this potential concern, assessments of student learning outcomes would be developed and implemented. If survey participation is mandatory within the context of assessing student learning outcomes, then it is as coercive as conventionally mandated reading assignments, exams, term papers, etc. Another approach to mitigate administrators', instructors', and/or staff members' potential concerns about coercion would be to grade students' survey learning and participation on a pass/fail basis. Lastly, any concerns about confidentiality and/or human subjects (institutional review board) issues could be addressed by designing the mandatory surveys and using the resulting data in compliance with the relevant student privacy laws, regulations, and university policies (e.g., report resulting data in aggregate form, without personal identifiers; use resulting data for educational program improvement rather than contributing to generalizable knowledge).

In conclusion, the present literature search, review, and critique address the relevant evidence on survey fatigue's role in undergraduate students' survey participation and response rates. This critique indicates that survey fatigue has not been rigorously defined or studied, and existing findings are conflicting rather than unanimously supporting conclusive statements or administrative decisions. The available evidence warrants caution in developing and implementing restrictions on survey administrations as a strategy for minimizing survey fatigue and boosting undergraduate students' survey participation. A potentially more effective and beneficial approach would be to mandate survey participation—in conjunction with teaching and learning about surveys—within their major's existing courses or a new one. This approach could (a) increase undergraduate students' survey response rates and (b) mitigate the need for regulation, restriction, and/or bans on interdisciplinary or disciplinary surveys.

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