

Effects of Framing Professional Development as a Career Growth Opportunity on Course Completion

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ABSTRACT

Professional development (PD) trainings help ensure employees keep up with important changes in practice, policy, and technology, but they are often perceived as burdensome by employees, likely contributing to compliance issues. Negative attitudes towards PD trainings may arise because employees view them as a chore rather than a benefit. We conducted a multi-faceted utility-value intervention in the context of a mandated, state-wide training program over two years. The intervention encouraged participants to see PD training as an opportunity for professional growth using messages embedded in email and on the PD website. We randomly assigned 98 employers (496 employees) to either the intervention condition or a business-as-usual control condition. We found limited evidence of the intervention increasing course completion. Qualitative findings suggest alternative interventions to address time management and structural barriers in trainings and workplaces.

CCS CONCEPTS

• **Applied computing** → **Education**.

KEYWORDS

Professional Development, Utility-Value Intervention, Workforce Training, Randomized Field Experiment

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1 INTRODUCTION

Professional development (PD) trainings are provided by employers (governments, corporations, not-for-profit institutions) to employees to ensure they keep up with important policy changes and new technologies. However, employees tend to perceive these trainings as time-consuming and burdensome, potentially contributing to low rates of participation and completion [12]. The barriers to training completion resemble those documented for massive

open online courses (MOOCs), especially the difficulty of finding time for courses [9], because the population of learners is also predominantly full-time employees. But unlike MOOCs, mandatory trainings do not allow for free choice and are often equated with additional workload. Making a PD training mandatory appears like a simple solution to address the issue of non-participation and non-completion, but it raises a different set of problems, including employee motivation, participation cost, and accountability [3].

In the State of New York, the Education Department's Office of Adult Career and Continuing Education Services-Vocational Rehabilitation (ACCES-VR) office provides vocational rehabilitation services to individuals with disabilities. The State contracts with a number of community rehabilitation providers to work directly with people with disabilities in achieving their career goals. Until January 2019, professional development training, offered through the Consortium for Advancing and Supporting Employment (CASE) program, was strongly encouraged but not mandatory, for supported employment professionals (a subset of providers who assist people with disabilities to obtain and maintain employment). As a result, many of those who would benefit from professional development trainings were not taking advantage of them, often citing the perceived burdensome nature of the trainings as the biggest barrier [4]. Beginning in January 2019, the CASE professional development trainings became mandatory, but continued to be offered free of charge to providers. This shift raised the stakes for ensuring the timely completion of trainings, as state contracts and continued funding were on the line.

In a research-practice partnership, we worked with the CASE program to study ways to improve timely completion of mandatory trainings. Following several conversations with CASE stakeholders about the likely engagement challenges faced by employment support professionals, we developed a multi-faceted utility-value intervention designed to appeal to the career aspirations of employment support professionals. The intervention consisted of strategically placed messages targeted at motivational processes to raise interest in the training and encourage participants to view PD as a way to advance their career. We tested the effectiveness of the intervention in a two-year-long randomized field experiment. The intervention development was grounded in the psychological intervention literature and used multiple channels to reach participants. We address the following research question: How does framing PD trainings as a growth and development opportunity impact course completion? Our research contributes causal evidence from a research-practice partnership to improve mandatory PD training completion across New York State, though our intervention design and findings are likely also applicable in other workplace training contexts.

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2 RELATED WORK

To develop an effective intervention for this context, we draw on domain-specific knowledge from our partner CASE and disciplinary literature in psychology and behavioral science. We build on insights provided in a 2019 report about the CASE program [4]. The report summarizes responses from participants who unregistered from a training explaining why they were unable to attend. The responses suggest two important barriers for training completion: first, many people did not view the courses as benefiting their careers but rather as a chore; second, most found it difficult to set aside enough time to complete the training. We would expect the shift to mandatory trainings to exacerbate both issues. If employees considered the trainings to be valuable to them, they might be more inclined to make time to complete them. To address these issues with our intervention, we build on prior work on utility value.

Subjective construals exert significant influence over people's judgements and behaviors [5]. Psychological scientists have harnessed the power of the way people understand and interpret options and situations to promote individually and socially desirable behaviors using so-called wise interventions [13]. For example, a recent identity-reframing intervention encouraged refugees take advantage of educational opportunities designed to help them enter the workforce [2]. Interventions that target the identity of individuals, whether it be demographic, social, or professional, can be especially effective at motivating behavior [11].

We focused our intervention on people's professional identity and desire for career development and growth. Moreover, we sought to highlight the utility value that participants can derive from the trainings. We therefore opted for a utility-value intervention, which helps motivate people to engage in a target behavior by highlighting its utility to them [7]. Utility-value interventions have shown promise in various educational contexts [6]. We hypothesized that a utility-value intervention with a planning activity would lead CASE participants to complete PD requirements at a higher rate relative to participants in the business-as-usual control condition. We describe the intervention in the next section.

3 METHOD

3.1 Context and Participants

The CASE training program was developed through a contract between ACCES-VR (New York State Education Department) and Cornell University's K. Lisa Yang and Hock E. Tan Institute on Employment and Disability. The original five-year contract was from 2013-2018, and was renewed in 2018 for an additional three years in response to the state-wide training mandate. The state-mandated training program affected CASE in two ways: first, it expanded the scope of eligible providers and services covered, and second, the CASE training tiers were now mandatory for providers as opposed to recommended as in the previous contract. The expansion of the types of providers meant that many employees became newly eligible to participate in CASE. In anticipation of an increase in participants, the CASE team updated their website in the year prior to the start of the new regulations with new functionality capable of showing personalized content, sending personalized emails, and customized data collection. These capabilities served an instrumental role in our research-practice partnership.

The CASE professional development training program is organized into five tiers: Tier 1 Employment Services Delivery, Tier 2 Advanced Employment Services Practice, Tier 3 Supported Employment Administration, Tier 4 Student and Youth Transition, and Tier 5 Employer Engagement. Each tier comprises a selection of core and elective courses and fulfillment of each tier requires a total of five courses. Employment support professionals are assigned specific tiers based on the services they provide and the years of experience they have. For example, providers new to the field would start with Tier 1 and take courses such as "Orientation to Employment Services," while supervisor-level employees would start with Tier 3, taking such courses as "Staff Supervision Skills." The CASE training program is required to offer 75 trainings per year, both in-person and online, across New York State. Employment support providers have a deadline of two years to complete their professional development training requirements.

We selected participants from the newly eligible employers with no prior experience with CASE. We identified 100 new employers (non-profit agencies providing core rehabilitation services with State contracts) and reached out to the directors in September 2018 to obtain lists of employees. Two employers were excluded because they employed the same people. We conducted random assignment at the employer level to ensure colleagues were in the same condition to prevent treatment contamination. We assigned 47 employers to the treatment condition and 51 to the control condition using criteria-based randomization to produce well-balanced assignments for several employer and employee variables, including the number of employees per workplace, the type of employee, and the location of the workplace [1]. Table 1 provides descriptive statistics for employers assigned to the control and treatment conditions.

We launched the new website and sent out the control and treatment invitation emails to participants on October 17, 2018. Over the next few weeks, CASE received hundreds of new account requests. Those in the treatment group had a special identifier to guarantee they received the intervention messaging. Of the 98 employers, five had eligible employees but they never created a CASE account; the rest all had at least one employee participating in the CASE professional development trainings. The study protocol was approved as exempt by our Institutional Review Board.

3.2 Intervention Materials

We developed written messages that differentiated between participants in the control and treatment conditions. Control messages focused on participants' contract fulfillment through tier completion. Treatment messages highlighted the potential for professional growth by focusing on participants meeting their career goals through tier completion.

For the invitation email, the control condition message read: *Your supervisor, [name of supervisor], is requesting that you create a NYS CASE account so that you may begin to register for and take NYS Consortium for Advancing and Supporting Employment (CASE) trainings. NYS CASE provides five certificate tiers of professional development training for employment services providers at all professional stages. [...] Register today to begin taking courses.*

The treatment condition message read (emphasis in email): *Your supervisor, [name of supervisor], has invited you to take advantage*



Figure 1: Dashboard With Growth Framing Message.

of the career-enhancing NYS CASE training. The NYS Consortium for Advancing and Supporting Employment (CASE) has five certificate tiers of training. They are designed to give you the **professional edge you need to augment your career**, whether you are brand new to providing employment services, or a seasoned employee looking to refresh your knowledge and advance in your career. [...] Take charge of your career and begin taking courses, completing tiers, and reaching your full career potential!

The invitation email included a table describing five tiers of trainings and their timeframe for completion. In the control condition, the first column was “Type of Personnel” and explained who the training was for; for example, “New hire job placement and supported employment staff” for Tier 1. In the treatment condition, the first column was “Learning Goal” and explained what participants can get out of the training; for example, “Foundational training for new job placement and supported employment staff” for Tier 1.

Once participants logged into their online CASE account, they saw the Dashboard landing page (Figure 1). It showed a colorful visual representation of the participant’s progress with tier completion. In the control condition, the visual was framed with the title “My Progress”, while in the treatment condition it was framed with “My Path to Career Success”; additionally, in the treatment condition, a subtitle read “The five tiers of NYS CASE are designed to give you the professional development edge you need to augment your career.” Participants were exposed to their assigned message every time they logged in for the next two years.

For two years, participants also received automated emails tailored to their specific PD goal (i.e., the training tier they need to complete) about (a) upcoming trainings, (b) missed trainings, and (c) successful goal completion. We developed standard templates for each type of email and modified the text for the treatment condition. For example, the following templates were used to inform participants about upcoming trainings in the control (first) and treatment (second) condition:

Subject: Upcoming NYS CASE professional development trainings
Dear [Name],
You have chosen the professional development goal of: [name of goal].
In order to achieve this goal, the following trainings are available to you.
[links to upcoming courses, dates, and locations for Tier courses that have not yet been taken by individual]
Register now!
Best Regards,
The NYS CASE Team

Subject: Upcoming opportunities for career advancement with NYS

CASE

Dear [Name],

You have chosen to advance your career by setting a professional development goal of: [name of goal]. In order to achieve this goal, the following trainings are available to you.

[links to upcoming courses, dates, and locations for Tier courses that have not yet been taken by individual]

Register now to achieve your learning goals and advance in your career!

Best Regards,

The NYS CASE Team

3.3 Measures and Analysis

The main outcome measures were the number of courses (trainings) that participants completed and the number of training tiers that they completed. Because random assignment was at the employer level but outcomes were measured at the individual level, we used a generalized mixed-effects model with a random intercept for each employer and a fixed effect for the assigned condition indicator (no covariates added). As our outcomes represent counts, we fit the model both as Gaussian (estimated by restricted maximum likelihood) and Poisson (estimated by maximum likelihood). We also fit a logistic mixed-effects model for a binary transformation of the outcomes. P-values are estimated using Satterthwaite’s method implemented in the lmerTest package in R.

We additionally conducted a thematic analysis of participants’ responses on the Professional Development Plan survey that was required of all participants upon first logging into the CASE website. Note that this measure was collected only once and following limited exposure to the intervention. We analyzed participant responses to questions about why the learning goals were important, and anticipated obstacles to completion.

4 RESULTS

We tested for intervention effects for the outcome measures described in Table 1. We found no evidence supporting our hypothesis of the intervention increasing the average number of trainings completed (Gaussian: $\text{coef}=0.672$, $\text{se}=1.82$, $t=0.369$, $p=0.713$; Poisson with log link function: $\text{coef}=0.183$, $\text{se}=0.247$, $z=0.740$, $p=0.459$) or the average number of tiers completed (Gaussian: $\text{coef}=-0.026$, $\text{se}=0.065$, $t=-0.400$, $p=0.690$; Poisson: $\text{coef}=-0.123$, $\text{se}=0.392$, $z=-0.313$, $p=0.754$). However, we did find evidence of the intervention increasing the share of employees with any completed trainings ($\text{coef}=0.517$, $\text{se}=0.262$, $z=1.973$, $p=0.049$), but not with any completed tiers ($\text{coef}=-0.030$, $\text{se}=0.408$, $z=-0.073$, $p=0.942$).

To complement these quantitative results, we conducted a thematic analysis of responses to the question, “Why are these learning goals important to you?” At the time of responding, participants had only been exposed to the invitation message. Of the 389 participants who completed the Professional Development Plan, 87.1% stated a reason consistent with wanting to improve their knowledge and skills to better serve their clients. Examples of responses include: *To provide optimal services to clients; It’s related to my job and career goals;* and *So that I can enhance my skills as a Job Developer.*

Only 5.9% of respondents stated their goal was related to contract completion requirements. Examples of responses include: *We are required to complete these trainings;* *Meeting grant requirements;* and

Table 1: Descriptive Statistics by Experimental Condition (Standard Deviation in Parentheses)

	Control	Treatment
Agencies	51	47
Employees	257	239
Avg. Employees in Agency	5.04 (4.66)	5.09 (4.34)
Avg. Trainings Completed	9.50 (15.2)	9.30 (12.81)
Avg. Tiers Completed	0.202 (0.604)	0.163 (0.479)
<i>Share of Employees with</i>		
Any Completed Trainings	64.6%	73.2%
Any Completed Tiers	12.8%	12.6%

Required for my job. And only 3.9% of respondents cited both personal growth and contract fulfillment as their motivation. Examples of responses include: *I want to both be in compliance with the contract and well educated so that I may provide the best service possible to consumers; To be able to satisfy CRS contract goals, standards and meet participants needs; and Requirements of contractual fulfillment, however, I am always willing to learn new course information.* We did not observe a significant trend in the theme of responses between the experimental conditions ($\chi^2_4=6.0, p=0.1991$).

The final question of the Professional Development Plan asked participants to predict obstacles that might prevent them from completing their goals and suggest ways to overcome the obstacles. Respondents' predicted obstacles fell into five categories: 1) time, 2) geography, 3) technology, 4) ability, and 5) employer/supervisor. More than half (66.8%) predicted time would be an obstacle to success. Examples of responses include: *Making time to really focus in on the coursework in addition to my other work responsibilities; Maintain scheduled training dates while maintaining a full work caseload; and Scheduling time to complete the training with my current work schedule and case load.* Only 1.3% of participants cited concerns about their employer/supervisor as being an obstacle to success. Yet some of those concerned about time indicated skepticism about receiving support that would allow them to complete the required trainings while handling their workload. There was once again no notable difference in responses by condition ($\chi^2_{16}=20.0, p=0.2202$).

5 DISCUSSION

Our research investigates a scalable strategy for increasing participation in professional development training. We worked in partnership with the CASE PD training team to design an intervention to increase training completion among employment support professionals in New York State. The timing of our study coincided with CASE PD trainings becoming mandatory and a fresh cohort of employment support professionals newly eligible for these trainings. We delivered a series of messages highlighting the utility value of professional development trainings for career success, thereby connecting the trainings to people's professional identity to increase motivation. We find only limited evidence of the intervention increasing course and training tier completion over the two-year study period: while the average number of completed trainings and tiers did not increase significantly, the share of professionals with at least one completed training rose from 64 to 73 percent. Yet the

completion of mandated tiers, which comprise multiple training courses, remained unchanged at 12 percent.

The design of our intervention presumed that framing mandatory PD trainings in terms of compliance was less motivating than framing them in terms of career aspirations and their utility value. We hypothesized that connecting PD to big-picture career-advancement goals would generate the motivation professionals need to stay in compliance with mandatory trainings. Our qualitative findings, however, indicated most professionals considered the trainings important for personal growth (87% of respondents) rather than for compliance with the State-mandate (6%). This suggests our utility-value messages resonated with the participants, which could make them more persuasive, or perhaps redundant. The latter may explain the marginal impact of the intervention on completion rates, especially if a key obstacle to training completion remained unchanged by the intervention. Moreover, we were unable to observe how much (or little) participants engaged with the intervention messages received via email or on the Dashboard.

In their Professional Development Plans, most respondents identified time as the main obstacle preventing them from participating in the mandatory trainings. This echoes findings about obstacles to completion of massive open online courses, which are popular among full-time employees [9]. Employment support professionals typically have large caseloads of clients at various stages on the employment continuum (job search through job advancement). Unexpected crises often occur, throwing off schedules and forcing them to re-prioritize their days to meet the needs of the individuals they support, suggesting the need for a different type of intervention to support timely completion of trainings. Specifically, we recommend three areas of focus for interventions under these circumstances.

The first is a structural change to introduce more flexibility to the professional development training program. The majority of the PD courses offered by CASE are full-day trainings requiring absence from work. As we found, this is not always feasible for these professionals despite good intentions. The flexibility, for example, of asynchronous, self-paced learning would allow them to fit the trainings into their schedules to the extent the unpredictable nature of their work allows. The second intervention works in tandem with the first to focus on making effective plans to complete trainings. This kind of self-regulatory intervention has shown promise in promoting online course completion [8, 10, 14]. The third intervention focuses on supervisor buy-in to encourage stronger support by helping them see the value of having their staff take PD trainings (i.e., targeting supervisors with a utility-value intervention instead of their staff). Supervisors can alleviate their staff's time constraints—their primary obstacle to training completion. Once this obstacle is addressed, messages that highlight the career advancement potential of training may become more effective.

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