



EVALUATION OF BOOTS TO BUSINESS VIRTUAL TRAINING

Final Report

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Administration

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The statements, findings, and conclusions found in this study are those of the contractor and do not necessarily reflect the views of the Office of Program Performance, Analysis, and Evaluation; the U.S. Small Business Administration, or the United States Government.

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Acronyms

Term	Description
B2B	Boots to Business Program
DOD	U.S. Department of Defense
DOL	U.S. Department of Labor
E-learning	Electronic Learning
IT	Information Technology
IVMF	Institute for Veterans and Military Families
OED	Office of Entrepreneurial Development
OFO	Office of Field Operations
OVBD	Office of Veterans Business Development
SBA	U.S. Small Business Administration
SBDC	Small Business Development Centers
SRL	Self-Regulated Learning
TAP	Transition Assistance Program
Transition GPS	Transition Goals, Plans, Success
VA	U.S. Department of Veterans Affairs
VBOC	Veterans Business Outreach Centers
WBC	Women's Business Centers

Glossary

Term	Description
Early Transition	The period between the beginning of the COVID-19 pandemic, March 30, 2020, and September 30, 2020, when online learning was being established.
Late Transition	When B2B online learning was more fully established with defined structures and roles (October 1, 2020 to September 30, 2021). Some in-person learning was reestablished during this time frame.
Learner Centered	Focusing the instructional design on learner-centered teaching methods, as opposed to the instructor-centered practices.
Self-Regulated Learning	Learners set goals for their learning and then monitor, regulate, and control their learning process and outcomes.
SBA Resource Partners	Organizations that teach B2B classes (VBOC, SBDC, SCORE chapters, and WBC), rather than a single organization that delivers the training to service members.

EXECUTIVE SUMMARY

Over the last 30 years, the U.S. Department of Defense (DOD), the U.S. Small Business Administration (SBA), and other federal agencies have made a concerted effort to help service members transition to civilian life. The SBA's Boots to Business (B2B) Entrepreneurship Track is part of the DOD's Transition Assistance Program (TAP) curriculum known as Transition Goals, Plans, Success (Transition GPS), which caters to service members interested in business ownership or other self-employment as a career option.

The B2B program provides an overview of entrepreneurship and business ownership fundamentals to transitioning service members and their spouses. The program includes an *Introductory to Entrepreneurship* course, which was designed as a two-day, in-person course offered for those interested in learning about the opportunities and challenges of business ownership. After the completion of the course, participants provide information to the SBA about their perceptions and satisfaction with the course quality via the Quality Assessment Post-Course Survey.

At the onset of the COVID-19 pandemic, the SBA began offering the B2B *Introduction to Entrepreneurship* course through online, instructor-led, one- or two-day virtual courses. The change in format delivery allowed the continued service to transitioning military and increased access to those otherwise underserved populations by removing barriers to the physical location and in-person requirements of the course. As stay-at-home restrictions were lifted, in-person classroom courses also resumed. In-person and virtual courses occurred in FYs 2020 and 2021 and continue in FY 2022.

This study examines the implementation of the B2B *Introduction to Entrepreneurship* course in the virtual delivery format. In addition, the evaluation seeks to develop suggestions for the improvement of the virtual delivery of the B2B course and to inform virtual delivery of other SBA courses. The evaluation addresses the following research questions:

1. How can the B2B *Introduction to Entrepreneurship* course be most effectively implemented in a virtual (synchronistic online) environment? In particular,
 - 1a. To what extent did the virtual delivery of the *Introduction to Entrepreneurship* course meet the needs of participants?
 - 1b. Did the *Introduction to Entrepreneurship* course quality survey data results differ based on virtual (one-day and two-day) or in-person course delivery?
 - 1c. Did the course quality survey data vary by branch of service or demographic variables?
2. Which best practices from the review of the literature and findings can the SBA incorporate to improve the delivery of this virtual training?

The evaluation period included FY 2019 through FY 2021 (10/1/2018 to 9/30/2021). The analysis offers a comparison between pre-COVID and COVID periods for the course quality survey results. The period of the COVID-19 pandemic is further analyzed as early transition (4/1/2020 to 9/30/2020) and late transition (10/1/2020 to 9/30/2021) of the virtual delivery, as by October 1, 2020, most virtual delivery of the course had advanced to a higher quality than when virtual training began.

To compare the overall satisfaction and course quality experience of participants, Optimal Solutions Group, LLC (Optimal) conducted scale analyses, or looked at the data to determine how different items

could be measured together, to develop *three* composite course quality outcome measures based on the Quality Assessment Post-Course Survey items. We use these measures to describe the differences in the perceptions of B2B class quality by delivery mode, time period, and course duration. Three course quality measures included:

- satisfaction with B2B materials, classroom, and instructor (7 survey items)
- perceptions of class content with respect to the amount of material, depth of coverage, and mix of topics (3 survey items)
- change in attitudes about starting a business before and after attending the B2B class (6 survey items about knowledge, confidence, motivation, and intent)

The evaluation included descriptive, univariate, multivariate, and qualitative analyses of the data sources discussed above to address the research questions. The B2B Quality Assessment Post Course Survey provided a wealth of information with 16 course quality survey items.

Optimal also used an instructor survey, which gathered feedback on the course and its administration from those who taught it in person, virtually, or both, in addition to interviews with course personnel and stakeholders. The instructor survey has 13 items, with questions ranging from perceptions of teleconference software to engagement strategies both online and in person. Interviews with SBA resource partners approached topics like that of the survey but were semi-structured and more in depth where the respondent had pointed thoughts and recommendations. Finally, the interviews with sister track TAP agencies, and with OVBD and OED, looked at each agency's responses to the COVID pandemic, strategies, and perceptions for virtual instruction.

Findings by Research Question

The evaluation results are organized by the research questions. The following section describes the key findings of the evaluation with respect to the differences in virtual and in-person delivery of classes, one- and two-days classes, and the pre-COVID and during COVID time frame (including early and late transition ¹). In most of the analyses, whether at the survey item, composite measure, or index levels, the differences in quality outcomes are not statistically significant. However, where applicable, statistical significance is denoted by *** ($p < .0001$).

Research Question 1: How can the Boots to Business Introduction to Entrepreneurship course be most effectively implemented in a virtual (synchronistic online) environment?

The information gathered from surveys and interviews suggests three areas where the online B2B *Introduction to Entrepreneurship* course can be revised to be more effective when delivered virtually:

- Improve participant engagement, which can increase the effectiveness of the program, particularly by adding changes that make the classroom more conducive to a learning environment.
- Increase knowledge and familiarity of instructors with engagement tools in their chosen online platforms.
- Share information about the program and the class materials with B2B participants to promote the use of self-learning approaches, or if already doing that, then ensure consistency across all district offices.

Research Question 1a: To what extent did the virtual delivery of the Introduction to Entrepreneurship course meet the needs of participants?

Virtual, synchronous B2B courses on average **met** the needs of B2B participants as shown by the high levels of course quality outcomes:

- Almost nine out of 10 participants (89 percent) were, on average, satisfied (composite measure for satisfied or very satisfied) with materials, classroom, and instructor (overall measure).
- Nine out of 10 participants (90 percent) of the participants, on average, had positive perceptions (composite measure for satisfied or very satisfied) of the class content (overall measure), as highlighted by the qualitative open-ended survey (Appendix A).

In addition to the findings on the outcome measures, participants (1,641 [42.7 percent]) and instructors (22 [20.2 percent]) viewed virtual classes positively in their corresponding surveys. Survey respondents stated that virtual training allowed for:

- greater outreach into rural areas, overseas, and remote military installation locations
- less travel for everyone (particularly, instructors),
- more flexible schedules
- availability during the pandemic

Half of the instructors (55 [50.4 percent]) also voiced negative perspectives with online classes, citing:

- lack of student engagement, interactions, and collaboration
- limitations with software use, Internet connectivity, and chat functionality

Research Question 1b: Did the Introduction to Entrepreneurship course quality survey data results differ based on virtual (one-day and two-day) or in-person course delivery?

There were mixed findings using outcome indexes of course quality outputs.

- Participants in virtual classes had slightly **higher satisfaction** rates with course materials (all B2B materials), classroom, and instructor compared to *pre-COVID* (only available in-person) classes (88.7 percent vs. 86.7 percent). ***
- Participants in virtual classes had **lower satisfaction** rates with course materials, classroom, and instructor compared to *during COVID, in-person* classes (88.7 percent vs. 91.8 percent).***
- Participants in virtual classes had slightly **higher positive perceptions** of class content (amount of material covered, depth of coverage, mix of topics) compared to *pre-COVID, in-person* classes (91.3 percent vs. 86.7 percent). ***

These findings are based on a comparison of outcomes using outcome composites or outcome indexes. There is one caveat in interpreting these aggregate results. In some instances, we observed a difference for one survey item (e.g., perceptions on depth of coverage) but not for another item (e.g., mix of topics) by the class delivery mode. Thus, a difference at the index level could mask differences in the responses at the survey item level.

Research Question 1c: Did the course quality survey data vary by branch of service or demographic variables?

There were some differences in the comparison of quality outcomes when analyzed by demographics and branch of service. Out of all elements available, four characteristics stand out:

- Overseas locations – There was a **higher satisfaction** with class contents and a greater change in attitudes about starting a business than for those residing in the United States.
- Minorities – There was **higher satisfaction** with class contents on average than for non-ethnic or racial minorities.
- Female service members were more likely to report a **greater change in attitudes** regarding starting a business after the program.
- Army service members were more likely to report a **greater change in attitudes** regarding starting a business after the program.

Research Question 2: Which best practices from the review of the literature and findings can the SBA incorporate to improve the delivery of this virtual training?

Most of the research literature for transitioning to a virtual learning environment focused on tools and materials that teachers and instructors can use to replace their in-person classes. Respondents in the evaluation identified several improvements when shifting classes to an online format, which mirrored best practices in online training.

Studies suggest that service members' and veterans' knowledge, skills, attitudes, and experiences should be conducive for their engagement with entrepreneurship training, particularly in an E-learning context. Military experience prepares individuals to lead others; work collaboratively in teams; adapt to changing and unpredictable circumstances; be resilient and handle stress; be results-oriented and persistent in overcoming challenges; and have discipline, time management, and decision-making skills. However, research also suggests that veterans' personal characteristics, knowledge, skills, and experiences alone are not sufficient for success in the challenging world of entrepreneurship. The general conclusion of the studies is that veterans need additional support and training that is best suited to their needs in order to successfully engage in entrepreneurship. Overall, E-Learning best practices for veteran entrepreneurship training identified in the literature were similar to the overall E-Learning literature with some recommendations for additional focus to address veterans' needs and issues. For instance, service members and veterans should be encouraged and rewarded to ask for assistance, use the support, and engage in active information seeking.

The report organizes the best practices/recommendations from the literature and evaluation results into three categories (Learner-Centered Learning, and IT Proficiency and Use) and suggests who should be responsible for executing the recommendation. The best practices and recommendations are in the table below.

Type: Recommendation	Potential Quality Outcome Improvement
Learner-Centered Learning: Conduct interactive tasks, problem-solving activities, and group discussions in the online delivery.	Increases participant engagement and facilitates experiential learning.
Learner-Centered Learning: Communicate with and deliver course materials with relevant links and resources to participants before the class.	Allows participants to engage in self-learning activities before and after the class and increases participant engagement in and satisfaction with B2B.
IT Proficiency and Use: Dedicate a teaching assistant to run the chat and logistics of the sessions.	Makes classroom more conducive to learning and increases participant motivation and engagement.
IT Proficiency and Use: Use effective online communication tools (Zoom and Microsoft Teams).	Makes classroom more conducive to learning.

Lastly, Optimal has recommendations for future evaluations of B2B that will add to the understanding of the effectiveness and ultimate impact on the entrepreneurship of service members post military service.

- Administer pre- and post-program surveys to determine the participant's entrepreneurship knowledge, skills, and attitudes. These brief surveys could be used to tailor the training and refine the curriculum. The use of the pre- and post-assessment will also improve the results by examining the change in participant's knowledge, skills, and attitudes.
- Conduct a qualitative data collection with class participants to determine their views and experiences with the online and in-person classes. A potential focus of the primary data collection could be on the barriers, facilitators, and factors involved in online learning processes and outcomes. The qualitative data would provide further information for refinements to the curriculum and online delivery.
- Follow up with graduates for multiple years² about their experiences with additional training, business resources, engagement in new business startups, and business survival and growth. The follow-up surveys would further describe the effectiveness of the B2B program, provide suggestions for better integration of programs and services, and offer implications for the program expansion.
- Revise the B2B course quality survey to better reflect the intent of the grouped questions (intended measures). Suggestions include rescaling the perceptions of the class content, developing additional items to improve the content coverage, and rescaling the change in attitudes items.

INTRODUCTION

The U.S. Department of Defense (DOD), the U.S. Small Business Administration (SBA), and other federal agencies have been providing support for service members transitioning from military to civilian life over the last 30 years. Transition preparation and assistance are critical to giving those who serve the best chance at meaningful employment and productive lives as veterans. To aid in this transition, the DOD's Transition Assistance Program (TAP) was developed to make service members more career ready after serving. TAP provides transition assistance, information, training, and services to eligible transitioning service members and their spouses so that they are career ready when they separate, retire, or are released from active duty back to civilian life. The TAP includes the curriculum known as Transition Goals, Plans, Success (Transition GPS), which provides service members with additional training tracks to assist with their transition to civilian life.

The Boots to Business (B2B) Entrepreneurship Track is one of Transition GPS's training tracks provided by the SBA for service members interested in business ownership or other self-employment as a career option. The SBA created the B2B program in July 2012 as a pilot program and has since received annual budget appropriations. The B2B is a collaborative effort at the national level within the SBA's Office of Veterans Business Development (OVBD), the Office of Field Operations (OFO), and the Office of Entrepreneurial Development (OED). SBA's B2B collaboration also involves other federal agency members of the Veterans Employment Initiative Task Force chaired by DOD, the U.S. Department of Labor (DOL), and the U.S. Department of Veterans Affairs (VA).³ The SBA delivers the program free of charge on more than 200 military installations worldwide through its network of district offices and resource partners.

The B2B program has unique organizational characteristics that make it distinct from other SBA training programs.⁴ One of these differences is that it has multiple resource partners, including Veterans Business Outreach Centers (VBOC), Small Business Development Centers (SBDC), SCORE chapters, and Women's Business Centers (WBC), rather than a single organization that delivers the training to service members. The B2B program is designed to leverage the expertise of the partner organizations to train, teach, and inspire service members (including National Guard and Reserve) and their family members to engage in venture creation and business ownership as they exit military service and enter post-service life. The SBA's OVBD and the Institute for Veterans and Military Families (IVMF) jointly created a pedagogical approach and learning objectives to maximize the effectiveness of the program.⁵

B2B *Introduction to Entrepreneurship* Course

The B2B program provides an overview of entrepreneurship and business ownership fundamentals to transitioning service members and their spouses. The program includes an *Introduction to Entrepreneurship* course and other training courses such as *B2B Reboot*, *B2B Revenue Readiness*, and *Foundations of Entrepreneurship*. The *Introduction to Entrepreneurship* course was designed as a two-day, in-person course for those interested in learning about the opportunities and challenges of business ownership.⁶ The *B2B Reboot* course is like the *Introduction to Entrepreneurship* course but assists service members who have already made the transition to civilian life and consists of one- or two-day sessions that take place off military installations.

The B2B's course delivery is prescribed in the instructor guide, which provides slides and instructor notes by module, tools and best practices, manual, training videos, and additional information. The instructor guide serves to standardize the *Introduction to Entrepreneurship* course and ensures the availability of the same information to transitioning service members globally. The curriculum provides valuable assistance to transitioning service members and their spouses exploring business ownership or other self-employment opportunities by leading them through the key steps for starting a business. Participants learn business fundamentals and techniques for developing a business plan and evaluating the feasibility of their business concepts. Modules also cover markets, economics of small business start-ups, legal considerations for veteran-owned small businesses, financing, government contracts, and other areas. In addition, B2B participants are introduced to the SBA and other government agencies (e.g., U.S. Department of Agriculture) and nongovernment business resources, technical assistance, and training opportunities.⁷

After the completion of the course, participants provide information to the SBA about their perceptions and satisfaction with the course quality via the Quality Assessment Post-Course Survey (**Appendix A**). Transitioning service members can also elect to further their study through a six-week, instructor-led, online *B2B Revenue Readiness* course, which offers in-depth instruction on the elements of business formation, management, and growth.⁸ Transitioning service members can also participate in an eight-week, instructor-led, online *Foundations of Entrepreneurship* course, which teaches the fundamentals of forming a business plan and tips and tools for starting a business.

COVID-19 and Changes in Training Delivery Modes

The global spread of COVID-19 in 2020 led academic institutions and training programs worldwide to transition to remote teaching. During the COVID-19 pandemic, the SBA began offering the B2B *Introduction to Entrepreneurship* course through an online, instructor led one- or two-day virtual courses. The change in format delivery allowed continued service to transitioning military, and increased access to those otherwise underserved by removing barriers to the physical location and in-person requirements of the course. In-person and virtual courses occurred in FYs 2020 and 2021 and continue in FY 2022. The SBA, however, did not prescribe curriculum, delivery, or facilitation instruction changes to allow for the rapid change to the virtual delivery format. The need for change in format delivery revealed the lack of uniformly accepted virtual delivery platforms across SBA instructors and SBA resource partners, which also posed challenges for the transition to a virtual environment. The SBA recognizes that virtual learning environments are becoming a viable vehicle for distance learning, increasing the need for an effective long-term virtual training solution that allows instructor--participant and peer-to-peer interaction and learning across various programs.

Evaluation Objective

The objective of this evaluation is to examine the implementation of the B2B *Introduction to Entrepreneurship* course in the virtual delivery format. The evaluation seeks to develop suggestions for the improvement of the virtual delivery of this specific course and to inform virtual delivery of other SBA courses. The evaluation addresses the following research questions:

1. How can the B2B *Introduction to Entrepreneurship* course be most effectively implemented in a virtual (synchronistic online) environment? In particular:

- 1a. To what extent did the virtual delivery of the *Introduction to Entrepreneurship* course meet the needs of participants?
- 1b. Did the *Introduction to Entrepreneurship* course quality survey data results differ based on virtual (one-day and two-day) or in-person course delivery?
- 1c. Did the course quality survey data vary by branch of service or demographic variables?
2. Which best practices from the review of the literature and findings can the SBA incorporate to improve the delivery of this virtual training?

The evaluation period includes FY 2019 through FY 2021 (10/1/2018 to 9/30/21). The analysis offers a comparison between pre-COVID and during-COVID time frames for the course quality survey results. The during-COVID time frame is further analyzed as early transition (April 2020 to September 2021) and late transition (October 2020 to September 2021) of the virtual delivery.

To meet the evaluation objectives, Optimal conducted a literature review of the different web-based learning mechanisms (i.e., distance learning, E-learning, virtual, asynchronous, synchronous); design and implementation factors that influence web-based learning activity, learning outcomes, and perceived value among adult participants; web-based interactive adult education and training programs delivered in a synchronistic environment with a special emphasis on 1) entrepreneurship education and training and 2) education and training in a military environment; best practices in transitioning curriculum and coursework from in-person to an interactive, web-based instructor- led environment; and best practices in synchronistic web-based training program delivery. This literature review is in **Appendix B**.

This study report also describes the evaluation methodology, analytical approaches, and limitations. This is followed by the results addressing the research questions, including best practices in transitioning from in-person to online learning environment and on the design and implementation factors that influence web-based learning activities and outcomes. Finally, the conclusion section presents recommendations for the effective implementation of the SBA training courses in a virtual format.

EVALUATION DESCRIPTION

This section summarizes the evaluation methodology, analytical approaches, and limitations. It also describes the characteristics of classes, participants, and instructors.

Evaluation Design

The evaluation design was guided by the literature review and B2B logic model. The literature review informed the development of the interview and survey instruments. The literature review also provided an understanding of best practices for the SBA to effectively implement the B2B *Introduction to Entrepreneurship* course in a virtual environment and to offer suggestions for improvements for the virtual delivery of other SBA training programs. The logic model (**Appendix C**) was used as the framework for constructing the evaluation research design. The evaluation used a mixed-methods approach to data collection and analyses.

Data Sources

The evaluation of the B2B *Introduction of Entrepreneurship* course includes rich information from various sources including B2B participants and instructors, the SBA, resource partners, and other federal agencies. The data sources include the SBA administrative data and primary data.

- The administrative data included B2B performance metrics data files with the description of classes and the Quality Assessment Post Course Survey (Appendix A) with data for course quality outcomes and participant characteristics.
- The primary data sources included a web survey of the B2B *Introduction to Entrepreneurship* instructors (168), qualitative interviews with 16 instructors, two interviews with SBA B2B operational units (OED and OVBD), interviews with sister track TAP agencies (DOL and VA), and an interview with DOD (**Appendix D**).

Analytical Approaches

The analyses included descriptive, univariate, multivariate, and qualitative analyses of the data sources to address the research questions. The detail of each method is discussed in **Appendix E**.

The Quality Assessment Post-Course Survey has a wealth of information. However, the information is at a granular level (16 course quality survey items). To compare the overall satisfaction and course quality experience of participants, we conducted scale analyses to develop *three* course quality outcome measures based on available items. We used these measures to describe the differences in the perceptions of B2B class quality by delivery mode, time period, and course duration. The three course quality outcome measures included:

- satisfaction with materials, classroom, and instructor (7 survey items)
- perceptions of class content with respect to the amount of material, depth of coverage, and mix of topics (3 survey items)
- change in attitudes about starting a business before and after attending the B2B class (6 survey items about knowledge, confidence, motivation, and intent)⁹

Evaluation Limitations

Data and methodological limitations of this evaluation should be considered in interpreting the findings.

- *Low response rates on SBA's B2B participants' Quality Assessment Post-Course Survey (29.2 percent) and on the study developed B2B instructor survey (14.4 percent):* Survey results do not fully represent all class participants and instructors. Furthermore, there is no administrative data for the universe of instructors to conduct nonresponse analyses to compare the characteristics of the survey respondents to the universe, and potentially identify a bias (**Appendix F**).
- *Self-reported nature of the survey data:* A common issue in self-reported surveys is that there is no external validation of answers. This limits the inferences that can be drawn from the survey responses.

- *Lack of the quasi-experimental research design:* This lack of design prevents providing conclusions on the effectiveness of classes and the differential effectiveness of virtual and in-person classes. The current evaluation design precludes establishing a causal link between program participation and engagement in entrepreneurship and business start-up activities.

EVALUATION RESULTS

This section outlines the key findings of the evaluation then presents the detailed results for each research question.

Findings by Research Question

The evaluation results are organized by the research questions. However, some of the findings are relevant for more than one research question; thus, the conclusion section synthesizes the results and outlines the key implications of the findings.

Research Question 1: How can the B2B Introduction to Entrepreneurship course be most effectively implemented in a virtual (synchronistic online) environment?

In responding to this overarching question, Optimal found that operational and instructional changes could lead to substantial improvements in the virtual delivery of the B2B training. These changes could lead to improved participant engagement and classroom experience, which would ultimately increase participant satisfaction with the classroom being conducive to the learning environment, increase participant knowledge about entrepreneurship, and increase participant interest in starting a business. A few program changes to effectively implement the online training include:

- improve participant engagement
- increase knowledge and familiarity of instructors with engagement tools in virtual platforms
- use self-learning approaches to allow participants learning at their own pace, such as providing B2B course materials offline and in advance of the modules so that participants can prepare in advance¹⁰

The answers to the specific research questions below provide information and comparisons on quality outcomes at aggregate level and at survey items where the program can be improved with operational and instructional changes.

Research Question 1a: To what extent did the virtual delivery of the Introduction to Entrepreneurship course meet the needs of participants?

To answer this question, Optimal used B2B participant survey results from the online B2B training participants on 1) satisfaction with B2B course materials, classroom, and instructor; 2) perceptions of class content; and 3) attitudes about starting a business following a B2B training.

More than 90 percent of survey respondents who participated in online B2B trainings stated that they were satisfied or very satisfied with B2B materials and all metrics related to instructors' performance and knowledge. The only satisfaction survey item identified with a relatively lower performance (87 percent) compared with other satisfaction survey items was satisfaction with the classroom being conducive to a learning environment (Table 1).

Table 1. Participant Survey - Satisfaction with B2B course by delivery method (satisfied or very satisfied)

	Online training participants
Satisfied with all B2B materials	93.1%
Satisfied that classroom was conducive to a learning environment	87.0%
Instructor(s): Displayed knowledge and familiarity with B2B course material	93.0%
Instructor(s): Exhibited presentation skills that engaged the class	90.9%
Instructor(s): Used training aids and materials to instruct course material	90.9%
Instructor(s): Communicated clearly and effectively	92.5%
Instructor(s): Integrated practical experience and participants' ideas	91.6%
Overall satisfied, average score ≥ 4 (Satisfied, Very Satisfied)	88.7%
Total number of respondents	4,124

SOURCE: Quality Assessment Post-Course Survey (N=9,367, Q13-14). Pre-COVID: 10/01/18 to 3/30/20, During COVID: 04/01/20 to 09/30/21.

Survey respondents who took an online course also reported positive experiences regarding the class content and their perceptions of the level of communications received about B2B prior to attending the class. More than 85 percent of the survey respondents in online trainings had positive perceptions on the five metrics of communications and class content (Table 2).

Table 2. Participant Survey - Online training participants' positive perceptions of class content

	Online training participants
Amount of material covered	87.6%
Depth of coverage	86.4%
Mix of topics	92.9%
Overall positive perceptions	91.3%
Level of communications received about B2B prior to attending	85.9%
Pace of coverage	84.4%
Total number of respondents	4,190

SOURCE: Quality Assessment Post-Course Survey (N=9,367, Q12,15-17). Pre-COVID: 10/01/18 to 3/30/20, During COVID: 04/01/20 to 09/30/21. Note: The level of communications received about B2B prior to attending and the pace of coverage items did not load into the overall perceptions measure.

Survey respondents who took an online course also had positive attitudes regarding their interest and confidence in starting or owning a business, and whether they would refer someone to the B2B program (Table 3). These two survey items in particular account for positive attitudes for more than 90% of survey respondents in online trainings.

Table 3. Participant Survey - Online training participants' change in attitudes about starting a business before and after attending a B2B class

Before-after B2B class increase in:	Online training participants
Being informed about starting a business and entrepreneurship in general	49.7%
Being confident about having the skillsets required to start a business	47.4%
Being motivated to start a business	25.4%
Being likely to start a business	26.6%
Being likely to start a business soon (within 1 year)	25.1%
Being likely to start a business later (5-10 years)	20.9%
Being likely to pursue higher education first, group	16.9%
Being likely to pursue employment first, group	14.4%
Being likely to pursue additional technical assistance first, group	22.1%
Increase in ratings of starting business before and after B2B, average score >0	62.9%
Perceptions of the B2B class:	Online training participants
Increased interest in starting or owning a business	82.9%
Increased confidence in starting or owning a business	92.1%
Would refer someone to the B2B program	95.2%
Total number of respondents	4,190

SOURCE: Quality Assessment Post-Course Survey (N=9,367, Q18-22). Pre-COVID: 10/01/18 to 3/30/20, During COVID: 04/01/20 to 09/30/21.

The open-ended responses to the B2B course quality survey question asking for program feedback also described how the course met the participants' needs and expectations (**Appendix G**). Close to half (1,641 [42.7 percent]) of the individuals who provided responses to the open-ended questions stated positive feedback about the B2B class and instructors. These respondents described the B2B class as being a good introduction into entrepreneurship and business formation without being too overwhelming. Some survey respondents specifically reported positive views of the online mode due to being available during the pandemic, particularly to participants in remote locations.

The 100 open-ended responses to the instructor survey question asking for the program feedback also described positive perceptions of virtual classes (Appendix G). One-fifth of instructors (22 [20.2 percent]) who provided responses to the open-ended question described positive aspects of online training, including a greater reach into rural areas, underserved communities, and overseas military installations; less travel for the instructors and participants; more flexible schedules; and the importance of using a hybrid approach for implementing in-person classes. Instructor interviews also described a greater reach and less travel for the online classes as positive aspects of virtual training mode.

Instructors (55 [50.4 percent]) who provided responses to the open-ended question described issues with online software use; Internet connectivity; and student engagement, interactions, and collaboration. The instructors' survey also revealed that instructors in virtual classes were less likely to conduct activities to promote participant engagement, in particular, problem-solving activities; debate-style discussions; discussion boards, emails, virtual meetings, chat rooms; and peer interaction/encouragement. Instructors' opinions are *consistent* with participant feedback about classrooms being less conducive for learning (survey item), discussed above. Instructors' open-ended responses shared that virtual B2B classes were "less effective" for learning outcomes. However, instructors' perceptions of knowledge, confidence, motivation, and effectiveness are *inconsistent* with findings of a comparison between (in-person) pre-COVID outcomes and (online) during-COVID outcomes (shown below). Compounding this technology issue was the fact that different installations required different software due to contractual obligations and IT policies. These issues could lead course facilitators and VBOCs to use a less functional online software program or one that instructors are not familiar with in terms of the available facilitation and engagement features.

Research Question 1b: Did the Introduction to Entrepreneurship course quality survey data results differ based on virtual (one-day and two-day) or in-person course delivery?

The results presented in this section describe differences in the B2B class quality survey outcomes by delivery mode, time period (10/01/2018 to 3/30/2020, 4/01/2020 to 9/30/2021, and breakout of the early and late transition of online classes), and class duration (one or two days). The class quality outcomes are the same as those discussed above: satisfaction with classroom and instructors, perceptions of the content of the class materials, and change in attitudes about starting a business before and after attending the class. The differences in outcomes were also examined by the interaction of the delivery mode and the time period, since all online classes were administered only during the pandemic period, and there may be differences in in-person participants' experiences between pre-pandemic and during-pandemic classes. In addition to the experiences of B2B participants, the analysis includes findings from a B2B instructor survey (168 respondents) and interviews with 18 instructors.

Satisfaction with B2B course materials, classroom, and instructor

About 90 percent of survey respondents overall were satisfied/very satisfied with the course materials, classroom, and instructor (Table 4).

Mode of Delivery: Participants in online classes had higher satisfaction ratings across survey items referring to class materials and instructors than the in-person courses prior to the pandemic. The online

classes had the lowest satisfaction with the classroom being conducive to a learning environment and had the largest difference with the in-person classes (globally, and pre- and during the pandemic).

Time Period: Classes administered during the pandemic (4/01/20 to 9/30/21) had slightly higher overall satisfaction ratings than the pre-pandemic (10/01/18 to 03/30/20) classes (4.59/5 vs. 4.55/5), particularly with respect to satisfaction with all B2B materials.

Early Versus Late Transition: Overall class satisfaction was slightly higher during the late transition (10/01/20 to 09/30/21) than in the early transition (04/01/20 to 09/30/20). Average satisfaction (4.59) was the same for both periods during the pandemic. Satisfaction for all B2B course materials increased from the beginning of the pandemic to the point of late transition. Participants were less satisfied with the classroom being a conducive learning environment from before the pandemic to the early transition period of the pandemic (through 09/30/20). However, participants were more satisfied by the late transition period of the pandemic, indicating that there was a significant adjustment period. Satisfaction also increased for all instructor metrics, including classroom engagement and clear communication, from before the pandemic to the late transition period. Notwithstanding the positive outcomes from the online training referenced above, the during-pandemic, in-person trainings had overall satisfaction ratings that were higher than both the pre-pandemic in-person and during-pandemic online trainings (91.8 percent vs. 86.7 percent vs. 88.7 percent, respectively).

Class Duration: Two-day online classes had higher satisfaction ratings than one-day classes across all questions regarding course materials, classroom, and instructor (last two columns of Table 4). None of these differences were statistically significant, primarily due to the small sample size on one-day survey responses.

Table 4. Participants' satisfaction with course materials, classroom, and instructor by time frame, mode, and duration

Satisfied with:	OVERALL	MODE		TIME FRAME				TIME FRAME	
				Pre-Pandemic	During Pandemic			During Pandemic	
				MODE		MODE		MODE	
		In-person	Online	In-person	OVERALL (During Pandemic)	In-person	Online	Online	
								DURATION	
							One day	Two days	
All B2B materials	92.4%	91.9%	93.1%	89.8% ***	93.5%	94.0%	93.1%	89.9%	93.3%
Classroom was conducive to a learning environment	89.7%	91.4%	87.0% ***	89.7%	89.3%	93.1% ***	87.0%	85.9%	87.1%
Instructor(s):									
Displayed knowledge and familiarity with B2B course material	91.5%	93.2%	93.0%	91.5% ***	93.7%	94.9%	93.0%	89.9%	93.2%
Exhibited presentation skills that engaged the class	91.3%	91.6%	90.9%	89.5% ***	92.0%	93.8%	90.9%	87.2%	91.1%
Used training aids and materials to instruct course material	91.0%	91.0%	90.9%	88.8% ***	91.8%	93.3%	90.9%	86.8%	91.2%
Communicated clearly and effectively	92.6%	92.7%	92.5%	90.7% ***	93.4%	94.8%	92.5%	88.1%	92.8%
Integrated practical experience and participants' ideas into the course material	92.1%	92.5%	91.6%	90.6% ***	92.1%	94.3%	91.6%	88.1%	91.8%
Overall satisfaction with B2B measure									
Percentage satisfied or very satisfied	89.0%	89.2%	88.7%	86.7% ***	89.9%	91.8%	88.7%	86.3%	88.8%
Total number of respondents	9,367	5,078	4,190	2,602	6,677	2,575	4,190	227	3,963

SOURCE: Quality Assessment Post-Course Survey (N=9,367, Q2-3,13-14). Pre-COVID: 10/01/18 to 3/30/20, During COVID: 04/01/20 to 09/30/21. Note: ***p<.001.

Perceptions of the Class Content

About 90 percent of survey respondents had positive perceptions of the class content (Table 5).

Mode of Delivery: A comparison of online versus in-person format shows that online participants had higher positive perceptions across all metrics except for “Pace of coverage” (86.9 percent in-person vs. 84.4 percent virtual). This lower rating on virtual training may also be associated with software training, Internet connectivity, and level of engagement with B2B participants.

Time Period: Classes taught during the pandemic (online and in-person) had more positive ratings of the class content overall than pre-pandemic classes (91.6 percent vs. 86.7 percent), particularly with respect to “Level of communications received about B2B prior to attending” (79.1 percent vs. 86.8 percent) and the “Depth of coverage” (76.1 percent vs. 85.1 percent). Overall, participants perceived classes during the late transition period more positively than classes taught before the pandemic. Additionally, ratings revealed that by the late transition period, communication about B2B was effective and the amount was appropriate, and participants perceived all metrics of the course material as more appropriate (compared to the pre-COVID-19 period).

These differences of the perceptions of class content also were examined by the interaction of the delivery mode (virtual and in-person) and by the time period. Classes administered either in-person or online during the pandemic had higher ratings of class content than pre-pandemic classes for all of the perception of class content items. There are substantial differences on two perception elements *during the pandemic* depending on whether the training was in-person or virtual: 1) online survey participants reported higher satisfaction with the “Level of communications received about B2B prior to attending” than in-person participants, and 2) positive perceptions of the “Pace of coverage” were substantially higher for in-person than for virtual courses.

Class Duration: Two-day classes had higher ratings across all items measuring positive perceptions of B2B classes. As stated above, none of these differences were statistically significant, primarily due to the small sample size on one-day survey responses. However, one element was substantially higher (7 percentage points) for the two-day online trainings relative to the one-day classes: the amount of material covered. This information provides a glimpse of potentially too much information being taught on a compressed time frame in addition to some of the challenges mentioned above regarding online training (“pace of training” and lack of participant engagement and socialization).

Table 5. Participants' perceptions of class content

With positive perceptions of training aspects:	OVERALL	MODE		TIME FRAME				TIME FRAME	
				Pre-Pandemic	During Pandemic			During Pandemic	
				MODE	MODE			MODE	
				In-person	Overall (During Pandemic)	In-person	Online	Online	
		In-person	Online					DURATION	
								One day	Two days
Level of communications received about B2B prior to attending	82.6%	79.9% ***	85.9%	76.1% ***	85.1%	83.8%	85.9%	84.1%	86.0%
Amount of material covered	86.9%	86.4%	87.6%	84.4% **	87.9%	88.4%	87.6%	80.6% *	88.0%
Depth of coverage	84.7%	83.2% ***	86.4%	79.1% ***	86.8%	87.4%	86.4%	84.1%	86.6%
Mix of topics	92.1%	91.4%	92.9%	89.1% ***	93.2%	93.6%	92.9%	90.8%	93.0%
Pace of coverage	85.8%	86.9% ***	84.4%	83.3% ***	86.8%	90.6%	84.4%	84.1%	84.4%
Overall perceptions of training aspects measure									
Percentage with positive perceptions	90.2%	89.3% **	91.3%	86.7% ***	91.6%	92.0%	91.3%	87.2%	91.5%
Total number of respondents	9,367	5,177	4,190	2,602	6,765	2,575	4,190	227	3,963

SOURCE: Quality Assessment Post-Course Survey (N=9,367, Q2-3,15-17). Pre-COVID: 10/01/18 to 3/30/20, During COVID: 04/01/20 to 09/30/21. Note: *p<.05;

p<.01; *p<.001.

Change In Attitudes (Knowledge, Confidence, Motivation, and Intent) About Starting a Business

Overall, most of the class participants completing the Quality Assessment Post-Course Survey (62.1 percent) reported a change in knowledge, confidence, motivation, and intent about starting a business before and after attending the class (Table 6).

Mode of Delivery: There were no statistically significant differences between online and in-person classes for any of the specific items or the overall measure of changes in knowledge, confidence, motivation, and intent about starting a business before and after attending the class. Although the findings are not statistically significant, online participants reported changes in attitudes on information and confidence to start a business relative to in-person participants.

Time Period: Among the participants completing the post course quality survey, there were no statistically significant differences at the aggregate level between pre- and during-pandemic classes for any of the survey items or the overall measure of change in attitudes about starting a business before and after attending a class. However, there were statistically significant differences at the 1 percent level (as reported by a chi-squared test) between the early and late transition periods. Participants of the late transition classes (10/01/20 to 09/30/21) completing the post course quality survey were less likely to report a positive change in attitudes about starting a business than participants of the early transition period (04/01/20 to 09/30/20) or the pre-pandemic period (10/01/18 to 3/30/20). The survey items on the change in how informed participants felt about starting a business and entrepreneurship, change in how confident participants felt about having the skillsets to start a business, and change in how likely participants will start a business showed the largest differences in distributions across these three time periods.

Table 6. Change in attitudes about starting a business before and after attending a class by time period

	10/01/18 to 03/30/20	04/01/20 to 09/30/20	10/01/20 to 09/30/21	Total
Change in attitudes about starting a business (overall measure) **				
Decreased	13.4%	11.9%	14.5%	13.8%
No change	22.8%	23.5%	24.8%	24.1%
Increased	63.8%	64.6%	60.8%	62.1%
Change in how informed participants felt about starting a business and entrepreneurship **				
Decreased	5.4%	4.4%	6.7%	6.0%
No change	42.9%	43.6%	45.9%	44.8%
Increased	51.8%	52.1%	47.5%	49.3%
Change in how confident participants were about having the skillsets to start a business **				
Decreased	6.7%	5.1%	7.0%	6.6%
No change	45.5%	44.8%	47.8%	46.8%
Increased	47.8%	50.2%	45.3%	46.6%
Change in how likely participants were to start a business **				
Decreased	6.3%	5.2%	6.1%	6.0%
No change	63.2%	65.7%	67.6%	66.2%
Increased	30.6%	29.1%	26.4%	27.8%

SOURCE: Quality Assessment Post-Course Survey (N=9,367, Q2,18). Pre-COVID: 10/01/18 to 3/30/20, During COVID: 04/01/20 to 09/30/21. Note: **p<.01.

Combining time frame and mode of delivery, there were no statistically significant differences for the in-person classes before and during the pandemic period and online classes during the pandemic. There was, however, a statistically significant difference in these three groups for the change in how participants felt informed about starting a business and entrepreneurship in general (Table 7). In-person participants during the pandemic were less likely to report a change in how they felt being informed about starting a business than the other two groups of participants. However, in-person participants during the pandemic also reported higher ratings of the self-reported change in participants interest in starting or owning a business than pre-pandemic in-person classes or classes online during the pandemic.

Table 7. Change in an attitude about being informed about starting a business before and after attending a class by mode and time period

	In-person, pre-pandemic	In-person, during-pandemic	Online, during-pandemic	Total
Change in how informed participants felt about starting a business and entrepreneurship **				
Decreased	5.4%	7.0%	5.7%	6.0%
No change	42.9%	46.6%	44.6%	44.8%
Increased	51.8%	46.4%	49.7%	49.3%
Total	100.0%	100.0%	100.0%	100.0%

SOURCE: Quality Assessment Post-Course Survey (N=9,367, Q2-3,18-20). Pre-COVID: 10/01/18 to 3/30/20, During COVID: 04/01/20 to 09/30/21. Note: ** $p < .01$.

Class Duration: Participants of the two-day classes had a higher change in attitudes before and after taking the B2B class across all items of the self-reported measure than participants of the one-day classes. However, most of these differences were not statistically significant. Although, two items had statistically significant differences for the one- and two-day classes, the overall measure of change was not statistically significant. The two items with statistically significant differences were 1) being informed about starting a business and entrepreneurship in general and 2) being confident about having the skillsets required to start a business. These results might suggest a potential benefit of the two-day relative to the one-day course (Table 8). Table 9 reports the results on change in attitudes across different time frames, delivery modalities and class duration.

Table 8. Change in participants attitudes about being informed about starting a business before and after attending a class

	One Day	Two Days	Total
Change in how informed participants felt about starting a business and entrepreneurship *			
Decreased	5.7%	5.6%	5.6%
No change	48.9%	43.3%	43.6%
Increased	39.7%	49.0%	48.5%
Missing data	5.7%	2.2%	2.4%
Change in how confident participants felt about having the skillsets to start a business, group *			
Decreased	7.5%	6.0%	6.0%
No change	50.2%	45.0%	45.3%
Increased	36.6%	46.7%	46.2%
Missing data	5.7%	2.4%	2.6%

SOURCE: B2B Quality Assessment Post-Course Survey (N=9,367, Q3,18). Pre-COVID: 10/01/18 to 3/30/20, During COVID: 04/01/20 to 09/30/21. Note: * $p < .05$; ** $p < .01$; *** $p < .001$.

Table 9. Change in attitudes about starting a business before and after attending a class

	OVERALL	MODE		TIME FRAME				TIME FRAME	
				Pre-Pandemic	During Pandemic			During Pandemic	
		In-person	Online	MODE	MODE			MODE	
				In-person	OVERALL (During Pandemic)	In-person	Online	Online	
								DURATION	
								One day	Two days
Before-after B2B class change in:									
Being informed about starting a business and entrepreneurship in general	55.2%	55.1%	55.4%	57.1% **	54.6%	53.4%	55.4%	45.4% *	54.6%
Being confident about having the skillsets required to start a business	53.4%	52.9%	53.6%	54.5%	52.8%	51.6%	53.6%	44.1% *	52.7%
Being motivated to start a business	33.6%	34.7%	32.3%	36.3%	32.7%	33.4%	32.3%	25.1%	31.7%
Being likely to start a business	33.8%	35.1%	32.4%	36.8%	32.8%	33.6%	32.4%	27.8%	31.6%
Being likely to start a business soon	34.1%	35.4%	32.6%	36.3%	33.4%	34.6%	32.6%	27.3%	31.9%
Being likely to start a business later	32.1%	33.3%	30.6%	34.4%	31.3%	32.4%	30.6%	29.5%	29.6%
Perceptions of the B2B class:									
Increased interest in starting or owning a business	84.0%	84.9% ***	82.8%	83.4%	84.2%	86.3% ***	82.8%	79.3%	83.1%
Increased confidence in starting or owning a business	91.8%	91.6%	92.1%	89.7%	92.6%	93.5%	92.1%	86.8%	92.4%
Would refer someone to the B2B program	94.9%	94.6%	95.2%	93.0%	95.6%	96.3%	95.2%	91.6%	95.4%
Total number of respondents	9,367	5,177	4,190	2,602	6,765	2,575	4,190	227	3,963

SOURCE: Quality Assessment Post-Course Survey (N=9,367, Q2-3,18-22). Pre-COVID: 10/01/18 to 3/30/20, During COVID: 04/01/20 to 09/30/21. Note: *p<.05;

p<.01; *p<.001.

Research Question 1c: Did the course quality survey data vary by branch of service or demographic variables?

To address this research question, we conducted a multivariate analysis for the three outcome topics of satisfaction, perceptions of class content, and change in attitudes about starting a business. These three models included the participant demographics, branch of military service, and the location of the courses. The following descriptive results present the variables that were significantly related to the three outcomes, controlling for class mode, duration, time period, and all other participant characteristics (Table 10).

Overseas class participants were significantly more likely to:

- be satisfied with the classroom and instructors than participants from all other regions of the United States
- report a positive change in attitudes about starting a business than participants from other regions

Minority¹¹ class participants were significantly:

- more likely to be satisfied with the classroom and instructors than non-minority participants
- less likely to have a positive change in attitudes about starting a business than non-minority participants

Finally, class participants 25–35 years of age were less likely to have positive perceptions of the class content than all other participants, and female participants were less likely to have a positive change in attitudes about starting a business than males.

Table 10. Significant differences in quality outcomes by participant demographic characteristics

	Satisfied with materials, classroom, and instructors	Positive class content perceptions	Positive change in attitudes about starting a business
Minority			
No	89.7%		65.4%
Yes	91.9% **		59.5% ***
Female			
No			60.9%
Yes			65.4% ***
Overseas location			
No	90.0%		60.9%
Yes	94.1% ***		69.0% ***
Age			
<25		92.8%	
25–35		89.7% **	
36–49		93.1%	
>50		94.1%	

SOURCE: Quality Assessment Post-Course Survey (N=9,367, Q4,7-9,14,18,20). Pre-COVID: 10/01/18 to 3/30/20, During COVID: 04/01/20 to 09/30/21. Note 1: based on cases with available data (without missing data). Note 2: *** p<.001; ** p<.01, compared to the other group(s).

With respect to the branch of service and the service member status, transitioning/retiring service members were more likely to report a positive change in attitudes about starting a business than all other participants (e.g., veterans, service members, dependents) (Table 11). Army class participants were significantly less likely to have a positive change in attitudes about starting a business than those in all other service branches.

Table 11. Significant differences by participant branch of service and the service member status

	Positive change in attitudes about starting a business
Transitioning/retiring service member	
No	60.1%
Yes	65.5% ***
Branch of service	
Air Force	64.7%
Army	59.8% **
Marine Corps	67.3%
Navy	61.0%

SOURCE: Quality Assessment Post-Course Survey (N=9,367, Q6,11,18). Pre-COVID: 10/01/18 to 3/30/20, During COVID: 04/01/20 to 09/30/21. Note 1: based on cases with available data (without missing data). Note 2: *** p<.001; ** p<.01, compared to the other group(s).

Research Question 2: Which best practices from the review of the literature and findings can the SBA incorporate to improve the delivery of this virtual training?

The global spread of COVID-19 in 2020 led academic institutions and training programs worldwide to transition to remote teaching. This transition brought a plethora of suggestions from the academic community regarding moving classes to an online medium of instruction while ensuring quality outcomes comparable to traditional teaching approaches. Most of the advice for transition focused on

tools and materials that teachers and instructors can use to replace their face-to-face classes.¹²⁻¹³⁻¹⁴ Furthermore, suggestions for the pandemic-induced transition to online classes were in line with the best practices found in the relevant literature.¹⁵

Studies also suggest that service members' and veterans' knowledge, skills, attitudes, and experiences should be conducive for their engagement with entrepreneurship training, particularly in an E-learning context. Military experience prepares individuals to lead others; work collaboratively in teams; adapt to changing and unpredictable circumstances; be resilient and handle stress; be results-oriented and persistent in overcoming challenges; and have discipline, time management, and decision-making skills.¹⁶⁻¹⁷⁻¹⁸⁻¹⁹⁻²⁰⁻²¹⁻²² Decision-making skills, decisiveness, and mission-focused attitudes of veterans and service members should promote their use of self-regulated learning (SRL) strategies of setting learning objectives and plans, effective time management, and monitoring achievement of learning plans. Their leadership and team-oriented qualities should promote engagement and benefits received from the online learning community and collaborative learning approach. Furthermore, the hierarchical nature of military life and discipline should facilitate the benefits of instructor presence and instructor feedback.

Research also suggests that veterans' personal characteristics, knowledge, skills, and experiences alone are not sufficient for success in the challenging world of entrepreneurship. The general conclusion of the studies is that to successfully engage in entrepreneurship, veterans need additional support and training that is best suited to their needs.²³⁻²⁴ Veterans experience the same entrepreneurship difficulties as non-veterans, including limited access to capital, limited business knowledge, and limited business networks. Furthermore, although they tend to have strong networks in the military and veteran communities, their civilian networks can be weak, and they often have difficulty finding mentors.²⁵⁻²⁶⁻²⁷ Many veterans are also proud, independent, and resilient, and as a result may be less likely to actively seek out help and assistance than a civilian.²⁸⁻²⁹⁻³⁰

Overall, E-learning best practices for veteran entrepreneurship training provided by the literature were similar to the overall E-learning literature, with some recommendations for additional focus to address veterans' needs and issues. For instance, service members and veterans should be encouraged and rewarded to ask for assistance, use the support, and engage in active information seeking.

The literature for the best practices in the instructional design of online courses with non-traditional, adult students, as is the case of B2B participants, provided various recommendations to meet their needs. These could be broadly characterized into the following three main themes:³¹⁻³²⁻³³

- ***Learner-Centered Learning:*** Focusing the instructional design on learner-centered teaching methods,³⁴ as opposed to the instructor-centered practices. This also involves promoting students' SRL.
- ***Student Motivation and Engagement:*** Promoting student motivation and engagement, particularly via facilitating social interactions and learning community.³⁵
- ***IT Proficiency and Use:*** Ensuring IT aspects of training delivery and increasing students' and instructors' proficiency in using IT tools.

The best practices in virtual delivery of training from the literature review were corroborated and elaborated by the findings of this evaluation among B2B class participants and instructors. The

following sections describe the type (focus) of recommendations and the top five recommendations for the SBA to improve the delivery of the B2B program.

Learner-Centered Learning

The literature review described the importance of the learner-centered learning approach to the design and implementation of online education that focuses attention on the learner as an active participant in the learning process and on building knowledge rather than promoting a passive receipt of information.³⁶ This approach relies on experiential learning that does not ask students to memorize or recall, but rather to complete tasks, engage in problem-solving activities, and participate in group discussions. Another aspect of the learner-centered approach is *SRL*. This is an active process whereby learners set goals for their learning and then monitor, regulate, and control their learning process and outcomes.³⁷ The literature suggests the following best practices for learner-centered teaching:³⁸⁻³⁹⁻⁴⁰

- Conduct a pre- and post-class needs and knowledge assessment and use these assessments to set goals for post-class training.
- Provide instructor and peer feedback on learning success or failure.

These recommendations were highlighted by the qualitative findings from the study (Appendix G). Some of the instructors (15 [13.8 percent]) offered suggestions via the open-ended survey question that described learner-centered practices. These included providing the workbook with materials and links to resources before the class⁴¹ (class participants also requested this change), revising and updating the materials to be less academic and more real-life oriented, and conducting pre- and post-class needs and knowledge assessment. Instructors' interviews also described the importance of tailoring the curriculum to the class participants with limited entrepreneurship knowledge, developing more flexible content that reflect participants' needs, and using the collaborative approach to curriculum design and refinement.

Student Motivation and Engagement

Best practices for promoting student engagement involve the instructor presence and feedback.⁴²⁻⁴³⁻⁴⁴⁻
⁴⁵ Building social relationships with online participants and promoting the sense of an online learning community are key contributors to promoting student engagement, motivation, and learning outcomes in online learning.⁴⁶⁻⁴⁷⁻⁴⁸⁻⁴⁹ The best way to foster the sense of an online learning community is through active and collaborative learning as well as by fostering social ties via discussions, group activities and presentations, and sharing experiences.⁵⁰⁻⁵¹⁻⁵²⁻⁵³ Another approach reported in the literature for improving students online social interactions involves integrating social network sites with learning systems.

Class participants' open-ended responses to the survey question provided similar suggestions to increase online engagement and interactions, such as using polls, question-and-answer interactive activities, more one-on-one interactions with instructors, group exercises, and discussions. Similarly, the most frequently described theme of the instructors' (22 [20.2 percent]) suggestions for virtual class improvements via the open-ended survey question focused on promoting engagement and learning community via chat rooms, breakout rooms, leaving cameras on (assumes sufficient bandwidth), ongoing questions and feedback, interactive ice-breaker activities and games, and post-class

interactions via LinkedIn and social media. Some instructors also suggested staying connected in the online meeting after the class ended to further discuss, interact, and socialize.

IT Proficiency and Use

There is an array of best practices for promoting IT use, proficiency, competence, and self-efficacy in adult education.⁵⁴⁻⁵⁵⁻⁵⁶⁻⁵⁷⁻⁵⁸⁻⁵⁹⁻⁶⁰ Online training programs should conduct a pre-program assessment and monitoring of students' and teachers' technological competency level and digital technologies access and use. The online training program should provide students and teachers with training on how to use the technology, the Internet, software, and tools. Particularly notable is the need to provide training to students and teachers to enhance their use and proficiency with online communication tools. Furthermore, VBOC and military installations should ensure sufficient and readily available technical assistance and support.

Suggestions provided by instructors (16 [14.7 percent]) via the open-ended survey questions also related to the importance of ensuring IT aspects of training delivery. Suggestions included having a reliable Internet connection, using effective virtual platforms and tools, providing training and technical assistance for IT tools, and having a teaching partner to run the chat and the logistics of the sessions. Some instructors (11 [10.1 percent]) suggested conducting an instructor assessment, training for knowledge of materials and software tools, and allowing presenters to produce their own online materials and use their preferred virtual tools. Instructors' interviews also described providing IT training, especially for older instructors, ensuring good Internet access, and having a producer for online content and materials.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The transition of the B2B *Introduction to Entrepreneurship* course from in-person to online was one of the fastest transitions amongst the TAP track programs. This quick transition allowed the B2B program to continue offering courses to service members all around the world, even during the COVID pandemic. The district offices and resource partners primarily orchestrated the change in the course delivery. During the pandemic, the SBA, VBOC, SBA resource partners, and all instructors worked with the resources available to them to continue providing the B2B training. Overall, the statistical findings show that the virtual delivery of the B2B *Introduction to Entrepreneurship* course met the needs of the participants (high levels of satisfaction and positive perceptions about the class contents), and that the course satisfaction was in several instances (survey items) higher than the pre-COVID satisfaction outcomes. The transition from in-person to online course was smooth, and there are no major differences in the outcomes from early transition (4/1/2020 to 9/30/2020) to late transition (10/1/2020 to 9/30/2021). Several recommended actions to improve the delivery of the B2B course are presented below.

Recommendations for Online Course Delivery Improvements

Based on the literature review and the evaluation findings, Table 12 provides four recommendations for an even more effective implementation of online B2B classes. We selected these recommendations

based on the relevance, ease of implementation, and expected magnitude of their effect on participant learning processes and quality outcomes.

Table 12. Top recommendations by target population, type, and potential quality outcome improvement

Category	Target	Description	Goal	Burden Level	Potential Effect	Notes	Specific Example
IT Proficiency and Use	SBA, VBOC	Use effective online communication tools (Zoom and Microsoft Teams).	Makes classroom more conducive to learning.	Low	Medium	Slightly more effort from the SBA, same results at the end of the day. Programs aren't difficult.	Most courses used Zoom and Microsoft Teams, so narrowing down to have the courses taught with these programs almost exclusively will allow for better development of trainings.
Learner-Centered Learning	VBOC	Communicate with and deliver course materials with relevant links and resources to participants before the class.	Allows participants to engage in self-learning activities before and after the class, and increases participant engagement in and satisfaction with B2B.	Low	High	Open communication and advanced preparation set the participant and instructor up for success.	Interviewed VBOCs stressed an open communication goal, welcoming the opportunity to proactively avoid or rectify pre-class and post-class misunderstandings.
IT Proficiency and Use	Instructors, VBOC	Dedicate a teaching partner to run the chat and logistics of the sessions.	Makes classroom more conducive to learning and increases participant motivation and engagement.	High	High	Requires additional staffing for every class.	A partner to run the chat was mentioned in many interviews as a best practice.
Learner-Centered Learning	Instructors	Conduct interactive tasks, problem-solving activities, and group discussions.	Increases participant engagement and facilitates experiential learning.	Medium	Medium	Increases engagement significantly, but can be difficult for instructors to work it in to their lessons.	More interactions can lead to students asking better questions and posing scenarios that are more relevant to the participants. It should allow instructors to foster better connections with participants.

Suggestions for Future Evaluation and Evidence-Building Activities

- *Increasing the survey response rates to the Quality Assessment Post Course Survey.* This could involve more rigorous follow-up attempts; streamlining and improving the survey's ease of use; providing additional resources for the data collection efforts; and promoting the use of the online learning community for the continuous engagement of participants, instructors, and alumni
- *Administering a pre- and post-program survey for the entrepreneurship knowledge, skills, and attitudes.* The brief survey could be used to tailor the training and develop refinement to the curriculum. The use of the pre-post assessment will also improve the results examining the change in participants knowledge, skills, and attitudes.
- *Conducting qualitative data collection with class participants to gain their views and experiences with the online and in-person classes.* The focus could be on the barriers, facilitators, and factors involved in online learning processes and outcomes. The qualitative data would provide further recommendations for refinements to the curriculum and online delivery.
- *Following up with graduates for multiple years about their experiences with additional training, business resources, engagement in new business startups, and business survival and growth.* This longitudinal assessment could be facilitated by increasing engagement of alumni in the B2B online learning community. The follow-up surveys would further describe the effectiveness of the B2B program, provide suggestions for better integration of programs and services, and offer implications for the program expansion.
- *Revise the B2B course quality survey to better reflect the intent of the survey items.* Potential revisions include: 1) rescaling select items to more accurately align with intent; 2) developing additional items to improve the content coverage of the instructor satisfaction measure; and 3) administering a pre-post assessment to assess changes in knowledge, behavior, and intent.

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- ¹ Early transition is from 4/1/2020 to 9/30/2020 and late transition is from 10/1/2020 to 9/30/2021.
- ² SBA is currently preparing to conduct a one-year follow up survey. Optimal's proposal includes multiple years and understanding the impact differences due to in-person and online course delivery.
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- ⁹ The change in attitudes measure was constructed by calculating the difference scores for each item for the pre- and post-class ratings assessed on the 1-5 scale. These pre-post class ratings were asked concurrently on the same survey administered after the class completion.
- ¹⁰ As noted by SBA staff during a presentation of the study findings, the SBA does share the program materials in advance to participants on the <https://sba.secure.force.com/instructor/> site. It is likely that this process is not being implemented consistently across all district offices and resource partners, and, thus, some participants and instructors not being aware of the available online materials prior to attending the course.
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Appendix A

Quality Assessment Post-Course Survey

Office of Veterans Business Development

Boots to Business Entrepreneurship Survey for Service members and Military Families

Consent Form

Use of information: This information collection (survey) is to be completed by individuals who have participated in the Boots to Business courses offered by the Small Business Administration (SBA). Disclosure of the information requested on this form is voluntary as participants may exit the survey at any time or skip questions they prefer not to answer. This study is being conducted by researchers at the Institute for Veterans and Military Families (IVMF) in conjunction with the U.S. Small Business's Office of Veteran Business Development (OVBD) to gather information from military service members and families about their experiences in our B2B entrepreneurship program and about their entrepreneurship motivations, barriers and goals. We are collecting this information to improve our program offerings as well as to understand entrepreneurship experiences and outcomes. All information provided is protected to the extent permitted by law, including the Privacy Act of 1974, 5 U.S.C. 552a and the Freedom of Information Act (FOIA), 5 U.S.C. 552. SBA maintains your personal information in the agency's Privacy Act Systems of Records, SBA 5-- Business and Community Initiatives Resource Files. This system of record notice (SORN) identifies why and to whom SBA will routinely disclose the information that you provide.

In addition to those routine uses, **please select yes or no below** to indicate whether you authorize SBA or its agent to also use your name and contact information for SBA surveys and information mailings regarding SBA products and services as part of the Boots to Business alumni network. SBA will not provide your personal information to commercial entities. Choose an item.

Please note: Under the Paperwork Reduction Act you are not required to respond to any collection of information unless it displays a currently valid OMB Control number. This collection has been assigned OMB Control number 3245-XXXX. The estimated time for completing this survey is **15 minutes**, including gathering and submitting the information. Comments on the estimated time, including suggestions for reducing the time, should be sent to U.S. Small Business Administration, 409 3rd Street, SW, Washington, DC 20416, and to: SBA Desk Officer, Office of Management and Budget, New Executive Office Building, Room 10202, Washington, D.C., 20503.

Available Sources of Information: If you have questions about this study, please contact Rosalinda Maury at (315) 443-0172, email: rmaury@syr.edu. If you have concerns or complaints about your rights as a participant, please contact the Syracuse University Institutional Review Board at (315) 443-3013 (#15-053).

AUTHORIZATION: Clicking on the "Agree" option below indicates that:

- You have read the above information.
- You voluntarily agree to participate.
- You are at least 18 years of age.

☐ Agree

☐ Do Not Agree -> **EXIT SURVEY**



Quality Assessment Post Course Survey

Instructions: Please answer the following questions. Some questions will require you to write your answers, while others will require you to select your answers. The information we collect from this evaluation will be kept confidential. Your feedback is important for us to understand the impact of the Boots to Business program.

1. Name: ***Click here to enter text.***
2. Boots to Business date completed: (mm/dd/yyyy)
Please enter the date of the most recent Boots to Business course you completed. If you don't know the date you completed your most recent Boots to Business course, please provide a best estimate.
Click here to enter a date.
3. Please select the boots to Business course you most recently completed:
 - ☐ Introduction to Entrepreneurship (2 day course)
 - ☐ Foundations of Entrepreneurship online (8 week course)
 - ☐ Reboot
4. Please choose the state or territory where you most recently took your Boots to Business course: ***Click here to enter text.***
5. Please choose the installation where you most recently completed your Boots to Business course: ***Click here to enter text.***
6. Service: ***Click here to enter text.***
7. Age Range: ***Click here to enter text.***
8. Gender: ***Click here to enter text.***
9. Ethnicity: ***Click here to enter text.***
10. Race: ***Click here to enter text.***
11. Please select the status that best describes you at the time you completed the course – if you are a service member who is married, please select your status and Dual Military Spouse:
 - ☐ Dependent spouse
 - ☐ Other dependent
 - ☐ Veteran
 - ☐ Service member
 - ☐ Dual military spouse
 - ☐ Service-disabled veteran
 - ☐ Transitioning/retiring service member

The following questions refer to Boots to Business pre-course coordination, specifically concerning the coordination and information you received from the Boots to Business team concerning your books, course and other administrative issues relating to Boots to Business:

12. Describe the level of communications you received about Boots to Business prior to attending:

- ☐ Way too much communication
- ☐ Too much communication
- ☐ About right
- ☐ Too little communication
- ☐ Way too little communication

13. Please rate how satisfied you are with all Boots to Business materials:

- ☐ Very Satisfied
- ☐ Satisfied
- ☐ Neutral
- ☐ Dissatisfied
- ☐ Very Dissatisfied

14. Instructor(s):

<i>Please rate your satisfaction with your instructor(s) in the following areas:</i>	Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied	N/A
Classroom was conducive to a learning environment	*	*	*	*	*	*
Displayed knowledge and familiarity with B2B course material	*	*	*	*	*	*
Exhibited presentation skills that engaged the class	*	*	*	*	*	*
Used training aids and materials to instruct course material	*	*	*	*	*	*
Communicated clearly and effectively	*	*	*	*	*	*
Integrated practical experience and participants' ideas into the course material	*	*	*	*	*	*

15. Regarding Boots to Business overall, please select the most appropriate response to the items below.

	Way too little	Too Little	About Right	Too Much	Way too much
Amount of material covered	*	*	*	*	*
Depth of coverage	*	*	*	*	*
Mix of topics	*	*	*	*	*

16. Please briefly describe what materials or content you would like to see added or subtracted from the course. ***Click here to enter text.***

17. Pace of coverage:

- ☐ Way too fast
- ☐ Too fast
- ☐ About right
- ☐ Too slow
- ☐ Way too slow

Regarding Boots to Business online, please select the most appropriate response to the items below. Please read each response carefully! ***(Note: Only B2B 8 Week Online participants will respond to this question)***

	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
The online registration was easy to navigate.	*	*	*	*	*
Technical support was readily available.	*	*	*	*	*
The course website was well organized.	*	*	*	*	*
Navigating through the courses was easy.	*	*	*	*	*

18. Please answer the following questions about how you felt before and after attending Boots to Business:

	Before					After				
	Not at All	Not Very	Neither	Somewhat	Very	Not at All	Not Very	Neither	Somewhat	Very
How informed did you feel about starting a business and entrepreneurship in general?	*	*	*	*	*	*	*	*	*	*
How confident were you about having the skillsets required to start a business?	*	*	*	*	*	*	*	*	*	*
How motivated were you to start a business?	*	*	*	*	*	*	*	*	*	*
How likely were you to start a business?	*	*	*	*	*	*	*	*	*	*
How likely were you to start a business soon (within one year)?	*	*	*	*	*	*	*	*	*	*
Integrated practical experience and participants' ideas into the course material	*	*	*	*	*	*	*	*	*	*

19. Other than the information covered already, do you have any additional input regarding the Boots to Business program? [Click here to enter text.](#)

20. Which of the following best describes your interest in starting or owning a business now that you have completed Boots to Business:

- ☐ I am significantly more interested in starting or owning a business
- ☐ I am more interested in starting or owning a business
- ☐ I am neither more nor less interested in starting or owning a business
- ☐ I am less interested in starting or owning a business
- ☐ I am significantly less interested in starting or owning a business

21. Did the Boots to Business program increase your confidence in starting or owning a business?

- ☐ Yes
- ☐ No

22. Would you refer someone to the Boots to Business program?

- ☐ Yes
- ☐ No

Appendix B

Literature Review

Acronyms

Term	Description
B2B	Boots to Business program
DOD	U.S. Department of Defense
DOL	U.S. Department of Labor
E-learning	Electronic Learning
ERT	Emergency Remote Teaching
FC	Flipped classroom
IT	Information Technology
IVMF	Institute for Veterans and Military Families
OECD	Organization for Economic Co-operation and Development
OED	Office of Entrepreneurial Development
OFO	Office of Field Operations
OVBD	Office of Veterans Business Development
SBA	U.S. Small Business Administration
SBDC	Small Business Development Centers
SRL	Self-Regulated Learning
TAP	DoD's Transition Assistance Program
Transition GPS	Transition Goals, Plans, Success
VA	U.S. Department of Veterans Affairs
VBOC	Veteran's Business Outreach Centers
WBC	Women's Business Centers

Introduction

The Boots to Business (B2B) program is an entrepreneurial education and training program the SBA offers as part of the Department of Defense's (DoD) Transition Assistance Program (TAP). The B2B program involves an introductory course and other training components. The *Introduction to Entrepreneurship* was designed as a two-day, in-person course offered to those interested in learning more about the opportunities and challenges of business ownership. Participants learn business fundamentals and techniques for evaluating the feasibility of their business concepts. After completing the *Introduction to Entrepreneurship* course, transitioning service members can elect to further their study through an instructor-guided, six-weeks, online course “Boots to Business Revenue Readiness” that offers in-depth instruction on the elements of business formation, management, and growth.¹

The global spread of the COVID-19 pandemic in 2020 led academic institutions and training programs worldwide to transition to remote teaching. The B2B program, during the COVID-19 pandemic, also had to begin offering course delivery through an online, instructor led one- or two-day course, in addition to providing in-person courses. This transition brought a plethora of suggestions from the academic community regarding moving classes to an online medium of instruction while ensuring quality and outcomes comparable to traditional teaching approaches. Unfortunately, much of the advice for transition focused on tools and materials that teachers and instructors can use to replace their face-to-face classes, mostly without the contextualized knowledge for the effectiveness of various online tools and approaches.^{2-3-4, 5}

The main goal of this literature review is to increase the SBA understanding of how to effectively provide the B2B Introduction to Entrepreneurship course to service members and veterans in a virtual environment and inform the virtual delivery of other SBA training programs. The literature review examines peer-reviewed publications for the COVID-19 transition of classes to an online format and the overall online or Electronic (E-Learning) approaches and practices for adult education, and those specific to service members' and veterans' entrepreneurship training. The literature review also covers the instructional design and implementation factors influencing online learning activities and outcomes. The review will first provide definitions and types of E-Learning, describe benefits and issues associated with E-Learning, and present empirical literature for the effectiveness of various E-Learning types. Then, the literature review will present best practices for the instructional design of web-based adult learning. Finally, this review will offer some implications and suggestions for entrepreneurship online training among veterans and service members.

Definitions of E-Learning

E-Learning has become mainstream in the education sector, and emerging technology constantly expands the possibilities for online learning and continues to fuel the evolution of distance education. Due to the continuous evolution of technology, there is no single agreed-upon definition for E-Learning.⁶ Therefore, terminologies such as distance learning, online learning, web-based learning, E-Learning, cyberlearning, and computer-based learning emerged in the literature with little consensus on their definitions.⁷ E-Learning, according to the Organization for Economic Co-operation and Development, is defined as the use of information and communication technologies in diverse processes of education to support and enhance learning in institutions of higher education, and includes the usage of information and communication technology as a complement to traditional classrooms, online

learning or mixing the two modes.⁸ The U.S. Distance Learning Association defines distance learning as “the acquisition of knowledge and skills through mediated information and instruction.”⁹ Online learning is defined as a type of teaching and learning situation in which (1) the learner is at a distance from the instructor, (2) the learner uses some form of technology to access the learning materials, (3) the learner uses technology to interact with the instructor and with other learners and (4) some support is provided to learners.¹⁰ Another definition of E-Learning is “an information system that can integrate a wide variety of instructional material (via audio, video, and text mediums) conveyed through email, live chat sessions, online discussions, forums, quizzes, and assignments.”¹¹ Online learning is also defined as the use of Internet to access learning materials; to interact with the content, instructors, and other learners.¹²

Online learning and teaching involve a diverse array of tools, resources, pedagogical and theoretical approaches, roles, organizational arrangements and forms of interaction, monitoring and support—with many possible combinations of substitution and integration.¹³ E-Learning as a concept covers a range of applications, learning methods and processes, making it difficult to find a commonly accepted definition.¹⁴ The diversity of E-Learning allows the categorization into three main types: assistant mode, mixed-mode, and completely online mode.¹⁵ The assistant mode supplements the traditional face-to-face method with online materials as needed. The supplemental assistant mode reflects that many traditional face-to-face training approaches currently use some forms of online technology. In mixed, blended, or hybrid E-Learning, the delivery of course materials and interactions are shared between traditional classroom learning methods and E-Learning methods. It involves the combination of face-to-face and technology-mediated instruction. Blended or hybrid learning combines the benefits of face-to-face learning and E-Learning and enhanced learning opportunities and outcomes due to this variety in delivery modes.¹⁶ The completely online mode involves the exclusive use of the online mode for learning. It is devoid of traditional in-person learning or classroom participation. Others classified E-Learning based on the continuum from face-to-face, to hybrid, to E-Learning. The traditional setting uses telecommunications technologies for up to 25 percent of content delivery, traditional hybrid is 26 percent–49 percent, distance hybrid is 50 percent–75 percent, and E-Learning has 76 percent–100 percent of content delivered using telecommunications technologies.¹⁷

The online mode is divided into “synchronous” or “asynchronous” based on the timing of interaction. The synchronous mode comprises alternate online access between instructors and learners or between learners. The synchronous type allows learners to discuss with the instructors and among themselves via the internet at the same time with the use of tools such as the videoconference and chat rooms. The synchronous method provides instructional content in real-time and offers the advantage of collaboration and instantaneous feedback.¹⁸ Synchronous courses provide real-time face-to-face interaction at a scheduled time, thus offering students and instructors possibilities for more immediate give-and-take, feedback, in-depth discussion, and more accountability for students.¹⁹ For example, with platforms such as Elluminate® or Adobe Connect®, students can interact with the instructor and classmates and obtain immediate feedback, clarification, and remediation.²⁰

The asynchronous mode does allow learner-instructor interaction. However, asynchronous interactions occur at different times and on a delay. Therefore, there is no interaction simultaneously but later, using tools.²¹ The asynchronous online classroom may utilize announcements, discussion forums, and course material—such as audio-embedded PowerPoints, video lectures, and other visual/auditory media—to facilitate the achievement of course learning objectives. The role of the

instructor is that of a facilitator of knowledge construction, skill acquisition, and transmitter of information. The role of students is that of learners who actively engage with course materials, other students, and the instructor to understand, analyze, and apply course concepts and skills.²² Asynchronous activities are student-controlled in terms of time and place and offer flexibility and the opportunity for more independent, student-centered learning.²³ Giving students time to think about answers to questions raised is a distinct advantage that asynchronous learning environments offer.²⁴ Asynchronous methods also provide an opportunity for critical thinking by giving students the time for reflective inquiry.²⁵ The asynchronous mode has the disadvantage in that the learners are not able to receive instant feedback from instructors or other learners.²⁶

There are also types of hybrids or blended E-Learning. Adjunct E-Learning is when E-Learning is employed as an assistant to the traditional classroom, providing relative independence to the learners or students. It is similar to the assistant mode described above. A flipped classroom is a particular type of blended learning. It mainly builds on web-based lectures that are studied prior to face-to-face sessions.²⁷ Blended learning is considered the most effective and most popular mode of instructions adopted by educational institutions due to its perceived effectiveness in providing flexible, timely and continuous learning by combining the benefits afforded by both face-to-face and online learning modes of instructions.²⁸⁻²⁹

E-Learning Categorizations

- *The completely online* mode involves the exclusive use of the online activities for learning.
- The synchronous mode comprises real-time online access between instructors and learners, or between learners.
- The asynchronous mode also allows learners to interact with the instructors as well as among themselves over the internet at different times.
- *The adjunct or assistant* mode is employed as an assistant to the traditional classroom, supplementing the face-to-face method with online materials as needed.
- *The mixed, blended, or hybrid* mode delivers course materials and interactions shared between traditional classroom learning and E-Learning methods.
- A flipped classroom is a particular type of blended learning. It offers students web-based lectures and materials to study prior to face-to-face sessions.

Benefits and Issues with E-Learning and Traditional Adult Education

The reviewed literature described various benefits and issues associated with both web-based learning and traditional face-to-face adult education modalities. The documented benefits of distance learning include easy access, flexible timing, the ability to meet different learning styles, interactivity, and learning and communication without considering geography or time zones. Distance learning provides a richer learning experience and greatly increases the scope of the training program because students can engage learning resources from anywhere and anytime. In web-based lectures, students also benefit from being able to replay, pause, jump backward and forward to develop a deeper understanding.³⁰ Distance learning is also cost-effective, and the evidence supports that learners prefer distance learning over traditional educational venues.³¹ Some studies also highlight that the advantage of E-Learning involves the focus on the needs of individual learners rather than on the instructors' or

educational institutions' needs.³² Another important benefit of E-Learning is that it allows users to engage in an online learning community that provides continuous learning once a user completes a course or a program.³³

The most noticeable critique of E-Learning involves limited personal interactions between learners and instructors and among learners. Research also indicates that attrition rates for online students are much higher than those in traditional programs, especially among adult learners.³⁴⁻³⁵ Despite high enrollment rates, distance education, as a practice, normally grapples with higher attrition rates than face-to-face education.³⁶⁻³⁷ It has been suggested that elevated attrition rates in online programs could be related to students lacking a sense of connection to peers and program faculty.³⁸ Consequently, this situation may create a feeling of loneliness and frustration.³⁹ Students' online learning activities are often challenging due to a lack of motivation, alienation, isolation, and hesitance to engage in online learning communities.⁴⁰

Studies also suggested that many learners struggle in online learning environments because of difficulties using self-regulated learning (SRL) strategies.⁴¹ Studying in an online environment is challenging because the control of learning is shifted from the educational institutions and instructors to the individuals—often an isolated—learner. Students are required to self-regulate their learning activities by assuming the greatest responsibility for their own learning processes and outcomes.⁴² The systematic literature review reported such issues with SRL in online learning environments as procrastination, online help-seeking challenges, lack of self-regulation skills, limited preparation before class, poor time management skills, and improper utilization of online peer learning strategies.

⁴³

Another major issue with E-Learning that affects its effectiveness involves digital inequality or the internet access not being evenly distributed among the general population. Because online programs typically comprise non-traditional students who work full-time and are geographically diverse, this invites a student enrollment varied in age, race, ethnicity, physical ability, and educational background, particularly a greater enrollment by learners from underrepresented populations.⁴⁴ Distance education often involves disproportionately negative performance by students with lower socioeconomic and minority statuses, which are associated with the digital divide.⁴⁵ The research of the issues involved in online learning during the COVID-19 pandemic specifically noted that the important challenge is to ensure proper utilization of virtual learning environment tools like Moodle, Blackboard, Canvas, etc. and with live virtual lecture delivery software like Zoom, MS Teams, Cisco WebEx, etc.⁴⁶

Internet access issues are not a binary measure and being under-connected occurs along a continuum and fluctuates over time. It involves interruptions in internet access due to unpaid bills; internet or digital devices that are outdated or otherwise insufficient for the needs; low bandwidth and slow processing speeds, needing to share devices among family members resulting in less time online; and relying on a smartphone for connectivity. Digital inequality also involves discrepancies in digital skills, engagement, and learning proficiency, including (1) awareness of the capabilities and functions of digital technologies; (2) how to use digital technologies to communicate with others; (3) how to participate in digital environments through content creation, and (4) how to seek help from others, ranging from social support to troubleshooting digital issues.⁴⁷ The systematic literature review reported that technological literacy and competency challenges experienced by adult learners included technical issues with the use of various hardware and software technologies, challenges in handling

different user interfaces, difficulties learning new technology, resistance to and intimidation by technologies, resistance to and confusion about seeking online help, and poor understanding of directions and expectations in online or blended learning.⁴⁸

E-Learning Benefits and Limitations

Benefits

- Easy access, interactivity
- Flexible timing, ability to meet different learning styles
- Ability to replay, pause, move backward and forward to develop a deeper understanding
- Increased reach across geography or time zones
- Creates a learning community that keeps providing continuous learning

Limitations

- Limited personal interactions between learners and instructors, and among learners
- Higher attrition rates than in traditional programs
- Feelings of loneliness, isolation, alienation, and frustration
- Reduced motivation and increased hesitance to engage
- Difficulties using self-regulated learning (SRL) -- students are required to self-regulate their learning activities
- Digital inequality -- interruptions in access to the internet and devices, and discrepancies in digital skills, engagement, and learning proficiency

Given these benefits and issues of the various types of web-based learning, there is a growing literature that examines the relative effectiveness of the E-Learning types and traditional classroom learning for student satisfaction and achievement outcomes. This literature attempted to determine whether the E-Learning is more effective than the traditional classroom instruction.

Effectiveness of E-Learning Modes

Empirical evidence supports the effectiveness of instruction in online environments, including quasi-experimental and random assignment studies that compared various modalities. The studies on online modes in higher education suggested that differences in student learning outcomes for traditional and online methods are often not statistically significant, although some evidence demonstrates superior student outcomes in online courses.⁴⁹ The systematic meta-analysis studies concluded that there were mixed results and little systematic difference in performance outcomes between students enrolled in fully online courses, hybrid courses, and face-to-face courses.⁵⁰ Furthermore, the systematic literature reviews of higher education, professional education, and adult education studies that compared internet-based to traditional teaching modes discovered that the difference in student knowledge and achievement outcomes between methods is minor.⁵¹⁻⁵² However, some studies reported a greater impact of hybrid learning on higher student outcomes compared with face-to-face settings.⁵³⁻⁵⁴ For example, the general findings of the systematic literature review that included quasi-experimental design studies, indicated that there was no significant difference in students' achievement (e.g., grades) between blended learning and traditional learning; but on the other variables like satisfaction,

motivation, drop-out rate for at-risk students, knowledge retention, learning self-efficacy, and preference, hybrid learning was observed as superior.⁵⁵⁻⁵⁶

In addition to the studies reporting the differential effectiveness of hybrid and online modes, there is some evidence, including quasi-experimental studies, that the synchronous mode could be more effective than an asynchronous mode in increasing student satisfaction, communication, engagement, critical thinking skills, and achievement.⁵⁷ For example, one study reported that the transition from the face-to-face to online learning during the COVID-19 pandemic was smoother when undergraduate students attended synchronous compared to purely asynchronous sessions. The students who attended the synchronous sessions saw a much smaller drop in their exam grades and had a higher normalized gain score on their pre/post assessment of knowledge learned, compared to those who attended the asynchronous sessions.⁵⁸ Another literature review of studies in adult education and higher education also stated that a mix of synchronous and asynchronous instruction has been shown to enhance student performance in general and during the COVID-19 transition.⁵⁹

Overall, there is general agreement that technology-assisted education methods can be a possible alternative to classroom, traditional lectures. However, the evidence thus far does not necessarily indicate that technology-based teaching and traditional teaching methods are interchangeable. Distance learning has been said to be neither inherently superior nor inferior to traditional instruction; rather they are considered complementary.⁶⁰ Thus, the recent research literature shifted the focus on identifying best practices for the instructional design of online courses.

Curriculum Approaches for Web-Based Learning

Despite the growing body of research on E-Learning effectiveness, studies rarely contrasted multiple alternative instructional designs and their elements, thus impeding the conclusive evidence about the impact of a specific design or its components. The results of E-Learning studies are often difficult to compare, due to large—often uncontrolled—differences in instructional design.⁶¹ Due to the heterogeneous nature of interventions and desired outcomes, it is difficult to distinguish which types of approaches were more efficacious than others.⁶² This makes it difficult to provide empirically based best practices in curriculum development approaches for web-based learning. The following describes theoretical considerations and present best practices for the instructional design of online courses based on the converging evidence across various studies on the following topics:

- learner-centered learning
- self-regulated learning
- student motivation and engagement
- social Interactions and learning community, and
- web proficiency and competence

Theoretical Considerations

The diversity of online learning tools, resources, instructional design elements, and other factors emerge due to the differences in theoretical approaches and foundations.⁶³ Despite this diversity of theories, there is a shift in the literature from a behaviorist, individualistic approach to online learning to a constructivist approach. Constructivism theory describes a process of active learning through

social interaction that builds knowledge rather than passively receiving information and where students and teachers are active participants in the learning.⁶⁴ Constructivist theory helps identify the need to create a community in online learning and promote learner involvement to achieve learning and student success. Constructivism also places importance on experiences and promoting learning through experiential learning.⁶⁵ Many institutions in higher education have adopted constructivist instructional strategies that require online students to engage in collaborative learning activities.⁶⁶ The need for student-centered, interactive, collaborative learning that occurs in numerous domains is the subject of constructivist theory studies in online learning and various studies examining E-Learning environments.

Guided by these theoretical considerations, there is a growing body of literature presenting recommendations for the instructional design of online courses. The instructional design maximizes the effectiveness, efficiency, and appeal of instruction and other learning experiences. This process consists broadly of determining the current state and needs of the learner, defining the end goal of instruction, and creating the most effective way to present content.⁶⁷ The reviewed literature for the best practices in the instructional design of online courses included non-traditional, adult students. Non-traditional adult students and distance learners are growing student populations requiring different learning approaches to meet their needs. Definitions of adult, non-traditional learners include the entry to educational institution delayed by at least one year following high school, age older than 25, having dependents, being a single parent, being employed part time or full time, being financially independent, not having a high school diploma, and possessing life or work experience external to educational institutions.⁶⁸ When these criteria are more specific—"full time students of standard college age enrolled in four-year public or non-profit college"—only 29% of undergraduates typically meet these criteria.⁶⁹ Thus, most of the recent research literature on the instructional design of online courses in higher education includes non-traditional adult students.

The growth of online education offers specific opportunities for engaging non-traditional adult students. Adult learners, through the use of the internet technologies and online learning approaches, are better able to maintain their professional and family commitments while engaging in educational programs and content.⁷⁰ The obligations that non-traditional adult learners hold are more easily addressed through distance learning programs, particularly by providing support services and course delivery methods to increase their level of engagement.⁷¹ Online learning also caters to the common learning preferences of adult learners, such as self-regulated learning, active participation, experiential learning, need for applicability and relevance, and the opportunity to develop learning community.⁷² Thus, online education environment offers appropriate opportunities for adult learners through the flexibility it provides and by relying on self-regulated learning to manage their own learning processes.

⁷³

The educational field of andragogy, described as "the science and art of educating adults", provides a framework for addressing adult students' circumstances and learning needs.⁷⁴ To design and implement online distance education programs that meet the needs of adult learners, the following key postulations of the andragogy should be acknowledged.⁷⁵⁻⁷⁶ First, just like constructivism theory, it focuses on learner-centered teaching methods, as opposed to the instructor-centered practices associated with pedagogy. Second, the self-regulated learning is the hallmark of andragogy, and this type of learning is readily facilitated by effective online technology integration. Other two key components of this approach, that are similar to constructivism theory, involve 1) promoting student

motivation and engagement, and 2) enhancing social interactions, particularly in the context of a learning community. In addition, the research suggests that, especially among adult learners, the computer and Internet proficiency and self-efficacy play a significant role in online learning processes and outcomes.⁷⁷ The remainder of this section presents these five main types of recommendations for web-based instructional design.

Learner-Centered Learning

Learner-centered approach focuses attention on the learner: what the student is learning, how the student is learning, the conditions under which the student is learning, whether the student is retaining and applying the learning, and how current learning positions the student for future learning. For instance, the qualitative study of university faculty members suggested the following best practices for learner-centered teaching.⁷⁸ Early in the course, students assessed their prior knowledge and conducted goal-setting activities. Then, throughout the course, students revisited those goals, assessed their progress, planned for forthcoming activities, and identified strengths and opportunities for improvement. Toward the end of the course, students synthesized their experiences prior to and throughout the course. Another learner-centered approach is the experiential learning which acknowledges that people learn from experiencing a new activity or solving a problem. This approach to learning does not ask students to memorize or recall, but rather to use resources to complete complex tasks and form arguments and opinions by openly sharing their unique perspectives in group settings and engaging in problem-solving and debate-style discussions.

The learner-centered approach also often relies on a team approach for curriculum development and refinement. It assigns responsibilities for the curriculum development to different team members (e.g., subject matter experts, curriculum design experts, instructors, and students). Team members work collaboratively to develop a curriculum that targets critical knowledge, skills, and dispositions.⁷⁹ For instance, in one learner-centered approach, the students and instructors met synchronously online throughout the course to discuss what was happening in the course to develop and implement changes to the course that they believed would optimize teaching and learning.⁸⁰ The primary goal was to develop a shared responsibility for teaching and learning in the course. This shifted the focus from learning content to students' needs, the process of learning, and the benefits and responsibilities of online community building.

Self-Regulated Learning

Self-regulated learning (SRL) has recently gotten attention as a crucial factor in learner performance in online learning environments, especially for non-traditional adult learners. SRL is an active, constructive process whereby learners set goals for their learning and then monitor, regulate, and control their cognition, intentions, and behavior.⁸¹ Online learners are expected to be autonomous and manage their own learning by making their own social and conceptual connections to suit their learning needs. The systematic literature review reports that the SRL could be promoted by the time management activities including setting learning objectives and plans for effective time management, monitoring learning plans, and receiving feedback on learning plans' success or failure.⁸²⁻⁸³

Another strategy for promoting the SRL in the online learning context is to increase learning self-efficacy. Learning self-efficacy is the key component in the SRL and the driver of student learning and

satisfaction. It's defined as the level of confidence someone must perform a particular task, activity, action, or challenge.⁸⁴ It is also defined as people's belief in their capabilities to mobilize the motivation, cognitive resources, and behaviors needed to exercise control over their learning.⁸⁵ The judgments of learning self-efficacy result from experiences and accomplishments, vicarious experiences, social persuasion, training and evaluative feedback, and the physical and emotional conditions of the learners.⁸⁶

The findings of the systematic research literature review of SRL indicated that learning self-efficacy is positively related to the use of learning strategies, satisfaction with online courses, the likelihood of enrolling in future online courses, and academic performance.⁸⁷ For example, the study of graduate and undergraduate students found that online learning self-efficacy is the strongest predictor of perceived learning in online settings.⁸⁸ This study suggested that learning self-efficacy can be improved by performance accomplishments, vicarious experiences, and providing timely, authentic, and constructive instructor and peer feedback with encouragement.⁸⁹ The studies of online learning environments in the context of higher education have also suggested that learning self-efficacy could be enhanced by promoting the technological aspects of learning, such as the Internet, learning system, computer, and application use efficacies.⁹⁰

Student Motivation and Engagement

Another key component of SRL in the context of E-Learning environment involves student motivation and engagement. Student engagement refers to the degree of attention, curiosity, interest, optimism, motivation, and passion that students show when they are learning or being taught.⁹¹ When designing an online course, the best practices for promoting student engagement involve the instructor presence and feedback.⁹²⁻⁹³⁻⁹⁴⁻⁹⁵ A strong instructor presence is necessary for synchronous and especially asynchronous online learning environments, so students recognize that the instructor is engaged, thus encouraging students to be engaged.⁹⁶⁻⁹⁷ The prominent instructor presence can be achieved through a variety of actions (e.g., discussion boards, announcement activities, emails, instructor-learner meetings, one-to-one instructor feedback, chat rooms, and an instructor's blog).⁹⁸ Faculty can also help promote adult attention and engagement during both synchronous and asynchronous instruction by offering quick interactive activities at the start of a class, taking online polls during class, and using short, student presentations.⁹⁹

Instructor feedback is another practice that has a significant effect on increasing the active online learning participation.¹⁰⁰⁻¹⁰¹ Feedback is defined by the studies as a method to promote SRL reflective activities by informing learners about their state of learning. In online learning environments, feedback may play an especially important role in fostering a sense of belonging to an online learning community, promoting engagement, and increasing a more reflective learning.¹⁰² The instructor's response and feedback are essential in online learning environments due to the lack of face-to-face communication and learners' sense of isolation.¹⁰³⁻¹⁰⁴ Instructor feedback should be timely, identify the learner's particular strengths and weaknesses, allow the student to make necessary corrections to fix the problem, and help the learner acquire new skills to strengthen learning self-efficacy.¹⁰⁵⁻¹⁰⁶ A strategy related to instructor feedback is prompting, which had been extensively examined as an approach to support SRL in online learning environments. Prompts may come in the form of questions, suggestions, and problem-solving tasks. The assumption is that learners do not use SRL strategies spontaneously, so prompting can induce SRL strategies and enhance learning outcomes.¹⁰⁷

Social Interactions and Learning Community

Participating in an online learning community and building social relationships with online participants have proven to be key contributors to students' academic success, especially in technology-mediated learning.¹⁰⁸ There is extensive research evidence on the positive effects of social interactions with instructors and peers and collaborative learning on student performance.¹⁰⁹⁻¹¹⁰ Online courses that are designed to foster peer-interaction and encourage collaborative learning have been found to contribute to effective learning. Establishing a strong sense of online learning community, high team cohesion, and promoting networks of interpersonal relationships have resulted in higher motivation, satisfaction, and engagement levels.¹¹¹ Community building is a core tenet of adult education.¹¹²⁻¹¹³ The fundamental philosophical foundation of the community of learning is the constructivist learning, in which the student is central to the learning process and the process is collaborative in nature.¹¹⁴ Learning is a social process and therefore effective online learning should be embedded in social group activities and involve high quality social relations with teachers and peers.¹¹⁵

The best way to foster the sense of online learning community is through active and collaborative learning within the virtual classroom.¹¹⁶ Knowledge sharing is the key to collaborative learning and sustaining an online learning community. It could be facilitated by initiating discussions, responding to a message, and engaging in storytelling to share experiences.¹¹⁷⁻¹¹⁸ The instructors could facilitate discussions by outlining rules and a guide to the threaded discussion, setting clear goals and expectations, posing questions and problems, providing feedback and guidance, requiring students to participate, and grading the discussions. Additional suggestions include orientation sessions, peer and faculty mentoring and training.¹¹⁹

Another strategy to build an online learning community is to foster social ties among members. The quality of interactions that students have with each other enhance their engagement, motivation, and satisfaction with online training.¹²⁰ The strategies to promote social interactions include receiving feedback from other students, answering student questions, communication with other students, group activities, projects, and presentations.¹²¹⁻¹²² Other researchers also suggested that socialization can be facilitated by online conferences, group discussions, networking events, discussion boards, guidelines for social interaction, as well as monitoring and rewarding students' contribution to the online learning community.¹²³⁻¹²⁴⁻¹²⁵ Additional suggestions include allotting time at the beginning of class for structured social activities, such as ice breakers or students sharing their experiences with the learning content.¹²⁶

Another approach for improving students online social interactions involve integrating social network sites with learning systems. This was found to significantly improve students learning outcomes, satisfaction, and engagement.¹²⁷ Integrating social networking sites with learning systems was found to positively affect the quality of communication among students and between students and their instructors, thereby improving an overall learning experience.¹²⁸ Furthermore, technology offers a variety of tools people can use to interact in real-time, which can reduce students' feelings of isolation, especially in asynchronous courses.¹²⁹ The tools like virtual classrooms allow for video-, audio-, and text-based communication, provide the ability to share information, and can incorporate live polling to solicit responses from participants.¹³⁰ However, the effectiveness of the information technology tools is dependent upon students' proficiency, competence, and experiences using these tools.

Web Proficiency and Competence

There is an array of evidence-based suggestions for promoting information technology use, proficiency, competence, and self-efficacy in adult.¹³¹⁻¹³²⁻¹³³⁻¹³⁴⁻¹³⁵⁻¹³⁶ One suggestion is to conduct initial assessment of students' E-Learning readiness and self-efficacy to support faculty in developing the delivery of online content that facilitates students' efficient use. Training programs should also periodically assess students' and teachers' technological competency level and digital technologies access and use to accommodate the needed technology for instruction. Furthermore, providing training in how to use the technology and media tools is crucial for effective E-Learning. This involves the following activities. Arranging student workshops and seminars to introduce technical feasibility of E-Learning technology tools. Conducting instructor training about how to facilitate effective use of E-Learning tools and resources for students. Providing special training to enhance online communication techniques between students and teachers and among students. Another key factor for effective E-Learning is sufficient and readily available technical assistance and support. This involves support for recovery from errors, how to resolve common technical issues, contact details for technical support, and adequate information technology resources such as hardware maintenance and upgrades.

Given these suggestions for promoting the effective use of E-Learning modalities, it's important to consider how they could be adopted to veteran and military entrepreneurship web-based training programs. This require integrating these suggestions with the literature on the service members' and veterans' circumstances, experiences, and issues, as well as the literature on veteran and military entrepreneurship training.

Veteran and Military Entrepreneurship Training

Applying the research findings and best practices listed above for web-based entrepreneurship training to military personnel and Veterans requires some inferences and subjective suggestions due to the scarcity of empirical literature, particularly on web-based entrepreneurship training for veterans and service member.

There is limited empirical research and theorizing on the transition from military to civilian life (outside of issues related to mental health and disability) and a general lack of controlled, systematic investigations on effective entrepreneurship interventions and training.¹³⁷⁻¹³⁸ Existing research on the transition of service members to civilian life heavily focuses on employment rather than self-employment or entrepreneurship.¹³⁹ Although there is some evidence for the effectiveness of veteran entrepreneurship training programs, most of the studies relied on the self-reported knowledge, attitudes, and self-efficacy of entrepreneurship.¹⁴⁰⁻¹⁴¹ Furthermore, there is a limited number of studies that identified the key drivers of veteran business ownership and entrepreneurial activity, or that evaluated the effectiveness of programs and initiatives on veterans' employment and entrepreneurship.¹⁴²⁻¹⁴³ The existing veteran entrepreneurship studies often have methodological limitations, as few employ pre-post design, longitudinal measurement, or quasi-experimental design. The research is also primarily self-reported, descriptive, and bivariate.¹⁴⁴⁻¹⁴⁵ Despite these limitations, the consistent conclusion of veteran entrepreneurship studies is that veterans have characteristics, knowledge, skills, and experiences that promote their entrepreneurial abilities and enhance their engagement with and benefits from entrepreneurship training.

The military experience is thought to instill knowledge, skills, and abilities that should promote entrepreneurship and facilitate entrepreneurship learning. Veterans are significantly more likely than non-veterans to be self-employed, and military experience is found to positively impact self-employment. Military experience prepares individuals to lead others, work collaboratively in teams, adapt to changing and unpredictable circumstances, be resilient and handle stress, be results-oriented and mission-focused, and have discipline, time management, decision-making, and decisiveness skills.¹⁴⁶⁻¹⁴⁷⁻¹⁴⁸⁻¹⁴⁹⁻¹⁵⁰⁻¹⁵¹ The literature also recognizes the importance of veterans possessing and utilizing personal attitudes and beliefs that facilitate starting and growing businesses, including self-confidence, self-efficacy, risk-taking orientation, tolerance of ambiguity, and persistence in overcoming challenges.

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Research also suggests that veterans' personal characteristics, knowledge, skills, and experiences alone are not sufficient for success in the challenging world of entrepreneurship. The general conclusion of the studies is that to successfully engage in entrepreneurship veterans need additional support and training that is best suited to their needs.¹⁵³⁻¹⁵⁴ Veterans experience the same entrepreneurship difficulties as non-veterans, including limited access to capital, business knowledge, and business networks. Although they tend to have strong networks in the military and veteran communities, their civilian networks are weak, and they often have difficulty finding mentors.¹⁵⁵⁻¹⁵⁶⁻¹⁵⁷ Furthermore, despite the successes achieved by veteran entrepreneurs, the proportion of ex-military members becoming entrepreneurs has declined in recent years.¹⁵⁸⁻¹⁵⁹

Suggestions for Veteran and Military Online Entrepreneurship Training

Some studies suggested that military personnel and veterans' knowledge, skills, attitudes, and experiences should be conducive for their engagement with entrepreneurship training, particularly in E-learning context. When compared to non-military learners, military learners often have more experience adjusting to change, experience with and knowledge of different cultures, and typically have strong motivation when learning in an online, especially in asynchronous setting.¹⁶⁰ Also, continuing education is common in military life, so students are more likely to have been in classes more recently than would be commonly assumed.¹⁶¹ Veterans are typically older, likely to have a specialization in a particular professional field, as well as responsibility and accountability gained through military service.¹⁶² These and other skills and characteristics, such as persistence, being results-oriented, discipline, and time management should facilitate veterans' self-regulated learning (SRL), and learning self-efficacy, which are important for effective E-Learning. Decision-making skills, decisiveness, and mission-focused attitude should promote the use of SRL strategies of setting learning objectives and plans, effective time management, and monitoring achievement of learning plans. Veterans' leadership and team-oriented qualities should promote engagement and benefits received from the online learning community and collaborative learning approach of most web-based training programs. Veteran's leadership qualities should also assist in implementing a team-based approach for curriculum development and refinement. Hierarchical nature of military life and discipline should facilitate the benefits of instructor presence and instructor feedback.

Some of the skills, attitudes, and experiences of veterans might place them at a disadvantage for some of the best practices for online learning. Most importantly, the veterans are proud, independent, and resilient and as a result may be less likely to seek-out help and assistance than a civilian population.

There is an extensive literature documenting barriers to utilization of available social and healthcare services among veterans. In addition to numerous structural barriers to using services (e.g., availability, accessibility, and affordability of services), veterans also experience individual and socio-cultural barriers. Individual barriers involve negative attitudes towards seeking help, concern about stigma, desire to handle the problems themselves, self-reliance, lack of confidence in treatment effectiveness, sense of social isolation, competing life priorities, including finding work, housing, and providing for a family. The socio-cultural barriers involve the military ethos, norms and values that tend to perpetuate stigmatizing attitudes around treatment seeking as weakness.¹⁶³⁻¹⁶⁴⁻¹⁶⁵ These issues might interfere with the veterans' proactive help-seeking to solve learning problems, which is crucial for successful online training. Therefore, service members and veterans should be encouraged and rewarded to ask for assistance, use the support, and engage in active information and help seeking.

Key Suggestions

- Promote Learner-Centered Learning by using interactive tasks, problem-solving activities, and group discussions.
- Promote student engagement by increasing the instructor presence and feedback and facilitating social relationships among online participants.
- Integrate social network sites with learning systems to improve students' online interactions.
- Incorporate mixed mode for the in-person classes by offering some online materials.
- Provide a mix of synchronous and asynchronous instruction, e.g., offer learning material before the class.
- Improve IT use, proficiency, and competence by conducting pre-program assessment and training, and ensuring readily available technical support during the class.
- Service members and veterans should be encouraged and rewarded to ask for assistance, use the support, and engage in active information and help seeking.

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Appendix C

Boots to Business Logic Model Table

Office of Veterans Business Development

Boots to Business Logic Model Table

Recommendations to B2B Logic Model from 2/16/2017

<p>Issue Statement: Many veterans have both the skills and motivation to continue serving their country by building a business and creating jobs for themselves, their neighbors, and other veterans; however, they lack the knowledge and awareness of the tools and services available to support their business ownership pursuits.</p> <p>Program Theory: If service members are provided introductory entrepreneurial education and training through the DODTAP before or during their transition, then they will gain knowledge about the opportunities and challenges of business ownership and greater awareness of the tools and resources available to support their business ownership pursuit.</p>					
Inputs	Activities	Outputs	Short-term Outcomes	Intermediate Outcomes	Long-term Outcomes
<p>Congressional Support Statutory Authorization Budget Appropriations</p>	<p>Mandates the development and deliver a TAP Entrepreneurial track B2B Set program's annual budget and spending limits</p>	<p>Funding per year: ~\$2.5 million per year in grant funding.</p> <p>Over 17,928 service members, spouses, National Guard and Reserves participated in B2B in FY16. B&M= 15,025 + JO= 2,903.</p> <p>867 individual classes were taught.</p> <p>B2B was taught at over 213 military installations worldwide.</p> <p>98 B2B classes were taught overseas at 34 military installations in 9 countries.</p>	<p>To increase Service Members' interest in small business ownership, including self-employment, as measured by a post-graduation survey</p> <p>To increase Service Members' entrepreneurial motivation for starting a small business as measured by a post-graduation survey</p> <p>To increase Service Members' confidence in starting a venture as measured by a post-graduation survey</p> <p>To increase Service Members' knowledge and understanding of small business ownership and expansion processes and resources as measured by a post-graduation survey</p> <p>To increase Service Members' knowledge and understanding of federal contracting opportunities as measured by a post-graduation survey</p> <p>To increase Service Members' knowledge and understanding to federal contracting opportunities as measured by a post-graduation survey</p>	<p>To increase the number and rate of veterans utilizing follow-on resources including access to small business experts, mentors, and capital networks as measured by -- Enrolling in B2B 8-week, online follow-on training</p> <p>Visiting SBA District Office for counseling, mentorship, etc.</p> <p>Visiting SBA Resource Partners such as SCORE, VBOC, SBDC, or WBC</p> <p>Applying to SBA Capital Access programs such as Microloan</p> <p>Pursuing higher education in Business Administration and/or entrepreneurship</p>	<p>To increase the number and rate of veteran small business owners by types of ownership</p> <p>Increase in the number and rate of self-employment</p> <p>Increase the number and rate of business start-ups</p> <p>To increase the number and rate of veterans sustaining a business as measured by an:</p> <ol style="list-style-type: none"> 1. Increase in net new jobs 2. Increase in payroll 3. Increase in revenues 4. Increase in profits 5. Increase in exports 6. Increase in innovation creation 7. Increase in net new establishments 8. Increase in businesses sold 9. Decreases in business closures 10. Decrease in business bankruptcies 11. Decrease in veteran unemployment <p>To increase the overall effect veteran owned small businesses have on the national economy through job creation and economic activity.</p>
<p>Intergovernmental Partnerships TAP Executive Committee DOL VA ED DOD Transition to Veterans Program Office Military Branches On-base TAP Service Offices</p>	<p>Monitor quality of TAP activities and outcomes data Provide equipment & facilities to instruct B2B on bases Establish guidelines for continuous TAP collaboration and communication Establish letter of coordination for access to military installations across the globe Resist with on-base marketing? Communicate on course scheduling Provide expected headcount of attendees</p>	<p>Utilizing over 100 resource partners as instructors.</p> <p>23 8-week, follow-on courses were executed</p> <p>1,249 B2B graduates participated in the 8-week, follow-on course</p>			
<p>Internal SBA Partnerships OED OFO OCPL</p>	<p>Inform and coordinate RPs of B2B program goals Collaborate on curriculum design and development</p> <p>Recommendation: Develop and Update SOPs for virtual (or hybrid, if any) courses</p>				
<p>OVID Staff Programs Team Contracted Staff</p>	<p>Maintain and monitor all aspects of B2B program Establish standard operating procedures Develop and report performance metrics and program outcomes Communicate program milestones, etc. with key stakeholders Access feedback and continuously improve program delivery in conjunction with VET, SBA, RPs, and stakeholders Provide resources to district office to support delivery on the program Recommendation: Enhance outreach of sales force site, tapovers.net</p>				
<p>Operational Partnership Syracuse University, IMMF</p>	<p>Develop and provide 8-week, follow-on course Provide training materials for instructors Produce and distribute all course materials Report program developed data Provide marketing and outreach activities Curriculum development Develop and execute participant course quality and outcomes survey</p>		<p>Increase in confidence in their ability to negotiate the business ownership processes and challenges as measured by a post-graduation survey</p>		
<p>Local Partnerships On-base TAP Service Offices SBA District Offices (NBOOs) SBA Resource Partners SCORE VBOCs WBCs SBDCs</p>	<p>Coordinate class scheduling and on-base accommodations with SBA district offices Maintain Letter of Coordination Provide classroom instruction Coordinate class scheduling with RPs and assign instructors Order course materials and coordinate logistics with VBOO and TAP service offices Submit reimbursement requests for classes taught and travel expenses Identify instructors and guest speakers Instruct participants on how to register for follow-on course Instructor trainline on all delivery modes and software tools Recommendation: Foster instructional teams with instructors and production technicians Recommendation: Reinforce use of online course knowledge Recommendation: Provide instructor resources for IT and online engagement activities</p>		<p>Recommendation: Create an online learning community</p>		
<p>Participants Active duty Reserves National Guard Military Spouses</p>	<p>Complete pre-separation counseling within 180 days of expected discharge Complete TAP core curriculum and Entrepreneurial Track Complete feasibility analysis for their business concept Decide whether to participate in the 8-week follow-on course, and if so, register Complete standardized TVPO assessment and SBA Entrepreneurial Track Assessment Register on approved course registration form to provide demographic and service information for program development and analysis purposes.</p>				

Boots to Business Logic Model Table

The purpose of the logic model is to describe the flow of resources and input to outcomes for the Boots to Business Program. The logic model contains six columns, all in order of which the contents of the columns take place. First is inputs, second is activities, third is outputs, fourth is short-term outcomes, fifth is intermediate outcomes, and the sixth column is long-term outcomes. All recommended changes in content by the Optimal Solutions Group is denoted by the word Recommendation in front of the content. The logic model reads as follows.

Issue Statement: Many veterans have both the skills and motivation to continue serving their country by building a business and creating jobs for themselves, their neighbors, and other veterans; however, they lack the knowledge and awareness of the tools and services available to support their business ownership pursuits.

Program Theory: If service members are provided introductory entrepreneurial education and training through the DOD TAP before or during their transition, then they will gain knowledge about the opportunities and challenges of business ownership and greater awareness of the tools and resources available to support their business ownership pursuit.

The columns in the logic model read as follows:

- Inputs Congressional Support: Statutory Authorization and Budget Appropriations
 - a. Activities Mandates the development and deliver a TAP Entrepreneurial track-B2B
 - b. Activities Set Program's annual budget and spending limits
- Inputs Intergovernmental Partnerships: TAP Executive Committee (DOL, VA, ED, DOD)
- Inputs Intergovernmental Partnerships: Transition to Veterans Program Office
- Inputs Intergovernmental Partnerships: Military Branches
- Inputs Intergovernmental Partnerships: On-base TAP Service Offices
 - a. Activities Monitor quality of TAP activities and outcomes data
 - b. Activities Provide equipment & facilities to instruct B2B on bases
 - c. Activities Establish guidelines for continuous TAP collaboration and improvement
 - d. Activities Establish letter of coordination for access to military installations across the globe
 - e. Activities Assist with on-base marketing?
 - f. Activities Communicate on course scheduling
 - g. Activities Provide expected headcount of attendees
- Inputs Internal SBA Partnerships: OED
- Inputs Internal SBA Partnerships: OFO
- Inputs Internal SBA Partnerships: OCPL
 - a. Activities Inform and coordinate RPs of B2B program goals
 - b. Activities Collaborate on curriculum design and development
 - c. Activities Recommendation: Develop and Update SOPs for virtual (or hybrid, if any) courses
- Inputs OVBD Staff: Programs Team
- Inputs OVBD Staff: Contracted Staff
 - a. Activities Maintain and monitor all aspects of B2B program

- b. Activities Establish standard operating procedures
 - c. Activities Develop and report performance metrics and program outcomes
 - d. Activities Communicate program milestones, etc. with key stakeholders
 - e. Activities Assess feedback and continuously improve program delivery in conjunction with VEI, SBA, RPs, and stakeholders
 - f. Activities Provide resources to district office to support delivery on the program
 - g. Activities Recommendation: Enhance outreach of salesforce site, tapevents.mil
- Inputs Operational Partnership: Syracuse University, IVMF
 - a. Activities Develop and provide 8-week, follow-on course
 - b. Activities Provide training materials for instructors
 - c. Activities Produce and distribute all course materials
 - d. Activities Report program developed data
 - e. Activities Provide marketing and outreach activities
 - f. Activities Curriculum development
 - g. Activities Develop and execute participant course quality and outcomes survey
- Inputs Local Partnerships: On-base TAP Service Offices
- Inputs Local Partnerships: SBA District Offices (VBDOs)
- Inputs Local Partnerships: SBA Resource Partners (SCORE, VBOCs, WBCs, SBDCs)
 - a. Activities Coordinate class scheduling and on-base accommodations with SBA district offices
 - b. Activities Maintain Letter of Coordination
 - c. Activities Provide classroom instruction
 - d. Activities Coordinate class scheduling with RPs and assign instructors
 - e. Activities Order course materials and coordinate logistics with VBDO and TAP service offices
 - f. Activities Submit reimbursement requests for classes taught and travel expenses
 - g. Activities Identify instructors and guest speakers
 - h. Activities Instruct participants on how to register for follow-on course
 - i. Activities Instructor training on all delivery modes and software tools
 - j. Activities Recommendation: Foster instructional teams with instructors and production technicians
 - k. Activities Recommendation: Reinforce use of online course knowledge resources
 - l. Activities Recommendation: Provide instructor resources for IT and online engagement activities
- Inputs Participants: Active duty
- Inputs Participants: Reserves
- Inputs Participants: National Guard
- Inputs Participants: Military Spouses
 - a. Activities Complete pre-separation counseling withing 180 days of expected discharge
 - b. Activities Complete TAP core curriculum and Entrepreneurial Track
 - c. Activities Complete feasibility analysis for their business concept
 - d. Activities Decide whether to participate in the 8-week follow-on course, and if so, register
 - e. Activities Complete standardized TVPO assessment and SBA Entrepreneurial Track Assessment

- f. Activities Register on approved course registration form to provide demographic and service information for program development and analysis purposes.

All above inputs and activities produce the following outputs, short-term outcomes, intermediary outcomes and long-term outcomes.

A. Outputs

- Funding per year: Approximately \$2.5 million per year in grant funding.
- Over 17,928 service members, spouses, National Guard and Reserves participated in B2B in FY16. B&M= 15,025 + JKO= 2,903.
- 867 individual classes were taught.
- B2B was taught at over 213 military installations worldwide.
- 98 B2B classes were taught overseas at 34 military installations in 9 countries.
- Utilizing over 100 resource partners as instructors.
- 23 8-week, follow-on courses were executed
- 1,249 B2B graduates participated in the 8-week, follow-on course

B. Short-term Outcomes

- To increase Service Members' interest in small business ownership, including self-employment, as measured by a post-graduation survey
- To increase Service Members' entrepreneurial motivation for starting a small business as measured by a post-graduation survey
- To increase Service Members' confidence in starting a venture as measured by a post-graduation survey
- To increase Service Members' knowledge and understanding of small business ownership and expansion processes and resources as measure by a post-graduation survey
- To increase Service Members' knowledge and understanding of federal contracting opportunities as measured by a post-graduation survey
- To increase Service Members' knowledge and understanding to federal contracting opportunities as measured by a post-graduation survey
- Increase in confidence in their ability to negotiate the business ownership processes and challenges as measured by a post-graduation survey
- Recommendation: Create an online learning community

C. Intermediate Outcomes

- To increase the number and rate of veterans utilizing follow-on resources including access to small business experts, mentors, and capital networks as measured by ...
 - a. Enrolling in B2B 8-week, online follow-on training
 - b. Visiting SBA District Office for counseling, mentorship, etc.
 - c. Visiting SBA Resource Partners such as SCORE, VBOC, SBDC, or WBC
 - d. Applying to SBA Capital Access programs such as Microloan
 - e. Pursuing higher education in Business Administration and/or entrepreneurship

D. Long-term Outcomes

- To increase the number and rate of veteran small business owners by types of ownership
- Increase in the number and rate of Self Employment
- Increase the number and rate of business start ups
- To increase the number and rate of veterans sustaining a business as measured by an:
 - a. Increase in net new jobs
 - b. Increase in payroll
 - c. Increase in revenues
 - d. Increase in profits
 - e. Increase in exports
 - f. Increase in innovation creation
 - g. Increase in net new establishments
 - h. Increase in businesses sold
 - i. Decreases in business closures
 - j. Decrease in business bankruptcies
 - k. Decrease in veteran unemployment
- To increase the overall effect veteran owned small businesses have on the national economy through job creation and economic activity.

Appendix D

Web-based Survey for Instructors

Informed Consent Form

Evaluation of Boots to Business Virtual Training.

The U.S. Small Business Administration (SBA) is conducting the study of the Boots to Business Training Program (B2B). B2B provides participants with an overview of business ownership and is open to transitioning service members (including National Guard and Reserve) and their spouses.

What is this study and what will you ask me to do?

The objective of this formative evaluation is to examine the implementation of the “*Introduction to Entrepreneurship*” course in the virtual delivery format.

Who is doing this project?

This project is being conducted by a small business research organization called Optimal Solutions Group (Optimal), and the project is sponsored by the U.S. Small Business Administration (SBA).

What is the time required to participate in this project?

Your participation in this study will last less than 10 minutes.

Will my answers be confidential?

Your responses will be kept strictly confidential, and your name will never be used in any reports produced from this study. All survey responses will be identified as aggregated statistics in form of averages, percentages, and frequency counts. All survey responses will be stored as de-identified information and these data will be provided to the SBA.

Do I have to participate in this project?

Your participation in this study is completely voluntary. You have the right to not participate. You also can stop participating at any time, and you do not have to answer any questions that you do not want to.

What if I want more information?

1. If you have questions about this study, please contact Shay Meinzer at SBA, (202) 539-1429, shay.meinzer@sba.gov.
2. If you have questions about your participation in this study, please contact Optimal at (301) 306-1170 Ext. 709 or ourdapilleta@optimalsolutionsgroup.com
3. For more information about the B2B, please visit: <https://www.sba.gov/sba-learning-platform/boots-business>

This survey is intended for instructors who have taught an online Boots to Business class in the last two years. By clicking NEXT, you acknowledge that

1. you understand the information presented in this consent form,
2. your participation is voluntary, and
3. you have taught an online Boots to Business class in the last two years.

Teaching experience

1. What's your affiliation?

[Subtext: Choose one]

SBA District Office

- SBDC
- SCORE
- VBOC
- WBC
- IVMF
- Other, specify: _____ [fill in the blank]

2. Which virtual environment do you have experience teaching?

[Subtext: Choose all that apply]

- Synchronistic: learner (s) and instructor (s) are in the same place, at the same time, in order for learning to take place.
- Asynchronous: instructors usually set up a learning path, which students engage with at their own pace.

B2B training provided

3. To what extent are you satisfied with the virtual platform(s) that you used for teaching B2B classes?

[Subtext: In the *matrix* below, rate your satisfaction with each platform that you used]

Microsoft Teams

- Very dissatisfied
- Dissatisfied
- Neither satisfied nor dissatisfied
- Satisfied
- Very satisfied
- Not Applicable

Zoom

- Very dissatisfied
- Dissatisfied
- Neither satisfied nor dissatisfied
- Satisfied
- Very satisfied
- Not Applicable

Google Meet

- Very dissatisfied
- Dissatisfied
- Neither satisfied nor dissatisfied
- Satisfied
- Very satisfied
- Not Applicable

Skype

- Very dissatisfied
- Dissatisfied
- Neither satisfied nor dissatisfied
- Satisfied
- Very satisfied
- Not Applicable

GoToMeeting

- Very dissatisfied
- Dissatisfied
- Neither satisfied nor dissatisfied
- Satisfied
- Very satisfied
- Not Applicable

Adobe Connect

- Very dissatisfied
- Dissatisfied
- Neither satisfied nor dissatisfied
- Satisfied
- Very satisfied
- Not Applicable

Cisco WebEx Meetings

- Very dissatisfied
- Dissatisfied
- Neither satisfied nor dissatisfied
- Satisfied
- Very satisfied
- Not Applicable

Blackboard Collaborate

- Very dissatisfied
- Dissatisfied
- Neither satisfied nor dissatisfied
- Satisfied
- Very satisfied

- Not Applicable

Other Program 1

- Very dissatisfied
- Dissatisfied
- Neither satisfied nor dissatisfied
- Satisfied
- Very satisfied
- Not Applicable

Other Program 2

- Very dissatisfied
- Dissatisfied
- Neither satisfied nor dissatisfied
- Satisfied
- Very satisfied
- Not Applicable

Other Program 3

- Very dissatisfied
- Dissatisfied
- Neither satisfied nor dissatisfied
- Satisfied
- Very satisfied
- Not Applicable

4. Based on your overall experience teaching virtual courses including B2B, which platforms were best to facilitate participant engagement?

[Subtext: Select no more than 3]

- Microsoft Teams
- Zoom
- Google Meet
- Skype
- GoToMeeting
- Adobe Connect
- Cisco WebEx Meetings
- Blackboard Collaborate
- Other Program 1
- Other Program 2
- Other Program 3

5. Why do you think the platforms you selected above are the best for providing virtual training (specific features, easiest to use, facilitate engagement, etc.)? If you selected Other Program 1, 2, or 3, please list the programs here.

[Subtext: Please elaborate]_____

6. What was the course duration of the B2B virtual classes that you taught?

[Subtext: Choose all that apply]

- One day
- Two days
- Do not remember

Perceptions of the relative value of virtual and in-person B2B training

The questions below compare different modalities of B2B training delivery to each other. We are looking for your professional opinion on the relative effectiveness of the B2B training modalities on the outcomes of knowledge, confidence and motivation of B2B participants. These questions are not asking about an instructor's perspective of their own effectiveness of the delivery (how in-person training may allow instructors more interaction with participants, for example).

7. [Matrix Question] Compared to in person B2B classes that you taught, how do the VIRTUAL CLASSES compare with respect to increasing/improve participants'

KNOWLEDGE about starting a business and entrepreneurship in general?

- Much more effective than in-person
- More effective than in-person
- About the same effectiveness as in-person
- Less effective than in-person
- Much less effective than in-person
- Don't know

CONFIDENCE in their abilities to successfully start or own a business?

- Much more effective than in-person
- More effective than in-person
- About the same effectiveness as in-person
- Less effective than in-person
- Much less effective than in-person
- Don't know

MOTIVATION to start or own a business?

- Much more effective than in-person
- More effective than in-person
- About the same effectiveness as in-person
- Less effective than in-person
- Much less effective than in-person
- Don't know

8. How do the **virtual** and **in-person** B2B classes **compare overall?** The **virtual** classes were:
[Subtext: Choose one]

- Much more effective than in-person
- More effective than in-person
- About the same effectiveness as in-person

- Less effective than in-person
 - Much less effective than in-person
 - Don't know
9. How do the **one-day** and **two-days** B2B classes **compare overall?** The **one-day** classes were:
[Subtext: Choose one]
- Much more effective than two-days
 - More effective than two-days
 - About the same effectiveness as two-days
 - Less effective than two-days
 - Much less effective than two-days
 - Don't know

Implementation of virtual and in-person B2B classes

The questions below ask about different activities (participant engagement, training, and I.T.) on the virtual and in-person modalities of B2B training.

10. [Matrix style question with two columns: virtual and in-person] During your **virtual/in-person** B2B classes, did you conduct any of the following activities regarding participant engagement?
[Subtext: In the matrix below, choose all that apply on both the virtual and in-person modalities of B2B training.]
- Engage participants in problem-solving activities
 - Engage participants in debate-style discussions
 - Engage participants via discussion boards, e-mails, virtual meetings, chat rooms, etc.
 - Engage in peer interaction/encouragement
 - None of the above
11. [Matrix style question with two columns: virtual and in-person] During your **virtual/in-person** B2B classes, did you conduct any of the following activities regarding training?
[Subtext: In the matrix below, choose all that apply on both the virtual and in-person modalities of B2B training.]
- Conduct assessments to identify types of training topics that participants need
 - Provide one-to-one feedback
 - Promote participants' social relationships and networks
 - Facilitate a sense of online learning community
 - None of the above
12. [Matrix style question with two columns: virtual and in-person] During your **virtual/in-person** B2B classes, did you conduct any of the following activities regarding I.T.?
[Subtext: In the matrix below, choose all that apply on both the virtual and in-person modalities of B2B training.]
- Conduct assessments to determine technological abilities of participants for using Internet, computer, information technology tools, and applications
 - Provide or refer participants to training for using information technology systems, tools, and applications

- Provide or refer participants to technical assistance for using information technology systems, tools, and applications

Suggestions for improvement to B2B training

13. What should the SBA know about facilitators and barriers to conducting virtual training? (challenges, best-practices, suggestions about what worked or what could be better, etc.):
-

Appendix E

Methodology For Analyses

Description of the Evaluation

Due to the COVID-19 pandemic, the B2B program shifted from an in-person, two-day classroom course to an instructor-led virtual offering to continue serving service members transitioning to civilian life. This change in format delivery (content and presentation slides are still prescribed by the SBA) allowed the continued service to transitioning military and increased access to those otherwise underserved by removing barriers to the physical location and in-person requirements of the course. In FY 2020, B2B began delivering in-person and instructor-led virtual offerings. The rapid need for the change in format delivery introduced a lack of uniformly approved virtual delivery platforms across SBA instructors and SBA resource partners, which posed challenges for the transition to a virtual environment. At the same time, the SBA recognizes that virtual learning environments are becoming a viable vehicle for distance instruction, increasing the SBA's need for an effective long-term virtual training solution that allows instructor-participant and peer-to-peer interaction and learning, including the B2B courses.

The objective of this formative evaluation is to examine the implementation of the *Introduction to Entrepreneurship* course in the virtual delivery format. The evaluation also informs future virtual delivery of the course and may be used to improve the virtual delivery of other B2B and SBA training programs. The evaluation will address the following research questions:

1. How can the B2B *Introduction to Entrepreneurship* course be most effectively implemented in a virtual (synchronistic online) environment? In particular:
 - 1a. To what extent did the virtual delivery of the *Introduction to Entrepreneurship* course meet the needs of participants?
 - 1b. Did the *Introduction to Entrepreneurship* course quality survey data results differ based on virtual (one-day and two-day) or in-person course delivery?
 - 1c. Did the course quality survey data vary by branch of service or demographic variables?
2. Which best practices from the review of the literature and findings can the SBA incorporate to improve the delivery of this virtual training?

B2B Logic Model

The evaluation design was guided by the program's logic model. The purpose of a logic model is to define the program's theory of change by depicting how the program's underlying assumptions, resources, strategies, activities, and contextual factors are expected to influence and lead to the short-term, intermediate, and long-term outcomes. A logic model was used as the framework for program evaluation to identify outcomes, construct an appropriate evaluation research design, interpret the results, and provide recommendations. The SBA developed a logic model in 2017. As a part of this evaluation, Optimal used the findings from the literature review and evaluation results to revise the B2B logic model (Appendix C).

Literature Review

Optimal conducted a literature review to inform this evaluation design and to develop an understanding of the following issues:

- service members' and veterans' issues and resources affecting their self-employment, entrepreneurship, and business formation
- an overview of web-based interactive adult education and training programs delivered in a synchronistic environment with a special emphasis on entrepreneurship education and training, and education and training in a military environment
- a brief overview of different web-based learning mechanisms (i.e., distance learning, E-learning, virtual, asynchronous, synchronous)
- design and implementation factors that influence web-based learning activity, learning outcomes, and perceived value among adult participants
- best practices in transitioning curriculum and coursework from in-person to an interactive, web-based, instructor-led environment, and in synchronistic web-based training program delivery

The review followed specific inclusion criteria:

- published during or after 2014
- U.S. population (international only if it included theory development and experimental design)
- peer-reviewed literature
- U.S. Government Accountability Office and Congressional Research Service reports

Optimal evaluated the quality of the reviewed sources to identify strengths and weaknesses and to ensure relevance. Optimal analyzed and synthesized these sources to describe the methods used, provide a summary of the current research and future directions, integrate major themes and specific findings, and present conclusions and recommendations. The literature review informed the development of the interview and survey instruments. Similarly, the literature review provided inputs to develop an understanding of available approaches for the SBA to effectively implement the B2B *Introduction to Entrepreneurship* course in a virtual environment and to offer potential improvements for the virtual delivery of other SBA training programs.

Data Sources

The data to conduct this evaluation included primary and administrative data sources. The primary data sources included a web survey of the instructors in addition to virtual interviews with instructors, B2B operational units (SBA resource partners, and the SBA collaborating offices), sister TAP track agencies (DOL and VA), DOD, and SBA offices (OVBD, and OED).

The administrative data included B2B performance metrics data with descriptions of classes administered and the Quality Assessment Post-Course Survey with data for course quality outcomes and participant characteristics.

Primary Data

Optimal collected web survey data from the instructors and data from virtual/telephone interviews from the instructors and operational stakeholders (SBA resource partners and staff from the SBA collaborating offices). Both instruments were approved under OMB Control Number 3245-0398.

Survey for Instructors. The instructor survey included the following data elements:

- background factors (affiliation and experience with virtual settings)
- characteristics of B2B training provided (modality and duration)
- implementation of virtual and in-person B2B classes
- suggestions for training improvements, particularly virtual settings
- perceived effectiveness of the virtual versus in-person B2B training

Interviews with Resource Partners/Instructors. Optimal conducted interviews with SBA OFO, VBOC, SBDC, WBC, SCORE, and IVMF. These interviews provided information on the recent transition experience from in-person to virtual courses and lessons learned that can be used to develop recommendations to implement the training most effectively in a virtual (synchronistic online) environment. The interviews included the following data elements:

- perceptions of transitioning service members' issues affecting training
- perceived value and effectiveness of the course and various training activities
- instructors' reflections on perceived participants' course experiences, satisfaction, and outcomes (complements research on whether the *Introduction to Entrepreneurship* course quality survey data results differ based on virtual [one-day and two-day] or in-person course delivery)
- best practices for providing training for the virtual and in-person settings to instructors
- how B2B operational units choose online systems, tools, and applications for online classes
- referrals and coordination with other resource partners
- issues, best practices, and suggestions for course content and delivery improvements
- how a virtual engagement can be used to better facilitate participation, experience, and outcomes of B2B participants

Interviews with B2B Operational Stakeholders. Optimal conducted interviews with SBA OVBD and SBA OED. The interviews included the following data elements:

- procedures for coordination with resource partners that could be useful for improving B2B online classes
- procedures to improve or facilitate the use of online systems, tools, and applications for online classes
- suggestions for training improvements, particularly for online classes
- procedures to facilitate creating and maintaining a B2B online learning community

Interviews with TAP Sister Track Agencies and DOD. Optimal conducted interviews with three federal agencies that comprise members of the Veterans Employment Initiative (VEI) Task Force, including the DOD, DOL and VA. The interviews included the following data elements:

- procedures that could be useful for improving TAP online classes
- procedures to improve or facilitate the use of online systems, tools, and applications for online classes
- a transition timeline from in person to virtual classes
- internal operations to make program staff aware of transitioning the programs
- suggestions for training improvements, particularly for online classes
- procedures to facilitate creating and maintaining a B2B online learning community

Administrative Data

The SBA provided administrative data for participants' B2B course quality survey and courses' performance metrics, in addition to B2B documentation and materials such as the instructor guides (two versions for trainings in 2020 and 2021) for the nature of the training provided and the B2B SOP. The following sections describe the SBA administrative data sources and elements for the evaluation.

Quality Assessment Post-Course Survey. The survey included data for courses (classes) in the period from FY 2019 to FY 2021 (10/01/18 to 09/30/21). Among its data elements are:

- class characteristics: date (#2), delivery method, duration, location, SBA District Office, VBOC (includes military base group), and region
- participant characteristics: service branch (#6), age range (#7), gender (#8), ethnicity (#9), race (#10), and status (dependent spouse, veteran, service member, service-disabled veteran, transitioning/retiring service member) (#11)
- level of communications received about B2B prior to attending (#12)
- satisfaction with B2B materials (#13); classroom; and instructor's experience, performance, and knowledge (#14)
- perceptions of B2B training aspects: amount of material covered, depth of coverage, mix of topics (#15), and pace of coverage (#17)
- before-after increase in entrepreneurship's knowledge/confidence/motivation (#18): How informed did you feel about starting a business and entrepreneurship in general? How confident were you about having the skill sets required to start a business? How likely were you to start a business soon (within 1 year)? How likely were you to pursue additional technical assistance first?
- perceptions of B2B: increased interest in starting or owning a business (#20), and increased confidence in starting or owning a business (#21)
- participant suggestions: materials or content participants would like to see added or subtracted from the course (#16), and additional input regarding the B2B program

B2B Performance Metrics Data. Data was included from courses administered from 10/01/18 to 09/30/21. Among its data elements were:

- class name, date, and location
- class delivery method (in person vs. online) and duration (one versus two days)
- number of participants enrolled and attended
- other SBA information: district offices, VBOCs, region, state, and VBOC participation

SBA B2B and B2B Reboot SOP and Instructor Guides. The SBA provided two instructor guides (version 3.1.2 and version 4.0) with descriptions of training provided. The SBA B2B and B2B Reboot SOP includes roles and responsibilities for all stakeholders including the DoD Transitioning Veterans Program Office (TVPO), military installations hosting B2B, and service members.

Data Collection Procedures

Sample Frame for Web-Based Survey

The purpose of the B2B instructors' survey is to gather information to inform if there are differences in the course quality survey and to develop recommendations for online B2B implementation. Thus, collecting a sample of convenience was sufficient.¹ For the survey sample frame, we used the Instructor Contact Information list that included names and contact information for instructors and their organizations. The list did not contain type of course and course duration, and, therefore, course type and duration were not considered in the sample frame.

The available list of (unduplicated) instructors had 2,008 instructors, of which 1,858 (92.53 percent) of them had email addresses. Based on historical response rates, a 20-percent response rate was expected to yield 200 completed surveys, and Optimal randomly selected 50 percent of the total cases (including 76 without email addresses); the SBA provided email addresses for 26 cases without. During the data collection, Optimal added another 246 unselected cases with email addresses. The total number of cases with emails released for the data collection was 1,166. This adjusted sample allowed us to produce descriptive statistics out of the survey data and provide information on the differences in instructors' perception of the courses by the mode of delivery and course duration.

Sample for Interviews

Optimal included each type of B2B operating units and resource partners for a total sample of up to 23 interviews, distributed as follows (Table 1).

¹ The study scope does not require developing the nationally representative results or specific metrics.

Table 1. Sample size for interviews by stakeholder type

Stakeholder type	Cases released	Interviews completed
Resource Partners/Instructors	18	16
SBA OFO District Offices	3	3
VBOC	3	3
SBDC	3	3
WBC	3	3
SCORE	3	2
IVMF	3	2
Operational	5	5
SBA OVBD	1	1
SBA OED	1	1
DOD	1	1
DOL	1	1
VA	1	1
Total	23	21

Optimal used purposive sampling, which involves identifying and selecting individuals based on their knowledge of the program, availability, willingness to participate in the evaluation, and ability to provide detailed descriptions of their experiences. Because the list of instructors with contact information does not contain any other information, to conduct purposive sampling we asked potential interviewees if they had knowledge of the B2B online training, experience with the B2B course transition from in-person to virtual training, and if they were able and willing to participate in the interview.

Data Collection Procedures

Optimal used secure, cloud-based survey tools to administer and track online surveys. As part of Optimal's best practices for data collection, Optimal ensured that internal processes and the web-based survey and materials followed these standards:

- Web surveys were user-friendly and designed to maximize response rate.
- The online survey could be accessed with a variety of devices.
- A telephone number and email alias was available to participants in case of questions about the study or the data collection process.
- Optimal used the tracking system to monitor the status of survey completions, the disposition for each respondent contact, and outdated contact information.

When collecting data, Optimal research staff:

- used SBA official introduction emails to establish the legitimacy of the study
- conducted up to 10 contacts at various times via email follow-ups to recruit participants
- relied on the SBA to identify updated contact information and an alternative point of contact
- sent the official SBA email reminder to nonrespondents

The response rate was 13.7 percent for all released cases and 16.9 percent for 949 reachable, eligible cases (Table 2). The analyses were based on 168 cases (14.4 percent), with eight incomplete surveys providing data for the first two modules on the use, satisfaction with, and best virtual platforms.

Table 2. Survey response rate

	Count	Percent
Surveys completed	160	13.7%
Surveys started but not completed	35	3.0%
Surveys not opened	720	61.7%
Hard refusal	34	2.9%
Bounced emails (unreachable)	168	14.4%
Ineligible (did not teach B2B virtual class)	49	4.2%
Web surveys total	1,166	100.0%

The data collection procedures for the interviews involved contacting the program stakeholders on the list that the SBA provided. The 21 of 23 participants were recruited via phone calls and follow-up contacts for the scheduled interviews. Two individuals were unable to participate.

Data Analysis

The analyses include descriptive analyses, univariate analyses (e.g., t-tests, chi-squares), multivariate analyses (e.g., ordinary least squares, logistic regressions), and qualitative data methods to address the research questions. STATA was used for the data management and analyses. We used descriptive and univariate analyses to describe survey responses for the instructor survey and SBA course quality survey and then presented crosstabs of responses by class mode (online vs. in-person), time period (pre- vs. during the pandemic), and duration (one vs. two days). The regression models examined the outcome measures of the satisfaction, perceptions of the class content, and change in attitudes about starting a business after attending the B2B class. The key predictors included virtual versus in-person modality, the one- versus two-day duration, and the pre- versus during-pandemic time period. The covariates included region, participant characteristics (e.g., branch of service, age range, gender, ethnicity, race, veteran, service member), and pre-course knowledge of the B2B. The results of the regressions were used to test the hypotheses.

For qualitative data analyses, we conducted systematic coding for key themes and subthemes. Coding occurred in teams. We reviewed and discussed discrepancies in coding to achieve consensus to optimize standardized, thorough, and precise coding. The qualitative data analyses used a grounded theory approach. The intent was to move beyond descriptions to generate a theory that used the qualitative data to identify and explain the relationships among a set of themes, subthemes, circumstances, and situations. A description of the data analyses is presented in the Table 3 below.

Table 3. Description of data analyses

Research question	Hypotheses	Data sources	Analyses	Key outcomes
1. How can the B2B <i>Introduction to Entrepreneurship</i> course be most effectively implemented in a virtual (synchronistic online) environment?	None	Instructor survey Stakeholder interviews	Descriptive analyses	Best practices in implementing the virtual B2B classes Use, satisfaction with, and best virtual platforms Experiences, benefits, and issues involved in administering the virtual B2B course Suggestions for the program improvements
1a. To what extent did the virtual delivery of the <i>Introduction to Entrepreneurship</i> courses meet the needs of participants?	Most of the participants and instructors will have positive perceptions of the B2B class.	Instructor surveys Instructor interviews Quality Assessment Post-Course Survey	Descriptive analyses Qualitative data analyses	Perceptions of effectiveness of classes and training, and feedback about the program effectiveness Satisfaction, perceptions of the class content, and change in attitudes about starting a business after attending the B2B class
1b. Did the <i>Introduction to Entrepreneurship</i> course quality survey data results differ based on virtual (one-day and two-day) or in-person course delivery?	The virtual training will have lower levels of the outcomes. The two-day training duration will have higher levels of the outcomes. The trainings conducted during the pandemic will have lower levels of the outcomes than pre-pandemic training.	Quality Assessment Post-Course Survey	Univariate analyses of the course quality survey items Regressions of outcome measures controlling for participant and class characteristics	Satisfaction, perceptions of the class content, and change in attitudes about starting a business after attending the B2B class
1c. Did the course quality survey data vary by branch of service or demographic variables?	There will be no differences in survey data across branches of service or demographic variables.	Quality Assessment Post-Course Survey	Regressions of outcome measures with covariates for the participant demographics, branch of military service, and the location of the courses	Satisfaction, perceptions of the class content, and change in attitudes about starting a business after attending the B2B class
2. Which best practices from the review of the literature and findings can the SBA incorporate to improve the delivery of this virtual training?	None	Literature review of peer-reviewed research Qualitative data from interviews and Quality Assessment Post Course Survey	Qualitative data analyses	Best practices in implementing the virtual B2B classes Use, satisfaction with, and best virtual platforms Experiences, benefits, and issues involved in administering the B2B course Suggestions for the program improvements

Participant Survey Analyses

We first conducted descriptive analyses for the data elements available in the Quality Assessment Post-Course Survey data file. The results provided information about 1) the characteristics of classes administered (e.g., date, delivery method, duration, region); 2) the characteristics of class participants (e.g., service branch, age range, gender, ethnicity, race, dependents, veteran, service member, service-disabled veteran, transitioning/retiring service member); 3) satisfaction and perceptions of the class;; and 4) change in attitudes about starting a business by modality (virtual vs. in-person), time period (before vs. after 4/01/20), and length (one day lasting 8 hours vs. spreading the 8 hours over two days with two 4-hour sessions).

The universe of B2B classes from 10/01/2018 to 9/30/2021 comprised 2,482 classes. When the Quality Assessment Post-Course Survey data file was merged with the universe of classes, 987 (39.8 percent) classes in the universe did not contain quality survey data, and 37 classes with survey data were not in the universe. Furthermore, 23 classes (133 survey respondents) were dropped from the Quality Assessment Post-Course Survey data due to a missing class ID or other key data fields. After these classes were removed from the universe, there were 1,509 classes (9,367 survey respondents) in the analytical B2B Quality Assessment Post-Course Survey data file. The unit of analysis was a class participant with a completed Quality Assessment Post-Course Survey. As indicated above, there were 9,367 survey respondents. The survey respondents in the analytical file were tabulated below by time frame, delivery mode, and duration (Table 4).

Table 4. Survey respondents per class type and by time frame and class duration

	In-Person	Online	Total
Pre- and during-COVID time frame			
10/01/2018 to 3/30/2020	50.3%	-	27.8%
	2,602	-	2,602
4/01/2020 to 9/30/2021	49.7%	100.0%	72.2%
	2,575	4,190	6,765
Pre-COVID, early, and late transition to online training time frame			
10/01/18 to 3/30/20	50.3%	-	27.8%
	2,602	-	2,602
04/01/20 to 09/30/20	6.5%	24.7%	14.6%
	337	1,033	1,370
10/01/20 to 09/30/21	43.2%	75.4%	57.6%
	2,238	3,157	5,395
Course duration			
One Day	-	5.42%	2.4%
	-	227	227
Two Days	100.0%	94.6%	97.6%
	5,177	3,963	9,140
Total survey respondents	5,177	4,190	9,367

SOURCE: Quality Assessment Post-Course Survey.

We conducted descriptive and univariate analyses (t-tests and chi-squares) for the survey items and the measures' scores comparing the training time frame, modality, and duration. Then, we conducted multivariate models for the quality survey outcome measures, including the key predictors of online versus in-person delivery mode, the time period, and one- versus two-day duration, while controlling for participant characteristics and other variables found to be significantly related to the outcome. The results addressed three hypotheses about the differences in the class quality by delivery mode, time period, and duration. These analyses are discussed in the next section.

To complement the analyses of the Quality Assessment Post-Course Survey administrative data, we conducted the descriptive results for the survey of instructors' perceptions of the B2B online and in-person classes. We used the results to explain and further describe differences in the perceived quality and effectiveness of online and in-person classes, as well as one-day and two-days online classes.

Scale Analyses to Develop Outcome Measures

We conducted the internal consistency and factor analyses to develop the course quality outcome measures. The results revealed three outcome measures: 1) satisfaction with materials, classroom, and instructor (7 items; $\alpha=.91$); 2) perceptions of the content of materials (3 items, $\alpha=.70$),² and 3)

² "Level of communications received about B2B prior to attending" and "Pace of coverage" were dropped due to poor scale statistics.

change in attitudes about starting a business before and after attending the B2B class (6 items; $\alpha=.80$). These measures were not strongly intercorrelated (less than .14) and based on the factor analysis could not be combined into one measure. Based on the results, “Level of communications received about B2B prior to attending” and “Pace of coverage” were dropped from the perceptions of the content of materials measured due to poor scale statistics. Furthermore, “How likely to pursue higher education first,” “How likely to pursue employment first,” and “How likely to pursue additional technical assistance first” were dropped from the change in attitudes measure due to poor scale statistics. For the future evaluations, these items could be either omitted or substantially revised to better match the intent of the measure (i.e., face and content validity).

Appendix F

Interview Instruments

Guide for Instructor Interviews

1. How did your organization **transition to online** training during the pandemic?
 - What were the issues with the transition to online delivery and how were they mitigated?
 - Based on your recent experience, what would you say are best practices for transitioning in-person delivery of a training program to online training?
2. How does your organization **choose online** systems, tools, and applications for online B2B classes?
 - What were the difficulties for choosing online systems? What were the decisive factors for choosing one platform over another?
 - What human (instructors experience with online tools), technological (flexibility to engage individuals), logistical (instructor and military bases) issues should be considered in selecting technology platforms for online delivery?
3. What issues, **difficulties, or problems** have you or your organization had in **providing B2B online** courses?
 - How were you or your organization able to address or mitigate these issues?
4. Describe how your organization works to **meet the needs of B2B participants in a virtual environment**?
 - How is engagement with B2B participants encouraged/motivated in the online courses?
 - Does your organization provide referrals to B2B participants for other business training programs or coordinates with other resource partners to offer additional business training?
5. How does your organization **choose instructors** to provide online B2B training? [If the interviewee was not involved in instructor selection, follow-up with their perspective on the two issues below]
 - What are difficulties (if any) for recruiting B2B instructors for online classes?
 - What are your recommendations for the recruitment of B2B instructors for online classes?
6. How is your organization supporting or **training B2B instructors** to conduct online classes?
 - Is your organization providing training for the use of systems, tools, and applications for online classes?
 - Is your organization conducting or using any assessments to measure B2B instructors' efficacy in using systems, tools, and applications for online classes?

7. What procedures for coordination with resource partners could be useful for improving B2B online classes?

The following questions **compare different modalities of B2B training delivery** to each other. The objective of the comparison is to gauge your judgement of the relative effectiveness of the B2B training modalities in **B2B participant outcomes**. This objective is different from the instructor's perspective on their own effectiveness of the delivery (how in-person training may allow instructors better engage with participants, for example). The outcomes of interest are entrepreneurship knowledge, skills, and abilities; confidence in abilities to successfully start or own a business; and interest and motivation to start or own a business.

8. How do you think **online and in-person B2B classes compare** with respect to participants' **outcomes**?

- Why do you think online and in-person B2B classes are different with respect to **participants' outcomes**?

9. How do you think **one-day and two-days B2B classes compare** with respect to participants' **outcomes**?

- Why do you think one-day and two-days classes are different with respect to participants' outcomes?

10. How could you or your organization improve online classes delivery **to obtain better** B2B participant **outcomes**?

- How can the B2B curriculum be modified to attain better outcomes?
- What kinds of additional support from the SBA would be beneficial for improving B2B participant outcomes?

The following questions **compare different modalities of B2B training delivery** to each other relative to their effectiveness in engaging **B2B participants**; for example, increasing their interest and motivation to participate in ongoing and additional B2B and other business training classes

11. How do you think **online and in-person B2B classes compare** with respect to **engaging** participants?

- Why do you think online and in-person classes are different with respect to engaging participants?

12. How do you think **one-day and two-days B2B classes compare** with respect to participants' **engagement**?

- Why do you think one-day and two-days classes are different with respect to participants' engagement?

13. How could you or your organization improve online classes delivery **to facilitate (more) engagement** of B2B participants?
- How can online classes curriculum be improved to better facilitate engagement of B2B participants?
 - What kinds of additional support from the SBA would be beneficial for facilitating more engagement of B2B participants?
14. What is the process for tracking online class attendance?
- Is there a registration list available to instructors? How do you know who should be in your module?
 - Does your online platform allow tracking course attendance for the entire course (all modules)? Does your organization use other tools for tracking course attendance?
 - What difficulties did you encounter tracking attendance? How are these difficulties mitigated?
 - Any recommendations for tracking online attendance?
 - How are you aware of participants entrepreneurship interests when you start your module?
15. Do you have any other issues or suggestions for B2B training improvements?

Guide for Operational Interviews

SBA Office (OVBD & OED) Interview Guide

1. How did your agency **transition** to online B2B training during the pandemic?
- What were the issues with the transition to online and how were they mitigated?
 - What are the best practices for transition to online training?
2. What are your agency's preferences for **online course delivery** methods?
- What has driven those decisions?
 - How does your agency choose online systems, tools, and applications for online classes?
 - I. What were the criteria to select one tool over another?
 - II. What are difficulties and best practices for choosing online systems?
 - What issues, difficulties, or problems were observed in providing online courses? How were these addressed or mitigated?
3. What procedures for **coordination** with SBA resource partners could be useful for improving B2B online classes?
- What challenges or limitations has your agency encountered in coordination with resource partners for delivering online B2B classes?

4. If you had freedom to make changes, what procedures could the SBA implement to improve or facilitate the **selection process and use of online systems**, tools, and applications for online classes?
5. If you had freedom to make changes, what procedures could the SBA implement to facilitate creating and maintaining the **B2B online learning community**?
6. Do you have any other **suggestions** for training delivery or instructor training improvements, particularly for online classes?

Sister TAP Track (DOL & VA) Interview Guide

1. How did your agency **transition** to online TAP training during the pandemic?
 - How did your agency change the curriculum, the course duration, or other aspects of training because of the change of delivery mode?
 - What were the issues with the transition to online and how were they mitigated?
 - What are the best practices for transition to online training?
2. What are your agency's preferences for **online course delivery** methods?
 - What has driven those decisions?
 - How does your agency choose online systems, tools, and applications for online (TAP) classes?
 - I. What were the criteria to select one tool over another?
 - II. What are difficulties and best practices for choosing online systems?
 - What issues, difficulties, or problems have you or your agency had in providing online courses? How were you able to address or mitigate these issues? What are your overall best practices for providing online training?
3. How does your agency choose **instructors** to provide online TAP training?
 - What are difficulties and best practices for recruiting instructors for online classes?
 - What training did your agency provide to instructors for the use of systems, tools, and applications for online classes?
4. What are your agency's best practices for providing training to instructors to facilitate their effectiveness in conducting online classes?
 - Does your agency use assessments (surveys, learning tests) to measure instructors' efficacy in using systems, tools, and applications for online classes?
5. How is **attendance** tracked for online classes?
 - What are your best practices for tracking online attendance?
 - What difficulties did you encounter tracking attendance? How are these difficulties mitigated?
6. How could online classes delivery be improved to facilitate **engagement of participants**? (i.e., increasing their interest and motivation to participate in your agency's ongoing and additional classes, and training from other sources)
7. Describe how your agency works to **meet the needs of course participants**?

- Does your agency provide referrals to participants for other business training programs or coordinates with other resource partners to offer additional business training?
8. Do you have any other **suggestions** for training delivery or instructor training improvements, particularly for online TAP classes?

DOD (TAP Policy and Curriculum Program Manager) Interview Guide

1. How did the agency decide to **transition** to online training during the pandemic? Did your organization suggest changes to the curriculum or the course duration because of the change of delivery mode?
2. Was there any specific **guidance** provided to the three TAP-track agencies (SBA, DOL, VA) on changing course delivery mode following COVID-19 lockdowns? Has there been any guidance to the TAP track agencies now?
3. What were the **challenges** (technological, logistics, curriculum, participant engagement) in course delivery due to the transition to online courses? How were they mitigated? What are the best practices for transition to online training?
4. Where there any **innovative approaches** for online course delivery across the three TAP track agencies?

Appendix G

Qualitative Results

Qualitative data included open-ended responses to the B2B Quality Assessment Post-Course Survey; the instructor survey; and interviews with instructors, sister track agencies, the DOD, and SBA operational offices.

B2B Quality Assessment Post-Course Survey - Open-ended Questions

The survey asked respondents to describe their suggestions for the revisions to the B2B class content, materials, and overall. A total of 3,844 survey respondents provided suggestions and feedback about the B2B class. A plurality (42.7 percent) provided positive feedback about the B2B class and instructors. Some examples include the following:

- “Again, this is an excellent course and helpful resources were shared. I also enjoyed the real-life examples and detail allocated to cover the financial aspect, loans, business plan, etc. Excellent!”
- “Was a perfect intro into Entrepreneurship/business without getting too into the weeds on advanced topics.”
- “This is about right. I'm learning and will want to re-read what is presented so I understand how I can ask better questions as I begin to develop a business plan and know where my weaknesses are within the plan. Great information and fantastic, engaging instructor.”
- “This was my initial exposure to B2B, so the information was very helpful for me without being too overwhelming. Plus, the feedback from the students and instructors with practical experience was truly valuable. I'm glad the course had a mixture of beginners with those with experience.”
- “Very eye opening and practical course to get people started in a small business venture. Highly recommended for any vet wanting to start a business.”

Including positive views of online mode

- “Informative. Highlights challenges. Recommend virtual option for remote members continue after COVID-19. I could not have attended if it wasn't virtual.”
- “I very much enjoyed the virtual training. I had reservations but it was a benefit over in-person because there weren't unnecessary distractions because we are muted until its relevant to communicate. The instructors were knowledgeable and kept us thoroughly engaged with the various question and answers as well as asking us to unmute to expand on something. Don't think I would enjoy in class as much as this again.”
- “There's a lot of information to absorb, but there's a lot of resources at hand which I can reflect back to. I really enjoyed the course and learned a lot! B2B is the first live online course I've taken and I feared that I'd get bored. I was wrong!”
- “Continue to see how conducting the training virtually can improve providing training opportunities to Service Members that are in remote locations and preparing their exit from the service.”

Some (3.9 percent) mentioned issues with online delivery mode.

Technical issues with software functionality, Internet connectivity, audio, and video

- “Zoom was a horrible platform for conducting this class. It would have been better to have a back-up platform so when one goes down we can continue class.”
- “It's because it's a new platform, but Webex was a hindrance to several of the instructors and participants. It was also a distractor, in some cases, because of technical difficulties.”
- “Teams computer and Internet connection was so slow it regularly interferes with class—no fault of instructor.”
- “With this being virtual, connectivity problems created a disconnect feel between instructor to student.”
- “Good program. Unfortunately, due to COVID, this had to be conducted virtually and my Internet connection wasn't the best, so some content was not able to be displayed.”
- “The software downloaded did not work. The browser option worked well.”
- “The web platform did not afford all of the features for commenting.”
- “Please use a faster/better ISP. Also, please conduct a connectivity test an hour or so before the webinar start time.”
- “I did not like the platform used, as there was no access to a ‘chat’ and I was unable to see questions from other participants as they were posted.”
- “Some of the videos did not work properly over the Zoom presentation; the sound was not able to be played.”

Negative experience with online presentation mostly due to issues with student engagement, interactions, and discussions with instructors and students

- “While understandable during the pandemic, the course loses something when done virtually. It will be important going forward to make sure that resources aren't diverted from the program by executing it virtually.”
- “This was a very informative class! I feel this class should solely be in class! Virtual is very hard to stay focused with! Especially with the amount of info to obtain and focus on.”
- “The virtual learning environment is not really conducive to the training setup and the design of the course and the interactions that it is intended to encourage. I would highly recommend returning to in-person as soon as possible. The class was effective, but I can see how much more valuable it would be in person.”
- “The online classes are terrible. The instructor is top notch but online is just not a good way of learning. Face-to-face is the only way.”
- “The instructor was very knowledgeable, but the communication was too 1-way. Yes, we could write questions, but it wasn't real-time. While I understand the need to initially mute our microphones, after the intro, we should have the ability to unmute or at least tell us to ‘raise our hand’ so we could have a good dialogue. It wasn't an effective 2-way use of online learning.”
- “The class was very informative with lots of information. I would like to have had the opportunity for more interactive engagement and discussion with the instructors and other class members.”

- “Students on Zoom kept cameras off and stayed muted since this was mostly slideshow presentations. More interaction needed to stay engaging.”
- “The class was great. The limiting factor was that in a virtual environment, we lose the goodness of group discussions and the way that one question allows for building upon for greater discussion.”
- “Information was good, I do think we lost collaboration in the virtual environment, but understand.”
- “I think most of these topics would be much, much more accessible with the opportunity to interact in real time by asking questions and doing focused activities.”

Suggestions for improving the online delivery (3.0 percent) included:

Revisions to the online materials to provide more links to videos and templates, as well as providing a document with links to information and resources before the class

- “It would be great to have a list of all the websites that were referenced in the course. Like a MS Word document with hyperlinks on it that could be emailed to attendees.”
- “Please, more resources like a book of links to reach out to available resources.”
- “If we could have slides with the embedded links prior to the class (with the email Zoom invite maybe) I feel that would have allowed us to use some of the mentioned resources and ask relevant questions related to those resources.”
- “It would be beneficial to have access to the material with more time prior to the course in order to read through it all before class and have more of the videos and information digested prior to the first day.”
- “I enjoyed the virtual class, but it would have helped to have the slides beforehand and presenter's contact info beforehand.”

Using additional approaches to increase online engagement and interactions, such as polls, question and answer interactive activities, group exercises, discussions, more one-on-one interactions with instructors, and encouraging conversations

- “The only suggestion to increase participation would be to use polls or multiple-choice questions throughout either using Zoosk (engaging app) or interactive polls in the presentation. This was great material and I look forward to using the slides and links as additional resources. Great job!”
- “Somehow more interaction? Maybe worksheets to work on, or a linked site for interaction (Jeopardy?) to test knowledge and comprehension.”
- “Only thing I can think of would be a bit more one-on-one.”
- “I would only ask for a direct way to communicate with a mentor.”
- “More verbal interaction/exercises with the students as opposed to just using the chat feature in Zoom.”
- “Second day needs more classroom interaction — would recommend having discussion on people’s potential business prospects and endeavors.”
- “More interactive activities/quizzes during presentation.”
- “More group interactions and discussions on plans or others input of how to assist with others’ ideas.”
- “A more interactive virtual setting, it seemed pre-recorded and as questions were being asked about a topic, they were not being answered.”

- “I think having more student involvement in the course. Like ask a question, provide possible answers and have students choose . . . keeps students engaged and accountable.”
- “Schedule one-on-one meetings during the class.”
- “A few more interactive exercises to grasp the information better.”
- “When doing it online utilizing the chat only can be an effective way of communicating but when available having the students use the microphones would encourage additional conversation.”
- “Use of virtual whiteboards might help get more engagement especially for day one where we brainstorm perceptions.”

Some class participants (8.3 percent) suggested increasing the length of the course to provide more in-depth learning and reduce the amount of information presented in one day, even for the two-day course.

- “Great for the limited schedule (two-day); I would like to see potentially a week-long seminar where we would have more time to work on a project in groups and present.”
- “I found the two-day class to be very beneficial in learning the necessary tools to starting my own business. It was very well taught and I wish it was a longer class. I really liked it being in person.”
- “Wish the class was a few more days to go deeper into each area.”
- “This was a one day course and not two so a lot of info was covered in one day. If covered over two days each topic would go more in depth.”
- “This was a firehose of information, and the instructor talks extremely fast. I was not able to consume all the information at the rate it was provided. There was a 5–10 minute break for each day for a 4–5 hour course. Would love for it to be clearer and more concise in a method that allows for the absorption of the information. I was at the time, tuned out because the information came and went so fast.”

A comparable proportion of respondents described issues with in-person delivery mode (2.9 percent) versus virtual mode (3.9 percent; see above). The issues mentioned mostly included the lack of or insufficient handouts with information and resources provided before or after the class. These issues were more often provided by participants of the pre-pandemic than during-pandemic classes (4.0 percent vs. 2.4 percent).

Instructor Survey - Open-ended Questions

The survey asked respondents to describe facilitators and barriers to conducting B2B virtual training and provide suggestions for improvements. Among 109 survey participants who provided responses, just more than half (55 [50.4 percent]) of the instructors described that the virtual class attendees had poorer attention, engagement, one-on-one interactions, peer support, and knowledge of IT tools than those who attended in-person classes.

- “Attendance at virtual trainings was poor compared to in-person training. Engagement of students was much higher for in-person trainings and the overall interaction between students was much higher for in-person. The classroom experience overall is just much better for in-person.”

- “Difficult to engage class. The attendees are much less likely to ask questions and engage the class, which improves learning, collaboration, and networking.”
- “In virtual events, there is no sense of community or fellowship amongst the attendees. This stifles their level of participation, as there is no desire to “compare notes” on the learning material. On the other side, the instructors have total control of the flow of the event.”
- “In-person meetings seem to draw out more open discussion. As virtual becomes more ‘normalized’ I think you will find that will be less and less the case. Virtual is certainly more convenient for me as a speaker. The current format and content are excellent.”
- “Many times the Veterans have an issue with access to broadband (strong enough Internet) to be able to fully participate. Additionally, it is harder to get them to open up to the instructors when they are called upon, because they will hide behind the camera (or not even turn on the camera) and makes group discussions difficult.”

One fifth of the participants (22 [20.2 percent]) described positive aspects of online training, including greater outreach into rural and underserved communities, and overseas locations and installations; less travel; a more flexible schedule; and the importance of using a hybrid approach.

- “Participants don't have to travel to the location for an in-person training saving valuable time. The agency saves time and money because the SBA employee doesn't have to travel, set everything up, etc. It is actually much more efficient to do these virtually.”
- “I strongly encourage the SBA to offer a series of B2B courses in person and virtually. When we provided B2B in person only, many future vets could not attend because of scheduling conflicts. Adult learners, who are separating from the military, need options to accommodate their schedules.”
- “It’s a more robust ability to reach a more diverse audience via virtual versus in-person.”
- “Virtual training allows access and flexibility to those who are unable to make it in person. It could be used together with in-person training. Possibly offer a few virtual B2B sessions along with in-person.”
- “Develop a transportable hybrid model that allows both virtual and in-person, regardless of location or presenter. It would just need to be simple and transportable.”

With respect to best practices and suggestions for improvements, the most frequently described theme (22 [20.2 percent]) focused on promoting engagement and community via chat rooms, breakout rooms, cameras on, ongoing questions and feedback, interactive ice-breaker activities and games, and post-class interactions via LinkedIn and social media.

- “The main issue will be a facilitator who knows the information but doesn't have the personality to engage participants online. The current program needs to be modified if it will be taught online. There should be breakout rooms to allow for conversation between the participants. If the facilitator is doing all of the talking, then they are not being effective.”
- “Facilitators must clearly and repeatedly communicate expectations. Participants that remain ‘off camera’ tend to be multitasking and/or not fully engaged. Having a set of FAQ responses is a best practice for augmenting the virtual content via the chat feature, i.e., copy and paste FAQ responses in chat.”
- “Participants are more likely to be distracted outside a dedicated classroom environment. Designing curriculum that could have a question/answer mechanism that encourages a

feedback loop as to whether the participants understand the material or not. Learn the concept, ask a multiple choice question, see the results, revisit the topic if people don't understand.”

- “For online classes, it would be helpful if each module had built-in questions and areas for feedback and help. Also, have them provide their LinkedIn profile; it has been a way I stay in touch with Boots to Business students well past the day we meet.”

Another frequently reported suggestion (16 [14.7percent]) involves the IT aspects of training delivery, including reliable Internet, effective tools, technical assistance for IT tools, and a teaching partner to run the chat and the logistics of the sessions.

- “A major con is that virtual learning can pose some obstacles due to its heavy reliance on computer programs and local Internet capabilities.”
- “BEST PRACTICE: ideally have a teaching partner to run the chat. We created a CHATBOX doc with info and FAQs related to each module plus contact info for each presenter.”
- “Ensure we have reliable Internet/Lan capabilities to deliver great training.”
- “Need to be comfortable with tech, may need another person to do system admin, set up breakout rooms etc. while one teaches.”
- “The biggest issue is the WIFI connection on the bases.”

Additional suggestions from some participants (15 [13.8 percent]): Provide the workbook with materials before the class, revise the materials to be less academic and more realistic, and conduct a pre-class needs and knowledge assessment.

- “The modules are tired and old; the whole program needs a revamp and refresh. Better learning tools for the instructors would be much appreciated.”
- “The material needs to reflect/include current day business practices, methods, strategies, and challenges businesses are facing in today’s economic structure. Some of the material does not provide the ability to include real-life experiences.”
- “Have materials available early in either case and highly encourage input and feedback.”
- “IMO, there should be a pre-class self-assessment so each individual can see if they are ready to be an entrepreneur (mindset, skillset, finances, etc.).”
- “Stop using college/university people to develop it. Use real-world experienced people to develop it. It has too many academic terms that are not used in the real world.”

Some (11 [10.1 percent]) suggested conducting Instructor assessment and training for knowledge of materials and software tools, as well as allowing presenters to produce their own materials and use preferred tools.

Instructor Interviews

Optimal conducted 16 interviews with instructors from different roles within B2B, including VBOC, SBA district offices, SBDC, WBC, SCORE participants, and others. Some major takeaways include:

- All but one of the 16 detailed a smooth transition from in-person to virtual, synchronous instruction at the onset of the COVID-19 pandemic. Some instructors reported that the

transition to virtual classes may have had a less-negative impact on participants who have attended online classes in the past.

- Of the 16 interviewed, 12 reported using Zoom to facilitate instruction, with almost all saying it works well for the program. Four of the instructors had negative feedback on using Microsoft Teams for instruction due to the lack of familiarity with the platform and functionality.
- Only three of those interviewed actually made the decision on what software program to use on their own; more than 80 percent of those interviewed had the program supplied to them. Some mentioned that they would like to have the freedom to choose the program.
- Fourteen instructors preferred in-person classes to virtual synchronous classes. At the same time, they also reported some barriers to administration of in-person classes (access to installations and long travel times).
- All but one of the 16 stated that participant engagement is harder to achieve during online versus in-person classes. People are reluctant to share virtually; have lower attention spans, and, as one instructor described, participants are being “Zoomed out” or disengaged over video calls. Other issues with online classes included technical difficulties with Internet and online content, lack of familiarity with software tools, and poorer learning outcomes.
- Eleven of the 16 also described the benefits of going virtual, including greater reach in terms of physical area and to the number of people who can participate in a class, but some instructors do not believe this outweighs the effectiveness of in-person instruction.
- With respect to the class duration, almost 70 percent of instructors preferred the course being split over two days instead of one day, with building a rapport and greater participation on the second day of classes being cited as reasons why.
- Seven of the 16 tracked attendance during classes but described this as being not very important. They stated that it is more important to track participants for the benefits of engagement than for tracking attendance, or for credit.
- Thirteen of the 16 believed the curriculum should be updated in various ways. B2B instructors would support a refresher to the curriculum for online classes to better reflect the changes in how virtual classes are being administered. For example, the resource partner module may be too long for what can be accomplished with a web page/directory of partners. Instructors also described that they would like to have the latitude to make changes and personalize the content for their specific participants, particularly for those intending on starting very small businesses.
- The suggestions of online delivery improvements included participants’ cameras on and muted, more SBA training and support for instructors, and additional staff to run chat boxes.

Sister TAP Track Agencies and DOD Interviews

Optimal conducted interviews with the DOL, DOD, and VA.

- One agency described its difficulties in transitioning the program to virtual instruction as an issue with transitioning the contractor responsible for the program. Fewer internal issues, but nonetheless there were issues with the transition and the time it took to achieve quality results.
- Another agency, with previous experience with virtual courses, was able to transition effectively with the instruction. Challenges included digitizing course materials for instructors and participants. They also described a best practice of having multiple instructors in each class to be able to address all participant comments and keep engagement up.

- The other agency described having a larger scope than the other two, necessitating more time and effort for the transition than other agencies. The biggest barrier for this agency included installation IT regulations.
- One of the agencies had a preference on teleconference program to be used, but the rest were platform agnostic.
- Some agencies paid close attention to attendance while others paid attention to course evaluations.

SBA Offices (OVBD and OED) Interviews

Optimal also conducted interviews with SBA offices that have training programs to understand their transition to an online format.

- One office argued that the training program quickly transitioned to synchronous online delivery. Grantees and VBOC were able to quickly transition to an LMS as some grantees and VBOC are university-based and the university is already using them, and a similar story for the stakeholders that are non-profits. Some military installations wanted to use their own LMS provider, but the VBOC were able to adapt quickly to the installation needs.
- Each office had a different approach to online course delivery. In one instance, Zoom was used because it was available for the program and there was no LMS, although the program ended up using Teams afterwards. In the case of contractor-based training, vendors had to work on the transition and the SBA offered them flexibility to achieve their training target. Opposite to that, another program was already using Salesforce and had always had access to on-demand training. The pandemic led to a transition to synchronous online instruction. In fact, because another program was already synchronous online, the office was able to use best practices from that program for other programs.
- One office stated that the selection of the online systems was driven by participant ease of use and low bandwidth use, particularly for access in rural areas. In terms of the issues in providing online courses, contractor-based work reduced the burden and lowered the challenges of online delivery to the program office. Regarding whether the online course should be synchronous versus asynchronous, one of the offices was clear that there was a need to be able to hold participants accountable, and if it was asynchronous, some platforms don't have the ability to hold individuals accountable.
- In terms of coordination with SBA resource partners for improving online classes, there were different approaches depending on who was delivering the training. Programs with contractor-based work shared that there may be some coordination but not at the HQ level, while training delivered by resource partners and grantees that shifted from in-person to virtual allowed for greater resource partner participation.
- There were some operational challenges with the immediate transition (scheduling, registration and IT access), not with the online delivery. In some instances, military installations had different needs and capabilities so that proved to be a little bit of a challenge, including that some installations did not have a single login procedure. All parties pulled together, and the nimbleness and flexibility of the environment made it happen. As the virtual synchronous training progressed, installations would send participants to the live, synchronous courses and away from those that were on demand.

- In terms of strategies to improve or facilitate the selection process and use of online systems, tools, and applications for online classes, SBA staff working with contractors for training development or implementation did not have preferences for the selection process, it just had to work for the contractor to deliver the services. Staff working with grantees appreciate the benefit of unifying everything, but the reality is that instructors need to work within installation capabilities.
- Both offices believe that facilitating or creating and maintaining an online learning community outside of the .gov sphere is necessary or there will be difficulties to make changes. There are challenges in the development of program learning systems.
- Both offices have very distinct considerations for training delivery or instructor training improvements. One of the offices sees the need to consider limitations of federal IT (firewalls are plenty and inflexible) while the other office sees that the best approach is for the instructor to have the discretion to add material and focus their efforts on what the instructor has expertise in or what the class is asking.