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Business Continuity Planning at Portland State University: an Adaptive Approach to Planning for Service Recovery After a Disruption

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Business Continuity Planning at Portland State University: An Adaptive Approach to Planning for Service Recovery After a Disruption.

By

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Abstract

This paper examines a case study following the development of business continuity plans at Portland State University (PSU). The PSU business continuity planning team explored a new theory of Adaptive Business Continuity and evaluated its usefulness in an academic service industry. The business continuity project team set out to answer these critical questions: 'Could the Adaptive Business Continuity Theory work for PSU? Was it up to the challenge of many departments with varied regulations, rhythms and stakeholders? Could the Adaptive Business Continuity Theory be implemented by a limited emergency management staff? Would there be enough buy-in from the PSU department subject matter experts to produce a workable business continuity plan?' The results supported the use of Adaptive Business Continuity Theory at PSU, with a wider range of benefits then expected.

Introduction

Portland State University (PSU) is a 50-acre collegiate campus incorporated in the heart of downtown Portland, Oregon. The campus is comprised of 50 academic and administration buildings and ten residential buildings that house nine schools and colleges representing 200-degree programs. The 7,258 full and part-time employees provide education and support to 27,670 students, 150 different student clubs and thirteen different athletic sports. PSU has solidified its connection with the city through its moto, "Let knowledge serve the city" (Portland State University, 2017). As PSU opens its doors and blurs the lines between the classroom and the city it serves, it exposes itself to risks. Some risks are inherent to normal daily operations while others are unique to an academic entity interspersed in an urban city center.

Risks can manifest into a crisis or a disruption at a moment notice or be anticipated. These disruptive incidents can be physical disruptions and have impacts which range from loss of building access or loss of essential equipment such as from a broken fire suppression pipe to personal losses, to infectious epidemics or regional natural disasters. Business continuity (BC) is concerned with recovering critical services after a disruptive incident large or small. BC planning is the process of creating decision making tools and procedures that staff can use when faced with a disruption incident (Herbane, 2010). BC planning is a vital part of the emergency planning strategy for any organization. BC planning is the rebuilding work that follows a disruption.

When a major disaster or crisis hit prior to the 1970's, a company had two options. The company would either walk away from the building and equipment, or if it was fortunate enough it would rebuild. For example, at the end of May 1948, spring melt caused a heavy snow pact to flood the Columbia river and in one day destroyed Vanport, the second largest city in Oregon (Geilling). This disaster displaced 40,000 residents, the Portland Shipyards, and the Vanport Extension Service known as Vanport College. The face of Vanport Island was forever changed, the business and homes were never to be rebuilt. However, "the administrators of the college acted quickly to find temporary sites to keep the school up and running" (Portland State University Digital Exhibits). Vanport College was relocated to Lincoln High School in downtown Portland and would recover and become known as Portland State University. The school was fortunate to be part of the Oregon State System of Higher Education, and to receive 90% of its tuition dollars from the United States government GI Bill (Portland State University Digital Exhibits). Vanport College was able to rebuild because of its decentralized administration and the government's investment of capital.

Literature Review

In 1963 C.F. Hermann, an expert in crisis management, defined a crisis in an organization as an "unexpected incident that threatens high-level priorities and allows little time for managers to respond" (1963). This was the beginning of the BC conversation. Early literature from 1970 to 1990 centered around defining the how and why of BC and its place in business resilience. The growth of computers and information technologies precipitated industry regulation designed to ensure the safety and integrity of information (Herbane, Brahim. October 2010). These government regulations increased the need for BC and the guidelines for BC best practices were established. These best practices include the Business Impact Analysis, Recovery Time Targets, and Risk Assessments.

The BC literature underwent a metamorphosis into a more holistic approach with the emergence of global operations. From 1990 to 2001, the attention shifted to answering the question 'How to safeguard the existence, capabilities, and future expansion of the entire organization?' (Jedynak, Piotr. 2013). The timeframes in these processes became dominated by the competing of international continuity standards. International companies involved in manufacturing and selling in the global arena were forced to create continuity plans that met competing international standards. These plans increased the requirements and complexity of the best practice activities.

The New York City Twin Tower attack on September 11, 2001 (9/11) was a catalyst that propelled the BC conversation into the private business sector (Herbane, Brahim. October 2010). The 9/11 attack affected everyone from the multi-national institutions that occupied five floors of the Twin Towers to the hundreds of smaller businesses including tiny ma and pa shops. Previously, BC literature focused on the financial, health, and government sectors, as well as the

information technology that supports it. The literature after 9/11 focused on advocating for BC planning and best practices in the private small business sector.

Since 2005, the literature has centered around the evaluation and effectiveness of continuity plans. Many studies since 2015 have evaluated lessons learned from the recovery of recent disasters such as Hurricane Katrina (August, 2005), Hurricane Ike **(**September, 2008), the 2010 – 2011 Christchurch (also called Canterbury) New Zealand earthquakes, the March, 2011 Japanese earthquake and tsunami, and Hurricane Sandy (October, 2012), (Rafferty, Murray 2016) (Rafferty, Pletcher 2018) (Yancey 2017). The results of those evaluations vary widely.

> "A Resilient Organizations survey of 269 businesses impacted by the Canterbury earthquake sequence found that 60 per cent of respondents stated that a BC planning was not a great aid. This differs from Japan where the 286 companies in the Tohuku region, over 70 percent found their BC planning partly effective to very effective" (Hatton, et. al. 2016).

There seems to be no clear reason for the variation in effectiveness of these BC plans from this era. The difference in effectiveness could stem from cultural differences, an awareness of potential risks, general society preparedness, or the BC methodology used. These are good questions to investigate deeper the gap could be a topic for future study.

Within the last fifteen years, the literature has begun to emphasize the importance of BC planning in academic organizations.

> "Colleges and universities are really like cities in terms of the services they must provide and even some of the businesses they are in. Universities operated close to 20 different businesses, including food preparation and services, hotel services,

retail outlets, health-care facilities, sports events, and many other activities besides teaching and scholarship" (Mitroff, et. al. Jan – Feb. 2006)

Colleges and universities are susceptible to disaster incidents and crisis such as contagious disease outbreaks, fires, water damage, natural disasters, and terrorist attacks to name a few. These incidents do more than disrupt classes for a day or wo. These crises can lead to repair costs as well as loss of tuition revenues, loss of student data, research data, the need to re-establish admission procedures, and the need to actively retain or recruit staff and faculty. There is a need for universities to create a BC plan. However, "Universities themselves are not currently obliged by government to have specific continuity arrangements, with the exception of teaching hospitals attached to universities" (McGuiness, et.al. 2014) There is virtually no national research that details what colleges and universities have done to prepare for a crisis or what the best BC approach for preparation is (Mitroff, et al. 2006). Universities and Colleges are left with indistinct guidance on how to safe guard their organization, faculty, or their student's futures.

A growing number of college and university administrators are turning to BC planning to safeguarding their institutions from the devastating effects of disaster incidents and crisis. A small group of emergency managers from universities across America feel that the traditional BC best practices are not capable of addressing the complex situations facing their institutions or provide value and the return on investment.

National Fire Protection Agency (NFPA) committee approved the 1600 Standard on Disaster/Emergency Response and Business Continuity in December 2012. The NFPA 1600 Standard sets out to establish the best practices for BC. In the 1600 Standard are the principles,

inputs, actions, and strategic methodology for creating a traditional BC plan. “Developing an emergency and BC plan requires the efforts of a knowledgeable team. This is not a one-person job” (Nicoll et. al 2013). NFPA 1600 Standard consist of six fundamental components: program management, planning, implementation, training and education, exercises and testing, and program maintenance and improvement (NFPA 2013). The best practices key documents are: the risk assessment, the business impact analysis, the emergency operations response plan, the communications plan, and exercise testing (Nicoll et. al 2013). The risk assessment aims to identify hazards and monitor those hazards and the likelihood of their occurrence in the following areas; natural hazards human-caused events, technology-caused events and the vulnerability of people, property, operations, the environment, and the organization (NFPA 2013). The business impact analysis evaluates the potential impact resulting from interruption or disruption of individual functions, processes, and applications (NFPA 2013). Emergency operation response plans shall define responsibilities for carrying out specific actions in an emergency, resource management plan and the communications plan (NFPA 2013). The emergency response and BC plan should be tested regularly and reevaluated yearly or as needed. Reevaluation should occur when a change in any of the following impacts the entity’s program: regulations, hazards and potential impacts, resource availability or capability, or changes to the organization in the areas of funding, infrastructure, including technology environment, economic and geographic stability, or services (NFPA 2013).

In 2015, David Lindsedt and Mark Armour released “The Continuity 2.0 Manifesto”. The Manifesto is in response to the laborious traditional BC methodology that has failed to keep up with technological and organizational practice advancements. Lindsedt and Armour argue that traditional BC practices have become entrenched in processes that increasingly consume more

time and resources, causing organizations to question the return on investment (pg. 153). "Traditional BC seeks to define processes for managing a BC program or system; Adaptive BC seeks to define a framework for preparing organizations to continue business in case of a disruption" (pp 3-4). The Continuity 2.0 Manifesto has undergone a name change to Adaptive BC. This new theory has revolutionized the approach to BC planning.

Traditional BC planning and adaptive BC differ in three fundamental ways; the amount of time required, the focus of scenario planning, and the role of the emergency manager. Traditional BC planning practices involve a trained emergency manager expert spending six to nine months conducting interviews, assessments, and gaining expertise about a department's functions and services. The emergency manager then spends another three to six months writing an extensive BC planning binder for every reasonable disruption risk scenario possible. The binder sits on a shelf and according to most research, most employees consider it of little aid in a crisis (Hatton, et. al. 2016).

The new adaptive BC theory focuses the energy of the emergency manager expert on three basic scenarios; loss of people, loss of place, and loss of things. The emergency manager professional works to build capabilities and address the limitations of time, scope and costs for these three basic scenarios. Another distinctive concept shift is that the department employee is considered the subject matter expert, and as such is more directly involved in the creation and continued evolution of the BC planning. This is more efficient; the emergency manager expert no is longer required to learn all the functions of the department. These fundamental differences reduce the amount of time to create a BC planning for a department.

Portland State University faces challenges that typical manufacturing and service industries do not have, due to the way universities are structured coupled with government and academic regulations. PSU specifically has many departments all with vastly different outputs, services, as well as internal customers or external customers or a mixture of both. Each of these different departments have various laws, regulations, and regulatory bodies they answer to. There are departments that are primally business focused as well as academic departments. Each individual academic department has different accreditation standards that allow for various instructional formats. PSU also faces the challenge of initiating the first, official BC planning for its multiple departments. Prior to this project, there was no formal established BC plan for the school. PSU is also limited in its number of emergency management personnel. Currently there is one emergency manager supporting all of PSU. At this time, the standard approach for BC planning does not fit PSU's organizational needs.

A few emergency managers at universities and colleges are working on applying the principles of adaptive BC to the unique challenges faced in higher education institutions. These professionals meet monthly through webinars and workshops to address the challenges in their field. Sarah Powell, Director of Emergency Management and Clay Lloyd, Continuity Planning Coordinator at Temple University in Philadelphia, Pennsylvania, are applying adaptive BC principles through the 'Mission Continuity Program'. Emma Stocker, Emergency Manager at Portland State University in Portland, Oregon, and this author are using Adaptive Business Continuity principles to create "The Continuity Workshop" for departments at PSU. Each of these individuals are pioneers in their field and have a unique approach and focus.

Methodology

The purpose of this project is to design a BC planning templet for PSU that is flexible for use in diverse departments, is adaptable for use in all types of disruptions, and has easily accessible tools any department employee can maintain and use during a disruption.

Emma Stocker, PSU's Emergency Manager, and this author (student of PSU studying Bachelor of Science in Supply and Logistics), formed the Business Continuity Plan Project Team. Starting in July 2018, the BC planning project team set out to create a BC planning process for the many and diverse departments of PSU. The BC planning project began in July 2019 with case studies and BC methodology exploration. The summer months of 2018 were spent building an approach and content creation. Phase one testing, the human resource, payroll and leaves department pilot program met for four dates; September 24, 2018, October 12, 2018, November 8, 2018, December 3, 2018. January, February, and March 2019 were used to analyze the data gathered, lessons learned and to make content adjustments. Phase two testing, the Business Continuity Multi-Department Workshop Pilot Program took place on April 9, 2019 and April 23, 2019.

From the beginning of the project the limitations and challenges directed the approach. For example, there are many different departments that form PSU, each with unique services, functions, and regulations to follow, and limited emergency management staff to conduct BC planning as well as support continued drills and updates. The BC project team began with reading and evaluating case studies to learn from practical experiences. The search for case studies led to the book "Adaptive Business Continuity: A New Approach" by David Lindstedt and Mark Armour. This book proposed new ideas and concepts that revolutionized the traditional view of BC.

The questions became, ‘Could the adaptive BC theory work for PSU? Was it up to the challenge of many departments with varied regulations, rhythms and stakeholders? Could the adaptive BC theory be implemented by a limited emergency management staff? Would there be enough buy-in from the PSU department subject matter experts to produce a workable BC plan?’

After careful examination and study, the adaptive BC theory was chosen for the foundation of PSU’s BC plan. The concentration of scenario planning to loss of people, loss of place, and loss of things provided an uncomplicated and approachable focus for the department subject matter experts. The adjusted role of the emergency manager expert to one of facilitator is a logical use of the limited PSU emergency management staff. The new emergency manager role of facilitator provided the opportunity to present the material in a workshop format. The use of the workshop format allowed for multiple departments to create BC plans simultaneously, maximizing the reach of the emergency manager as facilitator. The workshop format used employee time more efficiently and increased the overall rate of PSU BC preparedness and the return on investment.

The content created to teach the adaptive BC method consisted of three components; the BC planning tool, instructional presentation, and Disaster Deck card game. The chosen tool for PSU’s BC planning tool is a cloud-based spreadsheet templet, that has the flexibility to address the diverse services offered by each department. This BC planning templet is customizable, easy to train and easy for every level of employee within a department to implement. The emergency management professional guides multiple departments in the process of customizing the BC planning tool using an instructional power point slide show, hands-on ‘table time’ development, and group discussion. The Disaster Deck card game is a customizable game to provide short practice table top drill scenarios, discussed below.

The cloud-based templet consist of five spreadsheets. These sheets are a Summary of Services sheet with a description of essential department services, key information, lead worker, regulatory policies, and SOP's. The Service Restrictions sheet details the time and scope restrictions associated with these essential services. There are three scenario sheets for each of the flowing: Loss of People, Loss of Place, and Loss of Things considering the effect of these scenarios on the department's essential services. These include categorizing and listing existing capabilities and resources, tool kit of outside resources, and future steps to take to reduce disruption.

The 'Disaster Deck' card game is customized for each department. The purpose of the Disaster Deck is to provide short table top drill scenarios on a regular basis. Each of the Disaster Deck scenarios focus on one loss element. For example a flu pandemic that demonstrates a loss of people disruption. Or a powerful wind storm that knocks out power to the university demonstrates a loss of place. There are time cards that randomly select times of the year. Power loss to the university during a break is not as complicated as power loss during the first week of fall term. There are employee cards representing the employees in the department, these are randomly selected per scenario instructions to indicate who in the department is unavailable to assist in the disruption. During the Disaster Deck round these 'unavailable' employees are not allowed to speak or give input. However, at the end of the round they are invited to give feedback from their observations. These drills increase employee capabilities and help refine the BC plan. This table-top exercise was designed to fit into a short monthly department meeting and to be independently run. A department head can use the Disaster Deck to build skills and capabilities, generate new and innovative ideas, and team building.

Testing

Phase One HR Pilot Program

The Business Continuity Team at PSU began testing the pilot program in four sessions, September 24, 2018, October 12, 2018, November 8, 2018, December 3, 2018. The Human Resources Payroll Department volunteered for the pilot program. There were four meetings of one and a half hours each. The BC Team choose short meetings to allow for agile improvements to be made to the pilot program as needed. The roles of the BC Team was one presenter and one observer. The presenter lead the meeting and taught the concepts. The observer collected qualitative data on the audience including; body language, levels of engagement, questions asked, and presentation mechanics. These qualitative observations were used to gauge participant engagement, topic understanding, and interest. Participant questions and comments were also collected. Participant questions to help identify areas where instruction topics need to be clarified or expanded. The format of the meetings was a PowerPoint slide show instructional time, in conjunction with practical tool creation and application.

During the HR pilot program the BC Team learned many things about how the payroll department subject matter experts interacted with the BC material. These realizations inspired three changes in the phase two testing of the Business Continuity Multi-Department Workshop Pilot Program. The first lesson and change was to simplify the language used in the seminar to be as universal across all departments as possible. There is BC terminology and details that do not translate to some departments, this caused delays and confusion. By adjusting the language used and creating visual imagery, participants engaged the concepts faster and with greater understanding. The language was adjusted in all aspects of the BC program, the PowerPoint slide show, verbal instructions, and the templet.

The second lesson and change for the seminar was for The BC Team to provide more time with the templet tool to feel confident. This was learned through the participants' feedback from the previous session. During the pilot program each worksheet of the templet was discussed and customized as a whole group. This illuminated which aspects of the templet needed to be modified. However the participants did not receive the 'hands on' investigation and learning time that was most beneficial. The BC program was adjusted to give more time investigating, learning, and customizing the templet tool. This was accomplished by giving the participants access to the templet at the beginning of the first seminar meeting. This allowed the department subject matter experts to explore the templet outside of the seminar. In addition, time was allotted after each learning module of the seminar for the department subject matter experts to customize and apply the concepts.

The third and last lesson and change to the program came from the HR pilot program during the Disaster Deck Game on the last of the four meetings. The subject matter experts revealed new tools and capabilities that were not previously shared or discussed. The BC team learned that the participants did not fully understand that the goal of the BC training was to use their extensive knowledge and blend it with the new BC concepts. This last discovery was the most critical. The BC program relies on the department subject matter experts' knowledge. Traditional BC best practices have the emergency management expert learn everything about a department. This learning time is the most time consuming. The advantage of adaptive BC is the position of the department employee as the subject matter expert and their expertise informing the BC planning procedures. The department subject matter experts' understanding is critical to the efficiency and return on investment of the adaptive BC. The Disaster Deck game created a level of engagement that enhanced understanding and tapped into the department subject matter

experts' knowledge and capabilities. The BC program sequence was adjusted to include Disaster Deck table top exercises earlier in the program. These mini table-top exercises allowed the participants to be fully engaged and to consider available existing resources while learning new concepts and customizing the BC planning templet.

At the end of the HR pilot program sessions, the participants were given a survey and encouraged to give feedback. The survey consisted of Likert scale questions with five-point answers ranging from strongly disagree to strongly agree. The questions targeted understanding of concepts, confidence in abilities, the format, and the tools. Open-ended questions were included to provide personal experience feedback as well as participant's suggestions for improvement. A chart collating the results of the Likert questions can be found in appendix A. The survey results about the understanding of the BC concepts trended high, from agree to strongly agree. The survey results noted that participants' confidence in their abilities during a disruption averaged in the middle range between, neither agree or disagree and agree. The survey showed that the participants' rated the BC format high, in the agree to strongly agree range. The survey results for the participant's confidence in the BC tool averaged in the middle range between, neither agree or disagree and agree. These findings helped identify the areas that needed to be addressed for the next phase. The open-ended questions gave insight into the participants' experiences. A few of the most impactful quotes are following:

> "Directly tie planning tool to the scenarios to help identify gaps and areas to focus on.", "Lead with Disaster Deck, then work on the continuity plan and finish with the Disaster Deck.", "Even with the brief meeting, we can see the silos and this helps us see where knowledge is siloed and how we can get to information.", "Thanks for making this fun.", "I can see ways that this will be

useful in my daily work, like helping me recover faster from a sick day or vacation."

Multi-Department Workshop Pilot Program

The next stage of development was phase two testing the Business Continuity Multi-Department Workshop Pilot Program held on April 9, 2019 and April 23, 2019. The workshop consisted of two sessions with each session three-and-a-half hours long set two weeks apart. The seminar was broken into seven segments: Introduction, Services, Disruptions, Scope Restrictions, Loss of People, Loss of Place, Loss of Things. Each segment followed the same pattern: concept learning, table discussion to apply the concept and customize the BC planning templet and group discussion to increase understanding. Each segment was designed to build one concept on top of another linking the concepts together through application. Full understanding of the terminology, theory, and application would not be achieved without completing all the sessions.

The Business Continuity Workshop was advertised by flyer to all PSU departments that previously had expressed an interest in emergency planning. The registration process collected the information needed to complete a department profile. Nine departments preregistered for the BC Workshop. One department representative spontaneously joined the BC Workshop. In total, nineteen individuals attended the BC Workshop, representing ten different departments. Department representation ranged between one and five members. There is some concern with the BC team that the departments with only one representative may have felt less confident customizing their templet. Furthermore, these individuals were not able to use the table top discussion to apply the concepts to their department, due to their solely representing their department. The individual department representatives were seated together, their discussion

time focused on application at the general level. It is the recommendation that for future workshops two or more representatives from each department attend the BC Workshop.

The Introduction segment focused on the, 'What, Why, and When' of continuity planning in simplified language. Continuity planning was defined as the process of creating simple decision-making tools and procedures to use when facing the effects of a disruptive event. Continuity planning is designed to complement prevention, response planning , crisis management, survivability and resilience planning as a vital part of the emergency planning strategy. To teach the scope of continuity planning the continuity actions were placed in the timeline of a disruptive event. The introduction segment emphasized that continuity planning deals with the effects of a disruption and not the circumstances.

Next, each department identified the services, functions, offerings, and programs provided to internal and external stakeholders. This was the first interaction customizing the templet. The participants were asked to list their services offered, and record in the templet the: lead staff person, service description, the service context, program documentation and the standard operating procedure (SOP) development for each of those services. This segment demonstrates the value of resource efficiency in the adaptive BC method. The representatives from ten departments were able to identify the key services provided by their departments and record important service details in twenty to thirty minutes. While emergency management professionals walked around answering questions and guiding conversations. In traditional BC planning, this stage would take the emergency management professional six to nine months of investigation for each department.

The disruption segment focused on teaching the categories of loss in the areas of people, place, and things. Many people become trapped in scenario 'what ifs'. This segment moves

quickly through scenarios and shows that all incidents have some combination of disruption across the three realms of loss of people, place and things. The disruption segment emphasizes the need to plan for types disruption, rather than a specific incident. The table top discussion and group discussion focused on past disruptions the department had encountered in the past. The representatives were asked what kind of loss the disruption caused, how they coped, and if the clients noticed? This discussion time also showed the department representatives the capabilities already inside the departments and helped them identify existing resources.

Department's services face restrictions on time, scope and cost. A department's services can be restricted by the deadlines it faces, the scope of its reach, or the costs associated with the ideal option. In the HR pilot program the BC team discovered that the restrictions teaching segment of the course was where the participants had the most difficulty with the material. The language needed to be simplified toward universal phrasing to span all departments. The pilot program participants also actively disengaged during the restrictions segment of the course. This was observed through participants body language, walking out of the room, or checking their phones. The restrictions segment in the Continuity Workshop was simplified in concept and language. It was renamed 'scope restrictions' and focused on three questions; Does the department service have a place in campus wide response and recovery? Can the service be scaled down? Lastly, how long until 'they', the customers come after you with pitchforks? The participants in the workshop responded positively to these questions. They grasped what the questions were asking of them and they stayed engaged with the material.

The introduction, service identification, disruptions, and scope restriction segments represent day one of the workshop. Day two of the workshop was held two weeks later. Day two opened with a short review, the introduction of the Disaster Deck, and a table top exercise. The

Disaster Deck table top exercises help the participants to build understanding and consider existing resources as well as engage their problem-solving skills. The pilot program demonstrated how vitally important it is to bring the department subject matter expert employees into the problem-solving mindset at his phase of the BC plan building. This phase was intentionally crafted to aid the departmental subject matter expert and fifty minutes was devoted to achieving this problem-solving mindset.

The loss of people, loss of place, and loss of things segment was renamed 'The Toolkit'. The BC team wanted to build the image that the BC plan was the toolkit where the employees could go to solve the problems of loss of people, place and things. The BC plan workbook has a worksheet page devoted to each of the loss elements. The participants were given five minutes as a group learning about the worksheets and hearing examples. Then they were given twenty-five minutes working with their department customizing the worksheet. Afterwards, the group came back together to share their work and learn from other departments.

The first worksheet that the workshop participants customized was the loss of people worksheet. The department participants were instructed, first to identify the top five to seven key services of the department. Next, they listed and described all the existing capabilities, resources, procedures, know-how to support, alternate staffing options, and steps to reduce disruption (such as, training, preauthorization, documentation, etc.). Finally, the participants were asked to consider the future and what would they like to have in place to help them through a disruption. The answer to this last question becomes the base of the future action items and a gauge to measure progress.

The loss of place worksheet is similar to the loss of people worksheet. It has many of the same elements and questions with the addition of what the logistical needs would be to support relocation, and what steps would be needed to ease relocation (such as, documentation, preauthorization, cache of supplies, etc.).

The loss of things worksheet has some unique challenges that the other loss areas do not face. Many of the critical things needed to provide key services are computer based. The responsibility for the maintenance of many of these software programs are handled outside the department. Some software is managed on-site, others are managed by outside vendor support, further complicating matters. While the department does not have control over the software, in a disruption they could still be still faced with disgruntled clients who are not being served. The department employees need tools to help them speed up the recovery time once the software is online and to shield the client from any negative consequences. The loss of things worksheet is divided into virtual and physical things. The department subject matter experts are encouraged to find outside tools or resources that employees and clients can access to provide service continuity.

The last few minutes of the BC seminar the participants were asked to fill out a survey with opened questions as well as Likert scale questions with five-point answers ranging from strongly disagree to strongly agree. This survey was redesigned and simplified from the pilot program final survey. The BC Workshop final survey results can be found in appendix B and appendix C. The questions targeted understanding of concepts, confidence in abilities, the format, and the tools. Open-ended questions were included to provide personal experience feedback as well as participant's suggestions for improvement. The survey results about the

understanding of the concepts trended high, from agree to strongly agree. The survey results noted that participants' confidence in their abilities were averaged between, agree and strongly agree with two low outliers. The survey showed that the participants' rated the format of the workshop in the agree to strongly agree range. The survey results for the confidence in the tool averaged in the middle range between, neither agree or disagree and agree.

Results

The results from the phase one HR pilot program and the phase two, Business Continuity Multi-Department Workshop Pilot Program helped the BC team to answer the original questions from the beginning of the project. Was the adaptive BC theory up to the challenge of many departments with varied regulations, rhythms and stakeholders? Would there be enough buy-in from the PSU departmental subject matter experts to produce a workable BC plan? Could the adaptive BC theory be implemented by a limited number of emergency management staff?

The participants confirmed that the adaptive BC theory could handle the challenge of multiple departments with varied regulations, rhythms, and stakeholders. The eleven department participants ranged from human resource payroll and leaves departments and registrar's office to the student health athletic departments and parking and transportation departments. The majority of these department participants walked away with valuable information and insights and the ability to integrate continuity development into their daily work. The participants also confirmed that there would be enough buy-in from the subject matter experts to produce a workable BC plan. Each one of the participants were actively engaged in the process of building the BC plan. Many participants expressed a future-focused perspective to continue building the department BC plan. One participant said, "We have already begun discussing continuity planning in

manager's meetings and this will help us to continue that process". Another participant stated, "I'll work with our director to better prioritize five functions areas to focus on, then will present to team. Will share the doc with the team as well. Make sure it's a living document". The adaptive BC theory effectively worked within the workshop format to meet the organizational needs of PSU.

There are several additional benefits to the adaptive BC workshop that were observed. There is an increase in departmental subject matter experts' knowledge, expanded capabilities, and contributions to the plan. It is important for a department employee (the subject matter experts) to feel confident in their ability to handle a disruption. A study of effective BC plans in businesses in the Christchurch, New Zealand earthquakes of 2010 – 2011 have shown that a critical feature of an effective BC plan is that the employee feels prepared to handle disruptions. An employees' belief in their own ability to handle a disruption is critical to developing a resilient workforce (Hatton, et, Al. 2016). The BC plan workbook is useful for training new employees and problem-solving typical occurrences such as employee vacations or leave or temporarily empty positions, as well as larger departmental service continuity disruptions.

The BC team learned that the adaptive BC material could be implemented by a limited number of emergency management staff. The workshop format was accomplished by only two staff members. With traditional BC best practices, the creation of a BC plan would take an emergency manager three to six months to write for each department. With the adaptive BC in the workshop format it took ten departments eight hours spread over a two week time period to complete the BC plan for their key services. When the departmental subject matter expert participants finished customizing their worksheets, they have a BC plan that is adaptable to

multiple scenarios, easy to maintain, and has future action items to work on for continuous improvement.

The workshop format is only compatible with the adaptive BC theory. This new theory represents a fundamental shift in thinking, one that declares the department participants as the subject matter experts. This shift allows the emergency management staff to facilitate learning and ask probing questions in a supportive environment. This shift also empowers the department employee (subject matter expert), thus reducing the reliance on the emergency management staff in case of a major disruption. The department employee feels more confident in their abilities to handle a disruption, and as the toolkit expands in capabilities, the capabilities of the employee expands. In the face of a major disruption, this will allow an expanded emergency response by a team of individuals who feel confident to handle the situation.

Further Discussion

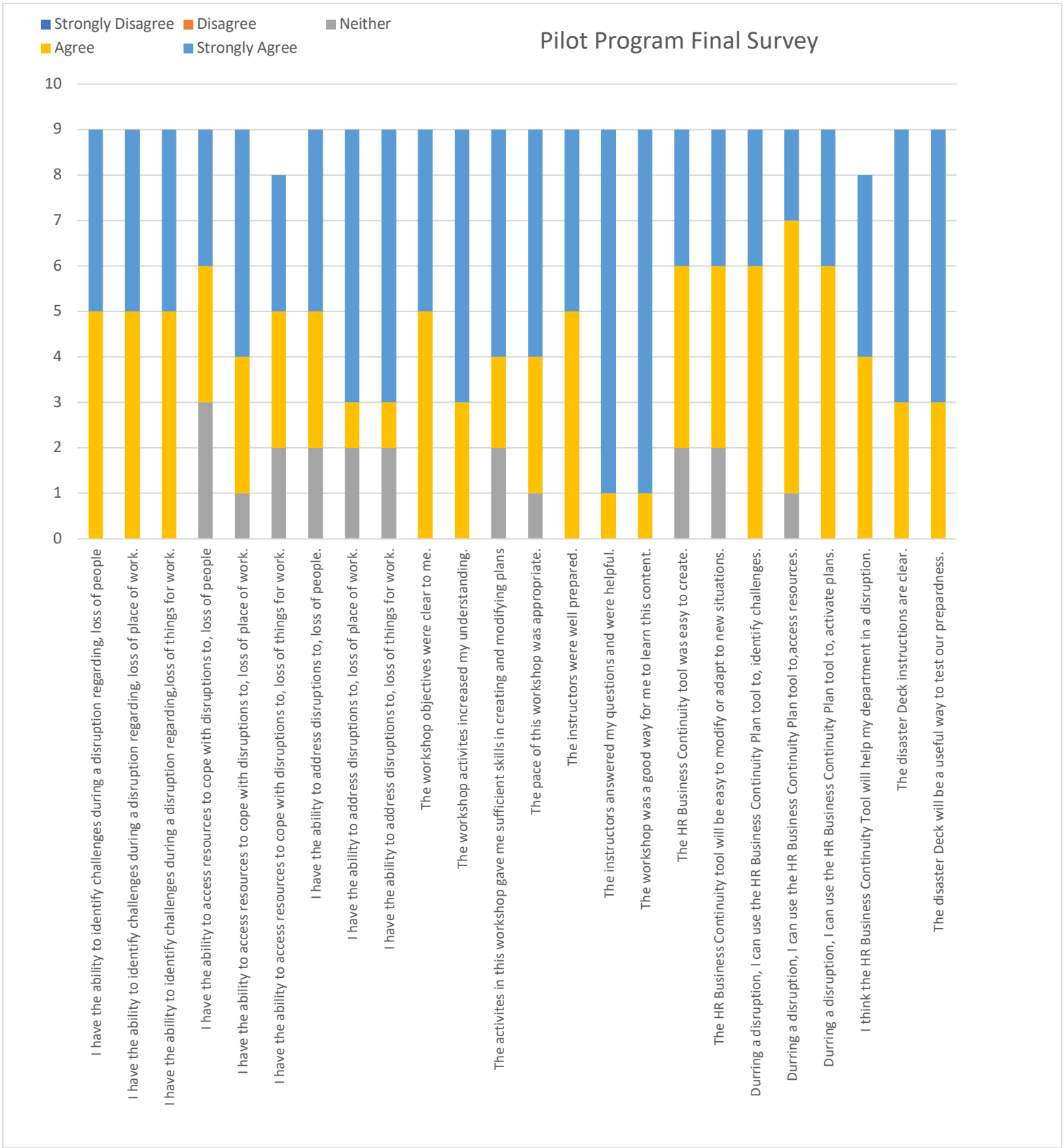
From the final survey results, areas for improvement and further discussion were identified. At the end of the seminar one participant asked “Will we ever use these documents again, or is the mental process the point? Is it meant to make us mentally agile?”. These are valid questions. While mental agility in the face of a disruption is a key contributor to a successful recovery the document is meant to be a living continuity plan. Future workshops should expand the practical application of how to use the BC planning workbook in the face of a disruption and how to expand BC capabilities.

Conclusion

The purpose of the BC Project is to design a business continuity planning templet for PSU that is flexible for use in diverse departments, is adaptable for use in all types of disruptions, and has easily accessible tools any department employee can maintain and use during a disruption. If PSU experienced an event like the 1948 Vanport flood today, due to its size it would not be able to rely on government capital and a quick thinking decentralized administration alone to recover. Portland State University has grown to be an integral part of the city of Portland, Oregon. Just as in 1948, PSU has a responsibility to its multiple stakeholders to safeguard its position in the community and the services it provides. PSU needs a strong BC plan that employees feel confident implementing to safeguard its services.

Traditional BC is inefficient and does not meet the organizational needs of PSU. The BC Project explored the question can adaptive BC theory work at PSU? The answer is yes. Adaptive BC theory was instrumental in the creation of the Business Continuity Workshop and its materials. Through this workshop PSU department employees built BC planning tools that were efficient, customizable, and adaptable. These department employees are prepared for service recovery after a disruption.

Appendix 1: Graph of Pilot Program Final Survey Results.



Appendix B: Business Continuity Workshop Final Survey Open-Ended Question Comments

Multi-Department Final Survey Open-Ended Question Comments
Misc. Response

- This was a great way to get started on this important and often complicated procedures and documentation.
- Very thorough.
- Many thanks – very helpful
- Still struggling, exactly how will we use or refer to the documents themselves. Mostly a great tool to keep the discussion going.
- I like the premade tools.
- The disaster deck is helpful to get us thinking, but really need to write down and develop a plan.
- Good flow & knowledgeable leaders.
- The google excel sheet was great, some issues with information transferring over tab to tab, but worked great.
- Great info and strategy – Thanks! Enjoyed the disaster deck game.
- Good pace & great interaction. Right amount of time. Thanks for breakfast.
- Union! May decisions will hinge on whether the union will or will not support us.
- In the top 5 most useful presentations put on by PSU in the last 16 years. Well Done!

How will your department integrate continuity planning efforts into your department operations?

- The management team will use the tool – by completing it more thoroughly and use it identify gaps and weaknesses. Then sub units can discuss in depth.
- We have already begun discussing continuity planning in manager's meetings and this will help us to continue that process. We will continue to fill out the spreadsheet and discuss scenarios as they come up.
- First document our process.
- Take back to director and discuss as a group. Continue writing down SOP and policies.
- We will continue to think about potential impacts to people, places, & things at different scales.
- We will think about this more and identify critical areas of operation to have plans in place to minimize disruption.
- This workshop will improve upon the systems already in place. Making sure we are up to date and have fidelity in our plan.
- We will start building our plan in our monthly staff meetings.
- Discuss plans with all staff in upcoming meetings. Develop SOP's and other resources/procedures from spreadsheet.
- I'll work with our director to better prioritize 5 functions areas to focus on, then will present to team. Will share doc with team as well. Make sure it's a living document.
- Revisit documentation/ how to and update for a wider audience that may be called in to help.

- We will build more scenarios. Talk to our leadership team about prioritizing time.
- Set up a schedule for documentation updates on a regular basis. Individual employee contingency plan – identify needs, task distribution. Cross training plan.

What, if any, additional support would be helpful from Emergency Management to further develop your department continuity plan?

- Availability to answer questions.
- Examples of plans that are further along.
- Follow up trainings. (Advanced levels)
- Follow up meetings to continue conversation.
- Ideas in setting up a remote workstation, the different ways you can work remotely and types of permissions to do so. (OIT Process)
- Do department check ins in three months to check our plans.
- More information on how higher level (pres., VP, Provost) would handle term delays, term cancellations etc.

What are the top three things you learned/gained from these workshops?

- Focus on top 5 things. Learning to plan for non-emergency disruptions. Assessing risk & vulnerability of our systems, process.
- Build regional resources, other offices, at colleges across the state. Connect with leaders in other departments. The complexity and impact of continuity planning on units up and down stream.
- Thinking about continuity holistically. Thinking about alternatives we can tap into. Being able to formulate a plan to respond to loss of function.
- Able to identify department critical areas & prioritize needs. Able to begin to think about ways to support critical areas. Gained general understanding of continuity planning to share with department.
- It is important to have several plans in place to make disruptions less impactful. How to critically view your work and make goals to improve continuity planning. Understanding how to set up procedures to support on a small and large scale.
- There are pieces I did not think of that would have a great impact on my students.
- The importance of having SOP's in place. How university partners can help. Impact tour students during disasters/continuity measures.
- The different kinds of disruptions – some things I hadn't thought of. Importance of toolkit. Identifying resources ahead of time and asking what one thing can be done now.
- The need to understand if tech/software needs remote desktop or just VPN. Possibility of help/resources from other schools.
- How to break down the plan into bite size pieces. A model. Exploration of topic in general.
- Work roles & operations logistics.

What would you change about these workshops?

- It was a little unclear what tasks should be completed between the two workshops and what we should do as a team to prepare.
- Would have been better if the whole leadership team could have made the time to participate.
- Visual hands on is good. I like the scenario cards, maybe more scenarios.
- More group examples of services.
- There was more time explaining disaster deck then actually using it.
- Better location NASCC is not great location for open discussion. More time spent on disaster deck.
- Need more subject experts from department to attend.
- Add a one hock version to bring back to staff meetings

Appendix C: Graph of the Business Continuity Seminar Final Survey

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