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Evaluating Utah's Rural Online Initiative: Empowering Organizational Leaders Through Remote Work

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Abstract. Compared to urban counties, Utah's rural counties experienced high levels of unemployment. Informed by a statewide needs assessment, Utah State University Extension developed a remote work leadership course to equip business leaders with knowledge and skills to create remote jobs as a solution to rural unemployment. This descriptive evaluation study collected data from course participants (N = 62). Findings showed short-term outcomes were achieved; participants experienced increases in knowledge and skills and had more positive intentions toward creating remote jobs and hiring employees from rural counties. Extension professionals can design and evaluate their programs using the framework in this study.

INTRODUCTION

Extension has a rich history of developing relevant, research-based programs for communities (Gagnon et al., 2015). Research demonstrates that program outcomes are enhanced when delivery is both localized and pertinent (Durlak & DuPre, 2008). In this regard, Extension professionals should conduct and use need assessments to identify community needs, which will in turn inform program design and delivery (Graham et al., 2016). Garst and McCawley (2015) detailed the importance of applying need assessments to direct Extension programming. In a strategic effort to understand the needs of rural and urban counties, Utah State University (USU) Extension conducted a statewide needs assessment (Narine, 2019).

Findings from this needs assessment identified a lack of job opportunities in rural areas as a concern among rural residents. Studies have also associated high unemployment rates in rural areas with rural-urban migration patterns (Harris & Perlich, 2019; Kumar, 2018; Parker et al., 2018). In Utah, the top three priority areas found among rural counties were needs for well-paying jobs, quality public schools, and steady jobs (Narine, 2019). USU Extension developed the Rural Online Initiative (ROI) program to address the needs of well-paying and steady jobs in an endeavor to stimulate rural economies. The Utah Legislature funded the ROI program in 2018 as an innovative solution to rural-urban migration and unemployment.

The program's aim was to retain the rural workforce through specialized training in remote work and job search skills (Noel & Hinkins, 2018). One specialized training developed within the ROI program was the Certified Remote Work Professional (CRWP) course. This 30-hour, one-month course combined online work with interactive virtual workshops. The course was designed to equip rural residents with the tools and skills needed to transition from on-site work to a virtual career through experiential learning. When placing CRWP certificate holders in remote jobs (in business, education, and health and medical fields), ROI program planners determined that fewer than 10% were finding jobs with businesses based locally in Utah.

Despite a healthy economy, specialized training, and tax incentives for hiring remote workers in rural counties, remote job opportunities in Utah were still in short supply. At the same time, Utah's urban counties were experiencing a talent shortage. Interestingly, demand for remote jobs continued to grow rapidly nationwide (Andra, 2018; Reynolds, 2020). To further investigate the gap between talent shortages and job opportunities for remote work, a needs assessment was conducted with Utah organizational leaders. The purpose of this needs assessment was to determine if a gap in knowledge existed among organizational leaders in Utah concerning remote work.

Results indicated that business leaders lacked knowledge regarding the research-based best practices for creating remote work environments within their organizations. In addition, they expressed interest in learning how to create remote work positions, manage remote employees, and develop remote work plans (Hill, Kesler, et al., 2019). Therefore, the ROI program developed the Certified Remote Work Leader (CRWL) course as a pilot intervention to assist in increasing the supply of remote jobs in Utah. As such, the purpose of this study was to determine if the CRWL course was a viable solution to address remote job creation in Utah. The objective of this research was to conduct a preliminary evaluation of the short-term outcomes of the course.

THE CERTIFIED REMOTE WORK LEADER (CRWL) COURSE

The CRWL course teaches organizational leaders the research-based best practices and core skills for effectively creating remote work environments to manage remote employees. After careful review of the needs assessment results from organizational leaders, the ROI's program planning team conducted a literature review and consulted experts with decades of experience managing distributed organizations. The result was a 7-module, one-month course with the topics noted in Table 1. These modules are tailored to creating remote environments and managing hybrid and remote employees. Participants complete the modules asynchronously at their own pace. There is also a structured component where participants are required to meet synchronously for virtual workshops.

Each module includes interactive core content, assigned quizzes, knowledge checks, and self-assessment activities. Participants are required to complete all course assignments and earn an average score of 80% or higher to receive a certificate. Overall, the course intends to increase: (a) participant awareness and interest in creating a remote work environment, (b) their ability to implement a supportive remote work environment in their organization, and (c) their ability to lead hybrid-remote and fully distributed employees. Table 1 summarizes the CRWL course modules and content.

Figure 1 shows the logic model for the CRWL course. It provides a graphical representation of how the course is intended to work. It aligns to the Targeting Outcomes of Programs model (discussed in the theoretical framework) and provides an evaluation blueprint from program implementation to measuring program outcomes.

Table 1. Module Summary of the CRWL Course

Module	Content Description
Vision	Identifies components of a compelling company vision and provides strategies on how to develop an effective vision statement.
Culture	Explains how to identify, assess, and engage with company culture. This includes communication, activities, and expectations.
Communication	Explains the unique strategies and requirements of virtual communication. This includes communication styles, tools, and empathy.
Performance Management	Simplifies the processes of performance management. These include assignments, tracking, reporting, and evaluating employee performance.
Conflict Management	Examines the primary causes of conflict in remote work and how to resolve conflict in virtual channels empathetically.
Change Management	Reviews the process of communicating, tracking, and evaluating a five-phase change management process.
Learning and Development	Explains the learning and development risks unique to remote workers, as well as components of a thriving virtual learning culture.

THEORETICAL FRAMEWORK

The primary objective of our study is to evaluate the outcomes of the new CRWL course. As a pilot, the course required investment of resources including time, staff, and funding. A summative evaluation approach was used to determine the extent to which resources were effectively used to achieve the program's intended benefits (Rossi et al., 2004). Results of a summative evaluation can assist planners in decisions about program continuation. Following a summative approach, our evaluation followed Rockwell and Bennett's (2004) Targeting Outcomes of Programs (TOP) model. The TOP model aligned well with the study's logic model, which provided a strong evaluation plan.

The TOP model evolved from Bennett's original Chain of Events model (Bennett, 1979). Bennett's early work provided the foundation for the *frequently* used linear logic model and the outcome sequence model (Hatry, 1999; Israel, 2010). It also paved the way for other conceptual frameworks to assess program outcomes and impact, such as Kirkpatrick's four-level model (Kirkpatrick, 1994; Kirkpatrick & Kirkpatrick, 2006) and the impact theory model (Rossi et al., 2004). The

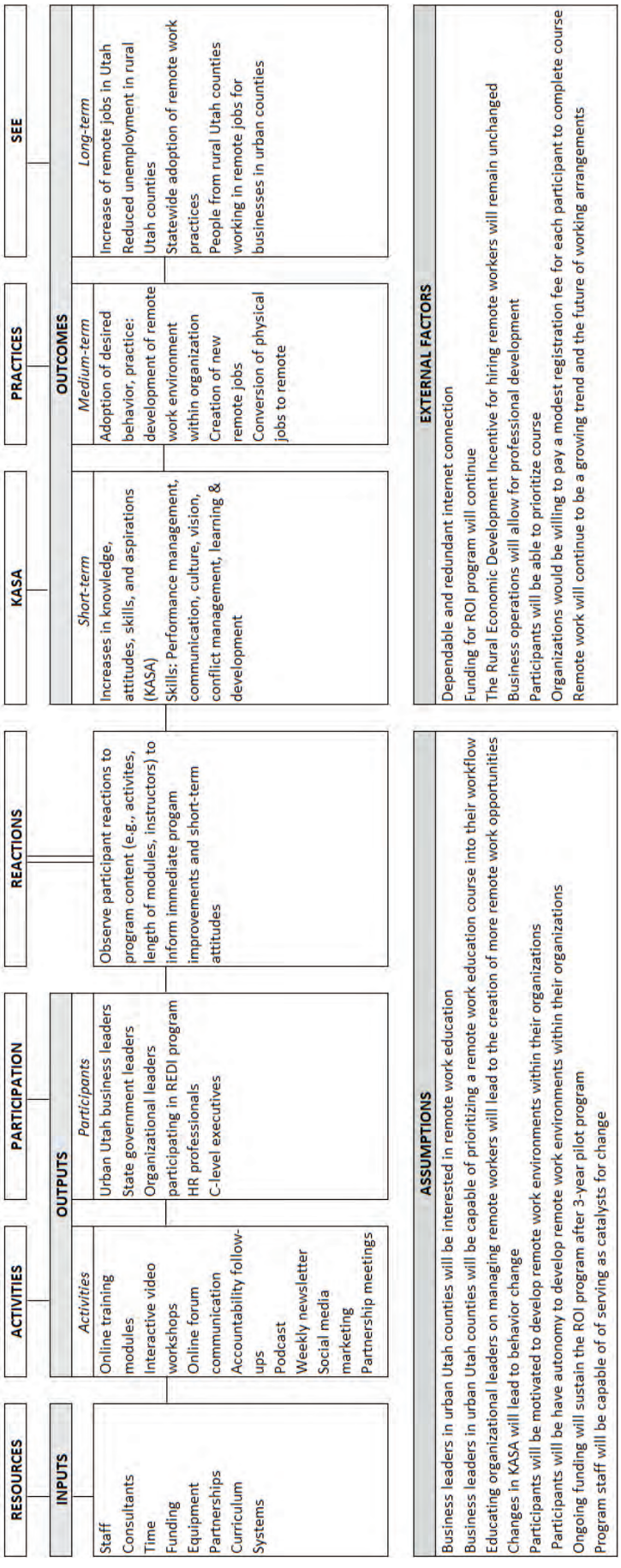

Figure 1. Logic model for the CRWL course.

updated TOP model put forth by Rockwell and Bennett (2004) demonstrated a direct link between program planning and evaluation—a relationship evident in major evaluation approaches such as Stufflebeam's (2000) Context, Input, Process, and Product (CIPP) evaluation model. The TOP model integrates program planning and program evaluation in seven identical levels, assuming the steps in program planning can be mirrored in program evaluation (Rockwell & Bennett, 2004).

The seven levels of program planning and evaluation in the TOP model are: (a) social, environmental, and economic (SEE) conditions; (b) practices; (c) knowledge, attitudes, skills, and aspirations (KASA); (d) reactions; (e) participation; (f) activities; and (g) resources. However, the steps in the evaluation process (or program performance component) of the TOP begin with resources (lowest level) and progress upwards toward the SEE conditions. The TOP model further divides the program performance component into two categories: (a) implementation (i.e., program fidelity) and (b) outcomes (Rockwell & Bennett, 2004). It aligns the first four levels of program performance (i.e., resources, activities, participants, and reactions) to program fidelity or implementation, and the subsequent three levels (i.e., KASA, practices, and SEE) to outcome evaluation. In this study, our summative evaluation focused on outcomes through an assessment of the fifth level, KASA, which is described as the CRWL's short-term outcomes; these are participants' knowledge, attitudes, skills, and aspirations toward creating a remote work environment in their organization after course completion.

Following the TOP model, participants are more likely to create a remote work environment in their organization if they: (a) increase their knowledge on best practices regarding remote work, (b) have positive attitudes toward creating a remote work environment in their organization, (c) progress in their abilities to create a remote work environment, and (d) have positive intentions to create a remote work environment in their organization. Guided by the TOP model, we assume that favorable short-term outcomes likely lead to participants creating a remote work environment in their organization, which likely leads to the provision of job opportunities for rural communities (Rockwell & Bennett, 2004).

METHODS

PARTICIPANTS AND RECRUITMENT

The target population was CRWL participants enrolled in the April and June 2020 cohorts. Participants ($N = 62$) were sent a survey which included demographic and telework experience questions. Overall, most participants were female (72%), had remote work leadership experience (68%), a graduate or professional degree (60%), and were, on average, 45 years old.

PROCEDURE

We used two instruments for data collection, a pre-and posttest to measure changes in knowledge, and an exit questionnaire to assess participants' attitudes, abilities, and intentions/aspirations toward creating a remote work environment in their organization. Pre- and posttest questions were based on module content (see Table 1 for the seven leadership modules). An entry survey was also used to filter applicants based on the following criteria: (1) access to a laptop or desktop with a webcam and microphone, (2) access to broadband or fiber internet, and (3) the possession of basic computer skills.

MEASURES

A panel of experts reviewed questionnaires to verify construct validity. We used Cronbach's alpha (α) to determine appropriate internal consistency for each construct variable. Each construct variable is based on the learning objectives for each course module. As such, there were seven construct variables. Each variable contained 6–7 similar items, adjusted to reflect the relevant module content. For example, items included in the construct variable for Vision were to:

- Articulate the importance of leading with a remote work vision
- Identify components of compelling visions in a remote work environment
- Identify steps to address creativity blocks
- Assess my current vision for my team
- Communicate my remote work vision to my team
- Develop a remote work vision for my team
- Evaluate a remote work vision

An alpha value of 0.7 and higher was considered sufficient (Field, 2006; Johnson & Christensen, 2017), and all construct variables had acceptable internal consistency (see Table 2). A five-point Likert-type scale assessed individual items under each construct, and overall mean scores (M) for each construct was interpreted using the following improvement scale: 1.00–1.49 = *much worse*, 1.50–2.49 = *somewhat worse*, 2.50–3.49 = *stayed the same*, 3.50–4.49 = *somewhat better*, and 4.50–5.0 = *much better* (Gliem & Gliem, 2003; Harder et al., 2019).

ANALYTIC STRATEGY

A paired sample t test determined changes in knowledge. We used descriptive statistics to determine participants' attitudes, abilities, and intentions toward creating remote work environments based on the seven leadership modules. Examples included, 'How important is remote work/telework in the future of talent-acquisition?' and 'How likely are you to create remote/telework job positions in your organization?'

Table 2. Descriptive Statistics and Internal Consistency Results for Skill Constructs

Skill constructs	*M*	*SD*	Cronbach's Alpha (α)
Vision	4.65	0.46	0.98
Culture	4.70	0.36	0.96
Communication	4.69	0.38	0.98
Performance Management	4.64	0.48	0.99
Conflict Management	4.57	0.46	0.97
Change Management	4.61	0.50	0.99
Learning & Development	4.57	0.57	0.99

RESULTS

Of the 62 participants enrolled in the April and June cohorts, 47 completed (n = 47) all course requirements to earn certificates, resulting in a completion rate of 76%. The average age of participants was 45 years, with the majority (72%) being female. Race categories among participants were close to the U.S. Census Bureau (2019) reports for Utah, with 85% white, approximately 9% Latino, and 4% of two or more races. Ninety-two percent of participants were employed by businesses with headquarters in Utah, with 61% located in urban Utah counties. Most participants (80%), on average, managed 15 employees who worked remotely. Roughly 36% of participants worked in mid-level management positions (e.g., general, regional, or district manager), while 34% held frontline management positions (e.g., office or department manager, or supervisor), with 15% working as top-level executives (e.g., CEO, CFO, or COO). Most of these leaders (61%) held these positions for four or more years.

Nearly all participants earned a degree from a higher education institution, with 60% reporting a graduate or professional degree (e.g., MS, MBA, JD, or PhD), and 34% reporting a bachelor's degree as their highest level of education. In addition, most participants (68%) had remote work leadership experience. However, participants without this experience felt it was important to obtain remote work leadership skills. Before taking the CRWL course, about 69% of participants believed their competitors hired remote workers. All program participants who successfully completed the course (n = 47) answered the exit questionnaire assessing attitudes, skills, and intentions. However, demographic data were reported for all enrolled participants in the CRWL course (N = 62). For knowledge gain, results showed statistically significant differences between pre- and posttest scores for all seven modules. These results indicated increases in participants' knowledge from the beginning to the end of the course (see Table 3).

In reference to skills, participants had increased mean scores for each construct variable: vision, culture, communication, performance management, conflict management, change management, and learning and development. It should be noted that the data for skill constructs are not expected to be normally distributed since our sample only contains program participants and is not reflective of a population of adult residents in Utah. Results suggested that after completing the CRWL course, participants perceived they had improved their ability to: (a) communicate organizational vision to their team, (b) develop a communication plan to digitize and build company culture, (c) assess existing communication practices, (d) identify areas of strength and opportunities for both self and team, (e) evaluate current conflict management strategies, (f) evaluate current change management processes, and (g) create a workforce learning and development plan to deal with self and team deficiencies (see Table 2).

After completing the CRWL course, 92% of participants reported they were more likely to create remote work positions in their organization, and 79% indicated they were more likely to hire qualified residents from rural Utah. Almost all participants (97%) believed remote work was important to the future of talent acquisition, and 82% reported that their organization facilitated a remote work environment. All participants also believed the creation of a remote work environment was important in their organization. Additionally, 87% agreed that creating a remote work environment was beneficial for a sustained competitive advantage. All participants felt their value as a leader of remote employees improved upon completing the course.

Table 3. Paired t Test Results Assessing Changes in Knowledge of Remote Work Principles

Modules	*M	SD	t	df	p (one-tailed)
Vision	2.94	2.40	9.02	53	< .001
Culture	3.59	3.22	8.11	52	< .001
Communication	0.96	2.19	3.11	49	< .05
Performance Management	1.12	1.67	4.73	49	< .001
Conflict Management	3.10	2.71	8.01	48	< .001
Change Management	2.65	2.50	7.44	48	< .001
Learning & Development	1.96	2.11	6.37	46	< .001

Note. **M* indicates the mean difference between posttest and pretest scores.

There are two limitations of this study. First, it is assumed that all participants answered quiz questions and surveys completely and truthfully. Second, it assumed an appropriate sample size.

CONCLUSIONS

The long-term aim of the CRWL course is to increase the supply of remote jobs in Utah and reduce unemployment levels in rural counties; however, this study assessed the short-term outcomes of the CRWL course. Early results from our study achieved the intended short-term outcomes of the course. Increases in knowledge among course participants in all learning modules were achieved, as well as in participants' perceptions of their abilities to perform remote work leadership skills. Most participants also had strong intentions and motivations to develop remote work leadership skills and create remote work environments within their organizations.

Overall, preliminary results indicated organizational leaders had a better understanding of the skills needed to leverage remote work arrangements in their organizations, with the intent of creating remote positions in their organization. Based on short-term outcomes, the CRWL course showed positive preliminary results as a pilot economic development strategy in a longer-term effort to increase the supply of jobs in rural Utah. Assessing medium-term outcomes over the next 3–5 years may demonstrate larger increases in the supply of remote jobs in rural areas. The long-term impact would be reduced unemployment in rural counties as remote positions and rural hires increase.

IMPLICATIONS FOR PRACTICE FOR EXTENSION PROFESSIONALS

With shifting community needs, Extension professionals could adapt their programming efforts to address priority needs. Since the CRWL course supports economic diversification in rural areas, it demonstrates how Extension can develop innovative solutions for addressing unemployment challenges faced by rural communities. In this case, the course was designed to address the critical issue of well-paying and steady jobs in rural Utah by targeting business' professional development in creating remote work environments and their intentions to hire qualified remote workers residing in rural Utah. Understanding participants' experiences in the CRWL course is essential in building an enduring program that fills the need of well-paying and steady jobs that will sustain rural economies.

RECOMMENDATIONS

From our study, we recommend ongoing formative evaluation for continued improvement of the CRWL course. We also recommend the implementation of follow-up summative evaluations to measure participants' success in creating remote job opportunities that are filled by qualified talent from rural counties. To inform future programmatic efforts, a triangulated mixed-method study is recommended to provide complementary results to better understand how program objectives are achieved (e.g., the ability to implement a supportive remote work environment in organizations). Using an explanatory mixed methods design offers a direct

comparison of quantitative and qualitative results to expand the understanding of quantitative findings (Creswell & Plano Clark, 2011). By including a qualitative element to future studies, we would expect to gain added insights into participants' motivations to enroll in future cohorts, the details of their experience, and challenges they may face. These insights would provide valuable information that could inform recruitment efforts, curriculum modifications, and gaps in content knowledge and relevant outcomes.

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