The Military Families Learning Network: A Model for Extension-Based Virtual Learning Communities

Abstract
This article provides an overview of Extension's Military Families Learning Network. The network is an example of Extension's commitment to building virtual learning networks in the support of targeted professional and lay audiences. The network uses well-established and emergent pedagogical approaches focusing on adult-centered learning while employing state-of-the-art online learning technologies. We present a four-dimensional model of learning activities to illustrate how the network offers different options for and approaches to adult-centered learning and training. The Military Families Learning Network can serve as a model for broader adoption of such entities across the Extension community.

Keywords: Military Families Learning Network, virtual learning communities, adult-centered learning, military family support

Introduction
The Military Families Learning Network, an innovative virtual learning community, provides training and professional development opportunities for those in Extension, the military, and elsewhere who work to support active duty military families. The network seeks to accomplish this through an inclusive learning environment in which adult-centered learning approaches are embraced and state-of-the-art web-based technologies are employed. It is a partnership between the U.S. Department of Defense, the U.S. Department of Agriculture National Institute of Food and Agriculture (NIFA), and participating universities. Herein we present a four-dimensional model of learning activities to illustrate how the network offers different options and approaches for professional development and training. Specifically, we illustrate how the network allows for both interactive and autonomous learning through informal and formal virtual resources. The network is designed to accommodate different learning priorities and preferences by allowing participants to enter and engage with the network in a variety of ways. Because the network draws on practices and trends in web-based adult-centered learning, the approach may be applied more generally to other Extension-related efforts...
There are approximately 2.96 million active duty U.S. military personnel and affiliated family members, of which approximately 1.67 million are spouses, children, or other dependents (U.S. Department of Defense, 2017a, pp. iv, 30–33). About 88% of active duty military personnel are stationed in the United States or its territories (U.S. Department of Defense, 2017a, pp. iv, 30–33). Since the 1970s, the Department of Defense has dedicated considerable resources to providing family-related services in such areas as education, counseling, health care, housing, and recreation. These resources are augmented by civilian-based services and programs. Approximately 75% of the active duty family population reside in "off-installation housing" (U.S. Department of Defense, 2017a, p. 33) and therefore rely on community-based programs, services, and assets.

Providing in-depth and often complex assistance to service members and their dependents requires continuous professional development and training for military family support personnel. Depending on their job descriptions and responsibilities, these professionals provide financial management counseling, conduct nonmedical case management, assist in educational planning for children with special needs, and provide information and referral services for families seeking to access services offered by military and community providers. Military support professionals also play key roles in helping active duty military families plan and adjust to frequent moves between duty stations and assist military families when a parent or spouse is deployed. Those involved in military family support include military and affiliated staff at installations as well as community-based providers and Extension professionals.

Extension's role in military family support is illustrated in various national level initiatives. These initiatives include NIFA-supported efforts to promote installation-based Extension programming, policy analysis and assessment, and resource and information referral services (see, for example, Ferrari, 2005; Huebner, Mancini, Bowen, & Orthner, 2009; U.S. Department of Defense, 2017b). In 2010, NIFA established a partnership with the Department of Defense to create the Military Families Learning Network to enable Extension professionals, university faculty, and others to assist military family support efforts by offering professional development and training opportunities. The network was established through the eXtension initiative, which is dedicated to developing learning networks among Extension stakeholders (eXtension, n.d.; Meisenbach, 2014).

The Military Families Learning Network and the Learning Theories Behind It

The Military Families Learning Network (https://militaryfamilieslearningnetwork.org/) carries out its work through a web-based presence that makes use of webinars, social media posts, podcasts, blogs, videos, and intensive "virtual learning conferences." A variety of participants and stakeholders are represented in the network, including Extension professionals, military support personnel, military families, nonprofit and community-based service providers, other federal agencies, and academics. The network's mission statement clarifies its purpose:

The Military Families Learning Network (MFLN) engages military family service providers and Cooperative Extension educators in the exchange of experiences and research to enhance professional
impact and encourage professional growth. We encourage the formation and expansion of a skilled and collaborative network of professionals who support significant positive outcomes for military service members and their families. (Military Families Learning Network, n.d., para. 1)

Extension is well positioned to assist the Department of Defense in training and development activities relating to military family support through its traditional expertise in families, health, education, and community development. The network is organized by teams of professionals working in content areas that include personal finance, family development, military caregiving, network literacy, community capacity building, family transition, nutrition and wellness, and early intervention. Core staff include Extension professionals as well as other faculty at higher education institutions, most of which are land-grant universities.

Extension has experience in providing training and development programming to widely dispersed populations of professionals and clients. A common and preferred feature of such programming is the use of constructivist-based adult-centered learning strategies (Rennekamp & Engle, 2008). These strategies are based on the principles that adult-centered learning should include problem-solving activities, encourage peer-to-peer learning, embrace the cocreation of knowledge, and allow for self-reflection and integration (Bonk & Wisher, 2000; Brookfield, 1986; Reid, n.d.; Schell & Janicki, 2012; Stewart, 2014).

Web-based technologies can both facilitate and enhance the delivery of adult-centered learning programming (Northey, Bucic, Chylinski, & Govind, 2015; Schell & Janicki, 2012). Extension has actively embraced virtual approaches to programming (see, for example, Arbogast, Eades, & Plein, 2017; Diem, Hino, Martin, & Meisenbach, 2011; Friedl, Ober, Stein, & Andreu, 2015; Gentry, Edgar, Graham, & Kirkpatrick, 2017; Rennekamp & Engle, 2008; Rich et al., 2011; Woods & Langcuster, 2014). Additionally, Extension's implementation of virtual approaches has included the creation of virtual learning networks in Extension programming (eXtension, n.d.). These networks allow for "community-centric" information and knowledge sharing and development opportunities among Extension professionals and others (Strong, Rowntree, Thurlow, & Raven, 2015).

Learning networks allow for the design of programming that blends more formal educational activities, such as credit-bearing or continuing education courses, with informal self-directed learning activities that include such activities as peer-to-peer discussion, information sharing, and collective and individual reflection (Malcolm, Hodkinson, & Colley, 2003). Extension professionals can help organize, mediate, and sustain platforms that allow for many types of learning activities (Diem et al., 2011; Meisenbach, 2014).

The Military Families Learning Network has been able to capitalize on applications of adult-centered learning theory, advances in web-based technology, and the evolution of learning networks. This convergence creates a number of opportunities to offer learning activities and processes that are varied and complementary. The network recognizes that individuals approach engagement and participation with differing levels of interest and with different learning styles. The network is guided by an underlying objective to create a sense of purpose and community among its participants that encourages long-term interest, participation, and engagement with the network.

The Network's Four Learning Dimensions

The Military Families Learning Network offers a suite of learning experiences that allow for both interactive and autonomous learning through informal and formal activities. These offerings provide a range of options for
participants to engage with content and one another in ways that meet their varied learning styles and needs. For purposes of illustration, we suggest that the network features four dimensions of learning activities: (a) interactive-informal approaches, (b) autonomous-informal approaches, (c) interactive-formal approaches, and (d) autonomous-formal approaches. These dimensions are intended to be complementary, with each providing context and reinforcement for participant learning and engagement. Figure 1 depicts these four approaches and examples of the learning, training, and development opportunities the network offers.

**Figure 1.**

Military Families Learning Network (MFLN) Interactive/Autonomous and Informal/Formal Learning Matrix

*Informal* learning resources and activities make up much of the network's programming content. This circumstance reflects the common practice of providing learning opportunities that assist the self-guided participant. This philosophy and practice is embraced in Extension programming and elsewhere (see Brookfield, 1986; Dixson, 2012; Malcolm et al., 2003; Northey et al., 2015; Stewart, 2014). Network participants are provided ample opportunity to engage in informal learning both interactively and autonomously.

*Interactive-informal* activities provide the opportunity for learners to engage peers, apply knowledge through case studies or scenarios, and reflect on and integrate learning experiences. Such opportunities are considered essential to constructivist and related approaches to adult-centered learning (Brookfield, 1986; Malcolm et al., 2003; Rennekamp & Engle, 2008). The network's platform allows these opportunities to be pursued through various means. For example, Facebook Live events facilitate wraparound discussion—discussion prior to and following live webinar sessions. Flipped classroom learning exercises encourage participants to lead discussion
around topics relevant to the provision of service to military families. Interactive social media posts, such as blogs and podcasts, invite feedback and commentary, providing an opportunity for interaction that can further enrich learning experiences by allowing time for reflection and review before engagement.

Resources posted and maintained by the Military Families Learning Network also provide opportunities to engage in autonomous-informal learning. Participants can engage with subject matter and resources on their own terms. This sense of agency is important in adult-centered learning (Brookfield, 1986; Malcolm et al., 2003). Informal learning options are diverse and varied. For example, blog posts alert readers to learning opportunities provided by the network and others. Short videos are available that feature military support professionals sharing best practices and experiences relating to case management, self-care, and communication (see, for example, https://www.youtube.com/watch?v=WbX8dDMsNMU). The network also facilitates access to relevant resources, such as those offered by the Department of Defense and the broader Extension community.

Formal learning activities are usually event driven, such as webinars. These are a major feature and emphasis of the Military Families Learning Network. On average, four live webinar sessions are offered monthly by experts and professionals. Most webinars follow the conventions of formal learning offerings by involving continuing education credits (see Brookfield, 1986; Malcolm et al., 2003). By the end of 2017, the network had served 22,814 training participants (nonunique) through the delivery of 249 live, web-based training sessions since its inception. Participants in live and archived webinars earned a cumulative total of 28,931 continuing education credits, suggesting that the webinars provide a useful platform for seeking formal learning experiences (Scott & Cassels, 2018).

Participation in live webinars provides an opportunity for interactive-formal learning. The network’s webinars encourage real-time discussion, feedback, and collaboration among participants. Case studies, polls, and questions posed to participants are used as prompts for soliciting input and discussion. The use of chat boxes is encouraged. For example, between July and December 2017, 37% of those attending webinars engaged through the chat box feature (https://militaryfamilieslearningnetwork.org/official-reports/). These chat boxes provide an opportunity for participants to ask questions, offer observations, and suggest resources for all to share.

Archived webinars and podcasts are an example of autonomous-formal learning opportunities. These resources can be particularly helpful in complementing and building a body of knowledge around themes, issues, and skills relevant to military families and communities. They also help accommodate professionals who may have time constraints related to attending live events. In addition to archived webinars, the network has added formal continuing education credit-bearing podcasts to the portfolio of formal learning activities (see, for example, https://militaryfamilieslearningnetwork.org/podcasts/).

Discussion

Scholars of adult-centered learning have characterized informal and formal learning as representing a spectrum of activities rather than a dichotomy (Malcolm et al., 2003; Northey et al., 2015). This being the case, learning activities can be structured to be interdependent and mutually reinforcing in practice (Malcolm et al., 2003). Interactive and autonomous learning enriches opportunities for both engaged and self-directed learning experiences across this spectrum. Virtual learning networks, such as the Military Families Learning Network, can facilitate and coordinate the provision of these different learning activities. With institutional
commitment, such as that provided by Extension professionals, networks are able to develop resources that can be tapped into over time. For example, by 2017, the Military Families Learning Network's YouTube library, consisting of webinars and short videos, offered 337 hr of educational programming and had generated 83,692 views (Scott & Cassels, 2018).

The Military Families Learning Network is designed to allow for diverse yet complementary learning experiences that can be integrated into a whole. The network's "virtual conferences" are an example of how this is accomplished. Intended to replicate a conference attendance experience for place-bound participants, virtual conferences are hosted over a 3-day period. Various network concentration areas (subgroups) collaborate on these annual events. Virtual conferences are organized around a central theme that is explored in detail during webinar-based plenary and panel sessions and various informal learning activities. Recent themes include cultural competency, change management, and family readiness.

The network’s virtual conferences incorporate all four learning dimensions depicted in the matrix. Informal learning activities, both interactive and autonomous, are intended to enhance the individual’s experience and foster a sense of community among conference participants. Interactive-informal learning activities reinforce both of these objectives. For example, a recent conference featured a mediated discussion room to provide a "safe space" for peer-to-peer discussions on cultural competency (see https://militaryfamilieslearningnetwork.org/2018virtualconference/). Regularly provided journaling exercises that allow for self-discovery, reflection, and integration (see, for example, https://militaryfamilieslearningnetwork.org/courses/storytelling/lessons/personal-storytelling-journal/) facilitate autonomous-informal learning. Additionally, just as in a professional training conference, formal plenary and panel sessions anchor the event. In the virtual conferences, these take the form of webinars that involve continuing education credit, allowing for interactive-formal learning. Once archived, the webinars provide opportunities for autonomous-formal learning.

The literature on online learning applications has suggested that the virtual learner experience is enhanced when participants are given the opportunity to combine formal learning activities with social media and other forms of virtual engagement (Northey et al., 2015). These types of activities help promote a sense of "social presence" or belonging among learners (Dixson, 2012, p. 7) and may contribute to a more robust "learning ecosystem" (Northey et al., 2015, p. 171). Effective networks can align with learner needs, aptitude, and comfort levels, alignment that is generally recognized as essential to authentic adult-centered learning (Brookfield, 1986). For example, newcomers may need to gradually move from peripheral activities to the learning community's core (Smith, 2003). They may want to test the waters by browsing through a blog or listening to a podcast. Perhaps they will then review a webinar that has been archived, leading to attendance at a synchronous webinar and involvement in online discussions. For the more established participant, the network provides the opportunity to engage in a diverse and familiar set of learning resources. All learners, but especially those more experienced and comfortable in the network, can actively engage in the development and cocreation of knowledge. Through the use of informal and formal learning resources that allow for both interactive and autonomous engagement, the Military Families Learning Network seeks to facilitate these outcomes.

For learning networks to develop, be sustained, and maintain relevancy to their members, evaluation is required. Adult-centered learning extends not only to the cocreation of knowledge but also to participatory assessment (Brookfield, 1986). In the Military Families Learning Network, participatory assessment is pursued.
through a variety of means. For example, each webinar is evaluated by participants. A standard instrument focusing on adult-centered learning outcomes is used. Respondents are asked to provide perspective on the significance and applicability of lessons learned for their own professional development and practice. In addition, designated Department of Defense personnel act as liaisons to the network, providing insight and feedback on programming. These experts in turn rely on input and suggestions from military support personnel and advisory groups made up of family members. The network shares assessment and trend data through a public access website (see https://militaryfamilieslearningnetwork.org/official-reports/).

In addition to engaging individual participants, the Military Families Learning Network seeks to build a learning community that is inclusive and has practical impact among stakeholder groups. Broad organizational investment is crucial because the network is intended to connect stakeholder groups to build military family support capacity and learning. According to 2017 data reports (https://militaryfamilieslearningnetwork.org/official-reports/), among self-identifying participants, 19.7% were associated with Extension or other university-based units. Those affiliated with the armed services (the Department of Defense and the service branches) constituted 37.5% of all participants. Those affiliated with the U.S. Department of Veteran's Affairs constituted 12.9% of participants. The balance of representation was spread across state and community-based social service organizations, health care providers, and others.

We suggest that the Military Families Learning Network can serve as a model and its design of various learning approaches illustrated in the matrix provided herein as a guide for broader adoption in the Extension community. The network is illustrative of a general trend within Extension to increasingly engage those it serves through mediated virtual platforms. Necessity has helped catalyze this approach, as measured in terms of geographically dispersed stakeholders, scarce resources to dedicate to programming, and learner preferences for online platforms (see, for example, Gentry et al., 2017; Rich et al., 2011). But opportunity also is a driver, in the sense that virtual platforms offer the means for providing an integrated approach to adult-centered learning that offers informal and formal, interactive and autonomous learning approaches. There is continued interest among the Extension community in how best to meet these challenges and opportunities (see, for example, Diem et al., 2011; Strong et al., 2015).

Conclusion

The Military Families Learning Network embraces core Extension principles of engaging peer-to-peer learning, building on strengths, and leveraging institutional and community-based resources. The network is informed by Extension's deep familiarity and long-standing experience in adult-centered learning and capitalizes on advances in web-based technology. A key feature of the network is the design of learning activities that appeal to individuals who have different learning styles and needs. The four-dimensional model of learning activities described in this article demonstrates how an inclusive approach can be developed to serve those with various styles and needs. Although pertinent to military family support needs and opportunities, the learning approaches developed within the Military Families Learning Network can be considered by others seeking to reach stakeholders and deepen interaction with a common sense of purpose.

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