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Identifying Online Preferences and Needs of Early Childhood Professionals

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Abstract

A growing number of early childhood professionals use the Internet to improve their skills, knowledge, and practice. The Internet may be a practical alternative for providing high-quality, research-based training, information, and resources to these professionals. When designing online materials and Web sites, however, it is important to first assess early childhood professionals' needs so that the materials and experience can be designed to best meet those needs. The current, multistate study was designed to address three questions: (1) How do early childhood professionals currently use the Internet? (2) What features do early childhood professionals most prefer in a Web site designed especially for them? and (3) Do preferences for specific types of features vary depending on characteristics such as age, education, experience, and comfort with the Internet? Eight hundred sixteen early childhood professionals in three regions of the United States (Georgia, Michigan, and Nevada) completed a brief questionnaire regarding their preferences and experiences with online professional development. Respondents were most likely to use the Internet for email and to access it for both professional and personal reasons. Respondents were most interested in being able to download learning activities and curricula, access online training and classes, obtain materials to give to parents, and ask questions of experts. The information from this study should be useful for educators currently involved in providing online educational opportunities, as well as those educators considering offering such resources.
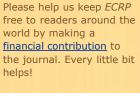
Introduction

With millions of American children currently participating in home-based and center-based child care, providing high-quality child care is critical. Ongoing professional development is seen as one way to improve the quality of child care arrangements (e.g., Arnett, 1989; Burchinal, Cryer, Clifford, & Howes, 2002; Doherty, Forer, Lero, Goelman, & LaGrange, 2006; Munton, Mooney, & Rowland, 1996). Such professional development and growth can take many forms, including formal education, credentialing, specialized inservice training, coaching, and networking (Sheridan, Edwards, Marvin, & Knoche, 2009; Tout, Zaslow, & Berry, 2006), as well as self-directed exploration and learning (Fleet & Patterson, 2001). The Internet is becoming an increasingly popular method for providing professional development resources and opportunities; however, it is important to first determine what early childhood professionals want and need in a Web site in order to best design and create sites for them. In this paper, we present the findings of a research project aimed at laying the groundwork for a Web site designed to provide professional development resources and opportunities for early childhood professionals (e.g., home- and center-based providers, directors, consultants, and trainers).

Conceptualizing Professional Development and Growth

Research has consistently shown that professional development and training of staff are associated with higher-quality child care. In their meta-analysis of studies linking caregiver education and training with child care quality, Fukkink and Lont (2007) found that caregivers with higher educational levels tend to provide better individualized care, are more sensitive and more involved with children, and have more knowledge of developmentally appropriate practice than caregivers with lower educational levels. These caregivers also tend to offer richer learning experiences, provide more language enrichment, and stimulate the social and physical skills of children more often than providers engaged in fewer professional development opportunities. Other studies have found that caregivers who regularly attend professional development workshops tend to be more sensitive in interactions with children and to provide higher-quality care than caregivers who are not as involved in such workshops (Arnett, 1989; Burchinal et al., 2002). Likewise, family child care providers who regularly participate in training tend to offer higher-quality care than do providers who attend training intermittently or never participate in training (Norris, 2001). Thus, substantial evidence indicates that professional development is associated with a wide variety of indicators of high-quality child care.

Sheridan et al. (2009) define professional development in early childhood education as "…experiences that promote education, training, and development opportunities for early childhood practitioners who work with young children" (p. 379). In addition, they see professional development as "…a full range of activities that attempt to increase the knowledge base, skill set, or attitudinal perspectives brought to bear as a practitioner engages in home visiting, parent education, child care, preschool education and/or kindergarten to third-grade teaching" (p. 379).

From this perspective, professional development can be viewed as having several dimensions. Professional development can range from *formal*, including offerings such as degree programs, certification, university classes, and training workshops, to *informal*, as when early childhood professionals read books related to their interests on their own or when they gather ideas from other early childhood professionals. A second dimension distinguishes between *top-down* approaches, whereby experts decide what professional development looks like or what is important for early childhood professionals to know (e.g., licensing approved training, university-designed courses, legislative training mandates) and *self-directed*, in which early childhood professionals are seen as active participants and designers of their own professional growth (e.g., pursuing specific information and knowledge related to their own interests or needs). Finally, professional development and growth can be seen as occurring in a *linear* (e.g., sequenced approaches from apprentice to certification to degrees) to *nonlinear* (e.g., an individualized smorgasbord of classes, training sessions, self-study, and networking) fashion.

Although researchers have typically focused on the formal, top-down, and linear dimensions of professional development, research suggests that the majority of early childhood professionals are active participants in their own professional growth, committed seekers and consumers of professional information and opportunities (Fleet & Patterson, 2001). As Clark (1992) maintained, "teachers are more active than passive, more ready to learn than resistant, more wise and knowledgeable than deficient, and more diverse than they are homogeneous" (p. 77). Early childhood professionals are highly interested in acquiring up-to-date information and resources and have a strong desire to learn as much as they can about issues related to child care provision (Clark, 2007; DeBord, 1993; Olsen, 2007). Research indicates that early childhood professionals believe that training and ongoing education is necessary to care for children (Gable & Halliburton, 2003) and that professional development and growth improves their caregiving skills and increases their professional confidence (Taylor, Dunster, & Pollard, 1999). Many caregivers attend workshops related to child development or child care, complete relevant college courses, or participate in professional conferences (Clark, 2007; Norris, 2001; Rusby, 2002). Many others engage in self-directed professional growth, actively pursuing new knowledge and ideas, support from peers, and guidance from experienced mentors and coaches (Fleet & Patterson, 2001). It seems reasonable to assume that, to be most effective, professional development and growth should incorporate a mixture of formal and informal opportunities and be designed around the needs, interests, and accessibility requirements of early childhood professionals.

The Potential for Online Professional Development

The Internet may be a practical alternative for providing high-quality, research-based training, information, and resources to early childhood professionals. In general, a majority of Americans access the Internet and use it as a tool to gather information in their everyday lives. Recent statistics released by the Pew Research Center indicate that 79% of all adults go online, including 95% of individuals ages 18-33, 86% of individuals ages 34-45, 81% of individuals ages 46-55, 76% of individuals ages 56-64, and 58% of individuals ages 65-73, with a significantly lower proportion of individuals age 74 and older going online (Zickuhr, 2010). Additionally, two thirds of Americans currently have a broadband Internet connection in their home, making Internet access quick and easy (Zickuhr, 2010). The Internet is most commonly used to email, search for information, and read about current events and news stories (Zickuhr, 2010), and many Internet users do work-related

research online as well (Pew Research Center, 2005).

The online dissemination of professional resources and training materials may be one way to further professional development and growth for early childhood professionals. Child care providers may be motivated to participate in online professional development because it is convenient and may more easily fit into their schedules (Olsen, 2007). Workshops, conferences, and classes are seen as less convenient than receiving information via the Internet and through email correspondence with trusted resources (Clark, 2007). Findings from a study of child care providers indicate that they prefer online training compared to workshops in classroom settings (Olsen, 2007), perhaps because of the flexible and convenient nature of online training. Many of these providers, however, indicated that they still like to access information through workshops, videos, written materials, and conferences in addition to online resources (Olsen, 2007).

Recent research has shown that the Internet can be an effective way to provide professional development opportunities. In a study of Head Start teachers, Powell, Diamond, and Koehler (2010) compared the effects of on-site versus remote, Web-based training on teacher skills in creating supportive and enriching early literacy and language classrooms. The researchers found that teachers gained skills in both the on-site and Web conditions, and children taught by participants in both conditions made gains in letter knowledge, blending, and emergent writing skills. Pianta, Mashburn, Downer, Hamre, and Justice (2008) also described a Web-based professional development effort designed to improve early childhood teachers' interaction skills with young children. They found that the program increased the quality of teacher's interactions with children, which lead to improvements in children's early literacy skills.

Early Childhood Professionals as Online Consumers

Online information for early childhood professionals is only useful, however, if those professionals feel comfortable accessing and using the Internet. Research has found evidence that a high percentage of providers indicate that they have a computer at home with Internet access (Clark, 2007), and the majority consider themselves to be confident and experienced Internet users, although not necessarily experts (Olsen, 2007; Stanford, 2008). According to some research findings, most child care professionals access the Internet at least once a day, typically at home or work, and frequently use email to communicate with others (Olsen, 2007). They also use the Internet to look at maps or get driving directions, play games, and get information about current events (Clark, 2007). Child care professionals also report willingness to complete training online (Stanford, 2008), and they believe that the Internet is able to offer useful information and learning opportunities (Olsen, 2007). Nearly half of all providers in a study in Illinois indicated that they have used the Internet to find information about caring for children (Clark, 2007). The participants also acknowledged that not all child care providers have Internet access and knowledge about how to use the Internet, and they would consider these issues to be barriers to online learning.

Networking with other child care providers has been shown to be related to child care quality (Doherty et al., 2006), and some research has found that many child care providers indicate a strong desire to network with other caregivers (Taylor et al., 1999). Use of social networking sites has exponentially increased among the general population in recent years, with 61% of online adults using a site such as Facebook, MySpace, or LinkedIn, including 83% of individuals ages 18-33, 62% of individuals ages 34-45, 50% of individuals ages 46-55, and 43% of individuals ages 56-64 (Zickuhr, 2010). It seems likely that the Internet can provide opportunities for early childhood professionals to informally network with one another without the costs and time commitment associated with traveling to workshops and conferences. Unfortunately, no studies were found that have specifically explored the online social networking preferences and behaviors of early childhood professionals.

In summary, the small but growing body of research reviewed above indicates that some early childhood professionals already use the Internet as a source of high-quality professional development, resources, and training. Moreover, online resources are viewed as most helpful when they meet teachers' specific needs (Whitaker, Kinzie, Kraft-Sayre, Mashburn, & Pianta, 2007). This finding suggests that designers of online materials and Web sites for child care professionals should first assess that population's needs so that the materials and experience can be designed to meet them.

Overview of Study

The purpose of the study reported here was to ascertain which types of features early childhood professionals believe are most useful in a Web site designed specifically for them and to learn how such perceptions may be related to comfort level with the Internet and to experience as a provider. Three primary questions guided the present study:

- How do early childhood professionals currently use the Internet?
- What features do early childhood professionals most prefer in a Web site designed especially for them?
- Do preferences for specific types of features vary depending on characteristics such as age, education, experience, and comfort with the Internet?

Early childhood professionals in three distinct geographic regions of the United States (Georgia, Michigan, and Nevada) completed a brief questionnaire. The sample included home- and center-based providers, as well as directors and consultants/trainers. We included directors and consultants/trainers because experience suggests that they are active consumers of online resources and may provide information directly to child care providers. The study was undertaken as part of the development of the *eXtension Alliance for Better Child Care* Web site. *eXtension Alliance for Better Child Care* was developed to take advantage of the growing need, interests, and consumption of online resources and information by early childhood professionals. *eXtension Alliance for Better Child Care* is part of the national *eXtension* initiative, which is an educational partnership of 74 universities in the United States. The Web site was created by a multistate team of early childhood faculty and professionals in the national Cooperative Extension System. The findings of this project will not only inform the choice of features to be included on the *eXtension Alliance for Better Child Care* Web site, but they will also help other professional groups and organizations design online training and resources that meet the needs of home-based and center-based child care providers, as well as other early childhood professionals.

Method

Participants

A total of 816 early childhood professionals from Georgia (*N* = 581), Michigan (*N* = 58), and Nevada (*N* = 177) completed a brief questionnaire to aid in the development of the *eXtension Alliance for Better Child Care* Web site. Table 1 reveals that respondents were on average 40.70 years of age and had worked in the field for 9.81 years. The majority of the participants were center-based providers (70%); other participants were home-based providers (14.2%), directors (10.1%), and consultants/trainers (5.7%). There was great variety in the levels of education obtained by respondents, with most having taken at least some college-level courses.

Table 1
Participant Demographics (*N* = 816)

	Frequency	%
Age		
Average years and (*SD)*	40.70	13.85
Less than 24 years	104	14.9
25 to 34 years	159	22.8
35 to 44 years	138	19.8
45 to 54 years	156	22.4
55 years or older	139	20.0
Child care provider type		
Home-based child care provider	100	14.2
Center-based child care provider	493	70.0
Director of child care center	71	10.1
Child care consultant or trainer	40	5.7
Education		
Less than 9th grade	3	0.4
Some high school but did not graduate	24	3.4
High school diploma or GED	173	24.6
High school and some college or trade school	237	33.7
2-Year college degree or CDA	125	17.8
4-Year college degree	95	13.5
Graduate work	47	6.7
Years worked in child care field		
Average years and (*SD*)	9.81	9.00

Procedures

Participants completed a questionnaire regarding current Internet habits, preferences for specific Web site features, and background information about themselves. The majority (91.4%) of respondents completed the questionnaire in conjunction with ongoing in-person training sessions or statewide conferences. A smaller number (8.6%), recruited through newsletters and personal contact, completed the questionnaire online.

The questionnaire contained three parts. First, participants were asked to rate how important they believed 20 different potential features were to include as part of the Web site on a scale of 1 to 4 (1 = *not at all important*; 2 = *only a little important*; 3 = *moderately important*; 4 = *very important*). In the second part of the questionnaire, respondents indicated whether or not they used the Internet for email, social networking (Facebook, Twitter, etc.), shopping, finding information for themselves and their family, finding information for

their child care program, sharing photos and videos, and playing Internet games. They were also asked to report how often they used the Internet for work and personal reasons (1 = *never* to 5 = *at least once a day*), as well as how comfortable they felt using the Internet (1 = *not at all comfortable* to 4 = *very comfortable*). Lastly, respondents gave information about their age, education level, length of time working in the child care field, type of child care provider, and number of hours a week they worked with children.

Results

Early Childhood Professionals as Consumers

First, we wanted to get a sense of early childhood professionals as online consumers. Respondents were asked to indicate how often they used the Internet for work and personal reasons, as well as how comfortable they felt using the Internet. Figure 1 indicates that the majority of respondents reported being comfortable using the Internet and used it regularly for work and personal reasons. Table 2 shows that older and more experienced respondents tended to report using the Internet less often for work and personal reasons and were less comfortable using the Internet than younger respondents. More educated respondents, on the other hand, tended to use the Internet more often for work and personal reasons and felt more confident using it.
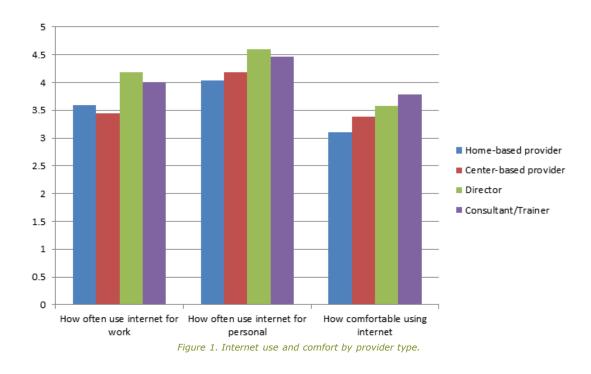

Figure 1. Internet use and comfort by provider type.

Table 2
Correlations for Internet Use and Comfort Level and Demographic Variables

	Use Internet for work	Use Internet for personal reasons	Comfort using Internet
Age	-.164**	-.278**	-.310**
Education	.342**	.283**	.208*
Years worked in child care field	.011	-.074*	-.174**
* *p* < .05. ** *p* < .01.			

Another set of questions asked respondents whether or not they used the Internet for email, social networking (Facebook, Twitter, etc.), shopping, finding information for themselves and their family, finding information for their child care program, sharing photos and videos, and playing Internet games. Figure 2 shows that almost all participants used the Internet for email, and many also used the Internet to access information for both personal and professional information. About half of all respondents used the Internet for social networking, shopping, and sharing photos and videos. Fewer participants played games on the Internet.
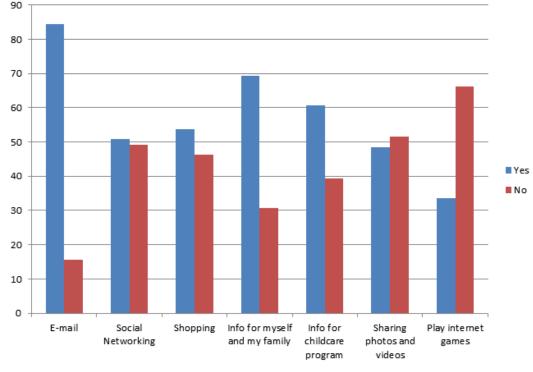
Figure 2. Frequency percentages for how participants use the Internet.

A series of chi-square analyses revealed that directors and consultants/trainers tended to have higher than expected rates in the use of email (x^2 (3) = 15.34, p < .01), finding information for the program (x^2 (3) = 36.75, p < .001), finding information for themselves (x^2 (3) = 12.62, p < .01), and for shopping (x^2 (3) = 13.08, p < .01) than did home-based and center-based providers. Center-based providers and consultants/trainers had higher than expected rates of social networking (x^2 (3) = 11.44, p < .01). Center-based providers used the Internet more often for playing games (x^2 (3) = 26.05, p < .01). Additional comparisons revealed that older respondents were less likely to use the Internet for email [t(659) = 4.24, p < .001] and social networking [t(634) = 10.22, p < .001]. Likewise, those with more years in the early childhood field reported less use of the Internet for social networking [t(693) = 5.45, p < .001]. Conversely, participants with higher educational levels used the Internet more often to email [t(666) = -7.49, p < .001], finding information for their program [t(662) = -7.16, p < .001], and finding information for themselves [t(659) = -5.74, p < .001].

Web Site Preferences

The next set of questions asked participants to rate how important they believed it was to include 20 different potential Web site features. Table 3 lists the potential Web site features from most to least important according to their mean importance scores. Respondents were most interested in being able to download learning activities, curricula, and materials to give to parents; access online training classes and modules; and ask questions of experts. Respondents considered an email listserv, audio information (podcasts), and a private online journal as less important to include on the Web site. It is important to note, however, that respondents thought most of these features were at least moderately important to include on the Web site, as most mean scores were above the value of 3.0 on a 4-point scale.

Table 3
Means Ratings for Importance of Potential Web Site Features

Feature	Mean
Wide variety of learning activities and curriculum guides to download and use in your program	3.75
Online training classes and modules	3.69
Child development and parenting materials to give to parents	3.65
Ability to ask question of an expert	3.63
Searchable list of high-quality children's books	3.54
Articles on a wide variety of topics to download	3.53
Links to local early childhood organizations and information	3.50
Links to national early childhood organizations and information	3.47
Research-in-practice updates	3.39

Instructional videos	3.38
Online record to track my professional development	3.32
A forum or message board to connect with other providers	3.29
News and hot topics corner	3.26
Polls on early childhood topics	3.22
An informational blog from an expert	3.21
Online seminars, lectures, and live chats	3.13
Electronic newsletter	3.11
Email listserv with other providers	2.98
Audio information and interviews (podcasts)	2.92
Opportunity for private online journal	2.63
*Total N = 816.	

Next, a series of correlations were conducted to examine how early childhood professionals' use of the Internet and their comfort level with using the Internet were related to their ratings of the Web site features. Table 4 summarizes the significant correlations ($p < .05$). Individuals who reported feeling more comfortable using the Internet were more likely to rate online training classes and modules as important and less likely to rate online polls as important to include on the Web site. In addition, respondents who used the Internet more often for work reasons were more likely to rate informational and content features, such as online courses, e-newsletters, and information that they can use in their programs, as important. Respondents who reported using the Internet more for personal reasons than for work were less likely to prefer features such as message boards, online journals, polls, and blogs.

Table 4
Summary of Significant Correlations between Potential Web Site Features and
Internet Use

Feature	r
Providers who are **more comfortable** using the Internet were **more** likely to prefer:	
Online training classes and modules	.09*
Providers who are **more comfortable** using the Internet were **less** likely to prefer:	
Polls on early childhood topics	-.09*
Providers who **more** often **use the Internet for work** were **more** likely to prefer:	
Online training classes and modules	.11**
Electronic newsletter	.11**
Wide variety of learning activities and curriculum guides to download and use in your program	.08*
Child development and parenting material to give to parents	.08*
Providers who **more** often **use the Internet for personal reasons** were **less** likely to prefer:	
An informational blog from an expert	-.08*
A forum or message board to connect with other providers	-.12**
Polls on early childhood topics	-.14***
Links to national early childhood organizations and information	-.09*
Research-in-practice updates	-.09*
Audio information and interviews (podcasts)	-.11**
Opportunity for private online journal	-.10*
* $p < .05$. ** $p < .01$. ***$p < .001$.	

We also examined whether early childhood professionals' evaluations of potential Web site features varied based on how they used the Internet. A series of multivariate analyses of variance revealed that individuals who used the Internet for email, social networking, finding information for themselves, finding information for their program, shopping, and sharing videos were more likely to rate certain features as more important to include on the Web site. Table 5 summarizes the results of the analyses. Overall, there appears to be a trend for those more involved in emailing and social networking to prefer more interactive features (e.g., polls, live chats and blogs, online journaling, and podcasts), while those who use the Internet more to seek information tended to prefer more of the informational features that allow them to download information that they can then use in their programs (e.g., articles, searchable databases, e-newsletter, and links to other resources).

Table 5
Summary of MANOVA Results Indicating Preferences for Web Site Features by
Internet Uses

Internet Use	Feature	
Those who used the Internet for...	**More strongly preferred these features**	F

Email	An informational blog from an expert	4.50*
	A forum or message board to connect with other providers	4.28*
	Polls on early childhood topics	8.62**
	Audio information and interviews (podcasts)	5.53*
	Opportunity for private online journal	11.50**
	News and hot topics corner	4.17*
	(Wilks' λ = .94, F (20, 524) = 1.70, p = .03*, partial η^2 = .06)	
Find information for program	Articles on a wide variety of topics to download	6.08*
	An informational blog from an expert	2.82†
	Electronic newsletter	3.11†
	Searchable list of high-quality children's books	3.38*
	Links to local early childhood organizations and information	4.34*
	(Wilks' λ = .93, F (20, 523) = 1.86, p = .01*, partial η^2 = .07)	
Find information for myself and my family	Articles on a wide variety of topics to download	6.91**
	(Wilks' λ = .96, F (20, 519) = 1.09, p = .36, partial η^2 = .04)	
Social networking	An informational blog from an expert	3.21†
	Polls on early childhood topics	5.86*
	Electronic newsletter	3.73†
	Research-in-practice updates	7.96**
	Audio information and interviews (podcasts)	5.12*
	Online seminars, lectures, and live chats	4.94*
	Opportunity for private online journal	4.19*
	Email listserv with other providers	5.48*
	News and hot topics corner	7.11**
	(Wilks' λ = .96, F (20, 507) = 1.18, p = .27, partial η^2 = .04)	
Shopping	An informational blog from an expert	4.46**
	A forum or message board to connect with other providers	3.29†
	Child development and parenting material to give to parents	2.93†
	Online record to track my professional development	8.01**
	Online seminars, lectures, and live chats	2.86†
	Opportunity for private online journal	8.97**
	Email listserv with other providers	5.23*
	(Wilks' λ = .95, F (20, 516) = 1.44, p = .09†, partial η^2 = .05)	
Sharing Photos and Videos	Audio information and interviews (podcasts)	2.83†
	(Wilks' λ = .97, F (20, 504) = .67, p = .86, partial η^2 = .03)	

† $p < .10$.
* $p < .05$.
**$p < .01$.

A series of correlations were conducted to examine how participant age, education, and experience all related to the ratings of the potential Web site features. Table 6 summarizes all significant correlations ($p < .05$). Notably, features such as an e-newsletter, research-in-practice updates, and news and hot topics were popular with older individuals and individuals who had worked in the child care field longer. Older individuals also liked polls, private journals, and instructional video features, while more experienced respondents preferred learning activities and curriculum guides, as well as links to national early childhood organizations. Conversely, respondents with lower educational attainment preferred more interactive features such as Ask an Expert, informational blogs, message boards, live chats and seminars, email listservs, and online journaling and ability to track professional development. Less educated respondents also liked polls, e-newsletter, podcasts, and instructional videos.

Table 6
Significant Correlations between Features and Personal Characteristics

Feature	r
Older child care providers were **more** likely to prefer:	
Polls on early childhood topics	.08*
Electronic newsletter	.10*
Research-in-practice updates	.14***
Email listserv with other providers	.08*
News and hot topics corner	.11**
Instructional videos	.09*
Less educated providers were **more** likely to prefer:	
Ability to ask questions of an expert	.09*

An informational blog from an expert	.20***
A forum or message board to connect with other providers	.19***
Polls on early childhood topics	.23***
Electronic newsletter	.08*
Online record to track my professional development	.14***
Audio information and interviews (podcasts)	.16***
Online seminars, lectures, and live chats	.09*
Opportunity for private online journal	.21***
Email listserv with other providers	.17***
Instructional videos	.11**
Providers who have worked in the field longer were more likely to prefer:	
Wide variety of learning activities and curriculum guides to download and use in your program	.08*
Electronic newsletter	.11**
Links to national early childhood organizations and information	.08*
Research-in-practice updates	.08*
News and hot topics corner	.14***
p < .05. **p* < .01. ***p* < .001.	

Discussion

The current, multistate study was designed to further understanding of early childhood professionals' thoughts about features that they would find most valuable in a Web site tailored to their needs. There is little doubt that ongoing professional development for early childhood professionals can have a positive impact on the quality of care provided in early childhood programs. The Internet appears to have great potential to be a practical source of high-quality professional development resources and training. When designing online materials and Web sites for child care professionals, however, it is important to first assess their needs so that the materials and experience can be designed to best meet those needs.

In terms of Web site features, respondents appear to desire features such as a wide variety of classroom activities, searchable lists of children's books, informational articles, online training classes, child development and parenting materials to give to parents, research updates, and instructional videos. It is not surprising that respondents rated these features highly given that these are the types of information and resources that child care professionals have traditionally preferred (e.g., Clark, 2007; Gable & Hansen, 2001; Rusby, 2002; Taylor et al., 1999). Early childhood professionals often want materials and ideas that they can immediately put to use in their programs. Another feature that was highly rated was the opportunity for consultation through features such as Ask an Expert. Previous research has shown that such consultation can improve providers' skills in their interactions with children (Downer, Kraft-Sayre, & Pianta, 2009; Pianta et al., 2008; Powell et al., 2010).

Other features were not rated as highly, such as podcasts, online seminars, chats, and blogs, an electronic newsletter, message boards, listservs, and the opportunity for online journaling and ability to track professional development. Given that respondents more strongly preferred to search for things that they can put to use immediately, it is not surprising that more participatory but time-consuming activities (e.g., journaling, listservs) may not be as popular. Also, at this point, it is difficult to know the degree to which respondents might be less interested in these features or just less familiar with them. Many of the less highly rated features are also those that require more direct participation. It is possible that the early childhood professionals in this study were more familiar with traditional informational dissemination features such as informational articles, suggestions for classroom activities, and instructional videos. Although small, in the present study, the highest numbers of "Don't know what this is" responses were for podcasts (5.0%), blogs (4.9%), research-in-practice updates (4.9%), and private online journal (4.2%). It is important to remember, however, that even the less highly rated features received ratings above the midpoint; Web site designers should consider including them if the opportunity arises.

A majority of respondents reported a high frequency of Internet use and comfort, revealing a snapshot of early childhood professionals as sophisticated, regular online consumers. This finding reinforces the need for Web sites such as *eXtension Alliance for Better Child Care.* With early childhood professionals already using the Internet to find resources and training opportunities, organizations and educational providers may be left behind if they are only relying on traditional means of providing training. The findings also stress the need for a variety of strategies to reach these more sophisticated users, such as social networking sites, blogs, and email "blasts."

Despite the growing acceptance and use of the Internet, a substantial number of early childhood professionals are not comfortable using the Internet and use it less often. In the present study, we found that several respondents used the Internet no more than once a month for work (35.1%) or for personal reasons (16.3%) or were not at all or only somewhat comfortable using the Internet (15.3%). Not surprising, older participants were less comfortable using the Internet, as were those with less educational attainment. We do not want to

forget about these practitioners. The Internet is just one tool to reach early childhood professionals. More traditional approaches such as workshops, mailed newsletters, and on-site consultations should also continue to be used to reach individuals with different learning styles and needs.

Overall, our results suggest that the Internet is ideally positioned to take a prominent role in the professional development and growth of early childhood professionals. A growing number of these professionals are active Internet users and use it as a means for improving skills, knowledge, and practice. The Internet can provide the more formal elements of professional development by offering guided learning modules, in-depth webinars, and for-credit classes; it can also offer features that serve the needs of self-directed professionals. As our results indicate, respondents were most interested in information that they can put to direct use, or information related to an immediate need. Even individuals who prefer the more participatory potential of the Internet can find the networking, mentoring, and consultation potential of the Internet appealing. Thus, our findings suggest that the Internet has the potential to cut across the formal/informal, top-down/self-directed, and linear/nonlinear dimensions of professional development.

Limitations and Conclusions

Some caution is needed in interpreting the results of this study. The sample was not randomly drawn, and the majority of respondents were attending some form of in-person training. Our respondents might be more strongly oriented toward professional development than are early childhood personnel who do not regularly attend training, or they might be better able to access and attend in-person training opportunities. Conversely, most participants were attending face-to-face training events, and it is not possible to compare their responses to those of caregivers who may already obtain the bulk of their professional development online. Also, familiarity with potential Web site features might have influenced participants' ratings of the variety of features. Early childhood professionals may be more familiar with features such as informational articles, searchable databases of activities and books, and instructional videos than they are with podcasts, online journaling, and chat rooms. Familiarity could have driven responses as much as the actual usefulness of specific features. Finally, although we found few differences by respondent type (i.e., home-base provider, center-based provider, director, consultant/trainer), directors and consultants/trainers tended to use the Internet more often for email and to find information for the program or for themselves. Thus, it seems likely that online features need to be varied enough to meet the needs of frontline providers as well as directors and consultants/trainers.

Despite such limitations, this study draws attention to the growing potential of the Internet for delivering high-quality and timely professional development opportunities. Early childhood professionals are becoming more sophisticated and discerning consumers of online resources. The findings highlight a variety of features that individuals and organizations might want to build upon as they move ahead in developing online resources and opportunities for early childhood professionals.

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