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An International Perspective on Successful Strategies in Forestry Extension: A Focus on Extensionists

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An International Perspective on Successful Strategies in Forestry Extension: A Focus on Extensionists

Abstract

Extensionists throughout the world often share ideas and experiences. Learning what works and what doesn't from practicing Extensionists is a common feature of conferences, symposia, and workshops. In 2003 an international conference of Extensionists held in Troutdale, Oregon, led to a compilation of seven "successful strategies" related to Extensionists. A follow-up survey of 500 Extensionists from 70 countries revealed that most of these strategies are used often or sometimes, from 53 to 88%. Only one strategy showed significant difference between regions of the world, and this strategy related to Extensionists being members of a professional society or association.

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The practice of Extension to improve the management of private and community woodlands is on the increase worldwide. Although the practice is well developed and widely recognized in the developed world, it is increasingly being viewed as a critical function in the developing world and countries-in-transition to free-market economics. For example, Mercer (2004) reported that education and Extension were important factors influencing early agroforestry adoption in the tropics. Begus and Medved (1998) reported on the implementation of new Extension strategies to convert the Slovenian Forest Service from a command-and-control agency to a public service provider following the conversion of Slovenia from a Communist state to a democratic government with a free market economy.

Throughout the world there are many different models for conducting Extension work. The land-grant model employed in the United States, while widely admired, is not common in other countries. However, Extensionists (Extensionist is a common term for Extension professionals used throughout the world, though not commonly in the U.S.) share common interests, needs, and problems regardless of the organizational structure supporting the Extension function.

Josiah (2001) analyzed 168 non-governmental organizations from 42 developing countries that had engaged in expansion programs for natural resources. He identified three organizational structures that facilitated success, including the use of partnerships, networks, and intermediary arrangements. Learning from each other and sharing experiences to build capacity was critical to achieving successful expansion. In addition to non-governmental organizations, donor support to

governmental institutions to build Extension capacity is also common in the developing world (Muok, Owuor, & Kaudia, 1998).

In an effort to engage and connect forestry Extensionists from around the world, the International Union of Forest Research Organizations (IUFRO) created the Extension Working Party (EWP) in 1994. The EWP has the following objectives (Johnson, 2003):

- To serve as a forum for information exchange among Extension forestry workers worldwide.
- To promote the concept of Extension through the transfer of knowledge and technology to improve the lives of people.
- To improve the quality, quantity, and effectiveness of Extension programs worldwide.
- To advance the quality and impact of research on Extension methodologies.

In keeping with these objectives, the Extension Working Party hosted an international symposium in Troutdale, Oregon, in 2003, entitled Building Capacity Through Collaboration. As part of this symposium, 35 papers were presented from 11 countries, each focused on a specific project or collection of methodologies that has led to program success. The objective of this article is to present and discuss a regional analysis of the adoption of successful strategies, as determined from these papers, by Extensionists throughout the world.

Methods and Procedures

Initially the intent of the Troutdale symposium was to develop a set of "best practices for forestry Extension." However, the concept of best practices implies that the practices have been tested and replicated over time and with different audiences. Instead, the 35 papers presented at the 2003 symposium were reviewed and a set of 119 "successful strategies" compiled. Through a process of combining similar themes, the original set was reduced to 45 strategies in three categories: strategies associated with the learner (16), strategies associated with the Extensionist (7), and strategies associated with the educational approach (22). The emphasis on successful strategies indicates that the strategy was featured in the paper and in some way led to success of the program.

Each category was then measured for reliability using a Cronbach's alpha (SAS 2000). All categories were found to be a consistent instrument for measuring overall responses (Cronbach's alpha = 0.8273 for strategies associated with learners; Cronbach's alpha = 0.8024 for strategies associated with Extensionists; Cronbach's alpha = 0.8739 for strategies associated with educational approaches).

Following the symposium, in August of 2004, an advisory group of representatives from the following agencies convened in Washington, DC, to provide additional advice and guidance to the project: Inter-American Development Bank; US Agency for International Development; Peace Corps; USDA Cooperative State Research, Education, and Extension Service; USDA Forest Service - International Programs; Virginia Tech (1862 Land Grant University); and Tennessee State University (1890 Land Grant University). Through this group the concept of successful strategies was developed.

In November 2004 a mail survey was sent to the 500 members of the IUFRO Extension Working Party, representing 70 countries, to determine the degree of use by working party members of the 45 successful strategies identified from the symposium. The survey was implemented through two timed mailings: an initial mail contact including a cover letter and the survey and a reminder letter sent to non-respondents 3 weeks later along with another copy of the survey instrument.

A total of 139 completed questionnaires were returned, for an overall response rate of 28%. Respondents were provided with the list of 45 strategies and then asked to rank whether they use the strategy often or sometimes, do not use the strategy but would like to, do not use the strategy because it does not apply, or have no opinion on the use of the strategy. Only the strategies associated with Extensionists will be considered in this article.

For analysis purposes, data were compiled into three geographic classes as follows:

- North America
- Europe and Australia
- Asia, Africa, and Latin America

The purpose for these groupings was to lump similar areas together, based on geography, socioeconomic status, culture, and Extension approaches. Also, country-by-country responses were often too limited to allow for robust comparisons. Likert scale response data were analyzed using the contingency Chi square, with a significance level set at 0.05.

Results and Discussion

Response Rate

The response rates and demographic data for respondents are presented in Table 1. Overall, the response rate was low, ranging from 50% for North America to 24% for Europe and Australia. There may be several reasons for this, including the length of the survey, cost of mailing, and language. The International Union of Forest Research Organizations has four official languages (English, French, Spanish, and German). Most, however, of the Union business and nearly all publications are produced in English. Our survey instrument was likewise only in English. However, the overall response rate of 28% is in line with a previous survey of the IUFRO Extension Working Party. Bruce and Johnson (2004) received a 21% rate of response from a different survey of this same group. We acknowledge the low response rate, and temper our interpretations to the larger survey group and the worldwide population of forestry Extension workers accordingly.

Table 1.
Demographics of Survey Respondents

Demographic	Region		
	North America	Europe and Australia	Asia, Africa, and Latin America
No. of Responses	69	36	34
Rate of Response (%)	50	24	26
Gender (%)			
Male	90	86	76
Female	9	14	24
Age (years)			
Mean	47	47	48
Median	50	46	49
Range	36-67	28-70	35-70
Extension Experience (years)			
Mean	17	15	17
Median	18	11	15
Range	2-37	3-45	6-45
Highest Level of Education (%)			
High School	2	3	3
Bachelor's Degree	9	22	9
Master's Degree	25	36	29
Doctorate Degree	63	39	59
Currently Employed in Forestry Extension (%)			
Yes	88	78	94
No	12	22	6
Formal Training in Extension (%)			
Yes	19	36	39
No	81	64	58
Place of Current Employment (%)			
Government Agency	12	39	27
Research Institute	6	55	48
College/University	74	25	39
NGO/Consultant/Industry	11	16	15

Demographics

Respondents to this survey were largely male (76 to 90%), middle-aged (47 to 48 years old), and experienced (15 to 17 years of experience), and most indicated that they were currently working in the forestry Extension field (78 to 94%). Across all three groupings, the majority of respondents have not received formal training in Extension, although most hold higher degrees (M.S. and Ph.D. level). This phenomenon is not unusual and has been reported before (Bruce & Johnson, 2004; Seevers, 1995).

In North America the bulk of the respondents work in colleges or universities, because in the U.S. most respondents were associated with state Extension services tied to land-grant universities. Most of the North American responses (76%) came from the U.S., with the remainder from Canada. In Europe/Australia, most respondents were employed by research institutes and government agencies (Table 1).

Successful Strategies

A review of all 35 papers presented at the Troutdale symposium revealed seven successful strategies that were related to the Extensionists themselves (Table 2). For a review of the symposium proceedings, the reader is referred to <http://www.iufro.org/science/divisions/division-6/>. Of the seven, three are somewhat related to Extensionist professional development, and four are associated with Extensionist ability to interact positively with the learners.

The idea of professional development of Extensionists takes many forms, including participation in professional societies and associations (Adams, 2003), in-service or extant training, credentialing, or the pursuit of higher degrees in Extension (Bruce & Johnson, 2004). To a certain degree, the level of professional development available to Extensionists is a function of available resources and the organizational development of Extension-providing institutions.

For example, the strategy that showed the highest level of significance was "Extensionists are members of a professional society or association" ($p = 0.002$, Table 2). In North America, 88% of respondents indicated that they are often or sometimes members, compared to 75% in Europe and Australia, and 67% in the developing world.

A closer look at North America reveals that 90% of U.S. respondents said that often or sometimes they are members, while only 57% of Canadians were often or sometimes members. In the U.S., the Association of Natural Resource Extension Professionals (ANREP) provides an ideal professional home for forestry Extensionists, while no similar organization exists in Canada. Also, in Asia, Africa, and Latin America, 24% of the respondents indicated that they are not professional association members because it is not applicable to them or they have no opinion. This may be because no suitable association exists for them in their countries and/or association membership is not part of their professional culture.

The importance of Extensionist in-service training and leadership development is reflected in strong responses across all these regions (Table 2). From 69 to 76% of respondents indicated they use this strategy often or sometimes, and most of those who do not would like to. Responses from North America, Asia, Africa, and Latin America were identical for this strategy.

Table 2.

Percent Responses for Likert Scale Categories for Seven Successful Strategies Related to Extensionists in Three World Regions. (Region 1 = North America, Region 2 = Europe and Australia, Region 3 = Asia, Africa, and Latin America)

Strategy	Region	Percent Response (%)				Pearson χ^2	n	p
		Use Often or Sometimes	Don't Use but Would Like to	Don't Use Not Applicable	No Opinion			
Extensionists are members of a professional society or association.	1	88	4	3	2	27.81	138	0.002*
	2	75	6	14	5			
	3	67	9	12	12			
Extensionists involve learners in project planning.	1	85	10	0	2	14.17	138	0.166
	2	80	11	6	3			
	3	79	18	0	3			
Extensionists build trust with learners.	1	91	4	2	0	8.74	138	0.557
	2	81	11	3	5			
	3	85	9	3	3			
Extensionists learn about the culture of the learners prior to project implementation.	1	85	3	6	3	8.24	137	0.605
	2	70	11	11	8			
	3	82	6	9	3			
Extensionists receive in-service training and leadership development.	1	76	18	1	1	17.44	138	0.065
	2	69	25	3	3			
	3	76	18	3	3			
Extensionists establish rapport with learners,	1	87	4	3	3	16.65	138	0.083
	2	64	17	5	14			

particularly if Extensionists are strangers.	3	67	12	12	9			
Extensionists receive training and licensing.	1	57	16	15	9	9.05	138	0.527
	2	53	33	6	8			
	3	53	23	12	12			
*Significant at the 0.05 level.								

Clearly the respondents, regardless of region, recognize the importance of well-trained Extensionists and Extensionists with strong leadership abilities to program success.

The concept of both training and licensing is reasonably well-accepted, since 53 to 57% of respondents indicated they employ this strategy often or sometimes. Often the attainment of a professional license requires a fee and a commitment to regular training to maintain the license. In some regions, there may be no licensing program available. Regardless, the majority of respondents indicated that they either use this strategy to some degree or would like to (73 to 86%). Interest was lower in Asia, Africa, and Latin America, where 24% of respondents indicated that licensing was not applicable or they had no opinion. Licensing here is considered in a broad context; for example, the license may be as a forester, not necessarily as an Extensionist.

The four successful strategies that relate to the ability of Extensionists to interact positively with learners all showed fairly strong acceptance by the respondents in all regions. These strategies relate to involving the learners in planning, building trust, establishing rapport, and learning about the culture of the learners (Table 2).

The concept of involving learners as stakeholders in Extension programs is now well-engrained as part of Extension planning (Seevers, Graham, Gamon, & Conklin, 1997; van den Ban & Hawkins, 1996). The paternalistic view of Extensionist as the external advisor or expert who tells or directs the learner has largely been replaced by a model where the learner is more involved throughout the entire learning process (Seevers, Graham, Gamon, & Conklin, 1997). Assessing the needs and interests of learners is an important early step (Downing & Finley, 2005), because it connects Extensionist with the learners and allows for two-way communication.

Of the four Extensionist/learner strategies, perhaps the one used least relates to the establishment of rapport between the Extensionist and learners. In Europe and Australia, 64% of respondents indicated they used this strategy often or sometimes, while in Asia, Africa, and Latin America, 67% indicated they used it often or sometimes. This is in contrast to North America, where 87% of respondents indicated they use this strategy often or sometimes.

The χ^2 does not show a significant difference at the 0.05 level. It is also noteworthy that 19% of the respondents from Europe and Australia and 21% of the respondents from Asia, Africa, and Latin America indicated that this strategy is not applicable or they have no opinion. This particular strategy derived from a project in the Philippines (Tarun-Acay, 2003), and we surmised its use in developing countries would be higher, particularly with development projects where the Extensionists are outsiders who come into communities on a project basis. Additionally the concept of rapport-building more readily enables the inclusion of indigenous knowledge into the Extension program (Polansky & Heermans, 2004).

Barriers

In addition to the Likert scale responses, the survey participants were also queried for barriers to their use of the strategies via open-ended questions. Responses were not received for all strategies in all regions. For the strategy that involved the participation of Extensionists in a professional society or association, respondents from Europe and Australia cited a lack of time and funding as barriers, while respondents from Asia, Africa, and Latin America indicated that a lack of interest on the part of Extensionists served as a barrier.

For the strategies involving Extension training, leadership development, and licensing, barriers from North America included a lack of awareness of training programs, lack of opportunities, a lack of access, and lack of funding. Similar responses were tallied from Europe and Australia, while in Asia, Africa, and Latin America participants also indicated that these strategies were not part of common practice. Lack of training opportunities was also targeted as a barrier in the developing countries.

For the four strategies associated with the Extensionist-learner relationship, no barriers were cited by the respondents from North America. However, respondents from Europe and Australia indicated that it is often difficult to entice learners to participate in project planning. Also, in some cases it is not part of the Extensionist's culture to build trust and support with the learners. In the developing countries the remote living conditions of the learners serve as a constraint to involving them more in planning and Extension activities and the lack of knowledge and/or interest of the learners hinders their involvement.

Conclusions

The overall results of this work indicate that, for the survey respondents, the similarities of Extensionists across the world regions are far greater than the differences. Indeed, for the seven successful strategies associated with Extensionists featured here, a significant difference was noted only for the strategy involving Extensionists as members of a professional society or association. Across all strategies and regions, the majority of respondents reported that they used the strategy often or sometimes.

Professional development of Extensionists is clearly important, and the respondents indicate it is related to program success. Likewise, Extensionist/learner interaction is also important to program success. Recognizing that there are many models for delivery of Extension education throughout the world, and these models are ever-changing, certain strategies for success seem to be common to all.

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