Owl education methods used around the world

Métodos de educação sobre rapinas noturnas usados no mundo

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ABSTRACT

In this study I provide an overview of different techniques used for educating people about owls around the world and associated laws. I surveyed 17 individuals from 11 countries on 5 continents. Most respondents reached all ages to some extent. Laws varied in different countries, which impacts the methods used. It is not legal to use live owls in some countries, but 86% of educators who live in countries that allow it use live owls. Of them, 27% allow the audience to hold or touch the owls, 27% allow touching only in special circumstances, and no one reported injuries to humans or owls as a result. Dead specimens or feathers were used by 76%. Sixty-five percent dissect owl pellets or give pellets to schools to dissect. Of them, only 45% heat treat pellets to lower the risk of salmonella or other illnesses that can be transmitted to humans through pellet dissection. Eighty-eight percent use real-life stories, 71% use games or activities, and 29% use wild owl experiences. Only 35% have conducted surveys to assess their program impact. Respondents listed a variety of calls to action included in their programs which reflect the prevailing positive or negative cultural attitudes in their area. Time and money were listed as the biggest obstacles for educators. The most important things cited that would help educators are networking, funding, and current research summaries.

Keywords: Conservation, Cultural Beliefs, Education Methods, Laws, Owls

RESUMO

O Neste estudo apresento uma visão geral das diferentes técnicas usadas em educação sobre rapinas noturnas em todo o mundo e das leis associadas. Entrevistei 17 pessoas de 11 países em 5 continentes. A maioria dos entrevistados trabalhou com público de todas as idades. As leis variam consoante o país, o que tem implicações nos métodos utilizados. Não é legal usar aves em alguns países, mas 86% dos educadores que moram em países que o permitem utilizam rapinas noturnas. Destes, 27% permitem que o público agarre ou toque nas aves, 27% permitem tocar apenas em circunstâncias especiais, e ninguém relatou lesões em humanos ou em aves como consequência do manuseio. Espécimes mortos ou penas foram utilizados por 76% dos inquiridos. Sessenta e cinco por cento dissecam regurgitações de rapinas noturnas ou fornecem-nas às escolas. Destes, apenas 45% tratam as regurgitações para diminuir o risco de salmonelas ou outras doenças que podem ser transmitidas aos seres humanos por meio da dissecção de regurgitações. Oitenta e oito por cento utilizam histórias da vida real, 71% utilizam jogos ou atividades e 29% utilizam experiências com aves selvagens. Apenas 35% realizaram inquéritos para avaliar o impacto do programa. Os entrevistados referiram vários apelos à ação incluídos nos seus programas, que refletem atitudes culturais positivas ou negativas predominantes na sua área. O tempo e o financiamento foram referidos como os maiores obstáculos para os educadores. Os contributos mais importantes para ajudar os educadores que foram mais citados foram o trabalho em rede, o financiamento e os resumos de investigação científica atualizados.

Palavras-chave: conservação, crenças culturais, leis, métodos de educação, rapinas noturnas

Introduction

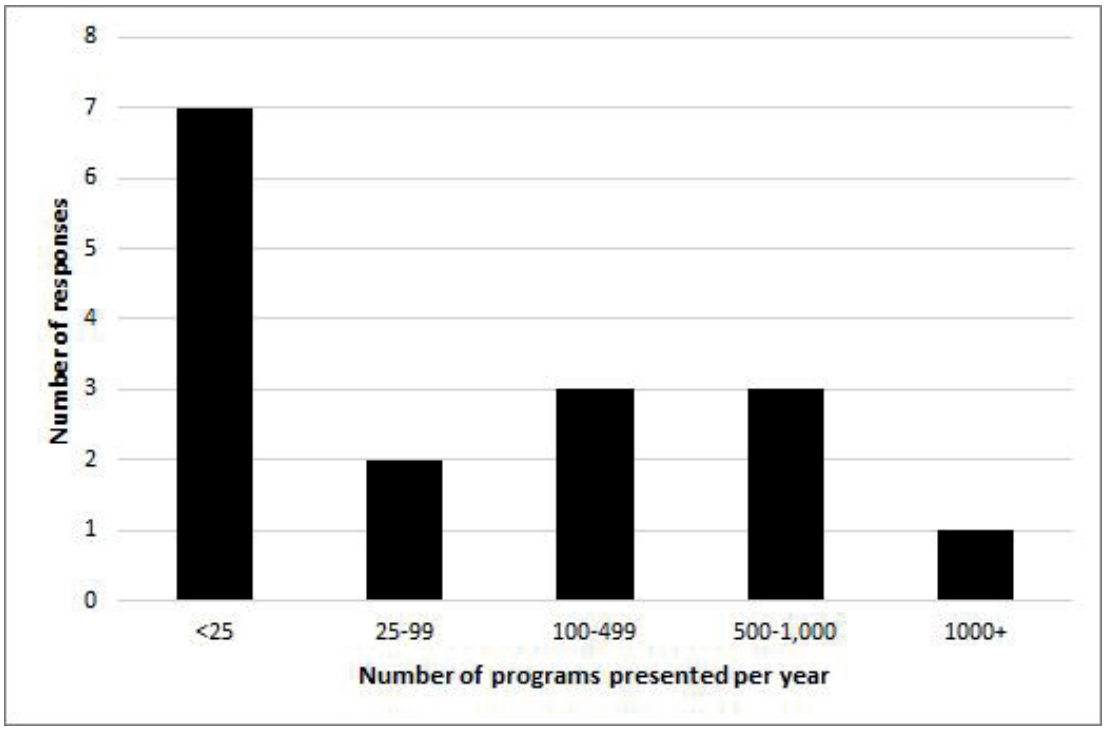
Effective owl educators must connect with their audience. This will necessarily involve different techniques in different countries with different cultures and laws. I have been doing owl education in the United States for 19 years and have met numerous other owl educators from other countries. I noticed different countries had their own biases and laws about how education should be done. My goal was to conduct a survey of owl-focused educators from around the world to compile different education methods to share with other educators in hopes of broadening perspectives and comparing and contrasting techniques so educators can think more openly about which methods may work best in their context.

Methods

I created a survey consisting of 28 main questions (see www.internationalowlcenter.org/workshop-summary) covering the educator's level of experience, facilities, insurance, reach, audience, cultural attitudes, laws, methods, teaching aids, program content, take home message, assessment, and obstacles. I identified educators with a significant focus on owls on all continents in a variety of different countries based on people I knew, recommendations from people I knew and internet searches. Surveys were emailed to 24 people in 14 countries on all 6 continents inhabited by owls.

Figure 1 - The number of programs presented each year by respondents and their associated facilities (n=16).

Figura 1 - Número de programas por ano apresentados pelos inquiridos e instituições a que estão associados (n=16).



Results

I received survey responses from 17 individuals (including myself) from 11 countries on 5 continents, for a 71% response rate. Not every respondent answered every question, and some did not understand the intent of certain questions due to different usages of specific English words.

Respondents had been doing owl education for an average of 22 years (range 7-50 years). Five self-identified as experts, 4 as advanced, 5 as intermediate level educators and 3 did not identify with a specific level of expertise.

Sixty-five percent have facilities where they conduct programs, 88% travel to do programs, and only 53% reported having insurance for their programs. All but one of the 17 respondents reported the number of programs they or their facility conducted and the number of people reached per year. Forty-four percent conduct 25 or fewer programs per year, but 25% conduct 500 or more programs per year (Fig. 1). While two respondents reach over 100,000 people per year (both facilities in large metropolitan areas in the United States), 31% reach 1,000-4,000 people per year and 38% reach 10,000-30,000 per year (Fig. 2).

Twelve respondents provided an age breakdown for their program participants. Most facilities conduct programming for all ages to some extent. Three respondents reported that at least 50% of their audience was adults, while 4 facilities noted at least 50% of their reach was ages 12 and under (Fig. 3).

Live owls are used in owl education in many countries, but this is prohibited by law

Figure 2 - The number of people reached each year by respondents and their associated facilities (n=16).

Figura 2 - Número de pessoas alcançadas por ano pelos inquiridos e pelas instituições a que estão associados (n=16).

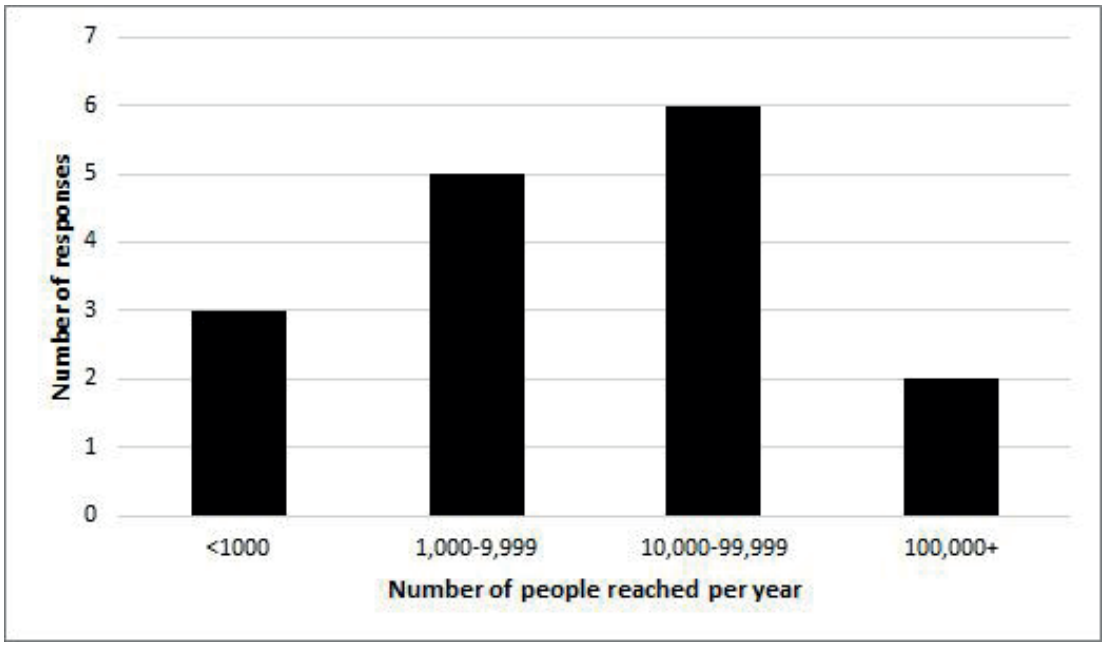


Figure 3 - Age groups reached by each respondent (n=12), by percent. Each column represents one respondent.

Figura 3 - Grupos etários abrangidos pelos inquiridos (n=12; em percentagem). Cada coluna representa um inquirido.

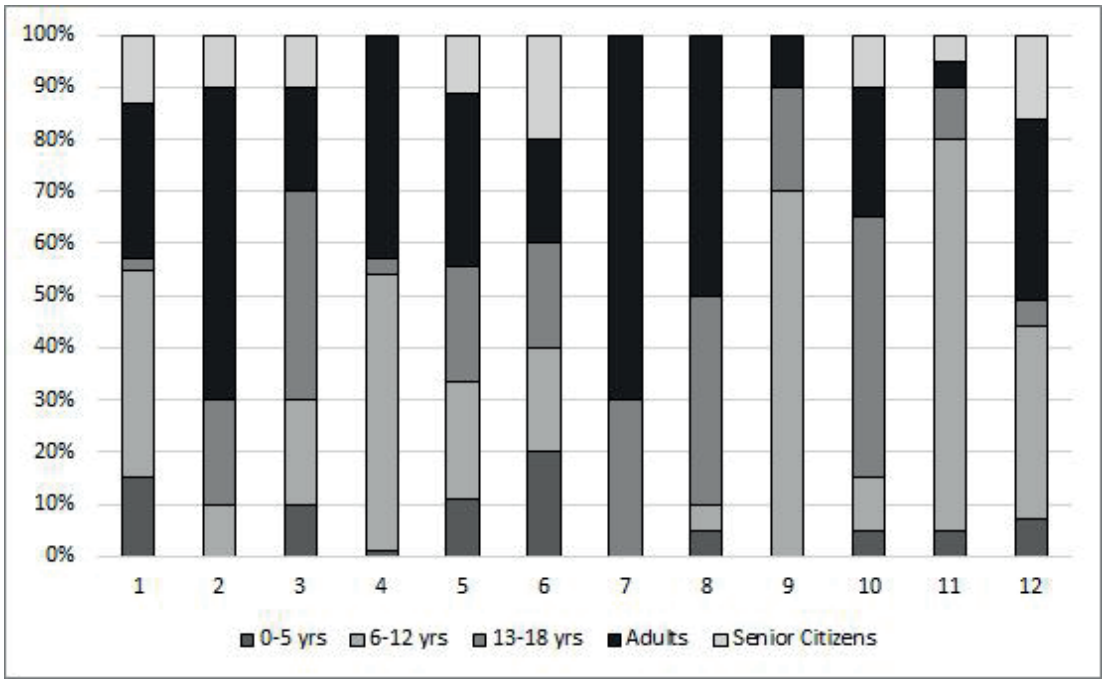
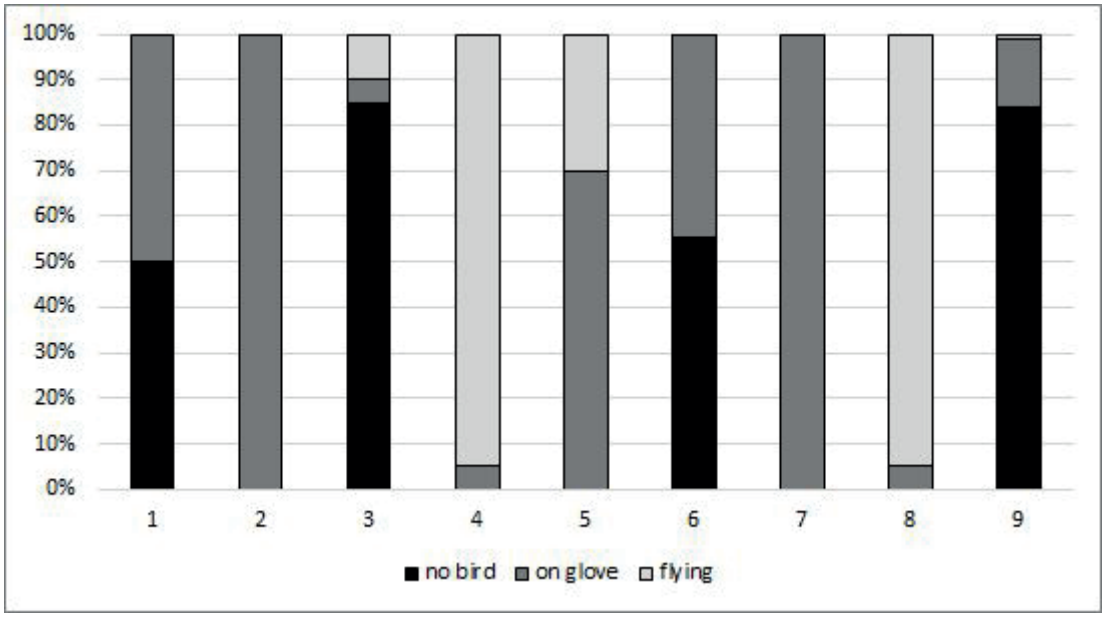


Figure 4 - How live owls are presented by respondents during their programs (n=9). Each column represents one respondent and the percentage of time during the program the bird is not visible, on the glove, or in flight.

Figura 4 - Formas de apresentação das aves de rapina noturnas pelos inquiridos nos seus programas (n=9). Cada coluna representa um inquirido e a percentagem de tempo durante o programa em que a ave está não visível, na luva ou em voo.



in India and Nepal. Permits are required to use live owls in educational programming in most respondent countries that allow it (Argentina, Manitoba and Saskatchewan in Canada, Germany, Portugal, South Africa, and the United States), with Belize not requiring permits and England not requiring permits for most species.

Of the respondents living in countries where it is legal to use live owls in educational programs (n=14), 86% use live owls. Two respondents who do not use live owls but could each conduct 5 or fewer educational programs per year. Of the 12 who use live owls, 50% use birds hatched in captivity and 75% use birds of wild origin that are non-releasable (three facilities, all in North America, use both). The three European respondents all exclusively use captive bred birds. Three-quarters of respondents using live owls give them names for the purpose of creating a connection between the audience and the birds.

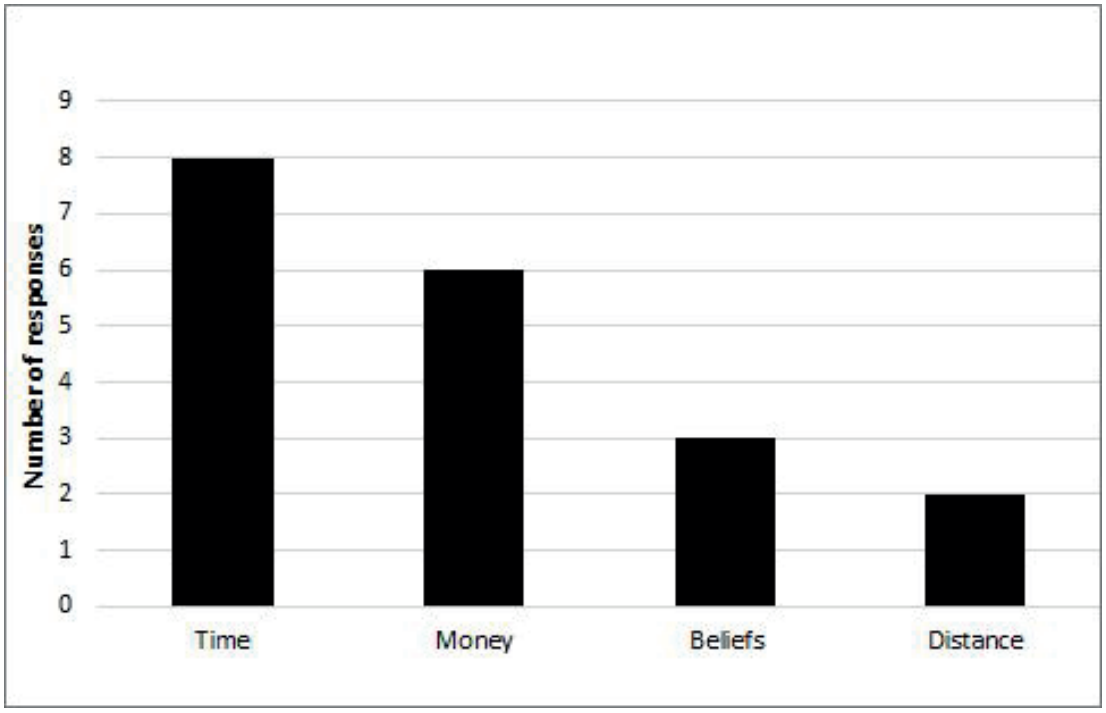
Respondents using live owls (n=9) employed them in different ways during programs. At one extreme, 2 use the live owls for 15% or less of the program, serving as the "grand finale," including a short flight. Five facilities have birds out for the entire duration of the program (Fig. 4.)

Three of 11 respondents allow people to touch or hold live owls to create a more powerful experience, three allow this only under special circumstances, and 5 do not allow it at all. It is not legal in the United States, where 4 facilities are located. Of the respondents that do allow people to come into contact with the owls, none has ever had an injury to a human or an owl as a result. Of the 11 countries represented by respondents, it is legal to have pet owls in only 3 (Japan, Portugal, and the United Kingdom).

Dead specimens or feathers are used by 13 of 17 (76%) of the respondents. Laws vary where respondents use specimens, with no permits required in South Africa, permits required for some species in the United Kingdom, and 6 countries requiring permits (Man-

Figure 5 - Obstacles to conducting owl education programs. Respondents could select more than one option, and 13 individuals provided responses. The vertical axis indicates the total number of respondents who listed each response.

Figura 5 - Obstáculos à realização de programas de educação sobre aves de rapina noturnas. Os inquiridos podiam selecionar mais do que uma opção, e 13 indivíduos responderam. O eixo vertical representa o número total de inquiridos que deram cada resposta.



itoba and Saskatchewan in Canada, United States, Belize, Argentina, Nepal and Japan).

When it comes to dissecting owl pellets, 11 of 17 respondents either dissect pellets with the public or give pellets to schools to dissect. Fifty-five percent use pellets from their own birds and 55% use pellets collected in the wild (one facility uses both). Pellets were heat treated by 45% of respondents employing pellets. No health issues related to pellet dissection were reported.

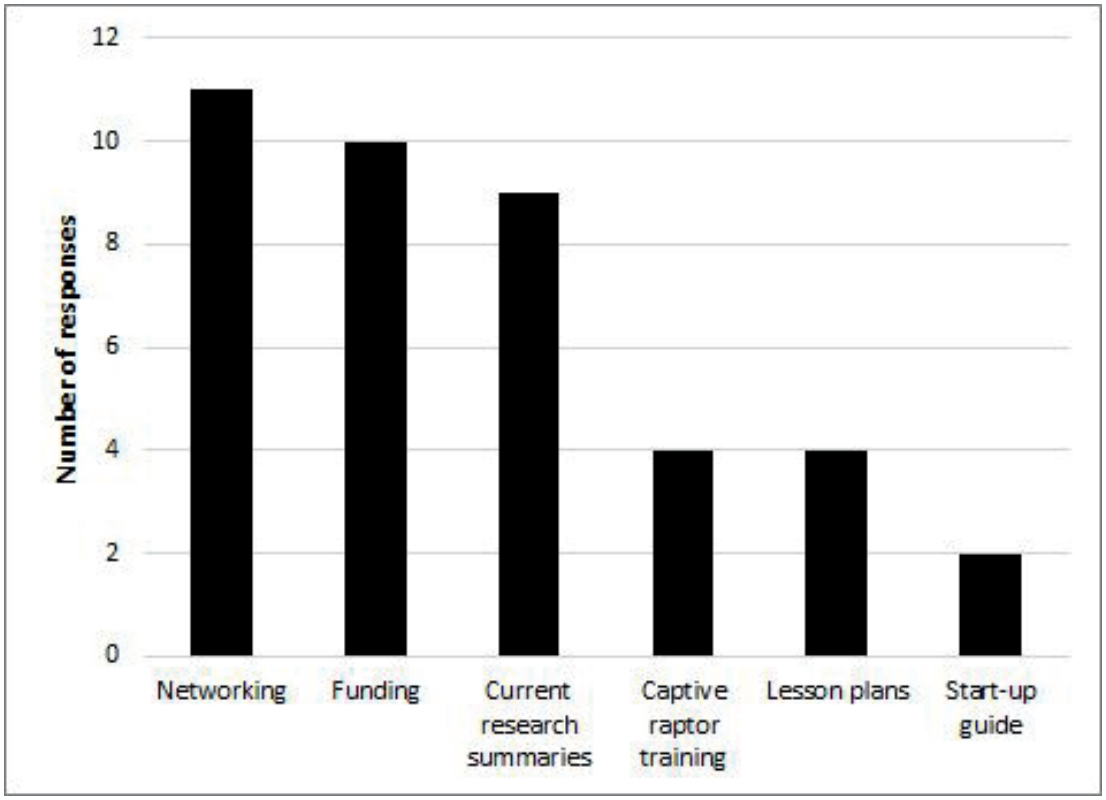
In their educational programs, 88% of all respondents reported using real-life stories, 71% used games or activities, and 29% use experiences with wild owls. Only 35% have conducted some kind of impact survey to assess the effectiveness of their educational programs (n=17).

Respondents listed a variety of key messages and calls to action they convey during their programs: leave dead trees standing, plant native trees, protect habitat, use traps instead of poison to control rodents, take down soccer nets when not in use, take down unused barbed wire, use less paper, keep cats indoors, mow less lawn, put up owl nest boxes, report nesting owls, if young owls are found on the ground observe them to make sure they need help before intervening, owls don't make good pets, get involved in owl research and conservation, donate to owl research and conservation, and be aware of the source of the products you purchase—you "vote" with your money, don't harm owls, and report people who are harming or selling owls.

When listing obstacles to educating the public about owls, 13 people provided

Figure 6 - Respondents (n=14) indicated what would help them be more effective owl educators. Each respondent could report more than one option.

Figura 6 - Inquiridos (n=14) que indicaram o que os ajudaria nos seus programas de educação sobre aves de rapina noturnas. Cada inquirido podia selecionar mais do que uma opção.



responses. Sixty-two percent cited lack of time and 46% cited lack of money. Travel/distance was listed by 15% and beliefs (negative cultural views, bias against conservation, and resistance to owls in urban areas) were cited by 23% (Fig. 5).

Respondents were asked what would help them be more effective educators and a list of potential responses was offered. Three individuals did not provide responses, and most others indicated more than one item. The most cited response (79%) was networking. Next was funding (71%), then current research summaries (64%). Training in captive raptor care was indicated by 29% and lesson plans were also indicated by 29%. Fourteen percent noted that a "how to get started guide" would be helpful (Fig. 6).

Discussion

Laws in each country (and in Canada, each province) have a significant impact on the educational techniques that can be used, such as using live owls and dead specimens in education. In the United States, laws prohibit the public from coming into contact with live birds for the safety of birds and humans, yet none of the respondents in other countries who do allow contact reported any injuries to either. Religious and cultural beliefs may be the reason why using live owls in education is not legal in India or Nepal. Using live owls in education is unregulated in The Netherlands, but the owl working groups there have signed a position statement against the use of live owls in education (pers. obs.)

Many respondents choose to use live owl experiences because they feel they make a significant impression on people. In countries where they can be used, the live owls are often the incentive for people to attend educational programs. In countries with negative cultural attitudes about owls, positive experiences with live owls are a powerful method to help children overcome or avoid developing negative cultural views. Conversely, in countries where owls are allowed to be kept as pets, a person who attends a live owl education program may be so enamored with owls that they then purchase one as a pet, so educators try to discourage keeping owls as pets.

Continental bias is apparent in live owl education. All three Europeans surveyed used captive bred owls exclusively, generally considering it inhumane to use non-releasable birds due to the stress of adjusting to captivity. All other continent use non-releasable wild owls, although some captive bred owls are also used in North America. Educational programs in the United Kingdom include flying owls for nearly the entire program and to a shorter extent in Germany, while owls are held on the glove for all or some of programs elsewhere with little to no flying. This may relate to human-reared owls being easier to train.

None of the respondents reported illness associated with pellet dissection, although pellets have the potential to transmit salmonella (Smith 2005). Proper precautions should be taken when using them for dissection. Carolina Biological Supply Company commercially sells pellets which are heated to 121°C for 4 hours (https://www.carolina.com/teacher-resources/Interactive/owl-pellets-in-the-classroom-safety-guidelines/tr11086.tr). Unpublished student research formerly on the University of Arizona's College of Agriculture and Life Science's website indicated that microwaving pellets did not kill disease-transmitting bacteria in owl pellets but heating to 163°C for 40 minutes in an oven did.

Key messages conveyed in countries where people have a positive attitude about owls focused on what audience members can do to help owls. Messages in countries where negative cultural views prevail focused on not harming owls and reporting people who do. Few people surveyed conducted follow-up surveys to assess the effectiveness of their educational programs. This is an important way to determine if education methods are effective at communicating key messages.

Although funding can be a challenge, it seems feasible to create networking opportunities for educators online and to provide current research summaries to support and improve owl educators.

Acknowledgments

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