

**AN ADULT COMMUNITY INTERPRETATIVE BIRDING CLASSES PREFERENCE ON  
LEARNING**

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**Abstract:**

Understanding how adults prefer to learn can provide much needed information for community groups as well as professional organizations. A full week interpretative birding class was presented to a group of non-traditional students in a community workshop environment. The participants experienced both traditional lectures on birds and their habitats as well as bird walks, which provided an opportunity for inquiry and participatory education. At the end of the course, the participants were surveyed to learn their preferences for education. The participatory education and inquiry was the preferred method of learning for this group on community learners.

**Introduction:**

Adult community workshops and classes often are limited in ways that information can be presented to the students. However, it is important to understand the methods that students learn best, especially those of different age groups. Adults typically have less time and energy for educational pursuits, so those choosing to get an education whether it is traditional or through a community workshop, should be taught in the best method for them to retain the information. This paper looks at an adult community class, presented in Peru to study how these participants felt they learned best. The adult community class was a class called “Birding in Action” and taught participants about the different birds in a specific region of Peru.

Birding in Peru,

Peru is one of the richest countries in the world for birds Schulenberg (2010). Further, the potential of Peru as a tourist destination for birdwatching is huge and must be exploited PromPeru (2019). It is clear that birding tourism is popular in Peru and there is a need for tour guides who know birds. Therefore, a workshop to help tour guides and others interested in birds of Peru, would be an exciting opportunity for those in Peru. This is what encouraged this inquiry project. Helping inspire locals and especially guides to know and understand the bird of their respective home. However, putting together a class and providing a rich experience through the class was a lot of hard work as noted in the methods section.

## Participatory Education and Inquiry

Participatory education is education that goes beyond listening to lectures in a classroom and memorizing the material. It is where the student takes an active role in their education as a leader and investigator. Hart (1997) believes that students should be active learners and participate in their education though students can choose to what level they participate. In addition, Hart indicates that students can only participate to the degree they can to be successful (1997). Another tool in participatory education is inquiry, which is a “process of engagement and dialogue that allows participants to construct knowledge and learn their questions are important” (Myers, Myers, and Hudson 2009) through study or experimental research. This becomes a good tool for participatory education because it allows the students to lead their education by directing it through questions. Using inquiry in participatory education can help students feel like they have control over their education and help these students learn more. Further, Korfiatis (2016) indicates that inquiry driven research is most common in the literature, and demonstrates the most strength as a method for educating especially in environmental education. Therefore, it seems that participatory education and inquiry will make a good tool to teach adult community students an interpretative birding course.

## Comparative Question

Most students in Peru, it seems grow up learning through traditional lecture classes. Likely it is difficult for teachers to get around including at least some lecture in their teaching. The birding in Peru class included both traditional lecture and field inquiry and participatory education. This Inquiry Action Project (IAP) was completed a little backwards as the action component was completed first, in order to gain the information for the comparative inquiry question. Do adult community learners prefer to learn through traditional lectures or through inquiry driven participatory education?

While that is the main comparative question. Korfiatis (2016) indicates that his research found there is very little information in the literature about how adults like to learn. This research can answer a few other questions about adult learning preferences as well. The other questions include, did participants feel they retained information better

from the traditional lecture portion of the class or from the inquiry driven participatory education portion of the class. Further, another question asked was if there was a preference for adult community workshops to be all in one week or one day a week for 4 months. This will help determine how easy it is for the participants to find time for a class that requires traveling to various locations in one week. All of these questions and answers will help determine what is better for adult community learners. Since the inquiry and participatory education portion is a more innovative and less common method in Peru, it is expected that the participants will prefer this type of learning.

### **Methods:**

A seven-day workshop class was presented to a class of 20 adult non-traditional students. Many of the students work in the guiding industry in Peru or have a personal interest in birds. Some of the students were from different countries including Mexico, Panama and Bolivia. The class consisted of both males (15) and females (5). Some of the students' attendance was sponsored by organizations and clubs such as Manu Expeditions. The students did pay to attend the class. The class included overnight stays in various locations to be close to specific bird habitats and ecosystems. The class included 4 instructors who are considered experts in the birding field in Peru. The instructors included Richard Amable, Renzo Zeppilli, Barry Walker, and Leonardo Gonzales.

The class started off with traditional lectures. When the term traditional lecture is used, it refers to the students in a classroom type of setting. Typically, the instructors provide presentations through a presentation in the front of the room. The other format is through discussion using tools and an explanation with a typical lecture format.

Each day, there was also field excursions. The field excursions used both inquiry and participatory education to help the students learn. Inquiry was typically having the students use all of their senses. Then evaluate what they were hearing, seeing, smelling, and even feeling depending on the habitat and ecosystem. The students were encouraged to look in the field books to identify the birds they were seeing. Further, they were encouraged to take control of their education and ask questions and try to take their

understanding to the next level. This was accomplished through the instructors asking more questions of their students. For example, if a student saw a red bird and asked an instructor what it was. Rather than instantly providing an answer, the instructors may ask the students questions such as “what habitat was it in? “Did it have a specific beak type?”, or other question to encourage the student to think through and learn more.

Finally, at the conclusion of each evening, all of the students would participate in listing all of the different birds located that day. This also provided more time for the instructors to encourage independent thought on the different types of birds found in each habitat as well as the unique features of the individual birds.

Daily activities of the class are presented below. Appendix A contains a full write-up of the class as sent to the sponsors of the class.



The map and the birding localities of interest (Google Map 2019)

**Day 1.- (15 de September) Hotel Don San in Cusco (16:00 – 18:00 hrs).** Initial meeting with the participants and instructors at Hotel Don San in Cusco city. Welcome and introduction to the class, by Renzo Zeppilli, followed by traditional lectures; “The History of the Ornithology in Peru and how the birding industry has started” by instructor Barry Walker. Also, “How does the Birding in Action program benefit to the community and their education” was presented by instructor Richard Amable. Finally, “an Introduction to Vortex Optics products and how they are commonly used” was led by instructor Leonardo Gonzales.



Instructors Renzo Zepillii and Richard Amable introducing the Participants to the Interpretative Birding Class for ecotourism and conservation  
Photographed by Vico Mendez

**Day 2.- (16 de September) Cusco – Wayquecha Biological Station (5:00 – 20:00 horas).** Early start to south of Cusco and to the first stop in Huacapay lake, field inquiries using participatory education while birding in search for the key species of this location Cinereous Harrier, Rusty-fronted Canastero (Endemic), Andean Negrito, Blue-and-yellow Tanager, Yellow-winged Blackbird, Many-colored Rush Tyrant, and more. Inquiry was used in the field by encouraging students to use their senses to ask questions and learn about the ecosystem and identify birds through sight and sound. Also, birds of the high elevation of the route Adjanaco pass; key species include Brown-backed Chat-Tyrant, d'Orbigny's Chat-Tyrant, Moustached Flowerpiercer, Puna Tapaculo Puna Thistletail and more. After dinner, instructor Leonardo Gonzales presented by traditional lecture, “Knowing more about Ebird and its citizen science benefits”.



Field inquiries using participatory education while birding in search for the key species in the Huacapay Lake.  
Photographed by Bitia Chiesa

**Day 3.- (17 de September) Wayquecha Biological Station – Cock of the Rock Lodge (6:00 – 20:00 hrs).** Early start and birding the near grounds of the station. Then field inquiries using participatory education while birding along the route to lower elevation and including the tunnels, pillahuata area, rocotal and in to Cock of the Rock lodge. Key species for today include Red-and-white Antpitta, Rufous-capped Thornbill, Gray-breasted Mountain-Toucan, Andean Guan, Montane Woodcreeper, Hooded Tinamou, Band-tailed Pigeon, Chestnut-collared Swift, Amethyst-throated Sunangel, Marcapata Spinetail, Golden-headed Quetzal, Slaty Antwren, Black-streaked Puffbird, Andean Cock-of-the-Rock and more. In the evening, a traditional lecture “Knowing and understanding the species-mixed flock” was presented by instructor Renzo Zeppilli.



More field inquiries using participatory education while birding in search for the key species in the elfin forest and habitats  
Photographed by Bitia Chiesa

**Day 4.- (18 de September). Cock of the Rock Lodge – Gallito the las Rocas Homestay (6:00 – 20:00 hrs).** Another early start to cover the bird grounds of the lodge and gardens. Then field inquiries using participatory education while birding the road to lower elevation and to the birding locations with excellent bamboo habitats, including near quita calzon, Gloria Jilahuanco camping, Chontachaca, Patria and Pilcopata town. The key species today include Barred Becard, Gray-breasted Wood-Wren, Scale-crested Pygmy-tyrant, Peruvian Piedtail, Yellow-throated Tanager, Beryl-spangled Tanager, Bay-headed Tanager, Saffron-crowned Tanager, Versicolored Barbet, Spotted Nightingale-Thrush, Yellow-crested Tanager, Black-backed Tody-Flycatcher, Fine-barred Piculet and more. Barry Walker presented by traditional lecture “The Army Ant-followers” after dinner.



More field inquiries while birding in search for the key species  
in the bamboo forest and habitats  
Photographed by Bitia Chiesa

**Day 5.- (19 de September) Villa Carmen Biological Station (5:30 – 20:00 hrs).** The day started at the grounds of the station, field inquiries using participatory education while birding the trail system covered by Bamboo *Guadua sp.* Here the bamboo habitat is excellent and key birds include White-cheeked Tody-Tyrant, Flammulated Tody-Tyrant, Large-headed Flatbill, Dusky-tailed Flatbill, Dusky-cheeked Foliage-gleaner, Rufous-headed Woodpecker (which did not see this time), Manu Antbird, Goeldi's Antbird, Red-billed Scythebill, Bamboo Antshrike, White-lined Antbird, Ornate Antwren, Gray Tinamou, Blue-throated Piping-Guan, White-browed Hermit, Gray-breasted Sabrewing, Rufescent Tiger-Heron, and Black-banded Owl. After the participants ate dinner, a traditional lecture "The Bamboo specialist" was led by instructor Renzo Zeppilli,



More field inquiries using participatory education while birding in search for the key species  
in the bamboo forest and habitats  
Photographed by Bitia Chiesa

**Day 6.- (20 de September) Queros road (6:00 – 20:00 hrs).** After breakfast activity start with field inquiries using participatory education while birding to the Queros Community road and also to the Mirador of Atalaya. Here more Bamboo *Guadua sp* is found. Key species of the day include Dot-winged Antwren, Little Woodpecker, Blue-headed Macaw, Military Macaw, Striated Antbird, yellow-breasted Warbling-Antbird, Gray-capped Flycatcher, Bare-necked Fruitcrow, Orange-backed Troupial, Cuzco Warbler, and Black-backed Grosbeak. The participants were lucky to explore along Tono river and road to Huacaria where they saw Picui Ground-dove, Black-and-white Seedeater, Military Macaw, and more. This was the final evening of the class, presentations by coordinator Ana Amable and participant appreciations were completed.



More field inquiries using participatory education while birding in search for the key species in the bamboo forest and habitats  
Photographed by Vico Mendez

**Day 7. (21 de September) Pilcopata – Cusco (8:00 – 16:00 hrs).** This day the participants transferred back to Cusco city. Night in Cusco. END OF THE EVENT.



All Participants. Photographed by Vico Mendez

At the conclusion of the course, a survey was presented to the students to fill out via email or the internet. For students with issues with internet access, phone calls were used to gather the information. The survey asked questions about how the students felt about the two different teaching approaches traditional lecture and inquiry and participatory education. Appendix B is an uncompleted example of the survey.

**Results:**

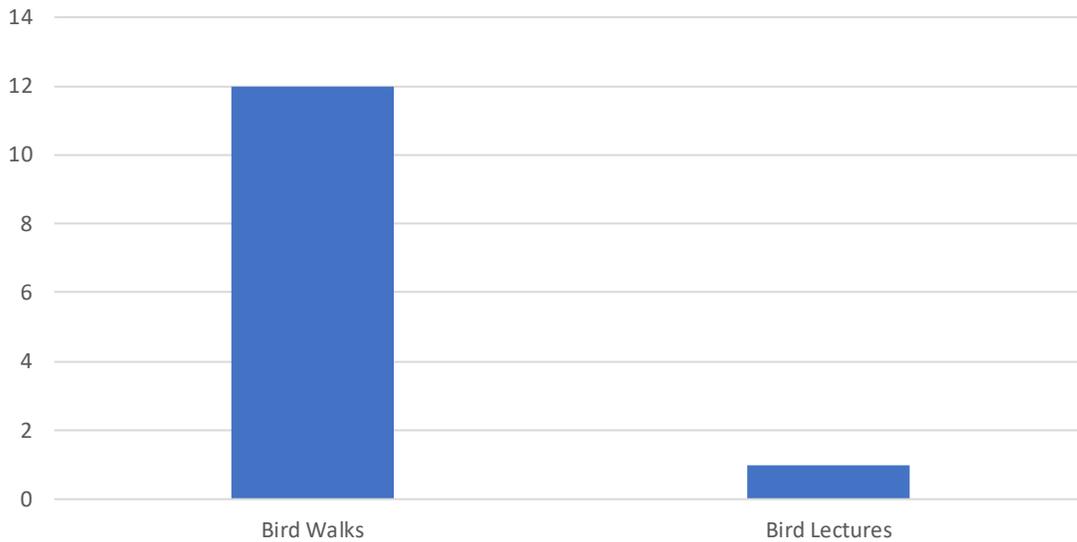
The survey was presented to 20 participants, but responses were only provided by 13 participants. Most of the participants responded via phone calls due to lack of working internet access. The survey of the participants of the course included the following questions found below. The first set of questions were to determine if the participants felt they learned all they could during the different parts of the course. After asking about each part, they were asked the comparative questions.

Table 1 and Table 2 provide the results of the questions on whether the participants felt they learned all they could during the traditional lecture and then during the bird walks which was the inquiry and participatory education portion of the course. After the yes/no question, each participant was also asked why they chose that response. For the lectures, most students indicated that the information was of high quality and provided a good base for the different aspects of the classes participatory education. In addition, the bird walks which was the inquiry and participatory education portion was deemed to be beneficial because it enhanced what they learned during the lectures and it was good to see the birds first hand in their habitat. These responses are discussed more in the discussion.

<b>Table 1. Did you learn all you felt like you could learn during the bird lectures (traditional lectures)?</b>	
Yes	No
11	2

<b>Table 2. Did you learn all you felt like you could learn during the bird walks (inquiry and participatory education portion)?</b>	
Yes	No
11	2

The main question that an answer is needed for is; “Did the participants feel they learned more during traditional lectures or in the inquiry and participatory education portion of the class?” All but one of the students felt they learned more during the inquiry and participatory education portion of the class (Figure 1). That means 92.3% of the class felt that participant education bird walks were the better way to learn. To follow up on this question, the participants were asked where they felt they retained information better. The results varied from the previous question in that three participants felt they learned better during traditional lectures (Figure 2).



*Figure 1: Compares participants responses in regards to where they thought they learned the best during the class.*

An Adult Community Interpretative Birding Classes Preference on Learning

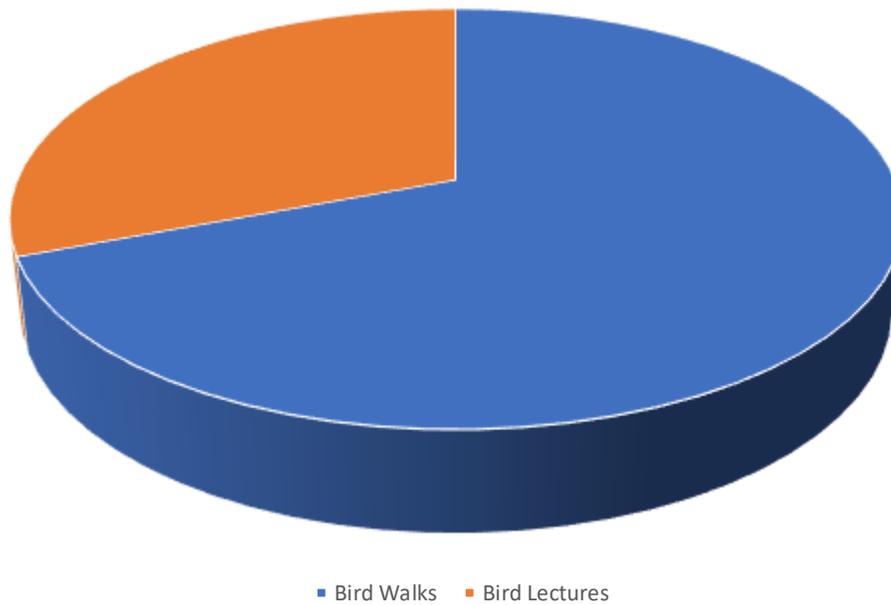


Figure 2: Participants response to where they felt they retained information better, during bird lectures or bird walks.

Further to help ensure the research from this project was fully understood, the participants were also asked where they felt they had better control over their education. Ten of the 13 participants that responded felt better control during the participatory education portion of the class.

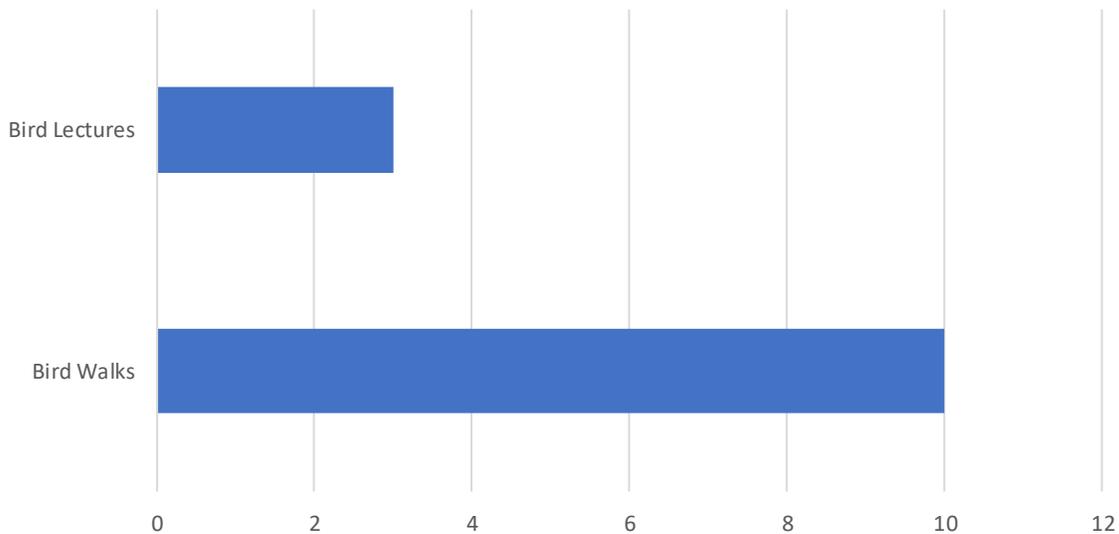


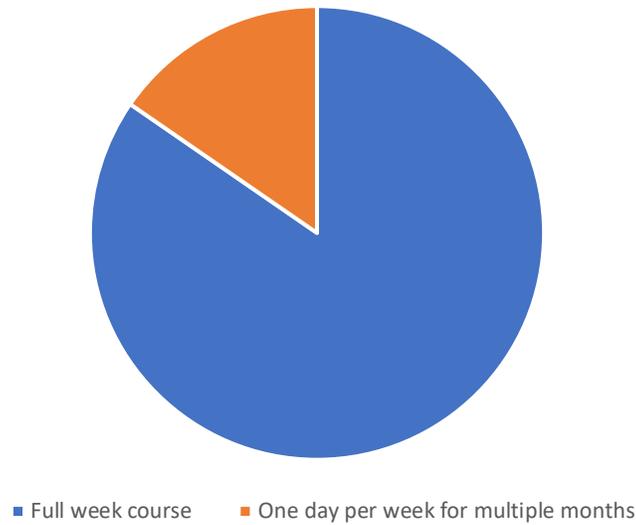
Figure 3: Participants indicated where they felt they had better control over their education, the lectures or the bird walks.

Table 3 and 4 provide more data on the participants background and preferences. Table 3 asked the participants if they have ever taken an interpretative birding class in their past. Table 4 requested the participants to indicate how they would prefer to learn in the future.

<b>9. Have you ever in your past taken an interpretative birding class?</b>	
Yes	No
8	5

<b>Table 4: If you took another course, how would you prefer to learn?</b>	
Bird Walks	Bird Lectures
12	1

Finally, participants indicate their preference for a course as an adult community learned between having an intensive one-week course in comparison to a course that is one day a week for multiple months (4-5 months). Only two of the participants prefer a course that is one day a week for multiple months as shown in Figure 4. The participants were also asked why they chose one week or on day per week for multiple months. Many indicated that having the class for one-week would be easier with scheduling around their work as the main reason for their choice.



*Figure 4: Participants indicate their preference between a one-week course and a course one day per week for multiple months.*

### **Discussion:**

There are many pieces of this research that should be evaluated. Looking at why the participants felt the way they did is likely the first piece. Three questions in the survey were followed with a question asking why the participants felt the way they did. They are evaluated further below.

After the participants answered if they felt they learned all they could during the traditional lectures, they were asked the follow up question of why or why not. Their responses varied but provide insight into how the participants learn. Two participants indicated that the lectures were entertaining and the bird topics and ecology information was vast and of high quality. Multiple students (about half) indicated that the information was very detailed and provided a good natural history. Further, another suggested it provided a foundation to their education in the class. Many felt that the way the instructors presented the information was helpful and made the data easier to learn and appreciated the images and figures used during the lectures. Further, quite a few students explained that the variety of information on the species and the skills they were taught about the conduct of birding helped increase their professional growth. Finally, some of the students felt that they could have used more time in the traditional lecture portion of the course because of how much information there was to go over. This demonstrates that the traditional lecture portion of the class was beneficial to the students and that traditional

lectures provide an important way to share information to adult community learners in this workshop. Further, it also helps show that traditional lectures are still a significant method to share vast information to an audience and that coupled with other methods can enhance a participant's or student's ability to retain information and gain insight into different topics.

In addition, the participants were also asked why they felt they did or did not learn all they could during the inquiry and participatory education bird walks. Most of the participants indicated that they learned as much as they could because they were able to witness the birds in their natural habitat. Balakrishnan and Claiborne (2017) indicate that action during learning helps students retain information better, which shows that the students picked up on these as many of them indicated seeing the birds in their habitat helped them learn. Other reasons the students appreciated this portion was due to the opportunity to interact more with the professors as three students indicated and to put some of the techniques taught in the traditional lectures in to action as a couple students noted. The opportunity to use what they learned was likely a key motivating factor during the field walks. As Arantes do Amaral and Matsusaki, (2017) insist, motivation is a key factor to success. One student said that they didn't like this part of the class because there were too many participants and all of the participants were at different levels, thus making it more difficult for them to learn.

The final question asked the participants to explain why they would choose a class that was one-week or one day a week for multiple months. Most chose one-week long intensive course because they can go deeper into the topics in that one week. The most notable reason was that it was easier to schedule work around one week, since many travel with their career. Balakrishnan and Claiborne (2017) noted that in their research they found that community members involved in participatory action research had difficulties maintaining the commitment over time. It is speculated that this is due to the many different demands of adults and thus an intensive workshop gives them a specific time to focus and then they can go back to their busy lives. Further, one participant backed that thought up suggesting that by completing a one-week course they didn't lose their focus and the sequence was maintained. Hoisington and Ashbrook (2017) back up this thought as they indicate that when educating teachers that they need to be immersed into

the material to better retain the knowledge. Further, another participant indicated a one-week course was better because of the lack of interruptions.

Most of the participants preferred inquiry and participatory education bird walks over traditional lectures. Majeski, Stover, and Valais (2018) claim that positive emotions during learning helps students maintain knowledge. The participants often noted that seeing a rare bird was an exciting aspect of the course thus encouraging these positive emotions. One important discussion point is that the participatory education portion also included a reflection component. At the end of each day, the students would spend some time going over their bird sightings from the day and discussing where they saw the birds. Luttenberg, Meijer, and Oolbekkink-Marchand (2017) discuss reflection during action research is important not only for educators but also for the students. This reflection is a key element in the interpretative birding class because it helps the students recall what they learned during the day encouraging retention. The reflection also reminds students of the positive emotions experienced during the bird walks which as which as Majeski, Stover, and Valais (2018) remind us also helps retain knowledge. Also, the students felt that they had better control over their education during the bird walks. This explains why most of the student felt they retained more knowledge during the participatory bird walks. Schwartz et al. 2017 discusses how to empower students and one way is to give them a voice and the other is to make them responsible for their learning. By providing the participants better control over their education the class empowered them to learn. The was often accomplished by having four instructors available during the walks to answer questions and encouraging the students to look, listen, and try to understand the habitats better.

The action component was very important. It is important to share ones passion often and one way it is done is through education others. Starting something that can cause others to follow and perhaps encourage appreciation of your own passion is one way to create a ripple effect. E. J. Trickett and S. Beehler (2107) describe the ripple effect as being a method of following research and the different types of impacts that research creates. It is the hope that the class causes a ripple effect with the participants to have a greater appreciation for their natural environment, for birds, and for conservation as these

are passions of the instructors. It is also the hope that the ripple effect goes beyond the participants and to those they work with, their friends, and family as well.

**Conclusion:**

The participants in the interpretative birding course provide a necessary understanding of adult community learning. They participated in a one-week class that taught using both traditional lecture and field walks that were inquiry and participatory education based. Most of these participants when surveyed preferred the bird walks participatory education portion of the class as they felt they retained more information, had better control, and just enjoyed it better. They liked the traditional lectures but choose the inquiry and participatory education much more often indicating that this is a good method of educating adults in a community class or workshop environment. The next question or area of research could be, would the students learn as much the traditional lectures were removed and they just completed the bird walks as a inquiry and participatory education opportunity.

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