Non-science teacher perceptions of environmental education:

Results from Environmental Education and Training

Partnership (EETAP) focus groups

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INTRODUCTION

The process of fully implementing environmental education (EE) within the

formal K-12 education system faces many challenges, not the least of which is effectively

communicating the benefits of EE to audiences unfamiliar with its practices, goals, and

terminology. This report contains findings and implications of a focus group study done

by the Environmental Education and Training Partnership (EETAP) to increase the

effectiveness of reaching formal educators (i.e., teachers) with messages about EE and

related training. EETAP's communication plan identifies formal educators as a key

audience for outreach, and the study was completed as part of the administrative work

plan for Year 2 to learn how to more effectively reach that group.

The idea for the study originated in recommendations provided to EETAP by

Dark (2001) who completed an evaluation focused on the Communication and Access

goal of EETAP.   The evaluation of communication and access program in 2001 (Dark

2001) focused attention on the need to better employ social marketing techniques to

enhance the effectiveness of communication and outreach efforts. Perhaps, the biggest

contribution of the report were the recommendations derived from a synthesis of social

marketing and campaign literature that spelled out some best practices, including the use

of pre-testing for message development.[1]

One of the central tenets of social marketing described in the 2001 evaluation

report is the importance of framing communication (i.e., products, language, and images,

etc.) in a consumer rather than producer orientation. In order to appeal to consumers (in

this case formal educators), one must employ language that resonates with their pre-

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[1] Those wanting to learn more about social marketing are encouraged to read Dark and Holsman 2002 for reviews.

existing values and knowledge. Concomitantly, to be effective one would also seek to reduce cognitive dissonance of the target audience members by avoiding the use of the language that may be unclear, threatening, difficult to process, or simply uninteresting. Audiences unwilling to process messages delivered from the producer's perspective are unlikely to develop positive attitudes and corresponding behaviors with respect to implementing EE in their schools.

PURPOSE OF THE STUDY

EETAP conducted a focus group study during spring/summer 2002 as a first step toward using a research base for modifying and developing strategies to more effectively communicate about EE with formal educators, a group identified in internal work plans as a priority audience. Focus groups were used to identify teachers' perceptions about EE so that EETAP partners and other environmental educators could better develop our messages to what teachers already know and understand about EE, and avoid using language that is complicated, jargon-laden, threatening, or unappealing.

While helping EETAP (administration) to better market EE was the primary objective, the results have implications for other organizations that are in the business of promoting environmental education. These include, but are not limited to, the North American Association for Environmental Education (NAAEE), the National Environmental Education Training Foundation (NTEEF), the National Education & Environment Partnership (NEEP), and the National Audubon Society. Clearly, better development of EE communication messages at the national level is important to raise the visibility and viability of EE within formal education. The results should also interest individuals or groups looking to gain support for EE in local schools.

METHODS

Focus groups

Focus groups are facilitated group discussions using scripted questions that are generally populated by a homogenous audience of interest to the researcher. In most cases (including this one), focus group studies are qualitative in nature. Qualitative data can be analyzed to uncover a range of perspectives and themes on a given subject. But the small sample sizes and non-random selection of participants prevent using the findings to draw cause and effect relationships or to generalize the results to the wider population from which the participants were taken. Still, in a few instances, the results may describe "a dominant" or a "widely held or expressed" opinion where there was consensus around some idea or issue.

Focus groups do lead to important insights about topics and allow the facilitator to probe a group's thinking on matters both scripted and that arise spontaneously through conversation. This feature makes it a more flexible tool than quantitative surveys. Focus groups are also advantageous when compared with conducting one-on-one interviews because they allow participants to feed off of one another's ideas and spark thoughts that may not have been captured in isolation.

Design and participants

We conducted five focus groups in May and June of 2002, the first of which was used as pilot test of the script questions. Based on the feedback, one question was dropped from use in the remaining four groups[2]. Excluding data from the question that was dropped after the pilot test, results from the pilot focus group are included in this report where those data appeared to reinforce ideas expressed in the other groups.

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[2] See Appendix A for script

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All discussions featured several open ended questions, a round of word association, and a review of EETAP's EE poster. Facilitators used probes at their discretion and these varied across groups. Facilitators alternatively used nominal group technique and open brainstorming to control the tempo of discussions and to optimize uniform participation across members.

The pilot focus group was held in Wisconsin Rapids, WI, a small central Wisconsin community of about 20,000. Two regular focus groups were later held in Appleton, WI a large city anchoring the metropolitan Fox River Valley at the Delve Communications Complex, a marketing research firm. Two focus groups were held in metropolitan Alexandria, Virginia at a meeting at the Association for Supervision and Curriculum Development building[3].

We used professional marketing firms[4] to recruit the participants by telephone and several screening questions were employed to ensure the formation of like groups. As a result we disqualified teachers who:

- had < 2 years of experience
- had >20 years experience
- were members of environment organizations
- taught science (biology, chemistry, earth science, etc.)

The latter characteristic requires some additional explanation. Environmental literacy includes many skills and characteristics that extend beyond the sciences. Yet, environmental education has traditionally had a difficult time breaking into disciplines such as social studies, math, and language arts. We decided to focus our efforts on these under reached sub-groups within our priority audience of K-12 teachers. In effect, we

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[3] Theresa Lewallen of ASCD who also consulted on the development of script questions and facilitated the focus groups conducted in VA. The author facilitated the focus groups conducted in WI.
[4] Delve, Inc. recruited the WI participants and Metro, Inc. was used in VA.

wanted to talk with teachers with little likelihood of having implemented or even encountered EE in their professional activities.

During recruiting, participants were told that a research study sought to hear from teachers "on some emerging education issues". They were not told that the focus of the research was "environmental education" until the introductions at the meeting. Participants were paid a stipend of $50 and provided a light meal or snacks.

In all, fifty-one teachers participated in the study. There were thirty-seven women and fourteen men. They taught grades ranging from 4-12th (including the pilot), 42 of the teachers taught seventh grade or higher. Teachers representing the different disciplines included the following numbers[5]: language arts (24), math (7), social studies (including history and geography)(21), and other[6] (7).

RESULTS

Adopting Innovations

The focus group icebreaker asked teachers to comment on how comfortable they were trying new material and methodologies in their classroom. Respondents were generally in agreement that they were comfortable trying new things, and in fact were usually on the look out for fresh ways to deliver their subject material. Teachers with less experience were more hesitant about going outside of their comfort range with new material, while more experienced teachers indicated that new challenges helped maintain their energy for teaching.

Several respondents indicated that they enjoyed creating or modifying curriculum for their classrooms and took pride in doing so when it was their own initiative. But they

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[5] Some teachers taught more than one subject.
[6] This category included things like technology, computers, and home economics.

expressed mild frustration or indifference when administrators dictated such changes.

Participants mentioned several factors that facilitated their willingness to try new things

and these included:

- Planning time
- Resources
- Supportive principals
- Collaborative colleagues
- Prior knowledge or training
- Obvious connection to curriculum (i.e., content standards).

Most teachers were also quick to point out that there had to be an underlying and

compelling reason to attempt innovation and they were not likely to experiment for

experiment's sake.   Furthermore, the pressure to deliver test scores is likely a

determining factor governing teacher willingness to try new material.

> *"I love new things, especially if we are provided the training. One thing I will say though on the negative side, I do feel a lot of pressure to get all of this material in before the SOL (Standards of Learning) tests, and sometimes there is no way that I can fit in anything else."*

Implications:

Connections to standards are clearly the biggest driver determining teacher

approaches in the classroom. The results of this discussion indicate that EETAP (and

others) who are pursuing developing communication products that link environmental

education to discipline standards are on the right track. In that sense the development of

correlations-type documents are likely to be somewhat effective. These can be made

more effective however by illustrating specific examples of how a particular EE program

or curriculum can achieve a particular standard, rather than by trying to show only broad,

general connections.

"Environmental education"

Facilitators used word association to uncover top-of-the mind responses to the phrase "environmental education" and several potential modifiers or like phrases. Some of the major findings for each phrase are shared below, followed by a summary.

All focus group participants were asked to react to the phrase "EE" with the first word or words that popped into their minds. Aside from one comment by a female history teacher, *"The first thing that comes to my mind is my high school environmental studies teacher who was a real weirdo"*, most comments were not overly surprising. Furthermore, the comments mostly serve to reinforce the challenge of developing a clear identity for EE as an educational process. The dominant perceptions cut across several themes.

First, there was a tendency to list or mention <u>current environmental issues</u> like global warming (Greenhouse gases), acid rain, pollution, and recycling. Recycling seemed to be the overriding concept that people associated with EE not just during the word association round, but throughout the entire discussion. Although it was not an objective of this research to compare responses based on region, it is interesting to note that references to issues were most often neutral among the Wisconsin groups, whereas Virginia respondents tended to state the issues from a pro-environmental perspective. For example, Wisconsin teachers listed the issue without elaborating an issue position (e.g., global warming). In Virginia, teachers who listed an issue oriented response tended to frame the issue from the pro-environmental perspective (e.g., the need to stop global warming).

The second major theme or association with the phrase "EE" was that of <u>concern and caring for the earth</u>. One respondent chimed in "Earth Day, that's what I think about, care and concern for the world we live in". Another stated, "Learning to appreciate the world around us".

The third major theme was that EE was <u>science</u> or an extension of science.

"Basically, it's science and field trips. I associate it with going out, exploring, and finding out what everything is all about".

"Science class, being out-doors, hands-on…"

"Something the science teachers have to cover…"

The fourth major association was EE as "<u>natural resource professionals</u>". In this vain there were several mentions of the DNR (Department of Natural Resources) or comments related to the DNR.

The fifth association was simply various <u>negative responses</u> to the phrase "EE". In some cases the negative comments indicated a disinterest or lack of preference, such as:

" I'm the one you don't want to hear: dread, a lot of work, boring. Sorry".

"Vague, that's my word: vague".

More disturbing, however, were comments that indicated a negative judgment. There were several who assigned labels such *"slanted", "liberal",* and *"tree hugger".* It is clear that there exist a sizeable segment of teachers who equate EE with <u>environmentalism</u>, and that association is not in a positive light.

"You see kids being taught, "Save the whales'. 'Do this, do that, and the other things'. 'Save the spotted owls' They say 'save the rain forests' and this kid is

running off information about how people in South America—who are trying to survive just like the rest of the capitalist societies in our global world—are trying to make money through, in some cases, destroying the rain forest. Then the [same] kid walks outside and hops in his SUV with his parents and drives 45 or 50 minutes away to a house in the suburbs, stopping [first] at McDonald's and getting a hamburger… It saddens me when I see that".

The sixth and last association came more predominately from VA than from Wisconsin teachers and it related to EE as general <u>environmental actions</u>. Sample comments include:

"Learning more about how to clean-up the planet"

"How to be responsible citizens not only in our school but also in our community"

"Ways to save the Earth"

Other phrases were tested for potential use including "conservation education", "nature study" and "environmental literacy". Of these three, respondents expressed fairly accurate perceptions of both conservation education and nature study. The former was associated most often with saving water, tree planting, and traditional conservation groups like "Ducks Unlimited". Reactions to nature study were typically things like *"going out and collecting things"*, *"plant identification"*, *"going outside"*, etc. The range of response on these phrases was both narrower and more neutral. It is likely that neither of these phrases offer much as potential surrogates for the phrase "environmental education" because they do not capture the breadth and goals of the EE field and even teachers view them in a narrow context.

Implications:

Not surprisingly, the top-of-the-mind reactions to EE are diverse and in most cases superficial. No teachers articulated it as a process or associated it with educational goals. With a few exceptions, all of the teachers in our focus groups thought of EE more in terms of the first word "environmental" than as the second word "education". This finding underscores the on-going need to build an identity for EE as an educational approach apart from environmental issues and environmentalism. This is necessary both to establish a clearer and more accurate understanding of what it is, but also to minimize the negative baggage (e.g., "tree huggers") that go along with the environmental movement.

"Environmental literacy"

Responses to the phrase environmental literacy varied from having a general knowledge/awareness to a deeper involvement in "doing one's part". In that regard, coupling the word "environmental" with "literacy" did not seem to carry the baggage of the phrase "environmental education". In other words, "literacy" in effect seems to add an air of legitimacy to the word "environmental".

In general, teachers could not elaborate on specific skills of environmentally literacy, but seemed to generally regard it as having a deeper level of knowledge about issues than those attributed to environmental education or environmentalism. The following excerpts were typical of teacher perceptions of the phrase "environmental literacy":

> *"Being knowledgeable, but also with knowledge being able to actually have some justification."*

"They know the scientific method."

"Respectful."

"Thoughtfulness. Understanding how your actions affect the environment. How your personal actions affect the environment."

"The big picture."

"...also to learn to see what can be done. An awareness of what groups are doing, and not just the real radical environmental groups, but how environmental policies are established just so students have an understanding of they want something to change, what is the process."

"I think an environmentally literate person would be very conscious about their transportations, for example: not driving their huge SUV by themselves to school every day when they live three blocks from school".

Within the conversations about "environmental literacy", participants seem to imply that environmental literacy was a higher ideal than most students (and adults) possess. The following exchange exemplifies their recognition that a nominal understanding of environmental issues is insufficient.

" I look at environmental literacy as being able to look at [a] problem, and see it from different angles, and understand that recycling is not necessarily going to do any good, unless we transfer over to 100 percent post recycled materials. ... You know in the 1980's it was 'Pitch in'. Now it's 'Pitch in' several different cans, but nobody really understands that if this can is not made [out of that same material], and further more energy was used to transfer that plastic into whatever plastic you are using now. And recycling as a system generates it's own waste."

In response…

"I agree with that (above comment), but people don't really know what they are talking about when they go around blindly saying, "you need to recycle that'. They just see one side. They hear one thing. It sticks in their head and that's all they know. They keep repeating it over and over, when that is really not the answer, that is just one part of it. By [environmental] literacy… they've got to know all different sides."

The role of education in fostering environmental literacy….

Teacher response to what role public education should play in advancing environmental literacy was somewhat contradictory.   Most would agree it is the responsibility of schools to develop environmental literacy as evidenced by the comments below.

> **"I think it's definitely part of what we need to be doing, especially because many of these kids do not get that reinforcement, or encouragement, or anything like that at home. ... It's like going back to the old saying, ' who is supposed to teach kids manners?' Well, if their parents aren't teaching them their manners, and respect, and whatever. So, I simply think its part of the public school responsibility."**

> "Public schools need to educate, and that is part of society, and the environment matters so they have to teach kids and make them knowledgeable".

> "If you see public schools as creating future citizens, then you would be shirking your responsibility if you didn't teach. So that's definitely a goal."

However, teachers were much more reluctant to extend their endorsement to environmental literacy when provided with a definition that includes environmental action as its ultimate aim. There appears to be a very fine line when discussing the environmental action concept and creating the impression of advocacy.

> "… in my view it's very difficult to teach environmental issues apolitically, very difficult, because any information is very political to me. I don't know if 'political' is the right word, but in a school setting I would think it would be very difficult to introduce material that does not incite any sort of anger, or draw people one way or another."

> "I don't think we should teach [actions] at all. I think what we should teach are what the important issues are right now. The 'environmental education' will be changing all of the time."

> "I don't know that [teaching actions] is our role. I think to put it out there is okay, and I guess that is fostering it, to give the ideas and to open their minds up to what is there, but not push overboard."

> "I am afraid to use my class as soapbox on certain issues."

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"I think schools have standards and benchmarks, and all of that, but then there is always that 'other agenda'. I think environmental education goes under that category of the 'other agenda', the citizens, the honesty, the trust worthy people who care, the people who help out".

"Actually teaching in the city it's kind of tough because we do have kids who at the high school level don't read very well, or their math skills are low. Honestly, not to play the devil's advocate, but environmental education is pretty far down the ladder [of priorities] if you are dealing with kids whose skills aren't very strong."

Modeling

The importance of modeling behaviors[7] as an appropriate and important place to develop literacy was a common response across focus group. Some went as far as to suggest that modeling was the best approach by which to promote environmental literacy:

"I think we need to focus on what they can do and this is essentially recycling, getting them to live more environmentally friendly lives, and worrying about oil [drilling] in Alaska to me seems besides the point. I think the only way to teach them to recycle is by example."

"Basically, they won't get it, unless we model some of the stuff that we talked about, because they won't think it will impact them."

Interdisciplinary

Much discussion was spent probing the descriptive phrase "interdisciplinary" (or "in disciplinary curriculum") given the proclivity of the EE profession to tout the benefits of our curricula and programs that use such an approach. Some very interesting perspectives were revealed. As with the previous phrases, "interdisciplinary curricula" was announced and respondents chimed in their reaction. A major finding can be

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[7] It is ironic that in one group where modeling was discussed most often, eight of twelve people brought aluminum soda cans with them into the discussion room. Seven of these eight people deposited them in a garbage can rather than a recycling bin following the completion of the interview where recycling was brought up sixteen times.

elaborated from the very first response that was uttered from a veteran, male, high school social studies teacher during the pilot focus group: "*INCOMING!* (followed by much laughter)".

He proceeded to describe how such efforts at the high school level, while often advanced with the best intentions, are pragmatically difficult to implement and often frustrating for those involved. Later participants would challenge this gentlemen's contention regarding personal frustration, but nearly all group participants agreed that logistic barriers posed serious and significant impediments to pursing interdisciplinary activities or curricula. Some of the quotes below illustrate this concern.

Lack of time

"... I keep hearing (about) the lack of inclusion of some of these activities, and some of the other disciplines it may not lend itself to very readily. I think it is the fault of the system that we currently teach in that we don't have enough time for cross-curricular planning. I would love to sit down with some of the people in the science department and work on some kind of plan to implement some of those activities [EE] in both English and some of the other disciplines. ... We just aren't given the time".

"I think the extra effort and the time is something that might scare some [teachers]. Even though we know it's possibly going to be a great product, we also know that we have to put in the extra effort and extra time, and [wonder] whether or not we're going to have the resources and support to do all of those things..."

"A middle school fallacy"

Even those who have attempted to do interdisciplinary units acknowledge the difficulty in maintaining and implementing the necessary coordination:

"We do the one unit, and it's very time consuming keeping everybody organized and what part of the curriculum they need to teach on that unit. We've been doing it quite a few years. ...It takes, like you said, a lot of time".

> *"It goes back to the first question you asked, 'how willing are you to try something new'? If you introduce an interdisciplinary unit, you are not just talking [am I] willing to try it? But is this teacher? And that teacher? You have to get everybody on the same page."*

Or sometimes, barriers emerged from perceived cross-purpose goals…

> *"My first response is that it is impossible. To try and coordinate between departments when everyone has their own standardized goals in curriculum that they push to get the kids ready for… this (EE) would have to take a back burner."*

What is important to recognize about the responses to the issue of interdisciplinary learning is that the teachers in almost all cases do value cross curricular education and see it in many cases as superior to compartmentalized education. A few quotes demonstrate this perspective:

> *"Again, dealing with 182 seventh graders, that is hard to do. So, it's difficult but yet I think it's worthwhile for the kids. It's something we still need to go for."*

> *"The concept becomes more personal".*

> *"We did that at the high school level this year, where we took three days and divided the teachers up into certain topic areas. For those three days, the kids really got into the different groups, and they really enjoyed it. The teachers liked it too because they got to work with different teachers, who they normally don't get to work with. They got to teach some stuff they normally don't get to teach. The feedback from both staff and the students, they really liked it".*

So while we can all agree on the benefits of interdisciplinary learning, we need to be cautious not to interpret these shared values as necessarily leading to the adoption of EE across the curriculum, especially where we are depending on the teachers to be the change-agents. There is limited evidence from the pilot focus group (which included elementary school teachers) that the willingness is more common at lower grades where the teachers are much more apt to collaborate for several reasons including: 1) it's

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already an established norm; b) the curriculum is by nature more interdisciplinary; and c) there is less pressure to deliver statewide test results.

Finally, the results suggest that we might be more effective by promoting two disciplines that can be integrated around some environmental theme or issue rather than trying to hit them all. One respondent noted that the more subjects you tried to engage, the less likely the effort is to be undertaken:

> *"I think it depends on how many people you are working with to begin with. If it's just an English guy and Social studies guy working together on a curriculum, I think it would work, but the more people you throw into it the harder it is going to be."*

Both with regard to the discussion on interdisciplinary curriculum and through the overall discussion, the few participating math teachers expressed the most skepticism about their role in EE. The pair of comments below illustrates this perception.

> *"This is going to sound horrible, but I think it weakens the curriculum. If someone came to me and said, all right, let's do a unit where you are solving equations and I take my social studies and have them write some equations for that situation, I could get more done in terms of my math curriculum that I am job bound to get done, which is a time push anyway. [Integrating with the social studies] would just slow me down, and it would water down the materials so they won't understand the math goal that needs to be accomplished".*

(Comment offered as follow-up at end of discussion):

> *"One thing you have to realize is simply handing me a chart with a math box checked off and telling me the activity meets math standards is not doing anything for me, and I am not going to waste my time reading it. You better tell me which standards and fast because you've probably got about thirty seconds, and for god sakes it better be more than graphing. Every time I see a math content, its graphing or simple addition or something equally useless. I'm not trying to trash what you're doing, but you need to know"*

Implication:

Given the challenge associated with team teaching or interdisciplinary teaching shared by, teachers in this study, we have to ask ourselves if touting EE as interdisciplinary is turning off the middle school and high schools who already feel stressed and lacking in time to initiate such projects. What is particularly relevant to consider is that these same teachers clearly see the value of interdisciplinary projects and opportunities, yet still dismiss them as unrealistic in most cases. Therefore, communication messages that praise EE's interdisciplinary nature may be missing the mark not because educators disagree with its importance or it values, but because of their beliefs (forged through experience) concerning the institutional limitations imposed by lack of group planning time and fear that interdisciplinary experiences may compete with the need to achieve standards within their own disciplines.

So do we discontinue using the label interdisciplinary? I suspect that in most cases we use the phrase not as an endorsement of team or multi-subject teaching (though it certainly lends itself to that), but as a one-size-fits-all descriptor? In other words, I think we typically promote the interdisciplinary nature of EE as if to say "Hey whatever subject you teach, we got you covered". In essence, EE promoters try to be all things to all people, and in doing so we likely are being ineffective at reaching middle and high school teachers in part for the reasons described above.

On the other hand, the interdisciplinary label probably works well with elementary school teachers who have the freedom and ability to teach across disciplines (this is in fact what they do). They also have the advantage of not having to coordinate

student schedules and it is much easier to find the time and willing colleagues to develop combined teaching units.

The EE poster

Participants were given several minutes to view the front and back of EETAP's EE poster near the end of the focus groups. They were asked what they liked and disliked about it, and how likely they were to use it and in what ways. The general reaction was positive, though the responses also made clear some mistakes to avoid when designing future promotions or publications.

In general, most participants liked the front of the poster. The very first comments from the groups were that the poster was "eye-catching", "colorful", and that the five action verbs "were appealing". Most agreed it was an attractive poster. Here is one sample:

> *"I would take it. I really like the front of it, and I like the phrase 'Teaching with the Future in Mind'. I think when you are talking about EE we need to explain to kids how it is going to affect them in the future. They only understand, for most kids, the here and now. I would check out the website and find out what information or ideas that I could get, or use their resources."*

While the five action words drew a lot of praise, several people noted they were in the wrong order (on the poster, they appear as explore, think, serve, wonder, and achieve). Linear thinkers may have preferred: wonder, explore, think, achieve and serve (though there was some argument over whether one serves before achieving or vice versa).

Response to the images on the front of the poster were somewhat mixed. There were many positive comments regarding the pictures, though some expressed confusion

by the presence of the skyscraper image and the totem (while others correctly noted the intent to show an integration of society, culture, and the environment).

One important design pitfall that the focus groups revealed was use of the words "environmental education" on the front. Given the previous discussion about the diversity of perceptions surrounding the label, it is easy to see why we would have been better off not mentioning EE, but letting the actions verbs and slogan sell the poster. Besides invoking a term that is not well understand, its use as the first words a reader sees seemed to trigger a decision point for many who saw the product as "*not for them*" (because they wouldn't self identify as an environmental educator). One respondent in particular summed up this sentiment clearly:

> *"I would take it [the poster]. I would see it and I would be aware, 'Oh this in an environmental education poster'. It would probably end right there."*

A number of teachers indicated they would give the poster to "*someone in their science department*", put it in a give away bin for students, recycle it, or cut it up and use the pictures. Perhaps surprisingly, the use of lower case letters aroused some especially interesting reactions:

> *"I was just curious if you meant to downplay environmental education because it is in all lower cases letters".*

Response to above:

> *Yeah because it's boring"*

The results present an important implication for marketing EE with non-EE audiences. In addition to invoking some negative stereotypes, the very words "EE" may simply signal "this doesn't apply to me". Therefore, it should not be used when trying to gain acceptance among teachers new to EE. Based on this finding, EETAP avoided using

the label throughout the text of a CD-ROM containing EE activities. Though we did not test the phrase "environment as an integrating context"[8], one would suspect that such a label is on the right track from a marketing perspective.

Teachers also expressed no interest in reading the back of the poster, and in fact many returned to the table without reading the back during the review period. During the design of the EETAP poster, much thought and debate occurred over whether or not to produce a two-sided poster. Ultimately, we decided there was nothing to lose and we might as well not waste that space for the relatively small outlay of additional money required to print on both sides. The results of the focus groups strongly indicate that this experiment was not successful. The only positive comments were expressions of luke-warm curiosity over of the environmental literacy quiz. Aside from those remarks, teachers disliked the back of the poster in both design and concept.

There seemed to be some relationship between grade level, what the teacher taught, and their interest in the poster, although this observation is somewhat slanted from the pilot focus group that contained both elementary and secondary teachers. I would cautiously advance the observation that the poster appealed to elementary teachers, but failed to engage secondary teachers.

About one in three teachers indicated that they would hang the poster on the wall if they received it as a giveaway. About two in five indicated they would be very likely to visit the EETAP website, mostly driven by a curiosity about who was behind the poster and secondarily, to have the students take the environmental literacy quiz.

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[8] EIC is the language coined by the State Education and Environment Roundtable (SEER). Some people in EE may argue that EIC is not EE. Yet, from a communication perspective it would appear to be a less ambiguous and less threatening to the average teacher.

Not one said they would visit the other websites listed on the back of the poster.

SUMMARY

The results of the focus groups confirm the challenge of reaching non-science teachers who teach middle and secondary students. In general, EE appears to be associated most often as particular, current environmental issues or as some extension of science. There was almost no immediate recognition of the value of EE for achieving general learning goals. The most apparent implication of the results seems to suggest that the best way to talk about EE is to not call it EE. While this suggestion may strike some (including an organization like EETAP who carry the phrase as part of their name) as unacceptable, we should at least not lead with references to the phrase and instead stress the specific outcomes shared by education professionals.

It may be tempting to dismiss these results and respond that we simply need "to educate" people about EE instead of hiding it or disavowing it. However, we must remember that the current misperceptions expressed by teachers in this study mean that they are unlikely to listen to those types of messages (from our producer orientation) anyway. In other words, we need to give people a reason for listening first by demonstrating the educational value of our product in clear terms and with specific examples to catch their interest before launching into a lecture about the Tblisi declaration and the goals of EE for example.

APPENDIX A: SAMPLE FOCUS GROUP SCRIPT

June 4, 2002

EETAP Focus Group Script (Appleton)

Introduction

Welcome. I would like to thank you for participating today. My name is Bob Holsman and I will serve as the facilitator. I will describe my role in more detail momentarily. First, I would like to say a few words about why we're here.

Purpose

The University of Wisconsin Stevens Point is sponsoring this meeting through funds provided by the U.S. EPA's Office of Environmental Education. UW-Stevens Point implements a professional development program whose mission is to strengthen the quality of environmental education teaching in our nation's classrooms. We have invited you here today because we are interested in hearing what teachers have to say about environmental education.

The format of this meeting is called a "focus group".   I am here to facilitate the meeting and to listen to you.   Based on our conversation, we hope to get ideas for improving professional development programs in environmental education and strategies for marketing such programs to teachers. Before we begin our discussion, there are a few ground rules to cover.

Ground rules.

There are several things you can do to help me so that I do a good job.

1. Please share your opinions openly and honestly. Do not be afraid to be frank or say things you're afraid we do not want to hear.
2. Be respectful of others' views and allow everyone a chance to respond. It's important we hear from all participants.

3. Since we are taping today's conversation, please try to speak up and speak clearly so that the tape can pick up your comments.

4. We only have an hour to get through a full list of questions so there may be times when I ask you to summarize or shorten your remarks. If I cut you off or change the subject, it is not because I am not interested in what you have to say. It means we have to move forward to get through all of the questions.

Does anyone have any questions before we begin?

Focus Group Questions

1. How **comfortable** are you with trying new material or methodologies in your classroom?
   Probe: What factors most influence your decision about whether or not to try something new?

2. Can you describe an occasion where you led your students in a lesson, an activity, or a unit that had an **environmental theme**?

3. *What comes to mind when you hear the phrase **"environmental education"**? (Round robin)*
   Probe: What about "conservation education"?
   Probe: "Nature Study"
   Probe: "Citizenship education"?
   Probe: "Interdisciplinary curriculum"?
   Probe: "Standards"?

4. The phrase "environmental literacy" suggests an outcome or desired end-state of an educational process. What **competencies or skills** would an environmentally literate person possess?

5. To what extent do you feel that public education has a role in developing environmental literacy in society?

   Probe: How does the job of developing environmental literacy in students compare in importance to other education goals?

6. We have placed a poster on the wall and we would like to hear your opinions about it. Please take a few minutes to get up and view the poster.
   a) What did you like best about the poster?
   b) What did you dislike about the poster?
   c) If you received this poster for free in the mail or at a workshop, what would you most likely do with it?

7. I am going to let the cat out of the bag and tell you frankly that we designed this poster with the hope that teachers would explore some of the websites to learn more about environmental education. How likely is it that you would visit the website for more information?

   Options: **Very**   **Somewhat**   **Not**

   Probe: Do you use the Internet in your teaching and if so how?