Issues in Non-English Pesticide Applicator Training Programs

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Abstract

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Training pesticide applicators in non-English languages is more difficult than typical English-language training programs because of issues related to: 1) cultural context, 2) language, 3) communications, 4) resources, 5) perceived needs by industry and the public, and 6) socio-political factors. Cultural issues such as American attitudes held by trainers, and belief systems and practices, view of authority and community, and teacher-learner conventions held by "foreigners," can significantly interfere with effective training. Problems of word choice, non-verbal communication, gender issues, resource limitations, perceived training needs, and socio-political issues are also discussed.

Keywords: pesticide safety education training non-English languages communication

Introduction

As I stood in the dirt-floor home complementing the parents on their beautiful newborn baby, I was shocked to hear my supervisor urgently saying in English, "Myron, shut up and get away from that baby." As soon as we were outside he said, "rural folks in this area believe in the evil eye. If you give attention to a newborn, it will bring a curse on it. I don't think you should plan to return to this village for a year, because if anything happens to this baby within the next several months, they will blame you for casting an evil eye on it." Definitely, this is not the way for a rural development specialist to begin an agricultural development program, but this was my experience in 1961! Can you imagine how ineffective any training would have been in this home that afternoon? I am convinced that cultural faux pas, although usually less dramatic than mine, can have a very negative impact on our training efforts.

Training in languages other than English, in the USA, presents several important issues that I classify under the headings of, 1) cultural context, 2) language, 3) communications, 4) resources, 5) perceived needs by industry and the public, and 6) socio-political factors. The first three issues are frequently grouped under the simple term of cross-cultural communications. However, they are significantly different.

Before discussing issues in non-English pesticide applicator training (PAT) programs, we should consider, "what are the issues in our English-language PAT programs?" Perhaps we could say that the primary goal of the PAT program is to induce a change in the behavior of pesticide applicators so they always use pesticides in the most judicious and safe manner. What are the obstacles in this process with our English speaking audiences? In general terms, I suggest that *poor attitudes and lack of receptivity* by our applicators are the most important barriers to learning and behavior modification. Some of these attitudes

include "I don't need this, I already know how to do it"; "training is fine for other applicators, but not for me"; "they should just let us do our job"; or "this is just more government regulation that we don't need." The problems of *communicating information* are secondary with our English speaking audiences. For clientele who do not speak English or for whom English is a second language, *communication of information* is probably a more important problem than *attitude*. Furthermore, for foreigners or "recent immigrants," I submit that attitude may be a problem at a different level because of the camouflaging effect of culture.

The Challenge

The overall challenge to instructors who train non-English speaking pesticide handlers is gaining CREDIBILITY with the audience. Understanding and Respecting their culture is imperative to achieve this. Thus, instructors should learn as much as possible about the cultures of their audiences.

Cultural Context

Culture

Culture may be defined as values, beliefs, attitudes, and ideas that people hold in common. This could include such concepts as right and wrong, proper and improper, or normal and abnormal. We learn cultural values and assumptions; parents, friends, teachers, media, religion, and from other inputs from our environments. Just as there are dramatic differences in cultural values between nations, there are often subgroups within given cultures that will have values that are not shared by the larger society.

Attitudes

Some American (U.S.A.) attitudes that can have a subtle effect on how we relate to people from other cultures include: 1) Our country is superior, thus other countries are inferior; 2) If our country is superior, then we the people also are superior; 3) our democratic political system is superior since it gives us: freedom to influence government, protection from arbitrary governmental actions, and freedom to complain about the government.

North American Distinctives

Some North American distinctives may impact our training efforts significantly. These include individualism and admiration for independence, achievement, the self-made person, privacy, and a high value on time. We tend to challenge and question authority, we have little respect for our elders, little respect for history, highly value "new or improved" ways, and gain knowledge on our own. In contrast to these values, some cultures have an elevated respect for authority or for elders who are the "knowledge and wisdom keepers." In some cultures, eye contact between a subordinate and a superior may be considered very inappropriate. Some North Americans mistakenly believe this lack of eye contact reflects dishonesty or other untrustworthy traits, or they think that the "learner" may not be hearing us if they are not "seeing" us. Without ever realizing it, such North Americans often begin to treat these individuals with suspicion and a lack of respect.

In cultures that grant high respect to authority, subordinates tend to follow instructions robotically, and since wisdom comes with age, they are not expected to take the initiative to change or "improve" things. Again, if we are not aware of these cultural norms, we may consider such subordinates to be dull, stupid, or irresponsible when they do not adjust to the unexpected, or adopt practices they may not understand.

Because time is highly valuable in our culture, we value punctuality and efficiency. However, in many cultures time is subordinate to the importance of family, friends, and social obligations. This can lead to misunderstandings about

how seriously people from other cultures "take our training courses" or their work, or when they arrive "late" to meetings. Hall (1983) states that "a complicating factor in intercultural relations is that each culture has its own time frames in which the patterns are unique. This means that to function effectively abroad it is just as necessary to learn the language of time as it is to learn the spoken language." This can certainly apply when working in cross-cultural situations within our own country as well.

A collectivistic culture says that the good of the group or the clan is more important than individual concerns. Competition is not a motivator in this case, and a sense of honor or shame is very strong. Saving face is very important, so direct confrontation is considered rude. A third party intermediary will be used to deal with differences of opinion. A direct reprimand in a training course would be a reprimand against the whole group. Likewise, students may not volunteer answers to your questions, since they do not want to appear to be rising above the rest of the group. You may have to call on individuals directly, or ask for answers in a way that the group is featured, such as "who can help us out by telling us what is the correct way to do this?" In addition, great care should be taken to avoid embarrassing anyone in our training courses by requiring answers to difficult questions. Phrase questions in such a way that the person is free to not have the answer: for example, "what might you suggest," or "do you have an idea what" is much less threatening than, "what is the answer to this?" To demand that a man wear personal protective equipment (PPE) may be considered an affront to his manliness. An indirect approach to the need for PPE would be much more effective, such as mentioning that male sterility has been associated with unprotected use of certain pesticides.

Belief Systems and Practices

In general, for non-English language training, I think that learners' belief systems and attitudes are secondary to the problems of *communicating information*. Nevertheless, belief systems and attitudes are strongly impacted by cultural value systems. Cultural value systems may affect a person's perception about the need to learn or to modify behavior to reduce risk. Barnlund and Harland (1968) and Althen (1983) contend that prevalent cultural values and assumptions can have a significant impact on the training of foreign students. People growing up in different cultures are taught different assumptions and values about the nature of humans, interpersonal relationships, human-nature relationships, and concepts of the locus of control over a person's life. People may view events in their lives as products of the workings of political forces, "fate" or of some other factor, including the supernatural, with little thought to their own behavior. In fact, the assumptions about "control" significantly influence behavior. These belief systems are truly more than just "belief" as succinctly stated by Kluckhohn and Strodtbect (1961): "since value elements and existential premises are almost inextricably blended in the overall picture of experience that characterizes an individual or groups, it seems well to call this overall view a value orientation, symbolizing the fact that the affective-cognitive (value) and strictly cognitive (orientation) elements are blended."

Schenker et al., (1999) also reiterate the fact that traditional beliefs, practices and values can impact training on pesticide issues. They mention that in certain Southeast Asian cultures, traditional beliefs hold that illnesses "are caused by supernatural forces, by an imbalance between body and environment, Yin and Yang or cold or hot forces in the body" (cited from California Endowment 43, 1997). I discovered that in certain cultures in Guatemala, pesticide applicators did not want to wash their

hands before eating lunch since they believe that to wash in cold water (the only water available to them) while the body is hot from work, causes illness.

Authority

Another area under cultural values that can affect our training efforts relates to how our trainees view authority. People who live under governments that may abuse their power, tend to be very suspicious of governmental programs (Schenker et.al. 1999). When dealing with such individuals, I try to emphasize the personal benefits from proper pesticide handling, rather than emphasize the legal obligation for such training. It is important to try to understand why a person appears to have a negative attitude in our training programs. If we understand some of these subtle factors of receptivity, we may use a different tact to influence a person's openness to training and modification of their pesticide handling practices.

Community and Group Leaders

Authority and respect need to be mentioned at a different level. I often discover that with time, a group of workers will identify a small group of their peers as being their unofficial leaders. When this is the case, it is important to gain these leaders' respect and support. In a related vein, I avoid using competition as a means to encourage learners to excel in our training programs. In many cultures, the sense of community discourages individualism. In such cases, I encourage group involvement and development of group ideas rather than challenge an individual to "excel or beat the rest of the group."

In some cultures where languages are not written, oral tradition is critical to formal communications, learning, and practice. In such situations it is extremely important that community or group leaders be identified who will help transmit the information to the group at large. Furthermore, in some cultures it is important to transmit needed information to both male and female community leaders to effectively transmit this information accurately and thoroughly to households, because of culturally assumed gender roles for communication and work. This latter fact has been essential to the success of some family-centered health care services in the Twin Cities (Minneapolis/St. Paul) area. (Shirley L. Barber, University of Minnesota Extension Service, personal communications).

Another expression of "community" in training events can be the use of role-playing. I will discuss this in more detail later in this paper under "learning styles and participatory training."

Language

Language is a systematic means of communicating ideas or feelings by the use of conventionalized signs, sounds, gestures, or marks having understood meanings (Webster, 1984). Most of us who learn languages, in addition to our native tongue, will have noticeable differences in accent and pronunciation, problems with the conjugation of verbs, and a limited vocabulary in those languages. Individuals with limited exposure to foreigners, as is the case with many workers arriving in North America for the first time, have considerable difficulty understanding us when we speak their native language. It is important that we speak the same language or dialect, if such exists, so there is mutual understanding. Significant misunderstandings can result if we speak a different dialect. Why even us old loggers from Oregon need someone to interpret for us when we visit Texas or "Nu-Orlans"!

Word Choice

The words we choose when offering to clarify a point can either stifle or encourage dialogue. If we say, "did you understand, do you have any questions?" we will elicit much less discussion than if we say "did I make that clear" or "in what points have I confused you?" In the

former case, learners may fear that if they admit a lack of understanding, the teacher will think they are not intelligent. With the latter phraseology, the teacher is taking full responsibility for not having explained something clearly and the learner is less intimidated to ask for further clarification. Another area where word choice may have a subtle impact, is when a speaker addresses their audience with the phrase, "I want to talk to you about." This may be very subjective, but to me it feels like such speakers see themselves as being very superior to many in their audience! I find myself resenting their apparent arrogance. I respond much better (more interest and respect) to a speaker who says, "Today, I would like to discuss with you."

Communication

Webster (1984) defines communication as, "a process by which information is exchanged between individuals through a common system of symbols, signs, or behavior." Prosser (1978) argues that "we are never in total control over a communicative event, partly because it is part of a longer process." Communication skills are critical for effective information exchange. Unfortunately, we have all seen teachers who did not communicate well. As trainers, this behooves us to be aware of those little things that can affect good communications. For example, one of my foreign students at Oregon State University complained that he could not understand a certain professor. I decided to attend class with him to observe the professor. Within the first three minutes of the lecture I recognized the primary reason for the lack of communication. The professor placed his hands behind his back, looked towards the floor, and paced back and forth at the front of the classroom. The student could not see the professor's lips as he was speaking. After I made the professor aware of this problem, he faced the audience when speaking, and the student's comprehension was significantly improved.

Non-Verbal Communication

In addition to mastery of a language, the subtleties of the teacher's demeanor, attitudes, body language, and other non-verbal communication factors can have a significant impact on learning. Stewart and Bennett (1991) emphasize the importance of non-verbal communication with the following statement: "much of the meaning of language is extracted by the receiver from the context in which messages are transmitted rather than from the dictionary meaning of the words." Again they state that "[North] Americans tend to see nonverbal behavior as ancillary to verbal communication, while elsewhere, as in Japan, the nonverbal code may be used to convey the major message."

Ruesch and Bateson (1951) allude to the complexity of communication, both verbal and non-verbal when they state that "communication refers to verbal, explicit and intentional transmission of messages and the processes, by which people influence one another." They add, "all actions and events have communicative aspects as soon as they are perceived by another human being." In commenting on Ruesch and Bateson's statement, Prosser (1978) added that "such perception changes the information which an individual possesses and therefore also influences that individual. Thus, whenever humans interact, communication is essentially influential in nature." At times during a training event, I will ask myself, "how did they perceive what I just said, because of my non-verbal language?" I constantly look for facial expressions that might indicate understanding/misunderstanding or agreement/disagreement. I am sure we all recognize the potential negative effects of a frown, sneer, look of contempt, or the stiff rigid body posture, etc. As teachers, we need to eliminate such distractions as much as possible.

I try to never point a finger at a trainee. For those who grew up with a parent or

guardian who pointed at them when rebuking or scolding the child, or to imply inferiority, this can trigger a negative response. I try to always have my fingers curled slightly when motioning towards a person.

Ruesch and Bateson (1951) state that "in the presence of another, all behavior is communicative." Watzlawick and Beavin (1967) responded to this statement by adding, "they do not say that all behavior is only communicative, but that behavior consists of everything a person does in every situation in which the smallest element of interaction can take place. This interaction includes voluntary actions and symbol manipulation as well as involuntary actions." Hall (1959) states that "in addition to what we say with our verbal language we are constantly communicating our real feelings in our silent language - the language of behavior. Sometimes this is correctly interpreted by other nationalities, but more often it is not. Difficulties in intercultural communication are seldom seen for what they are. When it becomes apparent to people of different countries that they are not understanding one another, each tends to blame it on "those foreigners," or their stupidity, deceit or craziness." Learning about another's culture may help us avoid some non-verbal communication errors.

Teacher-Learner Conventions

Cultural values can interfere with good communications between teachers and learners if teachers are not keenly aware of certain mores and cultural differences. For example, it is important that students ask questions when teachers have not explained material in a clear, concise manner. However, in some cultures, customs regulating teacher/learner relationships impose strong taboos against students asking teachers to clarify a point. This places a great responsibility on us as educators to encourage and foment interaction and dialogue with learners from such cultures. Eight out of 10 foreign students I once surveyed at Oregon State University admitted that they never asked for clarification because they did not want to be rude. Worse yet, their professors did not make it clear that they should be asking questions! An educator may erroneously interpret a student's "silence" as personal failure on their own, or as incompetence on the part of the student rather than seeing it as a culturally different pattern (Stewart and Bennett, 1991).

Learner/subordinate expectations

People from other cultures may labor under certain mores and attitudes that cause them to always agree with, or say what they think the teacher (supervisor/manager) wants to hear. We need to ask ourselves, "did they really comprehend and are they truly in agreement with what I have just said, or are they simply agreeing with me?" If trainers are not aware of these factors, learning and communication can be limited. After I had worked at a national agricultural research center in Ecuador for nearly a year, my wife and I decided to host an office party. I personally invited each person in the office to dinner, ascertaining the number of people who would accompany them. We duly prepared enough food for the 46 people who had promised to attend dinner. Obviously, I was quite perturbed when only 27 people were present on Saturday evening! The following Monday, I contacted each person who did not keep their promise to attend along with their family members. Virtually every one of them admitted that they had a prior commitment and knew that they could not attend. When I blurted out, "so why did you say you would come? I prepared a lot of extra food," they replied, "I didn't want to offend you by declining your gracious invitation." For them, to decline an invitation was more disgraceful than not keeping an appointment. Again, I had to learn how to present an invitation to an event in such a way that the person could decline without fear of offending me. I

also learned to ask myself, “does yes mean yes and no mean no? What do they think I want to hear?”

Speaker's Intention vs. Listener's Perception

It is important that we keep these two aspects in mind. Again, cultural influences, listener's expectations, non-verbal signals, etc., can greatly influence the hearer's perception of what is being said. In the Handbook for Foreign Students (1980) the following example is given:

- Native speaker: Bobs having a party tomorrow night. Do you wanna go?
- Non-native speaker: OK
- NS (later) Are you sure you want to go?
- NNS: OK, let's not go. I am tired anyway.

Notice how the non-native speaker interpreted the second question as an indication that the Native Speaker did not want to go. I well remember when I was learning my first foreign language. I reached the point where I was embarrassed to admit that I did not understand, so I attempted to decipher what was being said, based on the context of the conversation, how it was said, what body language was given, etc. This can be embarrassing as one later discovers that they answered or responded exactly opposite of what they would have, if they had understood the comment, or they have given an answer to a question that was not asked.

Prejudices

Preconceived prejudices by both trainers and trainees can interfere greatly in the learning process. For example, I have personally encountered prejudices in Latin America against North Americans, asserting that we are conceited, egotistical, know-it-all bigots! When listening through such prejudices, the learner will accept very little of what is presented! But, I have seen people from North America with limited language skills who, were well liked and respected by students in Latin American. These teachers were aware of their limitations and demonstrated sufficient humility to admit to their limitations, and then sought ways to compensate. Students greatly appreciated this expression of humility and often attempted with great diligence to help such teachers.

It is difficult to hide our prejudices. For those North Americans who have strong opposition to the immigration of foreigners (most of us fail to remember that most of our ancestors were immigrants to this continent!), probably should avoid training programs with a predominance of foreigners. Their attitudes will eventually be exposed, and the experience will probably not be good for themselves nor their trainees. Again, non-verbal communications will often belie those hidden prejudices.

Gender

The whole issue of male-female roles can be very complex when dealing with learners from other cultures. We must be aware of the more traditional role associated with women in many cultures. For five consecutive summers, we conducted an USDA-sponsored six-week integrated pest management course at Oregon State University for foreign scientists. We developed a two-day orientation course, with 4 hours on the second day being dedicated to the role of women in our culture. Many men from other countries were not accustomed to women teachers, nor have women drive the van, or give them instructions, etc. Thus, it was very important to frankly discuss the differences between the various cultures. We had individuals from each country represented explain gender roles and expectations associated with a given list of activities, and always prepared them for what to expect in our culture. However, Mestenhauser (1988), rightly warns against the danger of using orientation programs as agents of conformity. I witnessed the folly of this in one of our sessions on the role of women, as the speaker challenged men from other

cultures on their ideas that the role of women is primarily that of care giver and provider in the home. They interpreted her challenge as an effort to "change their way of thinking to align with a Western View." They reacted with hostility and resentment.

I think it is important to "authenticate women" when introducing them to groups of men who think women are not qualified to be scientists, van drivers, etc. By authenticating women, I refer to the importance of introducing them by emphasizing their qualifications and the fact that they are highly recognized and respected in their field. It is equally important that when interacting with foreigners, we respect the foreigner's concept of decency and appropriate dress. We had one unfortunate experience of a female professor coming into the classroom on a very hot day with too much flesh visible! As soon as she left the room, both male and female trainees protested her lack of modesty. Do you think they remembered what she attempted to teach? These considerations are especially important when learners are scarcely acquainted with our culture.

Formality

Other factors related to teacher demeanor and cultural interactions, and one that is very difficult, involves the degree of formality or "commonness" displayed by the teacher. In general, I tend towards slightly more formal dress and interpersonal relationships during the first couple sessions with a new group. This is particularly important for people coming from societies with distinct class or caste systems. In 1981 we hosted a post-doctorate student from a country with a strong caste system. One of our professors met him at the airport, and in a gesture of good will carried the gentleman's luggage. Later on, the post-doc refused to accept advice from this professor, considering him to be from a lower caste because the professor had carried his luggage!

Learning Styles and Participatory Training

In the last decade we are beginning to see a greater emphasis being placed on the importance of designing learning so that we engage persons representing various learning styles. I have been surprised at how well people from Africa, Asia, and Latin America have been willing to get involved in role-playing exercises. This is especially true when we have divided them into groups of 3 to 5 individuals, and allowed them to develop their own presentation. Again, this has been more successful when we have identified "recognized leaders" and allowed them to give major guidance to their group. When given special assignments, some trainees have used the traditional "professorial presentation," others have used role-playing, drama, art, and other visual means. I think it is important that we give opportunity for creative interaction in our training classes. It is important that clear instructions are given so the various groups understand what is expected in these situations.

Humor

Just as in our own culture, humor is a risky ally when dealing with people from another culture. I have used humor effectively in numerous cultural settings, but it must be done with great care, and only after careful observation within a given cultural setting confirms that it is appropriate. My experience suggests that humor can be very effective in Africa and Latin America, but less appropriate in Asia and the sub-continent.

Resources

Personnel and Translations

The paucity of people qualified to conduct PAT in non-English languages is commonly recognized in most states. The temptation is great to use individuals who speak a given language, but who do not have a strong technical background in the subject matter. They are given materials in English, and asked to develop a training

program in another language. This may result in training events that are not only marginal, but also downright hilarious. I recently reviewed some farm safety materials that were translated into Spanish. They emphatically stated that no jockeys should be allowed on farm machinery! The translator did not understand that "riders" could refer to someone other than that person on a horse, urging said steed to go faster!

It is very important that translators learn to translate ideas and concepts, rather than give exact word for word translations. Many times, word for word translations can result in great confusion, such as the instructions I recently saw for forklift operators carrying a heavy load down a steep grade. The translation in Spanish suggested that you should go backwards when carrying a heavy load on a soggy or soaked exam score!

I am concerned that we are tempted to corrupt other languages with anglicized perversions. For example, I lament the fact that one excellent training program I highly respect has included the word "*fil*" in a publication in Spanish. When Spanish-speaking workers hear an English-speaking supervisor tell them to go to *field* number "x," they do not hear the word `field,' but rather "fil." The appropriate word in Spanish is "*campo*." Why then should we suddenly substitute the word "fil" in the middle of a Spanish script? This is especially confusing when we consider that these written materials may be given to workers who have only recently arrived in this country, and may not yet be familiar with this hybridized misnomer! Few of us will ever have the problem of using jargon and idioms in a foreign language, but I hope we avoid it at all cost. In recent professional meetings I recorded 21 idioms in a single 25-minute presentation! Translators would have struggled greatly with that presentation! By the way, I cannot imagine conducting a PAT program working through translators!

Written Materials and Literacy

Training materials for PAT programs in non-English languages are quite scarce. A recent report for EPA Region X, lists very few materials in languages other than English (Madrone, 1999). Even though the PAT law is much older than the Worker Protection Standard (WPS), more training materials are probably available for WPS than for the PAT program in non-English languages. Furthermore, even when printed materials are available, *illiteracy* may be quite high for workers in certain language groups. In addition to adjusting for the general educational level of specific language groups, knowledge of a given culture can help us develop culturally appropriate training materials. For example, in Central and South America, "fotonovelas" are common forms of entertainment. These are short stories told at a very basic language level, similar to our comic strips. Thus, some training institutions in these countries have developed pesticide applicator training materials in the "fotonovela" format.

One very useful technique that can be employed to verify the accuracy of written translations is to require back translation. This involves one person translating from English into the language of interest, then another person translates the material back into English. For example, when this was done in the Twin Cities area of Minneapolis/St. Paul with the Hmong language, they discovered that many English terms used in indoor air quality standards, such as mold, mildew, radon, carbon monoxide, and lead dust, had no equivalent in the Hmong language. All such terms had simply been translated as "poisoned air" (Shirley L. Barber, University of Minnesota Extension Service, personal communications).

Audio-Visual Materials

When developing visuals for training programs, be careful of too much razzle-dazzle. We had an anthropologist evaluate a trial slide presentation on slug management that a colleague was

developing for use with primarily illiterate rural farmers in Central America. At the end of the presentation she asked how many messages we wanted to present. Our collective wisdom suggested that we had 4 basic messages: 1) slugs will cause severe damage to annual crops, 2) slugs can be controlled with simple non-chemical means, 3) understanding the life-cycle, especially the nocturnal nature of slugs, will help one design effective control tactics and, 4) control of broadleaf weeds in the first planting cycle will reduce slug populations in second-season crops. To our utter amazement and consternation, the anthropologist had recorded 21 or 22 distinct messages in the short presentation. Several of those messages were implicit in the medium itself. Materials with too much 'razzle-dazzle,' such as humorous depictions of brightly colored farmers and farm animals, introduce a whole new series of “messages” that she classified as distractions for listeners with limited exposure to formal training or training technology. Learners often focus more on the presentation medium than on the content of the presentation.

Financial

Financial support for operating an effective PAT program continues to be a serious problem for many of us. In quite a few states we find it necessary to charge for training events. If our fees are perceived as being excessive, we discourage attendance, especially for people with limited-income. Most employers recognize the need to cover any direct expenses for training events for their workers. Unfortunately, some employers are hesitant to cover salaries while their employees are in training. I think both benefits should be granted if we expect low-income workers to obtain adequate training. Some employers would like to see evening or weekend training events for their workers. Again, great care must be exercised to avoid abuse of workers.

One very successful program we developed, which circumvented some of these problems, was made possible with a grant from the Oregon Department of Agriculture, using EPA pass-through funds. With these funds we trained and equipped outreach personnel from five primary health care clinics with appropriate materials to meet the WPS training requirements. We covered all expenses and salaries for the outreach personnel to go into labor camps, community centers, and homes to conduct training after normal work hours. All trainers were bilingual, employing culturally sensitive training techniques, including socio-drama, role-playing, and group dynamics. Some 14,000 Spanish-speaking farm workers were reached in this program over a five-year period. Feedback was very positive from all parties involved. Workers did not feel that they were being abused by participating in training events after hours since they knew the trainers from previous training events related to health care issues. This program merits further consideration.

Perceived Training Needs by Industry and Public Sector

Unfortunately, some employers do not think that PAT is really necessary for their workers. They contend that they are not using dangerous chemicals, or that they can train their own employees. Two subtle problems that I have encountered among agricultural employers is the fear that PAT will create a chemophobia in their workforce, or will create workers who now think they do not need the supervisory oversight of their employer. In our early efforts to train in Spanish, certain grower associations attempted to stop us. They denied us access to their labor camps without a court order, and in one case even threatened to go to the newspapers, radio, and TV, to claim that we were wasting tax dollars by duplicating their self-declared, effective pesticide management training program. Certainly, alarmist training should be avoided. In one of our WPS programs, another

growers association stopped our training (denying access to their labor camps), with the argument that our trainers had agreed to address only agricultural worker needs, but at several points, the content pertained to pesticide handlers.

On the other hand some advocate groups have accused us of "whitewashing" the real dangers of pesticides. One investigative reporter for the largest newspaper in Oregon was preparing a feature article on pesticides. She threatened to report that our training was totally irrelevant and a pure farce. She hoped to force us to implement a new policy in which all recertification training would have a mandatory exam at the conclusion of the training event, and recertification credits depended on achieving a minimum score of 75%! We have also had pressure to move towards what I call more "alarmist type training," from some public groups opposed to many pesticide uses. Such pressure from the public sector often increases resistance from agricultural groups for in-depth training.

Socio-Political

The issues under the socio-political heading are very subtle. We have been offering pre-license training in Spanish to help individuals pass the exam for their pesticide applicator license. Two issues have arisen out of this. Some of these individuals are convinced that their employers want them to be licensed so that they, the applicator, will bear the responsibility in case any damages result from an application. Secondly, some employers have not offered increased pay for those employees who obtained a pesticide applicator license. Some of these workers openly declared that they did not want to obtain a passing score to qualify for a license. Again, they saw it as an act that would increase their responsibilities and liabilities without due monetary recompense.

Another case involved a farm labor contractor who did not understand the purpose of our training programs. Three labor contractors controlled more than 95% of the labor in one area we worked (some 2000 laborers). The largest contractor warned his workers that if they participated in our training program, they would lose their job. Several weeks later he attended one of our sessions with the intention of disrupting and discrediting our training program. Fortunately, before the evening was over he realized that our program was for the benefit of all. He changed his position and openly urged all his laborers, as well as those of his competitors, to participate in our program. We may have initially failed to properly explain the purpose of our training program.

We also encounter subtle opposition to our PAT program from established labor. They fear that if migrant laborers obtained their pesticide applicator license, that they will be willing to work for lower wages than resident workers will accept. Thus, they accused us of promoting illegal immigration, which may result in undocumented workers obtaining a license, giving them a competitive advantage over the legally documented workers.

Finally, I have encountered opposition based on legal/ethical grounds. This argument asserts that we can train someone to pass an exam, but that they still may not have sufficient perspective and understanding of the broader concerns related to pesticide use, to really be qualified to use them properly. This argument is also used for training in English. The legal/ethical issue often comes up when discussing the fact that Oregon Department of Agriculture now offers the private pesticide applicator exam in Spanish, but most labels are available only in English. The argument is that offering the exam in Spanish (or other languages) simply makes it easier for unqualified individuals to obtain a license. If our training is of high quality, and the pesticide applicator exam is properly written, I think we can discredit

this accusation. Furthermore, in the Spanish exam, they are given two sample labels in English, with 30 of the 100 questions on the exam pertaining directly to these two labels.

In summary, there are some special issues with non-English PAT programs, but a carefully prepared program can enable us to meet the objectives established in the mandated training requirements of the Federal Insecticide Rodenticide and Fungicide Act. Trainers involved in non-English training must be sensitive to intercultural issues and be armed with deep respect, patience, openness to learn from others, and also a willingness to receive the gift of deep gratitude and satisfaction from those whom they have served.

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