

### Reports from the field

# Engaging learners as interpreters for developing health messages – designing the ‘Familias Sin Plomo’ English as a Second Language curriculum project

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**Abstract:** California has a recently documented problem of trans-national environmental lead exposures in imported foods from Mexico but there is limited health information available in immigrant communities about this problem. This report highlights collaborative work with English as a Second Language (ESL) learners to critically review research data on lead exposures and reframe prevention messages about lead contamination of imported foods. These messages are now integrated into ESL curricula for dissemination to Spanish-speaking populations that are disproportionately affected by lead poisoning. This ‘learners as interpreters’ approach is a participatory method that can be applied across a wide range of public health activities. ESL learners emerged as ideal partners in developing curriculum for lead poisoning prevention for several reasons: the parents expressed strong interest in lead poisoning prevention, several have children under age 6 when lead screenings are recommended, and many have emigrated from regions in Mexico where lead hazards were identified. (*Global Health Promotion*, 2009; 16(3): pp. 53–58)

**Key words:** community-based participatory research, English as a Second Language (ESL), health communication, lead

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## Introduction

In many circumstances, environmental health risks are not visible in the community, such as when the harmful effects of exposures are insidious or when there is no visible physical hazard or waste site on which to focus community-engaged environmental efforts. California has been the site of a recently documented problem of trans-national lead exposure that is not linked to usual industrial and paint-related sources, but instead to environmental contamination

of imported foods (1, 2), curative agents (3), cosmetics (4) and candies (5). The invisibility of these contamination sources creates challenges for communities to engage in environmental health promotion efforts, particularly for the migrant communities disproportionately affected by imported food-related lead hazards (1). The fact that, in this instance, the transmission of lead-contaminated products is occurring in the context of a bi-directional, bi-national envios system (6) whose purpose is to maintain trans-national family and cultural connectivity heightens the need to

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directly involve the affected populations in a truly collaborative manner.

We report on an ongoing program (Familias Sin Plomo/Families without Lead Curriculum Project), a partnership between local adult ESL (English-as-a-Second-Language) learners and teachers, adult literacy researchers, and public health researchers. Together, we developed adult ESL curriculum materials that promote community engagement within Mexican migrant communities with respect to lead contamination from imported foods. Harnessing the adult ESL classroom setting is strategic in that: (i) many learners view their ESL programs as trusted sources of advice and support around personal matters, including health (7), (ii) ESL programs provide important access to information and advocacy support to learners who do not benefit from English-based health education materials, clinic services and/or media campaigns (8–10) and (iii) the ESL classroom provides a unique, non-clinical setting for genuine dialogue to occur among individuals who are both representative of immigrant populations as well as likely to become community change agents. This report highlights collaborative work with participants in an Oakland, California-based family literacy program. The program predominantly serves Latina mothers from Mexico, ages 20–50 years and with relatively little formal education (averaging 6 to 9 years of school). The ESL learners emerged as ideal partners for several reasons: parents expressed strong interest in lead poisoning prevention; several have children under age 6 when lead screenings are recommended; and many have emigrated from regions in Mexico (Michoacán, Oaxaca) where lead hazards have been identified (12, 13).

### Program description

Our ESL curriculum is designed to increase the capacity of adult ESL learners to address their health concerns and to generate lead poisoning prevention curricula and targeted health messages about food related lead sources for dissemination through local and state programs, and eventually to affected regions outside the USA. To our knowledge, there are no existing health education materials that address the unique sources of lead risk for Mexican migrant communities. The integration of practical

materials, such as lead prevention fact sheets, into adult literacy instruction is a well-established approach in education (14). Such classroom activities promote learner awareness and exploration of health resources (e.g. FAQs, websites). It is much less common, however, to find resources that support learner participation in the interpretation of health information (11, 15–18). From a literacy perspective, ‘learners as interpreters’ builds on the idea that reading is an interactive process that can promote learners’ awareness of the need for social change (18–19). This kind of active engagement is particularly critical for beginning adult literacy learners whose intellectual and life experience resources are often overshadowed by public discourse around what individuals with limited English or literacy cannot do (20). From a health promotion perspective, engaging ‘learners as interpreters’ is a participatory method of inquiry that can be applied across a wide range of public health activities (21).

As shown in Table 1, our curriculum development process follows four main steps, beginning with the selection of lead-related research data to use as a ‘classroom text’. First, learners read the Spanish and English versions of the text.

For example,

Cuando yo estoy platicando con mi esposo, digo que sabes que ‘no le des comida de esta al niño, porque, le hace daño’, y el dice ‘¿que daño?’ Todo nosotros crecemos comiendo en casuela de barro.’ – When I talk to my husband, I tell him, ‘don’t give our children food prepared in clay pots, it will harm them’ and he says, ‘what harm? We all grew up eating from clay pots.’

Next there was a brief bilingual question and answer session on lead related hazards with a public health epidemiologist (MH), where learners raised questions like, ‘Can I do a lead test at home?’, ‘But isn’t there dangers in plates and toys from China too?’. Then, the ESL teacher (JM) facilitated a discussion to have learners talk with each other about the text, using questions such as: What does the person (the ‘I’) in the text say about her clay pot and lead? What did she tell her husband? What does her husband think about eating in clay pots? What is the problem in this story? These initial comprehension questions help learners identify connections to

Table 1. Steps to bring ESL Learners' perspectives into ESL curriculum and public health prevention activities

STEP 1. Identify starting materials	STEP 2. Discussion with ESL learners	STEP 3. Apply themes to activities in ESL classes and for public health prevention programs	STEP 4. Dissemination
<p>ESL teachers and a public health collaborator choose a bilingual text excerpt that addresses a health topic of importance to the learning community.</p> <p>We used dialogue from focus groups held with community members directly affected by lead poisoning associated with food contamination in Monterey County.</p>	<p>ESL teachers facilitate a classroom discussion in which learners interpret the text, and have a question and answer time with a public health collaborator in the area of focus.</p> <p>We drew from reading engagement models (16/18/20) and learner-centered curriculum approaches (17) to guide the learners' interpretations of the lead text, e.g., What is the problem in this story? What information do you think is important to share with others? Does this story remind you of your own story?</p>	<p>ESL teachers and public health researchers develop parallel curriculum and public health prevention activities and create a resource guide for teachers, public health professionals and regional health departments.</p> <p>Themes to apply to <u>public health prevention activities</u></p> <p>Promote health messages that are meaningful to the community: Framing lead as a potential household poison creates a concrete health message that can easily be shared with family and friends.</p> <p>Reduce fears that culture is being criticized: Framing lead as an issue of food contamination reduces feelings that there is a judgment on the food itself or on transnational food culture.</p> <p>Increase knowledge of health hazards of lead: Since lead's health effects (especially neurological) are hard to see, it is important to talk about unseen poisons and prevention.</p>	<p>Examples</p> <ul style="list-style-type: none"> <li>Dissemination of curriculum in local ESL programs.</li> <li>Creation of a photonovella (<a href="http://cemonterey.ucdavis.edu/files/67401.pdf">http://cemonterey.ucdavis.edu/files/67401.pdf</a>), (<a href="http://cemonterey.ucdavis.edu/files/67400.pdf">http://cemonterey.ucdavis.edu/files/67400.pdf</a>) with samples of dialogue for use in nutrition programs that provide services for young families (WIC, Head Start); farm workers and food access programs (Cooperative Extension); and other local public health and clinic-based programs.</li> <li>Dissemination of curriculum and activities at state-wide meetings in ESL, lead poisoning prevention, and other related public health and clinical services programs.</li> </ul>

(Continued)

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STEP 1. Identify starting materials	STEP 2. Discussion with ESL learners	STEP 3. Apply themes to activities in ESL classes and for public health prevention programs	STEP 4. Dissemination
	<p>Build health literacy skills: Use role-plays to practice language for getting information about lead prevention resources, e.g., 'How can I get my child tested? How do I know which pots are safe? Does this store sell lead-free candy?'</p> <p>Create linkages between what is valued in their home country (e.g., cultural ties to food) and what is new in the USA: Teach English expressions for comparing eating habits in their home country and now in the USA, e.g., 'I grew up eating _____, but now I eat _____.'</p> <p>Create linkages to positive cultural experiences and preserving traditions:</p> <p>Ask learners to share their own stories about food traditions they want to pass on.</p>	<p>Increase group ownership of the potential problem: Engaging in story-telling about poisons more generally fosters a group identity about avoiding public health threats and also reduces the potential stigma some individuals may feel if they have been tested positive for lead poisoning (e.g., 'we all share concerns and experiences about poisons')</p> <p>Improve self-efficacy and health literacy skills: Role-plays can have an impact beyond the specific topic being discussed and can build self-efficacy</p> <p>– e.g., contacting community resources – if ESL learners feel confident about calling to get a lead test, they may feel confident about scheduling a mammogram.</p> <p>– e.g., balancing food preferences, cultural continuity and health risks (also relevant to chronic diseases prevention).</p>	

\* In this example, we used focus group data but this step also can be based on use of existing health education materials, such as fact sheets pamphlets, short videos.

their own experience, further facilitated by questions such as: What information do you think is important to share with others? Does this story remind you of your own story? Next, the learners formed small groups to compose and act out short role-plays in which they became the characters. Finally, the learners discussed which performances would be helpful in stimulating dialogue around lead toxicity issues in their broader community in Oakland and for other immigrants in California.

## Discussion

The ultimate goals of our project are to stimulate immigrant learners' critical awareness of the complexity of health information (in this case about lead poisoning) and to give them a say in how prevention messages are communicated. In our initial work, learners demonstrated they could offer important interpretations about the complexity of identifying contaminants from global sources, the impact on food practices, and the gendered sense of responsibility in making safe food choices. Now we are disseminating this learner-interpreted curriculum across a wider community of ESL classrooms. The process of learners as interpreters demonstrates how the narrative text can lay the groundwork for generating further ESL curriculum, and already the students in this project have asked for similar health materials about prevention of childhood obesity. We believe that this kind of engaged understanding is vital to the development of preventive health messages and educational programs. As well, such approaches to generating health messages collaboratively also can increase a community's public health literacy, which may result in community actions for improving health that were not anticipated (22). Because of the need to respect cultural practices around food, and the inherent value of supporting immigrants in their efforts to stay connected to their communities of origin (6), we believe such participatory approaches are critical as well as applicable to a wide range of health promotion activities.

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