

Parallel Session 27: Cultural differences in public understanding of science

**PUBLIC UNDERSTANDING, SCIENTIFIC CULTURE PERCEPTION
AND CIVIC ENGAGEMENT INDICATORS**

**INDICADORES DE PERCEPCIÓN PÚBLICA, CULTURA
CIENTÍFICA Y PARTICIPACIÓN CIUDADANA**

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Abstract

The aim of this communication is to present the results of a survey about Public Understanding, Scientific Culture Perception and Civic Engagement in Science and Technology. The main group opinion trends of the survey are depicted. Besides, central conclusions regarding public knowledge and attitudes about S&T in two Castilla y León cities (Salamanca and Valladolid) are showed.

Key Words: Public Understanding of Science, Science Literacy

Text

Context

During February 2003 a survey conducted by The Ibero-American Network for Science and Technology Indicators (RICYT/CYTED) and the Organization of Ibero-American States (OEI), was made in two cities of Castilla y León, Salamanca and Valladolid. The inquiry was part of an international project that included surveys from South American States. The inquiry, a block of 52 items, focused on the usual five groups of questions in Science Literacy: General Attitudes to S&T, the Spanish case of S&T, Civic Engagement in S&T activities, Scientific Information Resources and Scientific Literacy.

Objective

The objective has been to measure the public understanding and attitudes towards S&T and scientific literacy in Spain. We have analyzed and processed surveys polled to university students and graduated people. We have collected and identified general public's attitudes toward S&T. The results were sent to RICYT/REDES (Centre for Studies about Science, Development and Higher Education)

Methods

The survey method was through interviews conducted by surveyors (face-to-face interviews).

Survey Features:

(1) Designed samples: 150

(2) Target population:

Men and women graduated (26'6 %) or University students (73'3 %)

(3) Sampling method:

Random sampling. To identify correlations between elements such as gender and educational background (See Table 1).

Conclusions

The survey about Public Understanding of Science and Technology reveals that polled people have a positive perception and attitude towards S&T, and acknowledges the benefits from S&T as more important than risk and pervasive damages. However, they feel cautious about developments of S&T progress. This cautious realistic attitude to S&T cannot be described as merely an ingenuous one, because it cannot be taken as meaning that S&T have an unlimited power of solving social problems.

On the other hand, the survey mirrors a scarcity of information about scientific topics, as well as a low consulting rate of specialized publications and programs (TV, Radio, etc.). Nonetheless, there is a high percentage of correct answers with regard to scientific literacy. It is remarkable the difference between Science and Humanities students in relation to consumption of S&T information. Polled people do not consider themselves well informed in S&T subjects, especially humanities students.

Regarding citizens participation in S&T derived problems, the survey indicates a low level of active involvement. However, the majority of polled people consider that both citizen participation and concern about S&T impacts and their pervasive effects on social structures and daily life of individuals are relevant matter. Furthermore, the main subjects of concern are quality of life, health and some specific questions as AIDS, cancer, environmental change and pollution.

The shortage of technical knowledge is regarded by polled people as their main handicap to participate and get involved in social decision taking processes. Most people consider Science is valuable for Society.

People adopt a pragmatic attitude when they face scientific questions: health and medicine are considered the most relevant researching activities. These subjects get a high level of concern by polled people. The survey describes a wrong perception of the origins of S&T sources of financial support in Spain. According to such perception, S&T would receive the majority of its financial support from the private sphere. This fact reveals that most people do not really know the rates of public and private financing S&T. The perception of Public Institutions and S&T funding is basically seen as related to Private Institutions, and less to Government Institutions.

Taking into account the Spanish situation, the survey indicates a negative perception of Spanish Government's promotion of S&T. Paradoxically, despite the actual public investments, most of polled people points to the low support of researching by the Government as the main reason to explain the problems of R+D activities in Spain. In fact, actual data show that Public Institutions' rate of researching and S&T funding is more important than the Private Institutions.

Figures and Tables:

Table 1

GRADUATED/ STUDENT	GENDER (F/M)	SCIENCE	HUMANITIES	%
Students	F	20,67%	34,67%	55,33%
	M	9,33%	8,67%	18,00%
% Students		30,00%	43,33%	73,33%
Graduated	F	9,33%	4,00%	13,33%
	M	6,00%	7,33%	13,33%
% Graduated		15,33%	11,33%	26,67%
%		45,33%	54,67%	100,00%

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