Network for Information and Digital Access

The impact of Science Literacy delivery methods - what works?

Bibliography

Experiments | Group 4. **Activities and services**

Ver. 1.00

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Introduction

This thematic bibliography is the result of research to survey existing literature available on Science Literacy delivery methods.

The search was carried out by retrieving documents and articles from a wide range of sources, including research databases, Google Scholar, ResearchGate, subject databases, open access repositories etc. using keyword combinations.

The results of the resource discovery are divided into two groups: one containing impact assessments using qualitative, quantitative or mixed method (both qualitative and quantitative) approaches to data collection and a second including descriptive resources, which encompass, for example, reviews, guides, handbooks, reports and project reports.

This bibliography is work in progress and is not designed to be fully exhaustive or complete. We will be pleased to receive suggestions and recommendations for additions that can contribute to the understanding of science, its applications and, to the promotion of science literacy.

Groups and methods list

During the first part of the Desk Research phase of this project (i.e. Task 1), the team identified 42 single-mechanism approaches, 2 composite approaches and 1 related approach that were relevant to the delivery and dissemination of scientific information. The list of single mechanisms was further organised into 7 thematic groups, as presented in the following Table.

Single mechanism approach	**Group**
Exhibitions, Expo, Festivals, Movies, Picnics, Science fairs, Seminars, Talks, TED Talks, Theatre, Workshops	1. Events, meetings, performances
Colloquia, Courses, Curricula, E-learning, Webinars	2. Education and training – including online
Animations, Books, Brochures, Cartoons, Comics, Games, Graphics, Posters, Publications, Radio, Reports, TV, Videos	3. Traditional publishing and journalism – print and broadcast
Competitions, Experiments, Makerspaces, Mobile classrooms, Mobile laboratories	4. Activities and services
Blogs, E-books, E-zines, Mobile Apps, Podcasts, Social media, Websites, Wikis	5. Online interactions
Composite approaches	
Multiliteracies	
Multimodalities	
Related approach	
Citizen Science	

Impact Assessment

Carey, Susan, Risa Evans, Maya Honda, Eileen Jay, and Christopher Unger. "'An Experiment Is When You Try It and See If It Works': A Study of Grade 7 Students' Understanding of the Construction of Scientific Knowledge." *International Journal of Science Education* 11, no. 5 (November 1989): 514–29. https://doi.org/10.1080/0950069890110504.

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Descriptive Resources

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Northern Nevada Science Teachers. *Northern Nevada Science Teachers Present: Climate Change Activities for the Classroom*. Reno, Nevada: University of Nevada, Reno, 2013. http://sensor.nevada.edu/Static/Documents/Education/Washoe%20Activities/Reference/EPSCoR%20GCC%20Activity%20Manual.rev6-17.pdf.