

Learning from Questions During a Museum Visit

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Learning from Questions During a Museum Visit.

Kim J. H. Dirx, Gunn-Britt Thoma, Sandra A. J. Wetzels, Liesbeth Kester, and Paul A.
Kirschner

Centre for Learning Sciences and Technologies / Netherlands Laboratory for Lifelong
Learning, Open Universiteit in the Netherlands

Author Note

Correspondence concerning this article should be addressed to Kim J. H. Dirx, Open
Universiteit in the Netherlands, CELSTEC, NL - P.O. Box 2960, 6401 DL, Heerlen, The
Netherlands. E-mail: kim.dirx@ou.nl.

Abstract

This study shows that providing students with adjunct questions during a museum visit, benefits learning of the information covered by those adjunct questions. However, such exercise does not benefit learning beyond those questions. Teachers should be aware of the discrepancy between the unique aim of museum field trips (i.e., free-choice learning that enriches classroom learning) and their need to fulfil the educational standards.

Keywords: Adjunct questions, museum learning

Learning from Questions in a Museum

School visits to museums are an important part of science teaching. This is recognized by teachers (Lucas, 2000) and government (National Research Council [NCR, 1996]). However, with an increasing emphasis on educational standards, teachers experience an increasing pressure to justify museum field trips with a sort of tangible measure of cognitive outcome (Griffin & Symington, 1997). Many teachers therefore give students assignments that provide them with the opportunity to measure what has been learned from the field trip (e.g., writing an essay upon return or answering questions during the visit). In the present study, the actual effects of such efforts on learning are measured. We focus here on the effects of answering questions during the museum visit and investigate if students actually learn from these questions. Furthermore, we want to explore if answering these questions fosters transfer of learning (i.e., learning information that is not explicitly covered by the questions students need to answer). According to literature on adjunct questions (see Hamaker, 1986 for an overview) and testing-effect (see Roediger and Karpicke, 2006 for an overview) it is expected that giving students questions during a museum visit, will benefit learning of information covered by these questions but will not benefit learning of non-tested information.

Method

** PLEASE CONTACT THE FIRST AUTHOR FOR RESULTS**

Results

** PLEASE CONTACT THE FIRST AUTHOR FOR RESULTS**

Discussion

This study shows that giving students the assignment to answer questions during a museum visit can foster learning of the specific information asked in these questions. However, such questions do no support learning beyond the information that is explicitly covered by the questions. Whereas teachers want to objectify and measure students' learning during a field trip, providing students with specific questions does not seem to benefit overall

learning. It seems to lead only to mere recall of previously “looked-up” facts. Prior research also shows that, when teachers really want their students to benefit from such field trips, they should not provide assignments that impose classroom-like constraints such as emphasising label reading rather than object observation (e.g., Griffin, 2004), hampering social interactions (Parson & Muhs, 1994), or stressing the answering of the questions to the exclusion of exploring the surroundings (Lucas, 2000). They rather should impose explorative and collaborative learning during such field trips and objectify learning by assignments that have a more open character. Future research, with a more diverse set of students, museums, and assignments is necessary to provide clear guidelines to teachers working in the field.

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Table 1

Descriptive Statistics for Initial and Posttest performance

	<i>M</i>	<i>SD</i>
Proportion correct on the initial test	.68	.22
Proportion repeated posttest questions correct	.26	.13
Proportion related posttest questions correct	.15	.09
Remembered facts	.27	.24
Forgotten facts	.38	.15

Opmerking [R1]: Ik zou hier percentages van maken. Leest (voor mij in ieder geval) makkelijker.