

Child participation in the design of media and information literacy interventions: A scoping review and thematic analysis

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ABSTRACT

The article presents findings from a review of scientific articles about media and information literacy interventions targeted at children and adolescents. More specifically, the review centers on the quantity and quality of child participation in the design of such interventions. The findings indicate that designs with high levels of child participation constitute a minority in the sample. Most of them aim at “behavior-relevant” outcomes, e.g., reduce smoking or obesity. Interventions aimed at “media-relevant” outcomes, e.g., helping children to become competent media users, seem less widespread. Based on these findings, we argue that top-down initiatives to the promotion of media and information literacy among children and adolescents run the risk of becoming irrelevant to the target group, and that child participation in the design of such interventions should be seen as an end in itself, at least if we subscribe to the idea of children’s rights in the digital age.

Keywords: *child participation, information literacy, intervention, media literacy, scoping review.*

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INTRODUCTION

Media and information literacy interventions, i.e., interventions to promote media and information literacy (MIL), have become an attractive “quick fix” for politicians and policymakers who are anxious about “fake news,” extremism and populism (Alava et al., 2017). MIL is part of what McQuail (2005, p. 184) called the “social responsibility or public interest” model of normative media theory. However, while the social responsibility model traditionally stressed the responsibility of publishers and media organizations, technological developments such as digitalization and convergence have rendered previous forms of state control and media regulation obsolete (van Cuilenberg & McQuail, 2003). Hence, MIL has become “everyone’s favorite solution to the problems of regulation” (Livingstone, 2018, in title). Much work on MIL is developed in close proximity to practical applications, what we here refer to as MIL interventions: campaigns, programs, and curricula developed to reinforce young people’s resistance to the harms associated with living in a media-saturated world. But to what extent has the target group, i.e., children themselves, been involved in the process of designing such interventions? This is the question that we will address in this article.

AIMS AND PURPOSE

Studies from various fields that address child participation in the design of lifestyle interventions – including interventions to promote MIL – suggest that interventions where children have been involved in the design process can be more successful than interventions exclusively designed by experts (Larsson et al., 2018). A possible explanation is that such interventions are perceived as more credible by their target audiences (Cassidy et al., 2013). The involvement of children and adolescents in the production of MIL interventions also relates to the recent attention to children’s rights in the digital age (Livingstone, 2016), as well as the idea that research should take children’s perspectives into account (Noppari et al., 2017). While recent publications on MIL interventions stress the need for more attentiveness to diversity, the issue of inviting children to participate in the design of interventions is less articulated (e.g., Eckert et al., 2018; Bergstrom et al., 2018). Hence, this article aims to investigate how children and young people have been involved in the process of designing MIL interventions. The purpose is

twofold: first, to review the literature and gain knowledge about the quantity and quality of child participation in the design of MIL interventions, and secondly, to discuss MIL from a perspective of rights of the child. The inquiry has been carried out through two operational questions: What types of participation of children and young people in the design of MIL interventions are reported in the literature? And what types of MIL interventions involve child participation in its design?

The article begins with a brief discussion on the concepts of literacy, participation, and intervention, followed by a description of the methodology and principles for the literature review. In the presentation of the results of the review, we show how designs with high levels of child participation are few and that most of them aim at “behavior-relevant” outcomes, i.e., behavior that is not directly related to media. MIL interventions aimed at “media-relevant” outcomes, e.g., helping children to become competent media users, seem less prevalent. In the final discussion we argue that this might be problematic in two ways: first, because these top-down initiatives to promote MIL among children and adolescents run the risk of becoming irrelevant to the target group, and secondly because if we are to take the children’s rights perspective seriously, participations by children is an end in itself.

LITERACY, PARTICIPATION, AND INTERVENTION

Even if the aim of this study is primarily descriptive, some notes on theory are relevant since many of the terms used are polysemic and somewhat contested. The following section concentrates on the concepts of literacy, participation, and intervention in order to present our working definitions and analytical framework.

Literacy

MIL is a veritable sprawl of fields and disciplines that ranges from literature to medicine, covering topics from civic engagement to eating disorders. Often these branches lead parallel lives and do not communicate much; hence it is difficult to present a comprehensive picture of MIL. Still, if one were to suggest a common ground for the field, it would be that it is often based on a normative research agenda, i.e., it includes value judgments and arguments of what is considered desirable. Originally, literacy was closely linked to

reading and writing, but as the media landscape developed, it has come to be associated with a wide range of modalities and associated skills (Buckingham, 2007, p. 143). From early on, however, to acquire literacy has been associated with empowerment. While there has been consensus about the importance of MIL, there has been debate over what this literacy is supposed to include or cover (Brown, 1998; Hobbs, 2011; Livingstone et al., 2008; Potter, 2010).

One way to approach this conceptual complexity is to make some rough distinctions between perspectives contained within MIL. The first step would be to distinguish between protectionist and empowerment perspectives (Hobbs, 1998). Both perspectives share the premise that (mass) media can be harmful to the individual, and the task of MIL is to safeguard the individual against such harmful effects (Potter, 2010). Protectionist perspectives do this by developing strategies to protect children from negative media effects, while empowerment perspectives wish to strengthen children’s defense and knowledge to withstand such negative effects. Furthermore, critical researchers have problematized the purpose of top-down MIL promotion that explicitly or implicitly aims to make the future labor force more competitive in an increasingly digitalized world (e.g., Livingstone et al., 2008), in contrast to more bottom-up-approaches that stress general democratic values and active citizenship (e.g., Mihailidis, 2014).

A second distinction can be found in the tension between media literacy and information literacy. Livingstone et al. (2008) have shown how media literacy and information literacy are rooted in different traditions, where information literacy has focused on acquiring skills and abilities (e.g., Gui & Argentin, 2011), while the media literacy tradition has stressed the development of more general attitudes and mindset.

Finally, the complexity in the term MIL is partly due to the tension between different traditions within the context of media studies. We can distinguish between the “effects” paradigm and the “critical” paradigm (McQuail, 2005), where the former addresses the influence and effects that the exposure to mediated content might have, while the latter places media and media use in a wider social and cultural context.

The distinctions described above could be summarized as the difference between an instrumental

approach and a holistic approach to incorporate MIL in an understanding of knowledge, similar to the tradition of the *bildung* ideal (Tække & Paulsen, 2016). Table 1 illustrates this.

Table 1. *Comparison between instrumental and holistic approaches to MIL*

	Instrumental	Holistic
Definition of literacy	Abilities, skills	Attitude
Media literacy’s role	Protect	Empower
Concern about media	Effects	Criticism

As we will show, most of the literature on MIL interventions for children and young people could be placed in the left column. An intervention is usually designed and set up in order to protect youth from harmful effects. This means that media literacy interventions not only target media-specific issues per se but address themes such as sex, alcohol, tobacco, violence, and body image (Jeong et al., 2012).

Participation

Participation is something of a buzzword in social theory. A healthy democracy, it is assumed, builds on well-informed and active citizens who are ready to participate in social life. To strive for participation is also to strive for equality, as found in ideal notions of participatory or deliberative democracy (e.g., Carpentier, 2011).

A common point of reference for studying child participation is the model described by Shier (2001), depicted in Figure 1. The model addresses the question of power relations and to what extent researchers and policymakers are prepared to share power with children. The model consists of five stages, where the first stage describes a low level of child participation: children are listened to. The children involved in the study are heard but not necessarily with any effects on the continued process. The final step, however, includes child participation in terms of shared power and responsibility.

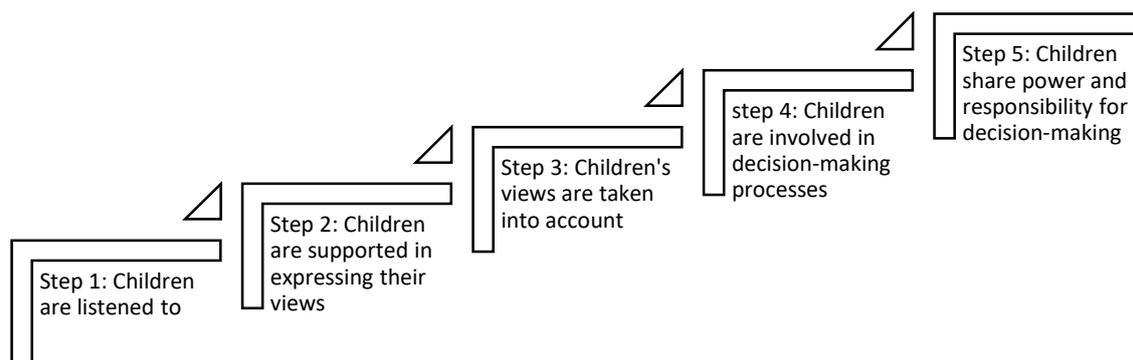


Figure 1. *Shier's (2001) model of participation*

According to Shier, it is more relevant to know where and why child participation is desirable, and when it is not, than to reach the highest level on the stairs. In our analysis, we have used the model as inspiration in order to identify (if possible) the level of child participation in MIL-intervention designs. It is a rough tool for that type of analysis, but it gives an indication and allows us to distinguish the level of participation between different studies.

For Shier (2001), whose writing focuses on child participation in decision making in more general terms, the normative promotion of child participation is founded on the UN declaration of the rights of the child, that states that children's views should be taken into account on all matters affecting the child (Shier, 2001, p. 108). Applied research in the social sciences might affect children to a limited degree, even if the outcome is meant to target the group in some way.

Alongside the democratic principle of blurring the boundaries between the researching subject and the researched object, some implications suggest that the outcome of projects that involve child participation might be of better quality in terms of addressing relevant issues and reaching out to the right groups. One example of this is Cassidy et al. (2013), a review study of initiatives to prevent cyber-bullying among youth. Among the findings, the study concludes:

It has been suggested that students should play a greater role in developing approaches for dealing with cyberbullying. Peer-led interventions have been found to be effective, especially when the peers receive extensive training. [...] Additionally, students may respond better to initiatives where they play a leading role, due to a pervasive belief that youth understand technology better than do adults. Thus, those to whom it is addressed may perceive a peer-led program as inherently more credible (Cassidy et al., 2013, p. 597).

However, a meta-study on outcomes of media literacy interventions (Jeong et al., 2012) could not establish a strong relation between successful interventions and peer participation. Writing on the importance of who is the agent performing the intervention, they say:

Some studies have found that experts are more effective than non-experts [...], while others suggest that peers are more effective than non-peers [...]. Expert-led interventions may be more effective because of their knowledge, experience, and authority, whereas nonexpert-led interventions may be more effective because of perceived similarity and identification. The effect of agents in media literacy interventions may be clarified when future interventions directly compare the effects delivered by experts and peers (Jeong et al., 2012, p. 465).

In a way, these findings support Shier's (2001) note that the maximum level of child participation is not the most desirable design in every case, but that the important thing is to know and recognize at what points it can be useful, and when it is not.

Intervention

A consequence of MIL being a normative field is that some of the prescriptive research agendas are proposed in the form of interventions, where the role of research is not only to observe, describe, and critically assess, but also to produce and introduce activities to change reality. Research that includes MIL interventions does not stop at investigating the quantities and qualities of MIL but propose tools for increasing MIL. Byrne (2009) gives the following description of what a media literacy intervention can be:

The term "media literacy intervention" refers to an experimental treatment that introduces specific concepts to respondents with

the aim of increasing awareness and promoting deeper understanding of the meaning contained in media messages. The goal is to provide people with the initial tools of media literacy. [...] Under the umbrella term of interventions, there are more formal media literacy “programs” such as those that might run in a school curriculum, and less formal “mediations” that include commentary from coviewers, such as parents (Byrne, 2009, p. 1).

Talking about interventions implicates an understanding of both research and behavior as instrumental and measurable. However, as has been noted above, some aspects and interpretations of MIL point to competences that are difficult to quantify or objectify, and perhaps more pressingly, it is unclear when the effects of a MIL-intervention are observable. Are they immediate? Will they last for a limited period? Are they lifelong acquisitions like reading skills?

In contrast to lifestyle interventions that aim at motivating physical activity, adopting healthy diets, or preventing children from starting smoking, the aims of MIL interventions are more difficult to define, and accordingly, it is harder to evaluate the outcomes. Jeong et al. (2012, p. 457) make a distinction between two types of outcomes of MIL interventions. The first is “media relevant” outcomes, referring to such things as critical awareness and information-seeking skills, while

“behavior relevant” outcomes are those that affect participants’ beliefs, attitudes and behavior.

Analytical framework

From this conceptual exposition, we pose the following set of questions to the articles in our sample: Have children been involved in the design of the described MIL-intervention? If so, how can their level of participation be determined according to the scale proposed by Shier (2001)? What understanding of MIL informs the intervention presented? And what type of outcome does the intervention aim for?

The analysis builds on a literature review following the principles of a scoping review. In contrast to systematic reviews, such as meta-studies, where the aim is to search the literature for aggregate scientific evidence, the scoping review is preferable when the aim is to quickly build an overview of a research field (Arksey & O’Malley, 2005). Hence it does not follow the PRISMA guidelines for conducting systematic reviews. The differences between systematic and scoping reviews may be summarized as shown in Table 2.

Table 2. Comparison between Systematic Review and Scoping Review, from Armstrong et al. (2011, p. 147)

Systematic Review	Scoping Review
Focused research question with narrow parameters	Research question(s) often broad
Inclusion/exclusion usually defined at outset	Inclusion/exclusion can be developed post hoc
Quality filters often applied	Quality not an initial priority
Detailed data extraction	May or may not involve data extraction
Quantitative synthesis often performed	Synthesis more qualitative and typically not quantitative
Formally assess the quality of studies and generate a conclusion relating to the focused research question	Used to identify parameters and gaps in a body of literature

Furthermore, Arksey and O’Malley (2005) describe how the scoping review can be employed either as a pre-study that leads to a more rigorous systematic review or as a method on its own, dedicated to answering specific research questions.

One advantage of the scoping review is that it can be carried out quite quickly, and because its aim is to provide an overview, the quality of its result does not depend on the quality of the data included in the sample. This serves our purpose well as we are not interested in the evidence for what types of interventions are more likely to succeed, but rather in the information about how interventions have been designed.

Approach

A targeted search was carried out in four databases that collect in all 150 peer-reviewed journals classified as media and/or communication studies. These databases are *JSTOR*, (category: Communication studies, 8 journals), *Sage Journals Online* (category: Communication and Media studies, 114 journals), *Taylor and Francis Online* (categories: Media and Communication + Communication studies, 24 journals), *Wiley Online Library* (four selected journals: *Communication Theory*; *Communication, Culture and Critique*; *Journal of Communication*; *Journal of Computer-Mediated Communication*). The choice to target four specific databases entails a risk that relevant

articles published in journals not classified as media and/or communication are missed out of the sample.

A search string was created that combined the term “*media literacy*” with terms *intervention* OR *collaboration* OR *involvement*, AND *child* OR *adolescence*. The search string was applied on all databases above, and searches were set to include titles, keywords, abstracts and full text. In total, this resulted in 103 hits. A requirement for articles to be included in the review was that they described a MIL-intervention aimed at children or adolescents.

The selection process was carried out in four stages. First, we scanned titles in order to sort out studies immediately recognizable as beyond the scope. If the title included enough information for us to establish that it was not an article that described a MIL-intervention aimed at children or adolescents, it was excluded from the sample. This left us with 29 articles whose title either indicated that it described a MIL intervention, or that the content of the article could not be distinguished from the title. Second, we scanned the abstracts of these 29 articles in order to filter out studies that were not relevant, i.e., articles that did not describe a MIL-intervention aimed at children or adolescents. This review identified 13 articles that underwent a full-text review, which showed that only four of them described what could be defined as MIL-intervention targeted at children or adolescents.

In order to expand our sample and examine more thoroughly how children and adolescents have been involved in the design process of MIL interventions, a manual check of the reference lists of the articles that had been selected for full-text review was carried out. Titles that were considered potentially relevant underwent the same procedure as described above (a scanning of abstracts, followed by a full-text review of the articles that clearly described a MIL-intervention aimed at children or adolescents), which subsequently lead to the addition of 19 articles. In total, the sample consists of 23 articles.

Our analysis included two steps: First, we focused on the sections that described the design of the intervention in order to assess the level of child participation that had been involved in the design. The research team (consisting of two researchers) read all articles, using Shier’s (2001) scale as an assessment tool. We then convened and compared our results to make sure that they were synchronized. The sample was too small to calculate the intercoder reliability, but we found a 100% agreement on how to identify the level of participation in the articles that included the necessary information.

The second step of the analysis was carried out by both researchers and involved a thematic analysis where we used open coding to identify what types of MIL interventions were reported in the articles and in what setting they were carried out. This resulted in three categories: school, home, and community. We then used Jeong’s et al. (2012) distinction between “behavior-relevant” and “media-relevant” interventions to identify what type of outcome the interventions were aiming for. Studies that clearly declared that they used media literacy training in order to decrease obesity, violent behavior, or attitudes towards risk behavior were coded as behavior-relevant, while studies that aimed at developing critical awareness and information seeking skills were coded as media-relevant. Arguably, themes such as advertising and media violence can belong to both categories, and in those cases, we based our categorization on what was the primary aim (i.e., to make students aware of media violence was coded as media-relevant, while measures of effects on aggressive behavior were coded as behavior-relevant).

RESULTS AND ANALYSIS

As mentioned above, only 23 articles met the criteria for describing a MIL-intervention targeted at children or adolescents. 14 of these articles included information that made it possible for us to assess the level of child participation that had been involved in the design of the intervention. Nine articles did not provide such information (see Appendix B).

An immediate observation is that it is quite rare that articles about MIL interventions provide details about how the intervention was designed. Hence MIL interventions described in the literature may or may not have included child participation in their designs, but there are no means for us to know what the case is. Perhaps it is not far-fetched to assume that the kind of information we were looking for is not prioritized when it comes to preparing a paper for publication in journals with limitations on word count.

Types of participation

Out of the 14 articles that included information about the design of the MIL-intervention, nine involved no child participation at all. The remaining five interventions involved children in the decision-making process, equal to either step 4 or step 5 on Shier’s scale (see Appendix B). One example is Pinkleton et al. (2013, p. 463), where an intervention with the purpose of

presenting a curriculum to “influence adolescents’ responses to and interpretations of sexual media messages” is presented. About the design process of this intervention, they write:

To develop lesson contents, experts in the Teen Futures Media Network, part of the College of Education at the University of Washington, began with currently existing sex-education curricula and then developed the media literacy curriculum by working in collaboration with five different groups of teens [...] Group members examined materials, activities, exercises and media examples and then selected the materials they believed were most interesting and would be most effective as part of a sex-education curriculum (Pinkleton et al., 2013, p. 468).

When reviewing the description of this process in the light of Shier’s scale, the level of participation of the teens in these groups seems quite high, similar to what is described as step 4: “Children are involved in decision-making processes.” A similar approach could be found in Austin et al. (2005):

Initial development of the curriculum took place in fall 2000, when members of the Teen Futures Media Network recruited youths from throughout Washington State to help develop the Teens, Tobacco and Media curriculum. Staff members recruited teen participants from a variety of different organizations, including local tobacco use prevention groups, Boys and Girls Clubs, the Red Cross, local YMCAs, and religion-affiliated groups. These teens worked with adult guidance to develop the materials that form the media literacy curriculum (Austin et al., 2005, p. 80).

As with the previous example, children have been involved in the decision-making process. Another article, Pinkleton et al. (2008), takes this approach one step further and has teenagers not only choose topics and develop the curriculum but also perform the intervention in the role of instructors, thus taking responsibility for the implementation of the intervention. Irving et al. (1998, p. 122) in a similar fashion describe a peer-led media literacy program that scored a 5 on the Shier scale: “The program was led by a female high school student and delivered to participants in a medium-sized group, with an emphasis on active discussion and participation.”

Apperley and Beavis (2013, p. 1) present a model for “teaching both computer games and videogames in the classroom for teachers.” The article explains how out-of-school learning that takes place in relation to gaming can be used in the school context. However, the information presented about how the model was developed shows no trace of child participation:

Developed in the course of a nationally funded three-year research project working with English teachers in the Australian state of Victoria [...] the model provides both a map for observing and analyzing games and gameplay, and a template for curriculum planning and pedagogy concerned with critical games literacy, digital games and multimodal twenty-first-century literacies (Apperley & Beavis, 2013, p. 1).

On the basis of this information, we can conclude that the intervention described in this article was designed by teachers and researchers, with no involvement of children. Hence, it scores 0 on the scale.

McDevitt and Chaffee (2002, p. 16) describe a school curriculum intervention designed “to stimulate political communication among students in fifth through twelfth grade during the election campaign of 1994”. However, while the intervention and students participating in it are described in quite some detail, we learn nothing about how the intervention was designed, and it is therefore impossible to evaluate the level of child participation as well.

The article by Reynolds (2016) describes how students aged 12 to 14 learn computer games design through a school curriculum. Similar to the article by McDevitt and Chaffee (2002), this study is an evaluation of the outcomes of the intervention, and spends little time describing the intervention, let alone how it was designed. Again, it is not possible to discern the level of child participation in the design of this school curriculum and game design program.

Types of media literacy interventions

When it comes to what types of MIL interventions are designed with child participation, this information is often more easily detectable. It is clear that the most common form of MIL-intervention presented in the literature is some type of school curriculum: Out of the 23 articles in the sample, 20 described an intervention in a school setting (see Appendix A). In the following, we will look into what understanding of MIL is informing these interventions and what type of outcome they aim for.

Media effects and active audiences. Out of the 14 articles that included enough information for us to evaluate the level of child participation in the design of the described MIL-intervention, Pinkleton et al. (2008), Austin et al. (2007) and Irving et al. (1998) displayed the most elaborate models of involving young people in the design process. In these cases, groups of teenagers were invited to select materials and topics for a media literacy curriculum, which they also lead (one of them focusing

on sex-education, one on smoking, and one on body image). We interpret this approach to be what Shier (2001) describes as the fifth stage of participation: Children share power and responsibility for decision-making. The understanding of what media is in the context of these studies could best be described as rooted in the effects research tradition (McQuail, 2005), where a causal relation is presumed between exposure to sexual media content and risky sexual activity among teens, or that the exposure to stereotypical representations of female bodies constitutes a risk for developing eating disorders. Furthermore, it could be noted that the problem that these articles address is not primarily a problem about media and communication, but about adolescent sexual behavior and body perception, where media representations are understood as an influential agent.

Apperley and Beavis (2013) present a model for how to make use of students' skills and knowledge acquired from gaming and translate it into "in-school" competences. However, in contrast to the articles mentioned above, this model does not involve children or young people at all, only experts, thus rendering the article a 0 on Shier's scale. Contrary to Pinkleton et al. (2013) and Irving et al. (1998), this study is not rooted in an effects-studies paradigm but rather in the active audience paradigm found in approaches such as uses and gratifications, or cultural studies. It is not a study written out of a concern with young people being exposed to troubling content, but rather starts from a question of how the school system can facilitate young people's interests.

Among the articles that do not include information about the design process behind the intervention, McDevitt and Chaffee (2002) is an example of an MIL-intervention study that is not primarily focused on (mass) media but on personal communication about political issues.

Media-relevant or behavior-relevant outcomes. When it comes to desired outcomes, it is possible to identify studies that fall into either media-relevant or behavior-relevant categories (see Appendix C). 16 of the articles in the sample use MIL as a tool for addressing problems not primarily related to media and communication (these include smoking, sex, eating disorders; e.g., Austin et al., 2005; Pinkleton et al., 2008, 2013). In other words, the preferred outcome is behavior-relevant, for instance, to reduce risk behavior. Additional outcomes might include knowledge about persuasion techniques in advertising or the relation between media representations and reality. The latter

falls into the media-relevant category and is indeed a small category in the sample: only seven articles can be identified as media-relevant. Hobbs and Frost (2003) present an intervention with a media-relevant focus, as do Rosenkoetter et al. (2004, 2009). The aim of the interventions presented in these studies is to teach children to be more competent media consumers for its own sake.

DISCUSSION

From the review, it is clear that information about to what extent children have been involved in the design of MIL interventions is rare. Far from all articles describing a MIL-intervention include details about how the intervention was designed, and it is possible that child participation is practiced more extensively than this study indicates. Still, based on these findings, we conclude that the intervention designs that involve children and young people do so by consulting them on their views, and they are sometimes even involved in the decision-making process. But for the most part, it seems that the following quote from Brown (1998, p. 44) is representative for designing MIL interventions: "a curricular program of media literacy requires collaboration among teachers, administrators, specialists, and parents." No involvement of children or adolescents is required.

This analysis also showed that the most popular form of MIL-intervention is a curriculum implemented in a school setting for tweens and teens. Furthermore, when looking into what type of MIL interventions are involving children in the design, we found that those scoring high on Shier's scale are interventions that use MIL as a tool for addressing specific social problems (teen smoking, eating disorders, etc.). We have no data to explain why, but a suggestion could be that those studies were performed in fields that began considering the benefits of child participation earlier than might be the case with MIL-promotion that derives from social science and the humanities.

Implications for further research

Our purpose has not been to suggest that child participation in the design of MIL interventions is good, and that absence of child participation is bad – in this sense, our purpose is more descriptive than normative. However, there are two basic arguments in support of child participation in the design of MIL interventions: The first concerns effectivity and relevance, where top-

down initiatives that target media-related problems identified by adults might not resonate with the media-related concerns of children and young people. Secondly, if we are to take the statement of the rights of the child seriously, child participation should be seen as an end in itself, and children should be involved in decisions that affect them.

At the moment, initiatives to promote MIL have been launched by a number of stakeholders: governmental agencies, educational bodies, groups in civil society, and academia. When encountering these initiatives, it is important to ask whose interests and concerns they actually represent. Are they initiated solely from above, or do they take into consideration the concerns of those who are supposed to benefit from the initiatives? And finally, what types of problems are MIL interventions believed to solve? These questions should be considered in further research on MIL promotion.

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APPENDIX A

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APPENDIX B

Articles that describe a Media Literacy intervention

Table 1. *Articles with information about the design process*

Article	Year	Country	Type of intervention	Place for intervention	Age	Nature of participation	Shier Points
A media literacy program for high school females	1998	USA	Extra-curricular program	School	16-18 years	Peer-led media literacy program	5
Effects of reducing children's television and video game use on aggressive behavior: A randomized controlled trial	2001	USA	Curriculum	School	Grades 3-4	None	0
Measuring the acquisition of media-literacy skills	2003	USA	Curriculum	School	Grades 9 & 11	None	0
Mitigating the harmful effects of violent television	2004	USA	Curriculum	School	Grades 1-3	None	0
Evaluation of an American Legacy Foundation/Washington state department of health media literacy pilot study	2005	USA	Curriculum	School	"Teens"	Participants chose topics	4
I noticed more violence: The effects of a media literacy program on critical attitudes toward media violence	2006	USA	Curriculum	School	Grade 6	None	0
Reducing children's susceptibility to commercials: Mechanisms of factual and evaluative advertising interventions	2007	Netherlands	Experiment	School	5-10 years	None	0
Adult mediation of television advertising effects: A comparison of factual, evaluative, and combined strategies	2007	Netherlands	Adult mediation	Home (controlled experiment)	5-10 years	None	0
The desirability paradox in the effects of media literacy training	2007	USA	Curriculum	School	"Teens"	Peer-led curriculum	5
Effects of a peer-led media literacy curriculum on adolescents' knowledge and attitudes toward sexual behavior and media portrayals of sex	2008	USA	Curriculum	School	11-19 years	Peer-led curriculum	5
Television violence: An intervention to reduce its impact on children	2009	USA	Curriculum	School	Grades 1-4	None	0
Media literacy as a violence-prevention strategy: A pilot evaluation	2010	USA	Curriculum	School	Middle school	None	0

Assessing effects of a media literacy-based intervention	2013	USA	Curriculum	School	11-19 years	Participants chose topics	4
A model for critical games literacy	2013	Australia	Curriculum	School	---	None	0

Table 2. *Articles with no information about the design process*

Article	Year	Country	Type of intervention	Place for intervention	Age	Nature of participation	Shier Points
Immediate and delayed effects of media literacy training on third grader's decision making for alcohol	1997	USA	Experiment/exercise	School	Grade 3	No info	No info
Reducing children's television viewing to prevent obesity: A randomized controlled trial	1999	USA	Curriculum	School	Grade 3-4	No info	No info
Can a School-Based Intervention to Reduce Television Use Decrease Adiposity in Children in Grades 3 and 4?	2000	USA	Curriculum	School	Grades 3-4	No info	No info
Television Viewing and Childhood Obesity	2001	USA	Curriculum	School	Grades 3-4	No info	No info
The family in a sequence of political activation	2002	USA	Curriculum	School	Grades 5-12	No info	No info
Countering children's sedentary lifestyles: An evaluative study of a media-risk education approach	2005	Canada	Curriculum	Community-based	Grades 2-6	No info	No info
Benefits and costs of Channel One in a middle school setting and the role of media-literacy training	2006	USA	Curriculum	School	Middle school	No info	No info
Analysis versus production: Adolescent cognitive and attitudinal responses to antismoking interventions.	2006	USA	Experiment	School	14-18 years	No info	No info
Relationships among tasks, collaborative inquiry processes, inquiry resolutions, and knowledge outcomes in adolescents during guided discovery-based game design in school	2016	USA	Curriculum	School	12-14 years	No info	No info