

SOUND: The design of an Entertainment-Education internet series about love, ambition and decibels.

Author information

Bouman, Martine (PhD)

Center for Media & Health

Peperstraat 35

2801 RD Gouda

The Netherlands

bouman@media-gezondheid.nl

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Author bio:

Martine Bouman holds a PhD in Communication Science and is founder and director of the Center for Media & Health. She has been a pioneer in the field of the entertainment-education (EE) strategy since the late eighties. In 1999 she published her research into the dynamics of EE collaborative partnerships in her book called *'The Turtle and the Peacock'; the entertainment-education on television: collaboration for social change*. She was the CEO of the 3rd International Entertainment-Education Conference in 2000 in the Netherlands and the first woman and European to win the Everett M. Rogers Award for achievement in Entertainment-Education (2010).

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Keywords: entertainment-education, internet drama series, health communication, hearing loss, youngsters, music venues, social media.

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Abstract

How can we apply entertainment-education (E-E) in a web-based environment? What are theoretical and creative elements for the design of digital stories for social change? What new skills do entertainment-education professionals need to work in a digital era? These are challenging questions for the development of E-E research and practice.

The present article describes the design of a web-based E-E drama series ‘SOUND’ to prevent hearing loss among young people. This 9-episode web series about love, ambition and decibels was part of a larger strategic communication campaign Sound Effects.

The design process of this E-E internet drama series required close collaboration between creative professionals, communication specialists, content experts, social media professionals and researchers. The main challenge was how to frame and integrate the issue of hearing loss into a compelling story, how to create a good balance between entertainment and education and how to use online media for ‘broadcasting’ the series and communicating with young people. The 9-episode drama series was conceptualized and designed by the Center for Media & Health (CMH) in collaboration with media professionals of Endemol Productions, a worldwide Dutch production company. The CMH conducted formative research during the pre-production and production phases of the internet series and guided the production work. This entertainment-education 2.0 approach combined digital storytelling with social marketing and celebrity endorsement principles.

Introduction

Youngsters who frequently visit discotheques and dance events have a high risk of hearing loss. To stimulate youngsters to take preventive measures and wear earplugs while clubbing,

in 2008 the Center for Media & Health (CMH), in collaboration with the Municipal Health Service of Amsterdam, designed and launched the campaign ‘Sound Effects’¹ that involved online and offline media, peer education and collaborative partnerships with discotheques and organizations in the music sector. A key element of this strategic communication campaign was the entertainment-education internet series SOUND.

Photo 1: Cast SOUND



From left to right: Joy, Maarten, Claudia, Jeffrey, Frenk. Source: CMH: Casper Cammeraat.

Imagine the following scenes: Maarten, a music composer and his secret love-interest, Joy are flirting and dancing the night away in a trendy discotheque in Amsterdam. Joy, a professional DJ, takes her earplugs from a shiny little box. Maarten shouts in her ears: ‘Are you also

¹ The Sound Effects campaign has been developed and implemented from 2006-2008 by the Center for Media & Health in Gouda in the Netherlands in collaboration with the Municipal Health Service of Amsterdam. It was a pilot project in the region of Amsterdam, made possible by a research grant of ZonMw (The Netherlands Organization for Health Research and Development). The design of Sound Effects is based on literature research and extensive formative research and has generated an enormous amount of field notes, research papers, communication materials, audiovisuals and reports. The summative evaluation has been carried out by an independent external research group.

wearing these things?’ Joy laughs at him: ‘Yes, of course! *Go Out Plug In!* She puts her earplugs in and we hear her *point of sound*: the music has a purer, somewhat quieter sound. While she takes a short break and heads to the bar, Maarten swings away in the direction of the speakers, where the sound is much heavier (CMH 2012, www.sound-soap.nl/episode 6).

The next episode we find Maarten sitting in the hospital. He is doing a test. An audiologist is taking notes, while handling the test equipment on his desk. Maarten watches nervously. ‘Is this beep in your ear happening frequently?’ the doctor asks. ‘Well, yes, but it always disappears after a while,’ Maarten shrugs. ‘And the pain you described?’ ‘That’s new, but... I just like heavy music you know; I want to feel the beat. I’ve been dancing like this for years!’ The doctor nods. His expression is grave: ‘That pain really is a sign that it’s too late.’ That startles Maarten: ‘What do you mean?’ The doctor explains: ‘Your hearing is seriously impaired. Once the cells in your inner ear are damaged, they can’t recover.’ ‘But there are lots of people who love loud music!’ Maarten exclaims. The doctor nods: ‘There are also about 20,000 youngsters each year who suffer serious hearing loss because of loud music. I’m sorry; I’d love to reassure you, but....,’ he pauses, ‘I’m afraid your hearing loss will be permanent.’ Maarten looks baffled. His hands fall in his lap; he’s literally dumbfounded (CMH 2012, www.sound-soap.nl/episode 7).

Box 1: Story of SOUND

SOUND is a web-based mini drama series about love, ambition and decibels. The series contains nine episodes of 2-3 minutes each. The story is about DJ Joy who wants to use the popular contribution of an upcoming young composer Maarten for her new CD album. Despite the encouragement of his best friend Jeffrey who wins the beautiful Claudia, Maarten does not have the guts to accept Joy’s offer. Through a misunderstanding, Maarten once again drives Joy into the arms of her ex-lover Frenk.

To hear or not to hear: that is the question

The average sound level in discotheques ranges from 104 to 112 decibels, a range that exceeds all international statutory safety standards for occupational settings (Vogel et al. 2009). Because of this, an estimated group of 450, 000 youngsters in the Netherlands aged 16-24 years have suffered a hearing loss of 10 decibels or more, caused by exposure to loud music at pop and rock concerts, discotheques and dance events (Passchier-Vermeer and Steenbekers 2001). Of this group, around 100,000 youngsters have a hearing loss of 20 decibels, which is close to representing a social handicap (not being able to follow conversations in large groups) with the risk of becoming isolated. Most common symptoms are tinnitus (constant beep in the ears), hyperacusis (being hypersensitive to sound), diplacusis (experiencing sound differently in the left and right ear) and general hearing loss. These effects have a negative impact on quality of life. This hearing impairment is irreversible. Preventive strategies to avoid hearing loss can be taken both on a system level and a personal level. On a system level, new regulations can be made for limiting the average sound level in music venues e.g. to max. 102 decibels. Until now the Dutch Ministry of Health, Welfare and Sports has decided not to effect new regulations, because controlling music venues would require an intensive surveillance capacity of the public health inspectorate. Instead, it encourages the music sector to take self-regulatory steps. The Sound Effects campaign wanted to support these self-regulatory initiatives. Instead of blaming the industry, the CMH invited music venues to become collaboration partners and jointly create more awareness both within the industry and among their clientele. On a personal level, visitors to music venues can take the following measures: (1) wearing earplugs with filters, (2) maintaining a distance of at least two meters from loudspeakers, and (3) reducing the duration of exposure by taking regular 'ear breaks' by visiting the chill-out rooms.

The issue of hearing loss while clubbing is a rather new phenomenon. At the start, in 2008, there were hardly any strategic communication campaigns in the world involving this topic. In designing the Sound Effects campaign, the CMH based its strategy on its expertise in the field of health communication, entertainment-education, social psychology and social marketing. New approaches and strategies were designed and tested in an experimental field setting.

MSN Chat sessions

It is widely recognized that the use of formative evaluation techniques contributes considerably to more effective communication messages (see for example, Backer et al. 1992; Nariman, 1993; Flay and Cook 1989; Bouman 1999). In order to design an effective strategy for the Sound Effects campaign and the internet drama series SOUND, the CMH in collaboration with the Municipal Health Service of Amsterdam executed an extensive formative research project among young people (aged 16-30). The main research question was ‘What do young adults think, feel, know about loud music while clubbing, and what are their experiences with hearing loss and preventive measures?’.

To find answers to these questions, MSN chat session interviews were held (Rijs et al. 2009; Bouman and Jurg 2010). In total, 94 young adults participated in the study. Inclusion criteria were age (ranging between 16-30 years) and music venue attendance twice or more per month. Participants were recruited via chat boxes (35%), website forums (49%) and at music venues (16%). Participants were directly invited by (1) personal contact at music venues, (2) personal contact by chat boxes on music-related websites and (3) personal emails on the base of email lists on music-related websites. Respondents were also indirectly invited by public announcements on website forums. The direct approach made it possible to reach unengaged people. Participants who accepted the invitation gave their MSN or email address so they could be contacted via MSN. Participants who took part in the interviews had a chance of

winning an I-pod or an earplug set. The entire interview took an average of 75 minutes (range 30-135 minutes).

These chat sessions with members of the target group were of great value and showed important things. For example, youngsters indicated that when they party and dance, they really want to feel the beat and especially the bass rhythm. As one interviewee said, *“If the music is not loud enough it is a real bummer. Too loud music is something I can adjust to, although I know it is hazardous”*. Also they made it clear that when they visit a bar or cafe they want to talk and socialize and accept and prefer lower levels of music, but when they attend specific dance events they want to engage 100% in the music and dance their night away. This means that music volumes vary according to the type of music venue and need for (musical) gratification. Music volumes are also related to different music styles. Heavy metal dance and rock music have relatively higher levels of decibels than R&B, hip-hop, pop and rap music.

Another interesting thing to discover was that almost all young adults interviewed were aware of the health danger of loud music. They all knew how it feels when you have a beep in your ears after clubbing. This common experience proved to be a good starting point for the design of the campaign. They said, however, that these beeps always disappeared after a few hours or days. They knew they were at risk, but were not aware of their high chance of irreversible damage. Quite a few youngsters expected that by the time they were older (50-60 years), medical technology would be able to solve their hearing problem with artificial hearing implants. Some youngsters indicated they already used yellow foam earplugs. However, they did not know that these earplugs are insufficient because they don't have filters. You need special earplugs for enjoying music while filtering out the damaging tones. These yellow foam earplugs are just simple “noise-stoppers” as used in building construction sites and shipyards to muffle the noise of heavy machinery and equipment. Some youngsters put cigarette papers in their ears to protect them, which for obvious reasons don't prove to be very

effective. When the chat session touched upon the issue of music speakers, youngsters said that their position related to the speakers depended on where their friends were. When they were on their own, they would stay further away from the speakers than when they were in a group.

This formative research was the first step in creating the SOUND internet series as part of the tailored strategic communication campaign Sound Effects. The script of SOUND was based on the ideas, wishes, misconceptions and experiences of the target group. For example, when the doctor in the series asks Maarten, *'Is this beep in your ear happening frequently?'* he says, *'Well, yes, but it always disappears after a while'*. Maarten also says *'I just like heavy music you know; I want to feel the beat. I've been dancing like this for years!'*

Understanding the determinants of behaviour is crucial in designing strategies for social change (Kreuter et al. 1999). Based on this formative research we identified different stages of change among young adults toward hearing loss prevention. Results showed six different types of individuals according to the stages of change of the Precaution Adoption Process Model (PAPM) (Weinstein and Sandman 2002). These six groups seemed to be distinct in demographic terms as well in terms of determinants such as risk perception, satisfaction with music, barriers to using earplugs, attitude toward earplugs and, finally, in their decision-making or behaviour toward using hearing protection devices (i.e., earplugs, distance from speakers). It is clear that young adults in the stages 'unengaged with issue', 'undecided about acting' and 'decided not to act' need a different communication strategy than individuals in the stages 'deciding about acting', 'decided to act', 'acting' and 'maintenance' who are more responsive to hearing protection devices (Jurg and Bouman, 2009).

Cognition and affect

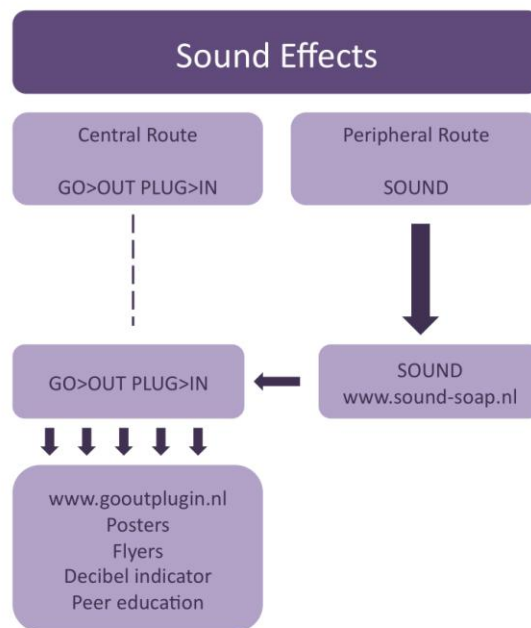
The rise of the entertainment-education strategy runs parallel with new insights into health communication theory which now accepts that, besides cognition (what do people think), the

role of affect (what do people feel) is important in behaviour change. An interesting model that pays attention to both cognition and affect in information processing is the Elaboration Likelihood Model (ELM) of Petty & Cacioppo (1986). The ELM suggests that there are two possible routes people can follow in the persuasion process: the 'central route' and the 'peripheral route'. Persuasion through the central route is achieved through the recipient's thoughtful examination of issue-relevant thinking. The 'peripheral route' represents the persuasion process involved when elaboration likelihood is relatively low. Sometimes people will not undertake much issue-relevant thinking; hence they display relatively little elaboration.

In the Sound Effects communication campaign we designed both a 'central route' and 'peripheral route' for the persuasion process. In order to reach young adults in the stages 'unengaged by the hearing loss issue', 'undecided about acting' we used the entertainment-education strategy of raising attention and awareness about the hearing loss prevention issue via the peripheral route. For this route we created the internet drama series SOUND and its website www.sound-soap.nl. To stimulate young adults in the stages 'deciding about acting', 'decided to act', 'acting' and 'maintenance' to engage in more issue-relevant thinking, we designed communication strategies via the central route, such as an informative website www.gooutplugin.nl, flyers, peer education activities etc.

Box 2: Central and peripheral route Sound Effects Campaign

Central and Peripheral Persuasion Route Sound Effects Campaign



Source: Center for Media & Health 2009

Role modelling and the art of script writing

The design process of the SOUND internet drama series was based on various theoretical concepts from the field of social psychology, social change theory, health communication and media studies.

The E-E approach draws upon Bandura's (1986) social cognitive theory, which posits that an individual can learn by observing and imitating the overt behaviour of others in real life or on television (vicarious learning). Bandura found that imitation or modelling could be influenced by the type of reinforcement the role model received: role models that were rewarded were more likely to be imitated than models that were punished (Signorielli 1993). According to Sabido's methodology in the E-E drama series (Nariman 1993; Singhal and Rogers 1999; Bouman 1999) there must be three basic groups of role models: those who

support prosocial behaviour (positive role models), those who reject it (negative role models) and those who doubt, but gradually change their opinion in favour of prosocial behaviour (transition models). Each type of modelling character begins with a specific position regarding the proposed behaviour, and represents a spectrum of genuine points of view among the target audience.

Before writing the first synopsis of the SOUND series, the scriptwriters of Endemol Productions received a briefing document from the CMH with a description of the aims, target group, behaviour change goals and value grid for the series (Bouman 2008a). This briefing document also addressed some theoretical elements of the E-E strategy, such as Sabido's three basic groups of role models. In the SOUND series, Maarten was the transitional role model, who was doubtful at first with regard to using earplugs, but gradually changed his opinion in favour of this preventive measurement and prosocial behaviour. Joy (and her friend Claudia) was a positive role model. She was portrayed as a trendy and confident music lover wearing earplugs while clubbing. When Maarten shouts in Joy's ears: *'Are you also wearing these things?'* she laughs at him and says: *'Yes, of course! Go Out Plug In!'*. She puts her earplugs in and we hear her *point of sound*: the music has a purer, somewhat quieter sound. SOUND wanted to empower youngsters who already wear earplugs while clubbing and make them positive role models. Therefore the slogan 'follow the pluggers' was designed to reward this innovative behaviour. The negative role model and character is played by Frenk, the manager and ex-lover of Joy. He hopes to win her love back again by supporting her with her career, but in the end he fails. Instead, Joy declares her love for Maarten and they start a romance.

For health communication to be effective, it is essential that the message is realistic and credible to the audience, in the sense of 'true to life characters' and 'realistic, credible plots and storylines'. This does not mean that every detail must conform to reality. Williams (1977) lists three main characteristics of realism in drama: that it has a contemporary setting, that it concerns itself with secular action (human action described in exclusively human

terms) and that it is socially extended. By the latter he means that it deals with the lives and experiences of ordinary people. In the SOUND series, the setting was the popular discotheque Paradiso in the old heart of Amsterdam. In this setting the campaign posters Go>Out Plug>In were put on the wall of Paradiso. This caused a 'Russian doll' effect. Youngsters who would visit Paradiso (or other discotheques in Amsterdam) on Saturday night would recognize the same posters as in the internet drama series SOUND or the other way around. Also free cards of SOUND were designed with quotes of the actors and distributed in the popular local discotheques of Amsterdam (CMH, 2008).

The aim of SOUND was to direct the viewers' attention to the issue of hearing loss prevention. This agenda setting is referred to as the power to 'structure issues'. In relation to drama and soap serials, the social learning theory can be expanded to include the influence of peer group behaviour. Talking with friends and peers about popular serials stimulates people to consider and incorporate the serial's ideas and messages. The level of conversations about the SOUND series among youngsters at school, at home or via social media is not known. The Sound Effects research budget was allocated for overall summative research and not for effect research of the distinctive elements such as the SOUND series. Besides this lack of extra budget for the SOUND series, new research methodologies also need to be in place in order to track down such kinds of conversations, especially conversations via social media (see also section Recommendations).

How emotionally involving and absorbing people experience a particular episode to be is the key to explaining the persuasive effects of E-E. This state of being absorbed in a narrative is called transportation (Green and Brock 2000; Slater and Rouner 2002). If youngsters do not appreciate the E-E formula of SOUND, they will stop watching and become less receptive to the message. The drama must therefore be sufficiently gratifying. Singhal, Rogers and Brown (1992) warn against making the educational content too blatant or 'a hard sell'. In the pre-test of the script of the SOUND series, the participants did not find the educational content too

blatant. In fact they had not noticed the hearing loss prevention issue until after it was told to them (Bouman and Hollemans, 2009).

Credibility, liking and consensus heuristics

SOUND made use of celebrity endorsement and heuristics. Petty and Cacioppo (1986) mention several types of heuristics. They distinguish a ‘credibility heuristic’, which means that people trust statements by credible sources. There is also a ‘liking heuristic’, which indicates that people attribute correct opinions to people they like. Another type of heuristic is the ‘consensus heuristic’, which refers to people’s reaction: if other people believe it, then it is probably true. And finally there are simple heuristics, such as the number of arguments and the sheer length of the health message (see also Chaiken 1980).

The credibility heuristic in the SOUND series was represented by the doctor in the series (a popular actor who was also a doctor in the successful Dutch soap “Onderweg naar Morgen”) who mentioned facts and figures about hearing loss prevention e.g. *‘There are also about 20, 000 youngsters each year who acquire serious hearing loss because of loud music’* and *‘Your hearing is seriously impaired. Once the cells in your inner ear are damaged, they can’t recover.’* The liking heuristic was applied by casting popular actors from Dutch soap and drama series as the main characters in the SOUND series. Only Joy, who played the professional DJ in the series, was not yet a well-known actor. In real life she was a successful DJ and her role in SOUND was her first entry into the world of drama. The consensus heuristic was more implicitly applied, by showing sexy and attractive characters who all used earplugs in a natural manner such as illustrated in the earlier described scene by Joy (see introduction paragraph).

Collaboration process

In order to design and implement the SOUND internet drama series content specialists, social change communication professionals, E-E experts and creative media professionals had to sit together to negotiate, brainstorm, create ideas and put those ideas into film practice. SOUND is an example of an E-E production partnership arrangement. An E-E production is defined by Bouman as ‘an initiative of a prosocial organization to act as an independent producer and design and produce its own entertainment programme for prosocial purposes’ (Bouman 1999, 123). In this E-E partnership arrangement, the Center for Media & Health hired the media professionals of Endemol Productions to create the SOUND drama series. Now being the head ‘producer’, the CMH had full authority over all stages of the production process, from reading the first scripts to directing the last cuts. The fact that SOUND would be ‘broadcast’ on the web and not on television made this independent E-E production partnership arrangement even more feasible. In this era of democratic media, anybody can enter the web and create his own audiovisual production. It is no longer an exclusive right and privilege of broadcasting organizations to communicate with a mass audience. Another facilitating factor was that the head scriptwriter of Endemol Productions was already familiar with the work of the CMH. He had often participated in the annual Day of the Soap that the CMH organized in the years 2005-2010 (see [www. media-health.nl](http://www.media-health.nl)). His familiarity with the entertainment–education approach facilitated the collaboration process. Although there were intense debates and re-writes of the script, it took only three months to design and produce this 9-episode drama series.

Pre-test with the green and red pencil

The final script version was pre-tested by the CMH among two test panels of young adults (N=16), aged 16-20 and 21-24 (Bouman and Hollemans 2009). The participants were invited to give their opinion and ideas about the script of the new drama series. They were not told that the series dealt with hearing loss prevention, to test whether the series was entertaining enough and not too blatant in selling a health message. Each participant received a green

pencil and a red pencil and was asked to mark his comments either in green (I like this) or red (I don't understand this, or I dislike this) in the script. The head writer of the script was present during this pre-test. It was the first time that he attended such a pre-test session and he was nervous. He said afterwards 'every time I saw youngsters taking up their red pencils it felt like they were killing my darlings' (Bouman 2008b; CMH 2010). Later he acknowledged he had learned a lot from this pre-test. He was surprised about the useful and authentic feedback the youngsters gave on the script. He suddenly realized how he always wrote scripts without really knowing his audience. This made a real impression on him. He rewrote various parts of the script. For example, he had planned a happy ending by showing a marriage scene of the two main characters Maarten and Joy. However, according to the youngsters in the pre-test, this was over the top and not realistic. Now the series ends with a long, passionate kiss.

Online and social media

The SOUND series was the first E-E drama series in the Netherlands (and presumably also in Europe) that went online. This was a challenging process for many reasons. The production company Endemol had no previous experience in writing and producing an online drama series. That made the collaboration in this SOUND series so interesting for them. They regarded it as a research and development project. They were used to writing daily soap series episodes of 25 minutes each. The SOUND series however, consisted of 9 episodes of 2-3 minutes each. This meant they had to create a cliff-hanger after 2-3 minutes instead of 25 minutes. This is a shorter span of time than in a conventional television drama series. Also, the production quality they used for the SOUND series was of the same high level as that of drama series broadcast on wide screen television. When they realized after the launch of the series that youngsters only watched the SOUND series on small computer screens via YouTube, they were shocked. This did not do justice to the high quality of their work

The original idea was to upload a new episode of SOUND every week during the nine-week campaign to create a span of arc during the whole campaign period. However, during the pre-test sessions the participants said they preferred to wait until all 9 episodes were available online. They preferred to postpone watching in order to have immediate gratification. For this reason the CMH decided to upload three new episodes of SOUND (for three weeks) every week instead of one new episode weekly for nine weeks.

The most challenging part of going digital was to create an audience for the series. How to inform youngsters there was a new series online? In 2008, social media was still in its infancy. Twitter did not exist at that time and Hyves (a popular Dutch Social Network) and Facebook were not yet widely used. The CMH created both online and offline press releases and held a press meeting together with its collaboration partner Endemol Productions. To seed the new series, a trailer had been posted on YouTube and various online social communities ([youtube.com/user/videokanaalCMG](https://www.youtube.com/user/videokanaalCMG)). This trailer had raised the attention of the tabloid press, because the main characters of SOUND were popular actors in other well-known Dutch soap and drama series. Journalists wanted to know whether the actors had quit the other series to start appearing in this new SOUND series. When the CMH and Endemol Productions wrote a press release and gave their press conference, the biggest challenge was to answer the questions of the press as honestly as possible without disclosing the educational part of the series and putting too much emphasis on the hearing loss issue (Endemol Productions & Center for Media & Health 2008). It was important that youngsters would watch the series for its entertainment value. If they knew beforehand that the series also had an educational component, they might lose their spontaneous desire to watch. This is an intrinsic dilemma of the entertainment-education strategy (Bouman 1999, 2002 and 2004).

Results

The aim of SOUND was to reach young adults in the stages ‘unengaged by the hearing loss issue’ and ‘undecided about acting’ to raise attention and awareness of the hearing loss

prevention issue via the peripheral route. Via Google analytics, we could track down the number of viewers. Within a period of 15 weeks (October 2008-February 2009) around 14,348 youngsters visited the website www.sound-soap.nl and watched the series, with an average duration of 6 minutes. The press coverage of the Sound Effects campaign consisted of offline media (daily newspapers, magazines, television and radio), online media (web communities) and YouTube films (made by a special Sound Effects media team). The total press coverage was 65 online news items, 40 of which reported on the SOUND series, and several radio interviews (Bouman, Hollemans and Fokkens 2009).

As stated earlier, the SOUND internet drama series was part of a larger strategic communication campaign Sound Effects (Bouman and Jurg, 2006). The intervention effect of this overall Sound Effects campaign was evaluated by means of a quasi-experimental pre-post control within group (N = 215) and between group (N = 1705-2039) design via offline observation and online self-report surveys. Measurements were based on the Precaution Adoption Process Model and the research design was pretested (Van Grinsven and Meijer 2009). The inter-group analyses suggested positive changes in perceived vulnerability, attitudes, self-efficacy, intentions, and action plans toward earplug use for people in the intervention region. In addition, the participant analyses suggested positive trends for the intervention group. According to the data, Sound Effects may have increased hearing loss protection among young people (Van Empelen 2009).

In 2010, the Center for Media & Health (CMH) received the Gouden Reiger Award (Golden Heron Award)² for its innovative hearing-loss prevention campaign Sound Effects. At a celebratory meeting at the Dutch Institute for Image and Sound, the Sound Effects campaign was rated best in the 'cross media' category (www.media-health.nl/newsarchive). Scenes of the SOUND series and an interview with the present author are also part of the 90 minutes

² 'Herons' are awarded to excellent projects that reach specific target groups with audiovisual and interactive media. The nominees are judged by a jury of media and communication professionals. Projects must be non-commercial.

international E-E documentary ‘Poor Consuelo conquers the world’ filmed by Peter Friedman (Friedman 2012), and broadcasted on television channel Arte on March 25, 2012. Also, CMH has guided and supervised several Master’s communication students with their theses on the SOUND series and Sound Effects campaign and given guest lectures and workshops as part of its capacity-building activities and E-E teaching modules.

Reflections and conclusions

In the introduction we raised the following questions: How can we apply E-E in a web-based environment? What are theoretical and creative elements for the design of digital stories for social change? What new skills do E-E professionals need to work in a digital era?

The experiences gathered and lessons learned in SOUND have created a solid foundation for the CMH and its partners for the exploration of new 2.0 entertainment-education formats. New web-based media technologies and sophisticated game principles offer a great potential for E-E formats. Based on the experience of SOUND in spring 2012 the CMH and its partners developed and launched a new interactive E-E web series SndBites (SoundBites) targeted at lower-educated youngsters aged 15-18 (Bouman 2009). While the SOUND series was still based on a linear story line, in SndBites the story line is narrated from different perspectives of the four main characters. Youngsters can interactively switch from one perspective to another and choose how to engage with the story line. SndBites has also some game elements (e.g. discover the secret codes in the drama line and win a prize) and has a viral potential. Besides this cross media and interactive format, trans media formats are also promising new formats. In trans media (also called multi-platform storytelling or 360-storytelling) part of the storyline transcends the media environment and unfolds itself during real-life events (e.g. meeting the main characters in a real life restaurant or nightclub).

These new 2.0 formats, however, require specific skills for E-E professionals who want to work in a digital era. New technologies have their own dynamics. For example, if 50, 000 youngsters decide at the same time to watch the SndBites series and play with the interactive components, a large dedicated server is needed at an external host provider. This huge internet traffic can no longer be handled within the own organization.

Also web-based drama series needs a different type of publicity and launching than a drama series broadcast on television. To raise the attention of youngsters and invite them to go to the website to watch the series requires a great deal of social media communication and viral activities. The necessary budget for this type of social media campaigning is very often underestimated. Also, in SOUND most of the budget was spent on the high production quality of the drama and only a small budget was allocated for social media publicity (banners, trailers, chat sessions on web communities etc.).

As indicated earlier, the issue of hearing loss while clubbing is a rather new phenomenon. This means that new approaches and strategies had to be designed and tested in a real-life setting. This was a great learning opportunity. The biggest challenge was to combine theory, research and practice in the design of the Sound Effects campaign and SOUND series. The CMH as an applied research center has specific expertise on E-E for social change (Bouman and Brown 2011; Lubjuhn 2012). This made it possible to create an integral approach. There is much literature about the Elaboration Likelihood Model, but few have applied this theoretical notion systematically in a strategic E-E communication campaign. The CMH and its collaboration partner the Municipal Health Service in Amsterdam decided to design both a ‘central route’ and a ‘peripheral route’ for the persuasion process (see earlier paragraph). The two routes of persuasion were closely linked, but had a total different ‘look and feel’ in order to create a different approach for youngsters who were not yet interested in hearing loss prevention and youngsters who were already motivated to take preventive measures while clubbing. The overall Sound Effects campaign consisted, therefore, of two separate campaign tracks: the

SOUND track and the Go>Out Plug>In track. A website was developed for each track, new materials were designed and communication to the press was carefully channelled in separate press releases. This caused an intrinsic tension, because in real life these ‘theoretical’ distinctions and separations cannot always be controlled.

Also there is an urgent need to develop more advanced methodologies for researching web-based E-E communication interventions and their related social media conversations. In order to bridge this gap, the Center for Media & Health (Bouman 2011), in collaboration with the University of Twente, developed a research project Mark My Words (MMW). The main research question of MMW is: ‘How can we use markers to track down and monitor interpersonal conversations in social media about an E-E series?’ Markers are distinctive message elements, certain unique expressions or names. Especially for this MMW research project, CMH designed specific markers in the storyline of SndBites. After the launch of SndBites, online conversations are collected in collaboration with Finch Line, a Social Media Monitoring Agency. These data (online conversations) will be analysed by using data mining and text mining techniques.

We live in a challenging era with new possibilities for entertainment-education 2.0. The strength of E-E lies in its trans-disciplinary approach and its collaborative partnerships with creative minds. Whether we succeed in creating successful new formats depends on the journey we are prepared to undertake and the level of our explorative nature.

References

- Backer, T.E., Rogers E.M. and P. Sopory. 1992. *Designing Health Communication Campaigns: What Works?* Newbury Park, CA: Sage Publications.
- Bandura, A. 1986. *Social Foundations of Thought and Action; A social cognitive theory.* Englewood Cliffs, NJ: Prentice-Hall.
- Bouman, M.P.A. 2011. *Mark My Words: The design and pretest of a methodology to analyze interpersonal health conversations on the web and in Social Media.* Grant proposal ZonMw project nr. 200400016.
- Bouman, M.P.A. 2009. *Internetseries als platform voor een crossmediale campagnestrategie.* Grant proposal ZonMw project nr. 50-50130-98-133.
- Bouman, M.P.A. 2008a. *Briefing document internet drama series Sound Effects campaign.* Center Media & Health, Gouda, the Netherlands.
- Bouman, M.P.A. 2008b. *Personal conversation with Mark Linssen at the Script Studio,* Amsterdam August 27, 2008.
- Bouman M.P.A. 2002. Turtles and Peacocks: Collaboration in Entertainment-Education Television. *Communication Theory* 12(2):225-244.
- Bouman, M.P.A. 1999. *The Turtle and the Peacock: Collaboration for prosocial change; The Entertainment-Education strategy on television,* PhD diss., University of Wageningen, 1999.
- Bouman, M.P.A. and W.J. Brown. 2011. Facilitating a transcultural approach to Entertainment-Education and health promotion: a model of collaboration. *Paper presented to the International Communication Association,* Boston, May 26-31, 2011.

- Bouman, M.P.A. and H. Hollemans. 2009. *Pretest synopsis Sound Soap: Een 10-delige internet-soap over liefde, ambitie en decibellen, Deelrapport 4*. Gouda, Netherlands: Center for Media & Health.
- Bouman, M.P.A., Hollemans, H. and P. Fokkens. 2009. *Media Strategie Sound Effects, Deelrapport 5*. Gouda, Netherlands: Center for Media & Health.
- Bouman, M.P.A. and M.E. Jurg. 2010. Chatsessie met jongeren over uitgaan en harde muziek. *Kwalon. Themanummer Internet & Kwalitatief Onderzoek* 44(15, 2):32-39.
- Bouman, M.P.A. and M.E. Jurg. 2006. *Sound Effects, een pilotvoorlichtingscampagne ter preventie van gehoorschade bij jongeren*. Grant proposal ZonMW project nr. 24500001.
- Bouman, M.P.A. 2004. Entertainment-Education television drama in the Netherlands. In *Entertainment Education and social change: history, research and practice*, ed. A. Singhal, M.J. Cody, E.M. Rogers and M. Sabido, 225-242. Mahwah, NJ: Lawrence Erlbaum Associates.
- Center Media & Health. 2012. Sound Soap. Accessed February 28. <http://www.sound-soap.nl>
- Center Media & Health. 2010. *Entertainment-Education DVD: interviews with E-E professionals worldwide recorded between 2000-2010*. Gouda, the Netherlands.
- Center Media & Health. 2008. *Sound Effects Campaign Materials*, Gouda, the Netherlands.
- Chaiken, S. 1980. Heuristic versus systematic information processing and the use of source versus message cues in persuasion. *Journal of Personality and Social Psychology* 39 (5):752-766.
- Empelen, P. van 2009. *Summatief onderzoek: Evaluatie van de pilot-interventie 'Sound Effects' ter preventie van gehoorschade onder uitgaande jongeren, Deelrapport 7*. Gouda, Netherlands: Center for Media & Health.

Endemol Productions and Center for Media & Health. 2008. *EndeMol en CMG lanceren eerste internetsoap van Nederland*. Press Release October 13, 2008.

Flay, B.R. and T.D. Cook. 1989. Three Models for Summative Evaluation of Prevention Campaigns with a Mass Media Component. In *Public Communication Campaigns*, ed. R.E. Rice and C.K. Atkin, 175-196. Newbury Park, CA: Sage Publications.

Friedman, P. (2012) Poor Consuelo conquers the World. International documentary about Entertainment-Education. 90 minutes.

Grinsven, B. van and P. Meijer. 2009. *Pretest onderzoeksmethodiek: Muziekbeleving en gehoor: Een nulmeting in Utrecht naar de kennis en perceptie van jongeren over maatregelen om het gehoor te beschermen tijdens het uitgaan, Deelrapport 3*. Gouda, Netherlands: Center for Media & Health.

Jurg, M. And M.P.A. Bouman. 2009. *Procesevaluatie Sound Effects: Een pilot-interventie ter preventie van gehoorschade tijdens het uitgaan, Deelrapport 6*. Gouda, Netherlands: Center for Media & Health.

Kreuter M.W., Strecher V.J. and B. Glassman. 1999. One size does not fit all: the case for tailoring print materials. *Ann Behav Med* 21 (4):276-283.

Lubjuhn, S. (2012, accepted for publication). *The Bait Must Be Attractive to the Fish and not to the Fisherman. Entertainment-Education Collaborations between Professionals in the Sustainability and the Television Field*. Unpublished PhD diss., University Duisburg-Essen, 2012.

Nariman, H.N. 1993. *Soap Operas for Social Change; Toward a Methodology for Entertainment-Education Television, Media and Society Series*. Westport: Praeger Publishers.

Passchier-Vermeer, W. and J.H.M. Steenbekkers. 2001. Gehoorschade door popmuziek; popconcerten, houseparty's en discotheken. *TNO-publicatie nr. 2001-149*. Leiden: TNO.

Petty, R.E. and J.T. Cacioppo. 1986. The Elaboration Likelihood Model of Persuasion. In *Advances in Experimental Social Psychology*, ed. L. Berkowitz, Vol 19, 123-205. San Diego, CA: Academic Press.

Rijs, K., Meeuse, J., Jurg, M. and M.P.A. Bouman. 2009. *Formatief onderzoek uitgaanspubliek: Meningen van jongeren over uitgaan en harde muziek: Rapport van 94 chat-interviews onder uitgaande Nederlandse jongeren in de leeftijd van 16 tot 30 jaar, Deelrapport 1*. Gouda, Netherlands: Center for Media & Health.

Singhal, A. and E.M. Rogers. 1999. *Entertainment-Education. A communication strategy for social change*. Mahwah, New Jersey, London: Lawrence Erlbaum Associates.

Signorielli, N. 1993. *Mass Media Images and Impact on Health* Westport: Greenwood Press.

Vogel I., Brug J., Van der Ploeg C.P.B., and H. Raat. 2009. Prevention of adolescents' music-induced hearing loss due to discotheque attendance: a Delphi study. *Health Education Research* 24:1043-1050.

Weinstein, N.D. and P.M. Sandman. 2002. The Precaution Adoption Process Model and Its Applications. In *Emerging Theories in Health Promotion Practice and Research. Strategies for improving Public Health*, ed. R.J. DiClemente, R.A. Crosby and M.C. Kegler, 16-39, San Francisco, CA: Jossey-Bass.

Williams R. 1977. 'A Lecture on Realism'. *Screen* 18 (1):61-74.