Chapter 1 Introduction

Because of the complexity of their disabilities, children as well as adults with a profound intellectual and multiple (motor, sensory) disability (PIMD) are offered a only limited range of activities. The activities that are offered are mostly passive in nature (Van der Putten & Vlaskamp, 2011; Vlaskamp, de Geeter, Huijsmans, & Smit, 2003), and are not adjusted to the preferences and abilities of an individual (Vlaskamp, Hiemstra, & Wiersma, 2007).

One intervention that offers an activity that is adjusted to the preferences and abilities of persons with PIMD is multi-sensory storytelling (MSST). This is a storytelling method originating from Great Britain, with as purpose to include persons with PIMD into our storytelling culture. (Fuller, 1990; Park, 1998). MSST was adopted and further developed by PAMIS, a Scottish charity organization (Lambe & Hogg, 2011; Young, Fenwick, Lambe, & Hogg, 2011). Storytelling can transfer knowledge over generations, but can also serve as a socializing matter (Lambe & Hogg, 2011). MSST initially aimed to be a pleasant activity for both the listener as for the storyteller, but this storytelling method might also answer to educational goals, for example to increase engagement or recognition during storytelling (Young et al., 2011) or to increase interactions between a person with PIMD and his or her communication partner (Lambe & Hogg, 2011). In order to achieve those aims, the listener needs to be alert during a storytelling session with attention directed towards the story.
To increase the listeners’ alertness and attention, MSST books are fully adjusted to the preferences and abilities of a person with PIMD. And although much of the content of a book depends on the abilities of the listener, there are some guidelines that serve as a framework for this method. These guidelines have as aim to increase the listeners’ opportunity to be alert and attentive.

The length of the story is predefined within a certain range: a book should take about three to six minutes to read. Therefore, an MSST story is limited to six to sixteen sentences; spread over six to eight pages. The language is adjusted to the listener, so the story has the potential to become familiar to the listener within several readings. The cover of the book is a box. On this cover a reference stimulus is attached; this stimulus is offered to the listener when the story starts, this stimulus makes the activity recognizable to the listener. The sentences are short, and every one or two sentences is supported by a sensory stimulus. These stimuli are presented on neutral backgrounds, to increase contrast between the stimulus and its background and therefore increase the visibility of the stimulus. The stimuli are actively offered to the listener, with the aim of involving them in the storytelling activity. The storyteller has a ‘story-script’ on which the text of the story is printed, but also a description of the ideal reading context is given, and instructions are specified about how to read the MSST book, and how to present the stimuli. The final characteristic of MSST is the repetitive character, a book is read more than one time, and every time the storyteller reads the book the same way (Lambe & Hogg, 2011).
There is a rationale behind these guidelines. Because an MSST book is adapted to the preferences and abilities of the person with PIMD, it gives the listener the opportunity to be fully engaged in the story (Vlaskamp et al., 2007). The story is short, which responds to the limited period of alertness observed by persons with PIMD (Munde, Vlaskamp, Post, Ruijssenaars, & Nakken, submitted), and the exact duration can be adjusted to the capabilities of the listener. Stimuli are first presented on neutral (e.g. white) backgrounds, these backgrounds intent to facilitate the focus on the stimulus by reducing visual distraction (Pasto & Burack, 1997). Finally, by repeating the multi-sensory story, the listener gets the opportunity to discover structure and meaning in the story. When the story becomes meaningful and predictable to the listener, the attention is expected to increase (Mitchell & Le Pelley, 2010).

The making of an MSST book begins with the storyteller; he or she needs to adjust the book to the preferences and abilities of the listener. In order to do so, the storyteller starts gathering information, and makes the book based on current knowledge (see figure 1, step 1).

Subsequently, the book is read and the listener reacts to the story text and the stimuli selected by the storyteller (2). Based on the listeners’ reactions the storyteller can adjust the story, so it fully fits the listeners’ needs (3), which gives the listener the opportunity to optimally engage with the story (4). If the story is finished, and read repeatedly, the storyteller can observe the (changes in) the listeners’ reaction to the stimuli. The listener can discover and learn about the stimuli presented in the story (5). After the book is read for a number of times, the storyteller can fine-tune the book, or can decide to start over and make
Thus far, despite the frequent use in practice, it is unknown whether MSST is ‘worth’ the storytellers’ investment of making a book accustomed to the listeners’ preferences and abilities and reading it according to the guidelines. Making and reading an MSST book according to the guidelines takes considerable time and effort (Lambe & Hogg, 2011). Too, training the storyteller is required prior to the implementation of MSST, and of course storytellers also need time to actually read the story in an one-to-one situation. Information about the efficacy of MSST is thus needed in order to justify the use of MSST into
practice. Another reason, even more important, for research lies in the effectiveness of the method: does reading an MSST book indeed lead to interaction between reader and listener, in engagement in the storytelling activity?

To determine the value of MSST, we first need to know whether this method is implemented into practice as intended; when implementing a new intervention, there is always a risk that practitioners only use certain parts of an intervention because it is more convenient to them. Deviations from the predefined guidelines could interfere with the efficacy of storytelling. If the guidelines are followed, it is also uncertain whether the story does attract the listeners’ attention, or whether the listener is alert at all during storytelling. And if the listener is alert and/or attentive, it is unknown which factors relate to attention and alertness. In addition, it might be that the interaction between reader and listener is the determining factor in the success of MSST; it is unclear whether or not the reading a regular book will gain equal amounts of attention, and be therefore just as appropriate to include persons with PIMD into our storytelling culture.

### 1.1 Aim of this research

This research focuses on describing and analysing the process of making and reading multi-sensory stories, and will take account of the role of both the storyteller as the listener in this process. The aim of this study is to assess the efficacy of MSST as a storytelling method and to gain better understanding of the process of making and reading an MSST book.
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First, a description of the application of MSST into practice needs to be given. Secondly, we examine which elements of MSST are positively related to the success of this method. Finally, we look whether using multi-sensory stories contributes to the present knowledge on the preferences and abilities of persons with PIMD.

1.2 Outline of the thesis

This dissertation contains three parts (see figure 2): first we want to know what kind of books the storytellers make, what choices are made in this process, and in which degree storytellers use the guidelines for MSST described above. Second, we want to study how the books are read and which factors are related to a potential success of MSST. Third and last, we want to know whether storytelling provides the storyteller with new knowledge about the preferences and abilities of the listener, which might also be applicable outside the storytelling setting.

Persons with PIMD have a disadvantage when it comes to number and quality of interventions designed to fit their needs. The relatively small size and the heterogeneous character of the target group, makes that it is difficult and unattractive to design interventions for persons with PIMD. With as result that interventions are often designed based on the intuition of practitioners, therefore ‘practice based’ and not ‘evidence based’ (Vlaskamp & Nakken, 2008). This study will contribute to the availability of evidence-based interventions for persons with PIMD in practice.
Figure 2. The outline of this dissertation

Making an MSST book
- Are MSST books made according to the predefined guidelines?
- What is the content of the MSST books made by storytellers?
- What are the expectations of the storyteller about the listeners' responds? And do they come true?

Reading an MSST book
- Are MSST books read according to the predefined guidelines?
- Which interactive style do storytellers use while reading MSST books?
- Is the listener attentive during storytelling? Does this depend on the use of the guidelines?
- What is the relation between repetition of the story and attention of the listener?

Evaluating an MSST book
- Does reading an MSST book provide the storyteller new knowledge about the listeners preferences and abilities?
- Does the storyteller make changes in the book in response to newly gained knowledge?
- Is there a difference in the reaction of a listener to an MSST book compared to a regular book?