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CONCEPTUAL PAPER

Using the ICF in goal setting: Clinical application using Talking Mats®

JUAN BORNMAN[1] & JOAN MURPHY[2]

[1]*Centre for Augmentative and Alternative Communication (CAAC), University of Pretoria, Pretoria, South Africa and* [2]*Augmentative and Alternative Communication (AAC) Research Unit, University of Stirling, Stirling, Scotland, UK*

Abstract

Purpose. The purpose of this article is to suggest how Talking Mats® can be used in accordance with the International Classification of Functioning, Disability and Health (ICF) proposed by the World Health Organisation (WHO) when setting intervention goals.

Method. A theoretical framework for using Talking Mats® when setting intervention goals in accordance with the ICF is provided.

Conclusions. An international system such as the ICF offers a conceptual framework that can be used to set appropriate goals for intervention. Talking Mats® on the other hand can be seen as the strategy through which individuals can be empowered to participate in this goal-setting activity.

Keywords: *Communication difficulties, goal setting, ICF, participation, rehabilitation, talking mats®*

Introduction

Goal setting is the identification of and agreement on a target between the client, therapist or team followed by working towards that target over a specific period of time [1]. It is now acknowledged that the clinical management of individuals requiring therapeutic intervention can be enhanced if they are involved in planning and setting their own goals in the process of their recovery. Schut and Stam stress the importance of involving the client in the goal-setting process when they state that something relevant for the therapist may be regarded as completely irrelevant by the client and/or the other way round [2]. If the client does not regard a goal as relevant, the team runs the risk that its efforts are in vain as the client is not motivated to work at an irrelevant goal. Likewise, Haas explains that clinicians must seek client input early during rehabilitation to guide the setting and revising of goals [3].

In practice, goal setting is problematic because individuals can find it difficult to understand the rehabilitation process and how they can participate in it. Communication difficulties (whether due to receptive, expressive or cognitive difficulties), can be an additional barrier to active participation [4]. More recently, goal setting with persons who require intervention has been highlighted, emphasizing its importance for effective problem solving, for self-management and self-determination [5].

Talking Mats® is a low-tech communication framework which uses a mat with pictures symbols attached as the basis for communication. It was originally developed by the AAC (Alternative and Augmentative Communication) Research Unit to support people with communication impairment. Since its original conception, additional research has taken place and now it is an established communication tool. It helps people with and without communication difficulties to think about issues discussed with them and provide them with a way to effectively express their opinions. It provides a framework in which complex rehabilitation issues can be presented to patients in an accessible way, thereby facilitating their understanding of and active participation in the goal-setting process. It is now used internationally and is recognized as one of

Correspondence: Joan Murphy, University of Stirling, Stirling FK9 4LA, Scotland. Tel: +44 1786 467645. Fax: +44 1786 467641.
E-mail: joan.murphy@stir.ac.uk

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the few tools that enables people with communication difficulties to be actively involved in research [6,7,8].

However, determining the broad domains that can be used to ensure a comprehensive picture of an individual's current functioning and needs, as well as appropriate and easy ways in which this can be done by individuals with communication difficulties, is problematic. This results in intervention teams often having to rely on their own ingenuity, skills and prior knowledge when setting goals for these individuals, leaving the person with the communication problem feeling annoyed and frustrated [9]. This paper addresses these issues by using the nine domains of the World Health Organization International Classification of Functioning, Disability and Health to assist with goal setting, and to use Talking Mats® as a framework to assist persons with communication problems to indicate what they regard the most appropriate intervention goals for them [10].

The ICF

The World Health Organization International Classification of Functioning, Disability and Health aims to provide a standard language and framework for the description of the complete range of health-related states and experiences of health [11].

The ICF has been widely used by researchers and clinicians alike. To this extent *Disability and Rehabilitation* dedicated a special issue of the journal to make it wider known to its readership [12]. The World Health Organization has also realized that in order to understand the nature of disability and offer potential solutions, the Disability Rights Movements have a major role to play [13]. To this extent, Disabled Peoples International (DPI) utilizes the ICF as their preferred framework for defining disability, indicating its general acceptance in this sector [14].

The basic structure of the ICF is relatively well known and it uses the umbrella terms '*functioning*' to indicate positive aspects at the three levels: (i) body functions and structures; (ii) activities, and (iii) participation and '*disability*' for the negative aspects (problems) at all three levels [10,15]. The ICF is graphically presented in Figure 1, using graphic symbols that will be explained later.

At the "*Activity*" and "*Participation*" levels the ICF proposes nine different domains of importance, which has the advantage that it is a neutral list covering the full range of life areas, irrespective of the person's ability. These domains are shown in Figure 2 and include learning and applying knowledge (learning and thinking); general tasks and demands (ways of coping); communication; mobility; self care; domestic life; interpersonal interactions and relationships (relationships); major life areas (work and education) and finally community, social and civic life (leisure).

The most significant disadvantage of these domains in their present state is the fact that the

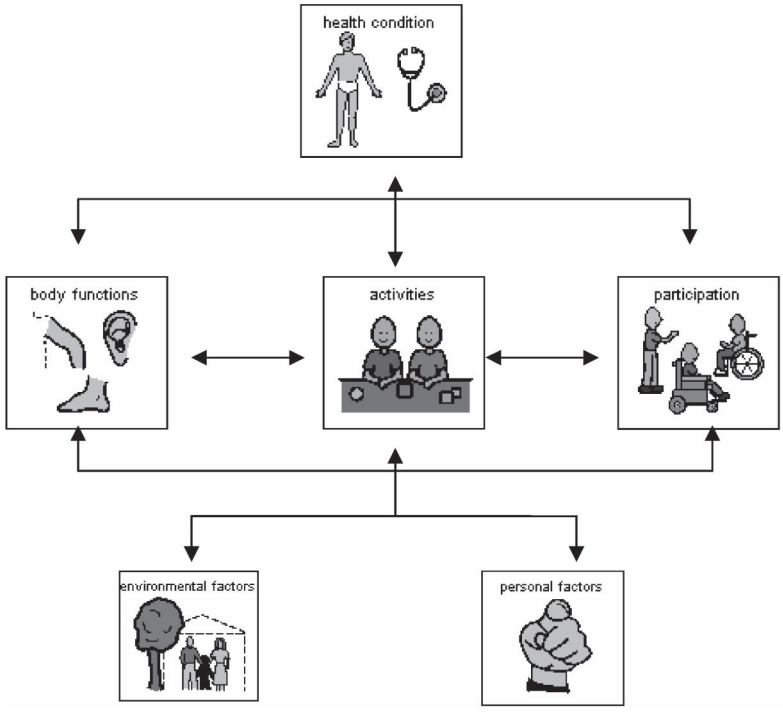

Figure 1. Interactions between the components of ICF in graphic symbol format.

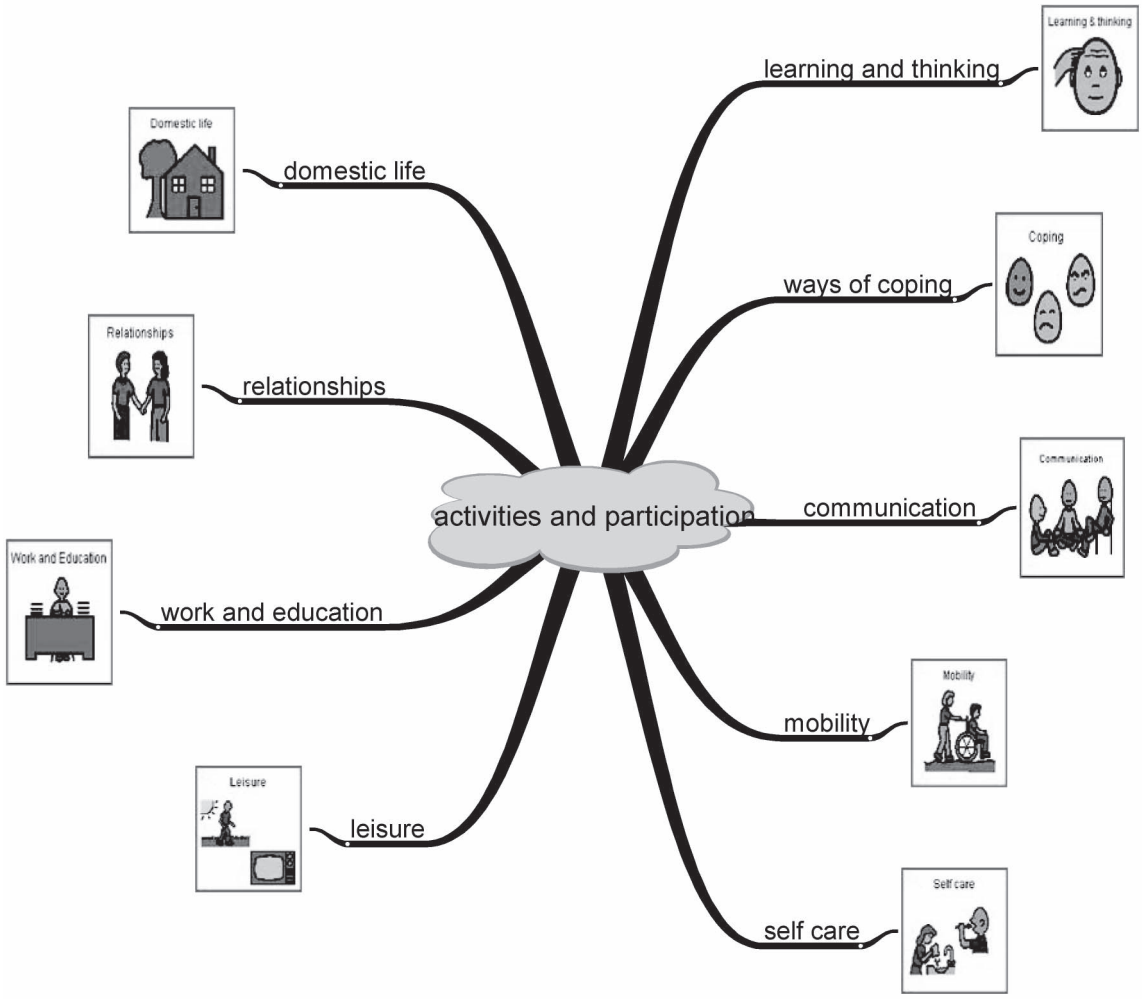

Figure 2. Domains in activities and participation.

terminology is not always user-friendly, especially for persons with disabilities. Changing some of the terminology and using graphic symbols to represent the domains would make the ICF more accessible for some persons, e.g. ''*learning and applying knowledge*'' can be changed to ''*learning and thinking*'' ''*general tasks and demands''* can be changed to ''*ways of coping,*'' and so on.

In addition to the three levels and the nine domains, the ICF highlights the importance of two contextual factors that are important in the construction of disability and that either acts as facilitators or as barriers/hindrances, namely environmental and personal factors [16]. Environmental factors refer to the physical, social and attitudinal environments in which people live and conduct their lives. They are extrinsic (outside of the individual) e.g. the attitudes of society, architectural characteristics or the legal system. Environmental factors are organized from the immediate environment (e.g. a wheelchair) to the general environment (e.g. national policies on inclusive education). Personal factors on the other hand, refer to the particular background of an individual's life and living, like gender, age, other health conditions, fitness, lifestyle, habits, coping styles, social background, education, past and current experience, overall behaviour patterns and individual psychological assets that have an impact on how functioning and/or disability is perceived. The inclusion of these two contextual factors in the ICF thus recognizes that disability can never be seen as a static feature of the person, but rather and outcome on the interaction between the person and their environment.

Talking Mats®

For the purpose of this paper, these nine ICF domains and two contextual factors have been converted into graphic symbols, which can be easily understood by those using Talking Mats®. These domains or 'topics' act as a good starting point to help people consider issues in their lives and can also ensure all aspects of a person's life are effectively addressed if this is required. As a further expansion, subsets of 'option' symbols related to each topic have

been developed, and three examples are provided in Figure 3.

Talking Mats® can be described as a strategy that allows persons of all ages who require intervention to express thoughts or emotions about specific topics through an easy-to-use visual framework. Graphic symbols are used as the means through which they are provided with a simple, yet powerful way of thinking about views in an effective, non-threatening way before expressing them.

Talking Mats® consists of three different sets of graphic symbols, namely *topics, a visual scale*, and *options*. The graphic symbols can be either hand-drawn or commercially available such as PCS and have hooked Velcro™ attached to the back. They are then displayed on a rectangular fibre mat (e.g. a door mat or car mat) of approximately 36×55 cm. The symbols with the Velcro™ stick to the mat, providing a stable display of the selection that was made, while allowing the person to consider and shift the symbols until satisfied.

The "*topic*" symbol introduces a range of different topics that can be discussed, and in this case would refer to the ICF domains. The "*visual scale*" usually consists of three possibilities through which thoughts and feelings about each option under the specific topic can be shown. The left hand symbol indicates a positive feeling or thought, e.g. "*like*", the middle symbol would be neutral or unsure, whilst the right hand symbol indicates a negative feeling or thought, e.g. "*dislike*". Other possibilities could include "*happy, neutral, sad*" or "*very important, unsure, not important*". For some persons the scale could be expanded to be more subtle so that it becomes a 5-point scale, whilst the 3-point scale might be too overwhelming for some, in which case it should be reduced to a 2-point scale, dropping the middle symbol. The "*option*" symbols enable persons to relate specifically to each topic, e.g. if the topic is "*domestic life*" the options could be things like "*housing; sweeping the floor; washing the dishes; emptying the dustbin; washing clothes* and *ironing*."

The topic selected to start with will depend on the context and the knowledge the interviewer has of the individual. When using Talking Mats®, the first step is to introduce the topic, e.g. "*Let's think about your home life today*." The person is then presented with the options that pertain to domestic life one at a time, and asked to think what he feels about each option. It is important to not ask close-ended questions that will only give a choice and may be leading the person e.g. "*Do you struggle with washing the dishes?*" Instead, it is better to ask open-ended questions that allow the person to express their own views and feelings e.g. "*What do you feel about washing the dishes?*", "*What do you feel about ironing?*" and so on. The person is

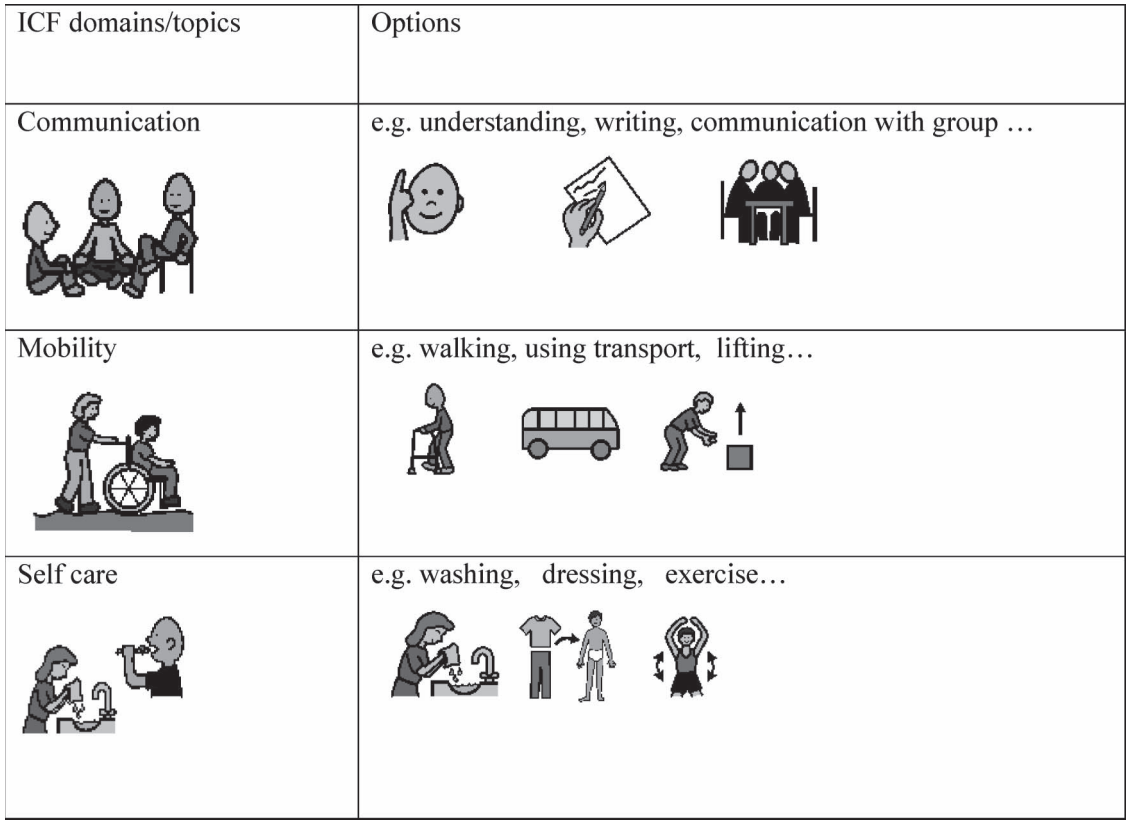

Figure 3. Examples of subsets of 'option' symbols.

asked to think about what he feels about the particular option before placing the symbol under the appropriate symbol on the visual scale to indicate his response. Acknowledging the selection provides feedback e.g. ''*see you don't have any problems with sweeping the floor*''. Once all the symbols have been displayed on the mat, the various options can be discussed to ensure that it is really representative of the individual's feelings and thoughts on that particular day. When a particular topic has been shown to be problematic, that topic can be explored in more detail, e.g. if the person identifies that ''*transport*'' (in the mobility domain) is a problem, a sub-mat can be started where transport then becomes the topic with different options, e.g. *bus, train, motor vehicle, taxi,* etc.

It is advisable to take a digital photograph of the completed mat for record purposes and to use it at a later stage to support ongoing discussions of how priorities change, impacting on future decisions. It is important to recognize that the views expressed on the mats are those of the client and may not necessarily concur with those of the professional. Bear in mind that the mats do not contain right or wrong answers, but rather a description of feelings or thoughts on a particular day. The opinions expressed on the mat should not be viewed as static, but as something that will change and fluctuate due to moods, changes in the environment, medical factors etc.

The following vignettes illustrate how the ICF has been used with two people with different difficulties. They are based on real people with identifying information changed to preserve confidentiality. Both were referred to a multi-disciplinary community based rehabilitation team whose underlying philosophy is to support clients to identify their own relevant and realistic goals for rehabilitation. Photographs and explanations of the Talking Mats® are shown in the Appendix.

A is a 32-year-old woman who had a brain haemorrhage. Following discharge from hospital she returned to her own home where she lived alone with some family support. She had a right hemiplegia but was able to walk short distances unaided. Her comprehension was good but she had a severe speech dyspraxia and mild expressive aphasia. Following referral to the rehabilitation team she was encouraged to think about her goals for rehabilitation but could only identify 'speech' and 'walking'. Talking Mats® was used to: (i) help her consider the main topics which the team could assist her with, and (ii) to identify those areas that she was not managing and felt she needed help with. The mats in the Appendix illustrate the main topics she identified and also the submat she completed on 'communication'. This helped the team understand what was important to her and to plan interventions that were relevant for her. Talking Mats® was used three months later to find out her views on her progress. Several topics had shifted both in the general and the 'communication' topics.

B is a 51-year-old man who had a brain injury following a road traffic accident resulting in memory loss, poor sleep patterns, a lack of motivation and reduced mobility. Following hospital discharge he returned home where he lived with a supportive family. He could not think of any goals except that he wanted to be back to normal. Using Talking Mats® he was able to identify that the area causing him most difficulty with was carrying out daily activities and by using the detailed options within the activities domain he could select activities that he wanted to try and needed help with. Consequently he was able to identify specific goals that were both relevant and realistic for him.

It is important to note that the options/goals were identified by the person and not by the professional. The use of Talking Mats® also helped the persons see their lives in perspective and identify the successful areas as well as those they were having difficulty with.

Using Talking Mats®, when reflecting on the ICF domains and contextual factors, has been shown to be effective [5]. As such it has many possible functions, amongst others to allow persons to reflect on their lives (e.g. where they live, what they do, their health, their relationships), to understand what intervention involves and to allow the person to become more involved in aspects of intervention that directly affect him, for example, setting and measuring intervention goals and life planning, to provide a baseline of current functioning in relation to the particular environment (e.g. the mats will depict with which domains he currently experiences difficulties) and finally, to recognize progress by comparing functioning over time.

Clinicians have also found Talking Mats® and the ICF domains to be useful when teams get together to determine outcomes [5,9]. When the individual who requires intervention is able to actively participate in goal setting, some problem areas might be highlighted (e.g. domestic life and mobility), indicating that these should be the priorities for intervention, when the occupational therapist might take the lead. On the other hand, had communication been pinpointed as the major area of difficulty the speech-language therapist might lead the team. Over time these will obviously change, as functioning in some domains might increase and no longer require help, whilst difficulties in some domains might emerge if a progressive, degenerative disorder (e.g. amyothrophic lateral sclerosis/motor neuron disease) is present. Talking Mats® can be easily used by individuals with limited hand control as they can use eye pointing to indicate their preferences.

It should be acknowledged that not everyone can use Talking Mats®. Some conditions make it difficult to use Talking Mats®, for example, when a severe intellectual impairment or a severe receptive aphasia is present [5]. Another problem that can be encountered is when the intervention goals are unrealistic, e.g. if a person wants to return to work and this is not possible. Interventionists can address this by suggesting appropriate alternatives, whilst still addressing the individual's need, such as suggesting voluntary work, or when a person has a severe communication difficulty and wants to take telephone messages, he can be taught to do this electronically with an answering machine.

Summary

Using Talking Mats® as a goal-setting tool in conjunction with the ICF framework provides a structure for persons to consider and articulate their goals within the rehabilitation process. The individual's perceptions of the goal-setting process, the influence of the environment in which rehabilitation takes place and the individual's personal factors are important in understanding the goal-setting process. The information gained will facilitate the development of person-centred rehabilitation programmes tailored to meet the unique goals of people at the right time, in the right way.

Acknowledgement

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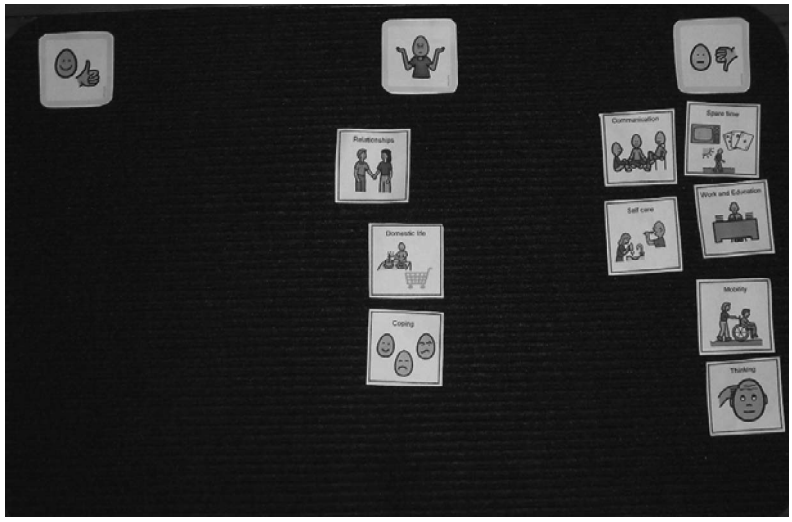
Appendix

Photograph 1. A's Main topic mat at beginning of rehabilitation.

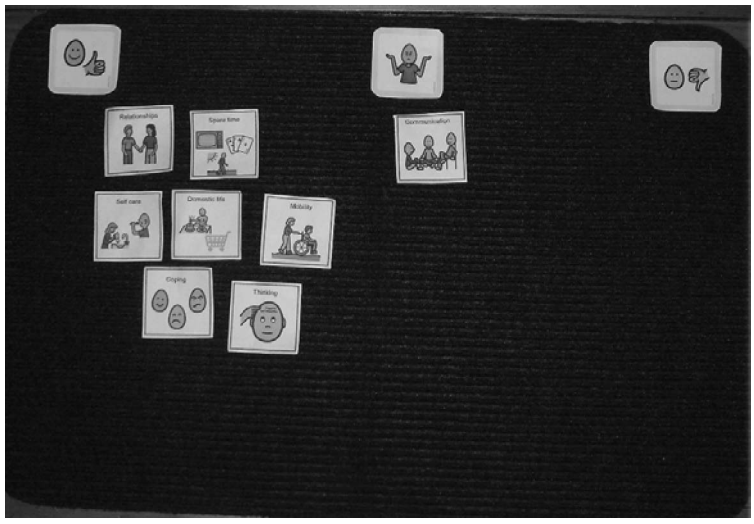


She felt there was nothing that she was managing well. She felt unsure about **relationships, domestic life and coping strategies** and indicated that she needed help in managing her **communication, leisure/spare time, self care, work/education, mobility and thinking.**

Photograph 2. A's Communication mat at beginning of intervention.

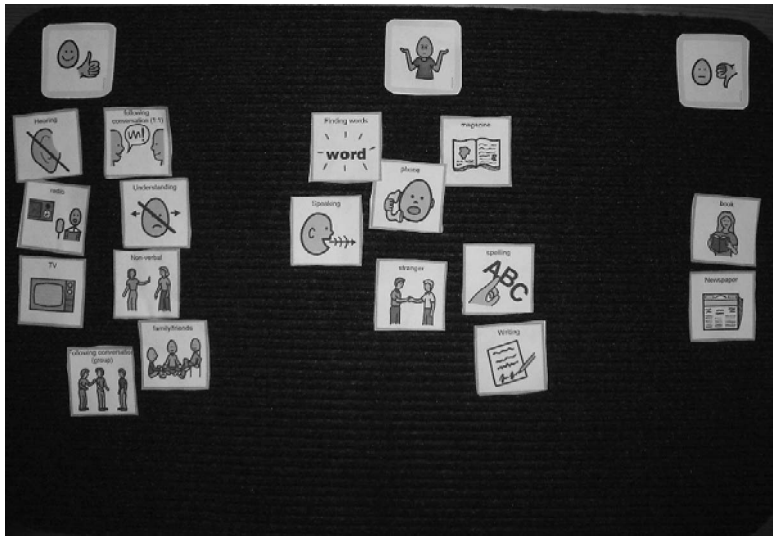
She chose to explore her feelings about communication in more detail and identified some specific areas with which she wanted help such as **talking to family/friends, using the phone, following a group conversation, reading a book, speaking, finding words, reading the newspaper, spelling, talking to strangers and writing.**

Photograph 3. A's Main topic mat 3 months later.



Three months later all areas had moved up on the mat although she was still unsure how well she was managing her **communication**. She omitted **work/education** as she had decided not to go back to work for the time being.

Photograph 4. A's Communication mat three months later.



Three months later A indicated on the detailed **communication** mat that a number of areas had improved but that her remaining difficulty was with **reading.**

Photograph 5. B's general topics before intervention.

B felt that he was managing **communication** and **relationships** well; he was unsure about his **coping** and **thinking** and felt he was not managing his **domestic life, leisure/spare time, self care and mobility.** He chose to omit **work/education**.

Photograph 6. B's Activities mat before intervention.

The only activities that B indicated he was doing were **listening to music** and **watching the TV**. There were a number of activities he missed out as he was not interested in them but also a number that he indicated he wanted help with such as **walking his dog, going to the pub** etc.

Photograph 7. B's Activities mat after three months intervention.

After three months he felt positive about going out for **walks with his dog** and **going out for meals**. He felt there were a number of activities that he was making progress with but that reading and swimming were still difficult.