



HORTICULTURE

RESEARCH METHODS AND TOOLS

In order to investigate the benefits of the horticultural therapy and verify its educational value, the methods relies on several abilities: relational, social, attitudes, fine and gross motor skills. All of them are related to the training work and to problematic behaviors of the patients, and the collection of data is done before and after the activity.

For every skill there is an evaluation form, inspired by the Evaluation Form of Mastered Skills (SVAP), and by the observation sheet developed by M. Pilone, R. Cavagnola and F. Fiorini.¹

Each evaluation form contains ten items: everyone gets a score from 0 to 4 based on the degree of mastery of the skill observed.

The score of 0 corresponds to a not possessed skill; the score of 1 corresponds to a possessed skill only at certain times or in certain contexts; the score 2 corresponds to an ability always present, but only partially; the score 3 corresponds to a skill that sometimes needs an help from outside, the score of 4 corresponds to a possessed skill and well mastered.

The score changes for the evaluation of problematic behaviors: 0 corresponds to the absence of the problematic behavior; 1 corresponds to a problematic behavior rarely issued; 2 corresponds to a problematic behavior emitted few times, and 3 corresponds to a problematic behavior emitted many times; 4 corresponds a problematic behavior emitted almost every day.

After having assigned to each item its score, I calculate the percentage of the skills considered by dividing the sum of the obtained scores for the sum of the maximum score (that is 40). For the scores relating to problematic behaviors, I will calculate also the difference in the percentage obtained.

¹ Cfr. M. Pilone, R. Cavagnola, F. Fioriti, *La valutazione funzionale nel ritardo mentale adulto*, Vannini, Gussago (Brescia), 2002



EVALUATION FORM

RELATIONAL SKILLS

		Start	End
1	He/She smiles, looks at others		
2	He/She responds to the smile, to the glance of others		
3	He/She greets		
4	He/She responds to the greetings		
5	He/She accepts the help of mates		
6	He/She accepts the help and the observations of educators		
7	He/She collaborates with the work group		
8	He/She sits near to the mates		
9	He/She accepts that the mates and the educators sit near to her/him.		
10	He/She establishes privileged relations		

Sum of the results

Percentages

%

%



SOCIAL SKILLS

		Start	End
1	He/ She starts social interaction		
2	He/ She accepts social interaction began by others		
3	He/She shows affection toward familiar people		
4	He/ She gives little confidence to the outsiders		
5	He/ She respects and recognizes the authority (educators, director ...)		
6	He/ She makes requests		
7	He/ She expresses dissent		
8	He/ She respects property of the others		
9	He/ She uses verbal forms of courtesy		
10	He/ She uses behaviors of courtesy		

Sum of the results

Percentages

%

%



FINE MOTOR SKILLS

		Start	End
1	He/ She grabs objects with the hand		
2	He/ She grabs objects with thumb-index		
3	He/ She screws and unscrews		
4	He/ She threads beads		
5	He/ She uses the scissors		
6	He / She correctly holds in him/her hand a pencil		
7	He / She knows how to dose the pressure on a pencil, knife, fork ...		
8	He/ She leafs through a book or a magazine, one page at time		
9	He/ She shapes clay, salt dough with his/ her hands		
10	He/ She moves small objects from one container to another		

Sum of the results

Percentages

%

%

GROSS MOTOR SKILLS



		Start	End
1	He/ She stands up from sitting on the ground		
2	He/ She walks alone		
3	He/ She goes up and down the stairs		
4	He/ She knows to throw a ball, directing it		
5	He/ She walks bringing a weight with his/ her hands		
6	He/ She follows a path without bumping any obstacles		
7	He/ She picks up objects from the floor		
8	He/ She can jump		
9	He/ She can be balanced on a foot		
10	He/ She can push heavy objects		

Sum of the results

Percentages

%

%

TRAINING WORK



		Start	End
1	He/ She is attentive during a work		
2	He/ She respects the times imposed		
3	He/ She is punctual / constant in a work		
4	He/ She emits a behavior appropriate to the circumstances (to arrive, to leave...)		
5	He/ She finishes a work in an independent way		
6	He/ She adequately accepts changes in the environment (position, tools ...)		
7	He/ She recognizes the right tools to the type of work		
8	He/ She uses different types of tools depending on the tasks		
9	He/ She asks instructions when he/ she is in difficulty		
10	He/ She carefully manipulates delicate and dangerous materials		

Sum of the results

Percentages

%

%

BEHAVIORS PROBLEM



		Start	End
1	Attitudes of rejection or denial		
2	Escape or avoidance behaviors		
3	Excessive anxiety		
4	Mood swings		
5	Verbal and/or motor stereotypes		
6	Difficulty to remain still / sitting		
7	Presence of ritualisms		
8	Tendency to isolate himself/ herself, to hide or move away		
9	Use of offensive and provocative language		
10	Aggressive behaviors		

Sum of the results

Percentages

% %

Difference of the percentages

% %