

EATS¹ INSTRUMENTS KIT

**English version,
translated from the Swedish version**

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EATS CLEARINGHOUSE

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¹ The EU EATS (Efficiency of Assistive Technology and Services) Project within the Telematic Applications Programme

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1. INTRODUCTION

The EATS Instruments Kit is a battery of instruments for rating the benefits the user/patient obtains from rehabilitation measures, particularly assistive devices for the functionally disabled. The battery of instruments was compiled between 1997 and 1999 within the EU project EATS (Efficiency of Assistive Technology and Services). Members of the EATS Consortium are listed on the last page. The instruments comprising the battery are generic and make comparisons possible between different measures and between different groups of functional disabilities.

The EATS Instruments Kit consists of two parts:

- IPPA (Individually Prioritised Problems Analysis), intended to measure how well measures have succeeded in decreasing the problems functionally disabled individuals encounter in their everyday lives.
- PIRS (Problems Impact Rating Scale), a VAS (visual analogue scale) that is intended to measure how the user's problems affect his/her everyday life.
- In addition, there is the EuroQol, (EQ-5D, five dimensions), a standardised generic life quality instrument that has been supplemented with two additional questions.

2. Form for registration of use

EATS INSTRUMENTS KIT

Form for registration of use

The EATS INSTRUMENTS KIT was developed by the EU Consortium EATS and is available to anyone who wants to study the results of the use of assistive devices and work with assistive devices. Other rehabilitative applications can also be appropriate. EATS INSTRUMENTS KIT is a prototype. It is therefore of interest to follow up the use of the instruments in order to further validate them and obtain experience concerning their use. The EATS Consortium currently places no restrictions on the use of the Kit, but wishes to study the experiences of those who use it. We therefore request that you fill in the following form for the EATS group.

Return the form to Jan Persson, CMT, Department of Medical and Health Sciences, Linköping University, 581 85 Linköping, Sweden.

Date _____

Name _____

Title _____

Place of work _____

Postal address _____

Tel _____

Fax _____

E-mail _____

I am using the EATS Instruments

I am going to use the EATS Instruments

EATS INSTRUMENTS KIT

Application*

Send in a form for each study in which the EATS Instruments Kit is used

1. Title of the study _____

2. Conducted by _____

3. Aim _____

4. Study design _____

5. Population, size _____

6. Other outcome measures (clinical, quality of life) _____

7. Start date, length of the study _____

8. Publications _____

9. Financed by _____

10. Contact address _____

11. Tel: _____

12. Fax: _____

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581 83 Linköping, Sweden, Fax: +46 (0)13 22 49 95

3. Instructions

3.1. Instructions for IPPA interviews

For the first interview the interviewer should have seven IPPA forms, an IPPA checklist, and paper and a pen at hand.

3.1.1 Identification of "problems" at the first interview

The premise for IPPA is that functional disability can result in limited possibilities to carry out activities the individual needs to carry out in order to solve problems in his/her daily life. The idea behind IPPA is both to find these problems and assess their importance for the person in question as well as to assess the difficulty in carrying out the activity related to the problem.

The interviewer asks the user/patient to try to identify the problems he/she judges to be of great importance and expects will be improved by means of the rehabilitation efforts (training, treatment or aids). The interviewer goes through the introduction at the top of the form. This part of the interview must be conducted in an informal way, with natural interaction between the user/patient and the interviewer.

The interviewer can help the user/patient by asking him/her to describe step by step the different activities he does during a day.

The interviewer must make sure that the problems are identified on the activity level. If a problem is identified in too general a way, such as "*I have a problem communicating*", the interviewer must continue asking questions with the aim of breaking down the problem to a more concrete level (in what situation/activity is communication a problem?).

On a separate paper the interviewer makes a list of the problems identified by the user/patient. When the individual has stopped spontaneously formulating problems, the interviewer can use a checklist to go through possible areas with the user/patient to be sure he/she has not missed any relevant problems. The interviewer goes through the list with examples of possible areas of activity in order to check if there are any areas that have not been included.

A maximum of seven problems are identified. (The user/patient should be stimulated to think through conceivable problem areas but should not be pressured into stating exactly seven problems.) The aim is to identify those problems that are of relevance for the user/patient, and it is unimportant if the user/patient identifies fewer than seven problems. If the user/patient defines more than seven problems, the interviewer should show the list of stated problems to the individual and ask him/her to choose the seven problems that are of most relevance.

For each of the identified problems the interviewer then fills in a separate IPPA form. The interviewer writes a short description of the problem that is to be assessed on the form and numbers the problem (1 to 7).

3.1.2 Rating of “importance” and “difficulty”

The interviewer shows the IPPA form with the first problem to the user/patient and asks him/her to answer the first question, “How important is this problem for you at the present time, meaning during the last few days before the interview? The user/patient responds by placing an X next to the most relevant answer.

After that the question concerning how difficult it is to carry out the activity that is related to the “problem” is answered in a similar way.

This procedure is repeated for each of the identified problems (a maximum of 7).

3.1.3 Instructions for IPPA in the follow-up interview

For each of the problems (a maximum of 7) identified in the first interview, the interviewer fills in an IPPA form using the same descriptions and numbering of problems as in the first interview.

The user/patient is not allowed to see or be informed of his/her ratings in the first interview. The interviewer shows the user/patient the IPPA form with the first problem and asks him/her to indicate the current level of difficulty in carrying out a corresponding activity.

This procedure is repeated for each of the problems listed previously (a maximum of 7). The interview with the user/patient is then complete and the IPPA scores can be calculated.

3.1.4 Calculation of IPPA scores

The principle involved in calculating IPPA scores is that the degree of difficulty of the activity is weighted with the importance attributed to the problem related to the activity. Two different scores can be used, namely the IPPA mean score and the IPPA total score. The value of these needs to be further elucidated in studies of discriminatory ability, prognostic value, and other measures of performance.

The user’s/patient’s answers to the questions are coded according to the following.

<u>Importance</u>	<u>Degree of difficulty</u>
1 = Not important at all	1 = Very easy
2 = Not especially important	2 = Rather easy
3 = More or less important	3 = Neither easy nor difficult
4 = Rather important	4 = Rather difficult
5 = Very important	5 = Too difficult to carry out

IPPA mean score

For each problem the “difficulty score” is multiplied by the “importance score”. The results are added together and then divided by the number of problems. The result is a mean score of between 1 and 25.

IPPA total score

For each problem the “difficulty score” is multiplied by the “importance score”. The results are added together for a total score of between 1 and 175.

Example:

User's/patient's ratings:

problem 1: importance = 5, difficulty = 5

problem 2: importance = 3, difficulty = 4

problem 3: importance = 2, difficulty = 1

$$\text{IPPA mean score} = (5 \times 5 + 3 \times 4 + 2 \times 1) / 3 = 13$$

$$\text{IPPA total score} = 5 \times 5 + 3 \times 4 + 2 \times 1 = 39$$

The difference between the IPPA score from the first interview and that from the second interview represents the weighted decrease in the difficulty in solving identified problems. The greater the difference, the larger the effect the rehabilitation measure has had.

IPPA Checklist

Personal care

Showering/bathing/washing oneself
 Dental hygiene/care of the hair/skin/feet
 Dressing/undressing
 Eating/drinking
 Using the lavatory
 Sleeping and resting
 Waking up at appointed time
 Managing one's health, taking medication, for example

Mobility

Moving about inside/outside (walking, using wheelchair or other aid)
 Going up and down stairs
 Sitting down and getting up from a chair
 Getting into and out of bed
 Getting into and out of a car

Transportation

By car
 By bicycle
 By means of mass transportation

Household work

Cooking food/preparing a meal
 Cleaning/washing dishes
 Washing/caring for clothes
 Shopping
 Lifting things/picking up things
 Lighting a fire/managing the heating

Security/safety

Calling the fire-brigade in case of fire
 Locking/unlocking outer doors
 Calling for help if necessary

Leisure time

Watching TV
 Listening to the radio/music
 Reading newspapers/magazines/books
 Recreation
 Working in the garden
 Playing
 Using a computer
 Hobbies
 Sports

Communication

Having a conversation
 Using the telephone

Reading/writing

Role activities

Work
 Studies
 Political/religious activities

Social integration

Visiting family/friends
 Participating in clubs/organizations

3.2 Instructions for the quality of life instrument

The quality of life instrument consists of the five-dimensional EQ-5D of the EuroQol group and two supplementary questions concerning mobility and relationships. These two questions have answer alternatives that differ from those in the other five questions. The interviewer should make this clear to the user and provide information about the content of the two questions.

The interviewer describes the three answer alternatives to the respective questions:

1. I have no problems (or limitations)
2. I have some problems (or limitations)
3. I have very big problems (or limitations)

The user/patient is requested to choose the statement that best describes how he/she has experienced the situation during the past few weeks. Only one answer can be given for each question. The question concerns the user's/patient's everyday life situation, in his/her usual environment, with all the technical aids and personal assistance he/she currently uses.

3.2.1 Social relationships

The user/patient may have a few or a larger number of contacts as a part of his/her usual activities, but this does not say much about how satisfying these relationships are with respect to his/her expectations. This question concerns the quality rather than the number of social contacts that are established or maintained. This can comprise relationships with the spouse, other family members, friends, colleagues and new contacts.

3.2.2 Mobility

“Mobility” should be considered based on common situations for the user/patient and in relation to what meets this person's own expectations. It is consequently of no importance how he/she moves about (without aids, using mass transportation, by car, in a wheelchair he/she controls himself/herself, or in a wheelchair pushed by someone else) or how far he/she goes.

Instructions for the five questions in the EuroQol's EQ-5D are found in the instrument.

3.3 Instructions for PIRS (Problems Impact Rating Scale)

The interviewer explains in a short introduction that the scale is designed to express the extent to which the problem caused by a reduced activity level or functional impairment affects the user's/patient's life at the time of the interview. PIRS consists of a thermometer scale graded from the best imaginable state “Not at all” (a value of 0) to the worst imaginable state “Totally” (a value of 100). The user/patient is to draw a line from the question, “*To what extent do your problems affect your daily life?*” to the point on the scale that best represents current condition.

4. Forms

IPPA

Quality of Life instrument

PIRS

IPPA Interview 1

Fill in a separate form for each identified problem

Describe the daily activities you presently have difficulty carrying out and that you believe can be improved through planned measures. Think about problems you have experienced during the past month. These can be limited activities (moving from one room to another, writing a letter) or a more large-scale activity (keeping in touch with relatives, managing the shopping, etc.) You can take up activities you cannot do at all or that you cannot do so well, or as often or as easily as you would like.

To be filled in by the interviewer

Problem no. _____

Problem _____

To be filled in by the user/patient

1. How important is this problem for you?

(place an x in the appropriate box)

- | | |
|-----------------------------|--------------------------|
| 1. Not important at all | <input type="checkbox"/> |
| 2. Not especially important | <input type="checkbox"/> |
| 3. More or less important | <input type="checkbox"/> |
| 4. Rather important | <input type="checkbox"/> |
| 5. Very important | <input type="checkbox"/> |

2. How difficult is it for you now to carry out this activity?

(place an x in the appropriate box)

- | | |
|-------------------------------|--------------------------|
| 1. Very easy | <input type="checkbox"/> |
| 2. Rather easy | <input type="checkbox"/> |
| 3. Neither easy nor difficult | <input type="checkbox"/> |
| 4. Rather difficult | <input type="checkbox"/> |
| 5. Too difficult to carry out | <input type="checkbox"/> |

IPPA Interview 2

Fill in a separate form for each identified problem. The user/patient is not allowed to see earlier ratings.

To be filled in by the interviewer

It has been ___ months since we last met and did a survey (problem formulations)

- How do you think the measures have influenced your being able to carry out the activities you previously reported to be problems?

Problem no. _____ (the same as in the first interview)

Problem _____

To be filled in by the user/patient

How difficult is it for you now to carry out this activity?

(place an **x** in the appropriate box)

- | | |
|-------------------------------|--------------------------|
| 1. Very easy | <input type="checkbox"/> |
| 2. Rather easy | <input type="checkbox"/> |
| 3. Neither easy nor difficult | <input type="checkbox"/> |
| 4. Rather difficult | <input type="checkbox"/> |
| 5. Too difficult to carry out | <input type="checkbox"/> |

CALCULATION OF IPPA SCORES

Date _____

Patient _____

Problem	Importance	Difficulty Interview 1	Difficulty Interview 2	Difference in difficulty between Interviews 1 and 2	Importance * Difference in difficulty
1					
2					
3					
4					
5					
6					
7					
Total = IPPA total score					
Total / number of problems = IPPA mean score					

EuroQol

The EuroQol instrument (EQ-5D and EQ VAS) is a simple generic instrument designed to measure health effects. It has been developed and tested for over ten years. These activities are now managed by the EuroQol Group with its EQ Business Management site in Rotterdam, the Netherlands. The instrument can be used without cost except in the case of commercial applications, which include testing of medications, where support can be obtained from the pharmaceutical industry. (In these cases a license from the EuroQol Group is required.)

Use of the instrument should be registered, which can be done on the web site, where other information is also available:

<http://www.euroqol.org/>

In this kit the EQ-5D and the two supplementary questions comprise the “Quality of Life” instrument. The EQ questions are numbered from 3 to 7.

<h2 style="margin: 0;">Quality of Life Interview 1</h2>

To be filled in by the user

Indicate in each of the following groups which statement best describes how you currently feel (during the past few weeks) by placing an x in **one box**.

1. Can you establish and maintain social relationships with other people as you want to or need to?

I have no limitations concerning my relationships with other people

I have some limitations in my relationships with other people

I have great limitations in my relationships with other people

2. Can you move about as you want to or need to?

I can move about without any problem

I can move about with some problems

I cannot move about at all

3. Mobility

I have no problems in walking about

I have some problems in walking about

I am confined to bed

4. Self-Care

I have no problems with self-care

I have some problems washing or dressing myself

I am unable to wash or dress myself

5. Usual Activities (*e.g. work, study, housework, family or leisure activities*)

I have no problems performing my usual activities

I have some problems with performing my usual activities

I am unable to perform my usual activities

6. Pain/Discomfort

I have no pain or discomfort

I have moderate pain or discomfort

I have extreme pain or discomfort

7. Anxiety/Depression

I am not anxious or depressed

I am moderately anxious or depressed

I am extremely anxious or depressed

<h2>Quality of Life Interview 2</h2>

To be filled in by the user

Indicate in each of the following groups which statement best describes how you currently feel (during the past few weeks) by placing an x in **one box**.

1. Can you establish and maintain social relationships with other people as you want to or need to?

I have no limitations concerning my relationships with other people

I have some limitations in my relationships with other people

I have great limitations in my relationships with other people

2. Can you move about as you want to or need to?

I can move about without any problem

I can move about with some problems

I cannot move about at all

3. Mobility

I have no problems in walking about

I have some problems in walking about

I am confined to bed

4. Self-Care

I have no problems with self-care

I have some problems washing or dressing myself

I am unable to wash or dress myself

5. Usual Activities (*e.g. work, study, housework, family or leisure activities*)

I have no problems with performing my usual activities

I have some problems with performing my usual activities

I am unable to perform my usual activities

6. Pain/Discomfort

I have no pain or discomfort

I have moderate pain or discomfort

I have extreme pain or discomfort

7. Anxiety/Depression

I am not anxious or depressed

I am moderate anxious or depressed

I am extremely anxious or depressed

PIRS Interview 1

To be filled in by the user/patient

In your daily life you meet problems that affect your life and that are related to your reduced activity level or your functional impairment. To what extent do these problems currently affect your life (the past few weeks)? Please answer the following question, “*To what extent do your problems affect your daily life?*” by drawing a line from the question to the point on the scale that indicates how you feel your problems affect your life.

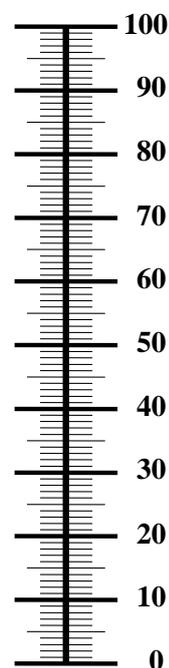
100 = worst imaginable state (Your life is totally affected by problems related to your functional impairment or your handicap)

0 = best imaginable state (Your life is not affected at all)

Totally (worst imaginable state)

Indicate how you think your problems affect your daily life by drawing a line from the box below to the point on the scale that best indicates how you feel your problems affect your life

To what extent do your problems affect your daily life?



Not at all (best imaginable state)

PIRS Interview 2

To be filled in by the user/patient

In your daily life you meet problems that affect your life and that are related to your reduced activity level or your functional impairment. To what extent do these problems currently affect your life (the past few weeks)? Please answer the following question, "*To what extent do your problems affect your daily life?*" by drawing a line from the question to the point on the scale that indicates how you feel your problems affect your life.

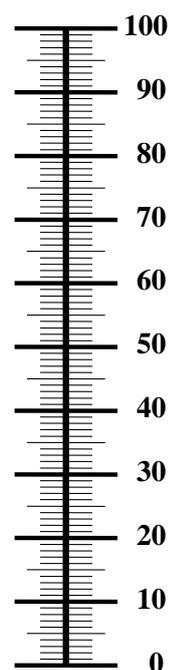
100 = worst imaginable state (Your life is totally affected by problems related to your functional impairment or your handicap)

0 = best imaginable state (Your life is not affected at all)

Totally (worst imaginable state)

Indicate how you think your problems affect your daily life by drawing a line from the box below to the point on the scale that best indicates how you feel your problems affect your life

To what extent do your problems affect your daily life?



Not at all (best imaginable state)

Developed by the Project DE 3101 EATS
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