

Full diary vs. light diary study results

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Background

- Statistics Finland has conducted four nationally representative time use surveys with diaries filled in by respondents and later coded by the agency
- The surveys have been conducted at intervals of ca. ten years
- Faster provision of data on changes in the use of time is needed, for example for the calculations of the Household Satellite Account, which is compiled in Finland ca. every five years
- For this purpose, Statistics Finland has developed a light diary, tested at its Survey Laboratory by means of the focus group interview procedure
- The diary served a pilot survey conducted as a postal inquiry targeted at a population of 1,000 people in March 2010 at the same time as a time use survey is carried out by means of a full-scale diary
- The aim was to study whether results comparable with those of the full-scale diary can be produced with the light diary as well

The Finnish light diary


- 35 pre-coded main activity categories
- With whom time is spent
- 10 minute intervals
- From 4 am to 4 am
- No secondary activity
- No location

Light diary layout



	<i>What were you doing at different times of the day?</i>	4:00	5:00	6:00		
		10	20	30	40	50
Personal care	Sleeping, napping					
	Resting					
	Washing, dressing, sauna, personal hygiene, make-up					
	Meals, snacks, coffee					
Gainful work and studying	Gainful work (also at home, unpaid overtime, excl. meal breaks)					
	Studying, also during free-time (e.g. homework, music lessons, courses)					
Travel	Travel (to work, school, shop, gym, or the like, also on foot)					
Domestic work	Cooking, preparing snacks, dish washing					
	Cleaning and tidying, taking goods out, packing					
	Home maintenance (gardening, snow clearing, heating)					
	Caring for textiles (laundry, ironing, handicrafts, etc.)					
	Refurbishments and repairs, construction, car service, etc.					
	Shopping and use of services (online shopping is recorded under computing)					
	Caring for and helping family's children					
	Playing and reading with children, teaching children					
	Other domestic work (helping a family member, pet care, planning)					
	Helping relatives or acquaintances (also caring for another family's children)					
Socialising	Socialising with family (only when something is not done together)					
	Socialising with friends at home or in their home (only when something is not done together)					
	Socialising with friends elsewhere (in the street, cafe or the like)					
	Phone calls and text messages during free-time					
Participation	Activity in organisations, voluntary work, religious activity, parents' evenings, etc.					
	Attending cinema, sports events, fairs, exhibitions, library, concerts, etc.					
Sports and outdoor activities	Outdoor activity and walking (also with dog. Going to work on foot is recorded under travel)					
	Other physical exercise hobby (jogging, gym, ball games, swimming, etc.)					
	Fishing, berry or mushroom picking, hunting					
Computing	Computer games (incl. Play Station, X-box, Nintendo)					
	Other computing during free-time (internet, email, online shopping, etc.)					
Media	Reading a book (excl. books related to employment or studying)					
	Reading printed media, brochures, post, etc.					
	Watching television (incl. videos, DVDs)					
	Listening to radio or music					
Other free-time	Other hobbies (drawing, playing an instrument, collecting, card games, etc.)					
	Sitting around, inactivity, doing nothing, smoking, etc.					
Other	Something else, what?					

	<i>Who were you with while awake?</i>	4:00	5:00	6:00		
		10	20	30	40	50
Being together with someone else	Alone or with persons unknown					
	With family members aged under 18 living in the same dwelling					
	With other family members living in the same dwelling					
	With friends, acquaintances, relatives, work or school mates					



	7:00	8:00	9:00	10:00	11:00	<i>What were you doing at different times of the day?</i>
	10	20	30	40	50	
Personal care	Sleeping, napping					
	Resting					
	Washing, dressing, personal hygiene					
	Meals, snacks					
Gainful work and studying	Gainful work					
	Studying					
Travel	Travel					
Domestic work	Cooking, dish washing					
	Cleaning and tidying					
	Home maintenance					
	Caring for textiles					
	Refurbishments and repairs					
	Shopping and errands					
	Caring for family's children					
	Playing, reading with children					
	Other domestic work					
	Helping relatives or acquaintances					
Socialising	Socialising with family					
	Socialising with friends at home or in their home					
	Socialising with friends elsewhere					
Participation	Organisational work					
	Attending cinema, sports events, fairs, etc.					
Sports and outdoor activities	Outdoor activities and walking					
	Other physical exercise hobby					
	Fishing, berry or mushroom picking, hunting					
Computing	Computer games					
	Other computing during leisure time					
Media	Reading a book					
	Reading a magazine or similar					
	Watching television					
	Listening to radio or music					
Other free-time	Other hobbies					
	Inactivity, smoking					
Other	Something else, what?					

	7:00	8:00	9:00	10:00	11:00	<i>Who were you with while awake?</i>
	10	20	30	40	50	
Being together with someone else	Alone or with persons unknown					
	With family members aged under 18					
	With other family members					
	With acquaintances, friends or relatives					

What were you doing at different times of the day?

- **Personal care**

- 1 Sleeping, napping
- 2 Resting
- 3 Washing, dressing, personal hygiene

- 4 Meals, snacks

- **Gainful work, studying**

- 5 Gainful work
- 6 Studying

- **Travel**

- 7 Trips

- **Domestic work**

- 8 Cooking, dish washing
- 9 Cleaning and tidying
- 10 Home maintenance
- 11 Caring for textiles
- 12 Renovations and repairs
- 13 Shopping and errands
- 14 Caring for children in the family
- 15 Playing, reading with children
- 16 Other domestic work
- 17 Helping relatives or acquaintances

What were you doing at different times of the day?

- **Socialising**
- 18 Socialising with family
- 19 Socialising with acquaintances at home or in their home
- 20 Socialising with acquaintances elsewhere
- 21 Phone calls, text messages
- **Participation**
- 22 Organisational work
- 23 Attending cinema, sports events, fairs, etc.
- **Physical exercise**
- 24 Outdoor activities and walking
- 25 Other physical exercise hobby
- 26 Fishing, berry or mushroom picking, hunting
- **Computing**
- 27 Computer games
- 28 Other computing during leisure

What were you doing at different times of the day?

- **Mass media**
- 29 Reading a book
- 30 Reading a magazine or similar
- 31 Watching television
- 32 Listening to radio or music
- **Other leisure**
- 33 Other hobbies
- 34 Hanging around, smoking
- **Other**
- 35 Something else, what?

Who were with while awake?

- Alone or with persons unknown to you
- With family members aged under 18
- With other family members
- With acquaintances, friends or relatives

	<i>Who were you with while awake?</i>	4:00					5:00					6:00				
		10	20	30	40	50	10	20	30	40	50	10	20	30	40	50
Being together with someone else	Alone or with persons unknown															
	With family members aged under 18 living in the same dwelling															
	With other family members living in the same dwelling															
	With friends, acquaintances, relatives, work or school mates															

Pilot survey

- Sample of 1,000 persons at the same time as the Finnish Time Use Survey in March 2010
- Data collection by mail
- The age of the target persons was limited to between 25 and 64
- The persons kept the diary for one day

Characteristics of the surveys

	Full-scale Time Use Survey	Light diary survey
Data collection mode	CAPI or CATI	Postal inquiry
Fieldwork period	April 2009 – May 2010	March 2010, two survey weeks
Target population	Household population 10 years or more	Finnish speaking population aged 25 to 64
Who completes the diary	All household members aged 10+ years	One person per household
Number of diary days	Two days	One day
Number of activity codes	146	35
Coding	Manually coded	Pre-coded
Response rate	39%	17%

Control data

- The diaries kept in the full-scale time use survey in March
- The same age group as in the light diary data was included
- The same 35-category classification of activities as in the light diary data was formed

Non-response

- Response rate was low, 17%.
 - Men: 14%
 - Women: 21%
- Auxiliary information from the registers in weighting
- Post-stratification according to age group and gender combined with calibration estimators were used

Number of activities

- The respondents were asked to record only one activity for each time slot
- If the respondents were doing two or more things simultaneously, they were to select only the one they themselves regarded as the main activity
- At least two activities per episode were recorded in almost 80 per cent of the **diaries**
- 30 per cent of the respondents recorded three activities per episode in the diary
- However, over 80 per cent of the **episodes** had only one activity

Editing

- If *gainful work* was recorded as the secondary or third activity, it was changed into the main activity
- If *socialising* was recorded as the main activity and the second recorded activity was something else, the second activity was made the main activity
- If *resting* was recorded as the main activity and the second recorded activity was something else, the second activity was made the main activity

Comparison of results

- The diaries produced estimates that were close to each other at the main time use category level with the exception of Domestic work

	Full-scale TUS	Light diary	Difference (Light diary-TUS)
	Minutes per day		
Personal care	630	624	-6
Gainful employment, study	240	243	3
Domestic work	173	140	-33
Free time	317	309	-8
Travel	69	72	3
Unspecified	12	52	40
Diary days	366	174	

Domestic work: differences

- Differences particularly in the classes Home maintenance and Child care
- The high non-response rate may, however, have an impact on these differences
- Renovations and repairs exactly the same in both datasets: an important category for the household satellite account

Other differences

- Less sleep and more resting than in the full-scale diary
- Less time for physical exercise and watching television and listening to radio
- Slightly more time for meals and snacks
- More time for socialising
- More time spent on reading

Conclusions

- The diaries produced estimates that were close to each other at the main time use category level with the exception of domestic work.
- Most respondents found it impossible to record time use by choosing just one main activity.
- The diary should also allow the recording of one parallel activity.
- A light diary survey of high quality cannot be conducted as a postal inquiry only.
- Assistance from interviewers would be needed to reach a satisfactory response rate and to guarantee the quality of the filled in diaries.
- The use of a web questionnaire could be tested as an alternative to a light paper diary.
- This could also improve the quality of the diaries.

Thank you!

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