

Managing you talents
Interdisciplinary research on the performing arts

Monitoring overload in athletes and dancers

Conservatorium van Amsterdam
Amsterdam School of the Arts
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Positief Coachen Foundation, Nieuwegein

Monitoring overload in athletes and dancers (a researcher's perspective)



- Monitoring is at the individual level, often daily
- My contribution: a bird's eye view, at group level
- Instruments: POMS, Checklist Overtraining, Daily Diary

Not an ordinary girl...



October 2008 - from an interview

Ze heeft honderdtwintig optredens per jaar, de festivals niet meegerekend. Ze gaat vliegtuig in, vliegtuig uit. Violiste Janine Jansen (30) wuift alle bezwaren over haar hectische levensstijl weg. 'Geen groter geluk dan alle dagen musiceren'

tekst — Karolien Knaal / fotografie — Jozak Oosterhof

- 120 performances per year (not counting festivals)
- plane in, plane out
- she brushes objections about her hectic life style aside
- 'No greater happiness than being able to play music each day'

December 2009: an interview



- Always 'on the road'
- She sees her dog, at home in Soest, much more often on a picture in her violin case than in reality
- She wants to take the opportunities
- She is able to intensely enjoy the present

September 2010

(VPRO tv guide, Interview with film maker Paul Cohen)

From the beginning of 2007 to the end of 2009 the documentary film maker Paul Cohen (52) followed the famous young Dutch violinist Janine Jansen. His film *Janine* has its first showing during the Netherlands Film Festival in Rotterdam.


On her web site Janine Jansen writes that she is not performing since June 2010 on doctor's orders; she hopes to return to the stage in September.

The enormous pressure she's under is clearly shown in my film. When she saw the film, she experienced it as a confrontation.

Janine Jansen is 32 years old; she made her debut in 1997 in the Amsterdam Concert Hall; she travels around the world to play; could she handle to have you around as well?

Yes, she cooperated gladly. We do know each other since 1996. In that year I made, together with David van Thijn, the documentary *De Winnaars* ('The Winners').

That documentary was nominated for a 'Gouden Kalf' (a Dutch film award) and showed four winners of the Belgian Queen Elisabeth Competition, who, contrary to expectations, did not succeed as solo musicians.



the film...

Notice:

various forms of load

- performance
- 'goodwill' (e.g., dinner party)
- presentation(s) of CD's
- be friendly to everyone
- travelling

balance (work/rest)

being alone (companion?)

exercise (workout?)

Burn-out in the making (September 2011)



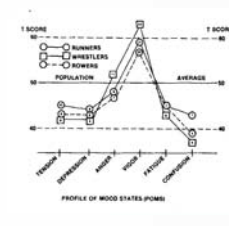
Load - loadability

- Field hockey season 2007-2008
- Hockey Club Rotterdam
 - international players (Holland, Japan, England)
 - pre-Olympics (Moskou) Netherlands Antilles
 - training Mon-Wed; Thu: free; Fri: club; Sat: youth team; Sun: competition match
- Two (digital) questionnaires
 - POMS
 - Checklist Overtraining

POMS

Profile Of Mood States

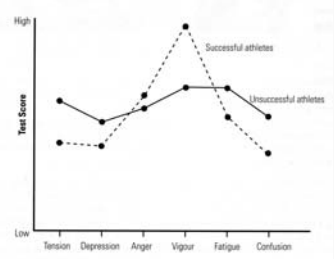
Pioneer of POMS: William Morgan (1985)



POMS:

- iceberg profile
- mental health model

POMS and achievement



POMS and Overtraining

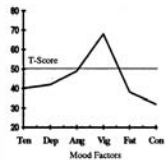


FIGURE 26-1. The iceberg profile.

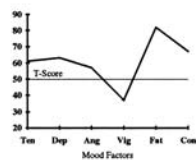


FIGURE 26-2. Overtraining mood profile of a female middle distance runner.

Ten = Tension (gespannen)
Dep = Depression (down)
Ang = Anger (boos)

Vig = Vigour (krachtig)
Fat = Fatigue (moe)
Con = Confusion (verward)

The Dutch POMS: Short Form (32 items) (Wald & Mellenbergh, 1990)

Five clusters or POMS scales:

anger (boosheid)
depression (down)
vigour (kracht)
tension (gespannen)
fatigue (vermoeidheid)

In digital form

POMS

Profile Of Mood States

Dutch 32-item version

'Verkorte POMS' (1990)

5 scales: anger
depression
vigour
tension
fatigue

Feedback to coach

No POMS profile, but figures,
'colored' in accordance with
frequency distribution of reference
group: GREEN-ORANGE-RED

A week report

HCR 2007-2008
TeamPerformanceExchange.nl

(week 43, Sunday,
21 through Friday,
26, October 2007)
POMS results of 12
individual athletes



POMS results of individual athletes across season

HCR - TeamPerformanceExchange.nl

athlete 20

13 POMS results of the same athlete during the period October 2007 - April 2008

The screenshot shows a web browser window with the URL <http://www.teamperformanceexchange.org/teams/performing/102/102.html?club=102>. The page title is "Team Performance Exchange". On the left, there is a profile box for "athlete 20" with a photo and a "View member" link. On the right, there is a "COMPETITION CALENDAR" showing dates from 10/20 to 11/20. Below these, a table displays POMS results for "athlete 20" from 10/20/07 to 4/10/08. The table has columns for "Team", "Date", "POMS", and "Score". The "POMS" column lists various psychological states like "Tension", "Anxiety", "Fatigue", etc., and the "Score" column shows numerical values.

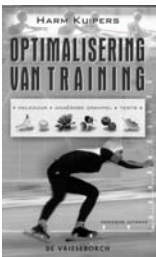
Team	Date	POMS	Score
Team 102	10/20/07	Tension	10.0
Team 102	10/20/07	Anxiety	10.0
Team 102	10/20/07	Fatigue	10.0
Team 102	10/20/07	Depression	10.0
Team 102	10/20/07	Anger	10.0
Team 102	10/20/07	Confusion	10.0
Team 102	10/20/07	Sleep	10.0
Team 102	10/20/07	Energy	10.0
Team 102	10/20/07	Stress	10.0
Team 102	10/20/07	Relaxation	10.0
Team 102	10/20/07	Focus	10.0
Team 102	10/20/07	Attention	10.0
Team 102	10/20/07	Concentration	10.0
Team 102	10/20/07	Memory	10.0
Team 102	10/20/07	Learning	10.0
Team 102	10/20/07	Problem Solving	10.0
Team 102	10/20/07	Decision Making	10.0
Team 102	10/20/07	Communication	10.0
Team 102	10/20/07	Teamwork	10.0
Team 102	10/20/07	Leadership	10.0
Team 102	10/20/07	Followership	10.0
Team 102	10/20/07	Adaptability	10.0
Team 102	10/20/07	Resilience	10.0
Team 102	10/20/07	Stress Management	10.0
Team 102	10/20/07	Emotional Control	10.0
Team 102	10/20/07	Self-Confidence	10.0
Team 102	10/20/07	Self-Esteem	10.0
Team 102	10/20/07	Self-Motivation	10.0
Team 102	10/20/07	Self-Discipline	10.0
Team 102	10/20/07	Self-Regulation	10.0
Team 102	10/20/07	Self-Improvement	10.0
Team 102	10/20/07	Self-Reflection	10.0
Team 102	10/20/07	Self-Analysis	10.0
Team 102	10/20/07	Self-Criticism	10.0
Team 102	10/20/07	Self-Encouragement	10.0
Team 102	10/20/07	Self-Motivation	10.0
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Team 102	10/20/07	Self-Motivation	10.0
Team 102</			

HCR - TeamPerformanceExchange.nl athlete 24

Load - loadability


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Kuipers, 2006: Checklist Overtraining



“Because it is not always possible to discover what a certain load means for the body, overtraining can be prevented by being attentive to the symptoms of the beginnings of overtraining.” (p. 11)

“A tool in discovering overtraining can be answering the following questions by the athlete.” (p. 51)



Checklist

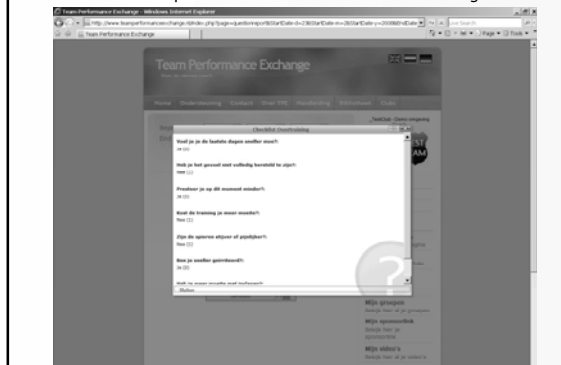
“If in the first half of the questions one or more are answered in the affirmative, this indicates imminent overtraining. If affirmative answers occur on the later questions, this indicates overtraining” (p. 52)

answer: Yes / No

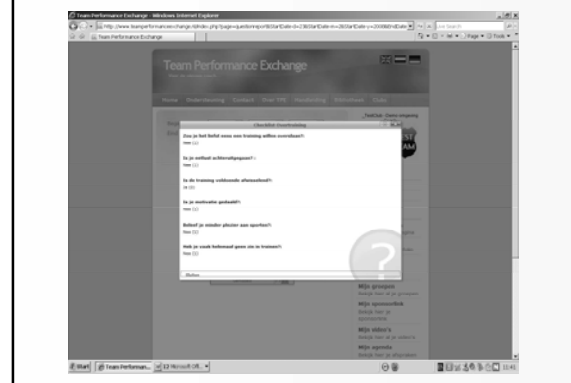
1. Are you feeling tired more easily over the last days?
2. Do you feel you're not fully recovered?
3. Do you presently perform at a lower level?
4. Does training cost more effort than usual?
5. Would you rather prefer to skip a practice session?
6. Is there increased muscle stiffness or muscle soreness?
7. Are you irritated/annoyed more easily?
8. Do you find it more difficult to get to sleep?
9. Has your appetite decreased?
10. Is practice/training not particularly varied, i.e., too monotonous?
11. Is your motivation decreased?
12. Do you enjoy sport less?
13. Do you often don't feel like practicing/training?

[illegible]

Checklist Overtraining, athlete 19: 7 questions about Imminent Overtraining



Checklist Overtraining, athlete 19: 6 overtraining questions



Women's Soccer: Dutch national squad EC 2009



- Once a week: POMS
- Every Day: Checklist Overtraining
- All 7 teams of the highest Dutch league
- Season 2008-2009, in preparation for the European Championships

Women's soccer: first period in second half of the season (Jan 1st - Febr 15th; 09-1; n=1549); percentage 'yes'

	<i>soccer 09-1</i>
1. Are you feeling tired more easily over the last days?	17,0
2. Do you feel you're not fully recovered?	18,2
3. Do you presently perform at a lower level?	18,1
4. Does training cost more effort than usual?	11,3
6. Is there increased muscle stiffness or muscle soreness?	32,3
7. Are you irritated/annoyed more easily?	11,5
8. Do you find it more difficult to get to sleep?	11,9

Imminent Overtraining: 7 questions (1-2-3-4-6-7-8)

Monitoring athletic overtraining (a digital tool to assist the coach..)

1. Profile of Mood States

- Short form POMS (NL 1990)
- Adapted POMS (NL 2010)

5 moods
(30 words)

2. Checklist Overtraining

- 7 questions about aspects of imminent overtraining
- 6 questions about aspects of overtraining

Language: NL, EN, ESP

Amsterdam School of the Arts

From 1994 onwards: Research projects

- dance students
- dance teachers



Dance Science in the Netherlands (VDO)

- volume 1 (2000; pp 133)
- volume 2 (2002; pp 138)
- volume 3 (2004; pp 165)
- volume 4 (2006; pp 165)
- volume 5 (2008; pp 191)
- volume 6 (2010; pp 211)

Load & overload: three projects

- Physical fitness in dancers
- Growth and growth spurt in adolescent dancers
- Daily Diary as a tool
 - Healthy Dancer Diary
 - My Performance

Project 1. Physical fitness in dancers

Question: On which aspects of physical fitness should dancers certainly improve?

(International) Answer:
Endurance-Stamina-VO2max

Estimate of individual endurance ('beep' test plus HR measurement)

Solution: Include cardio-lessons in the regular curriculum!

Project 2. Measurement of Growth

Question: Do adolescent dancers grow during the summer months? Do they show 'catch-up' growth?

Measurement of physical growth of young adolescent dancers (10 to 17 years of age)

Conclusion: From September 2000 onwards, every school year 6 or 7 measurements (each of the 100 young dancers)

Body Height
Body Composition (fat, fluid, tissue)

Project 3. Daily Diary

Question: How can the dance student be assisted in finding ways to keep 'fit'?

2003: research report

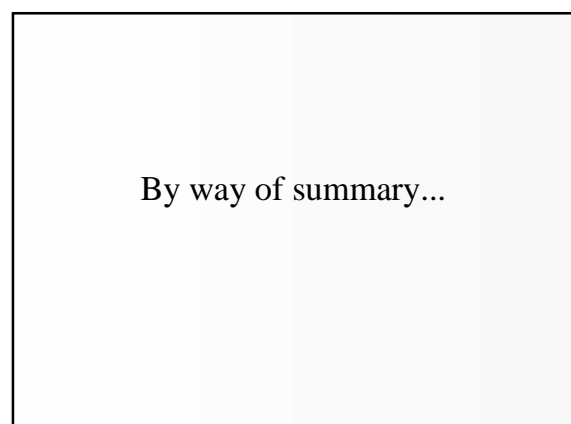
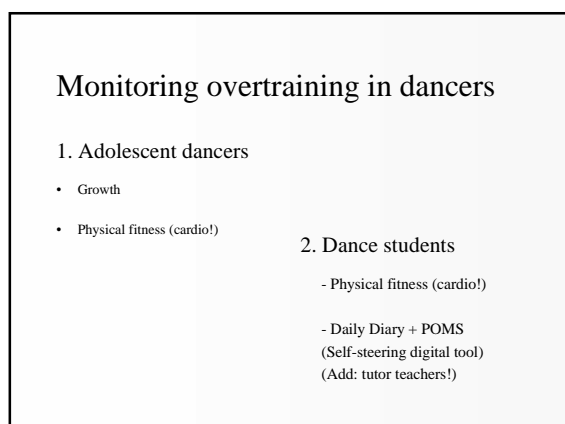
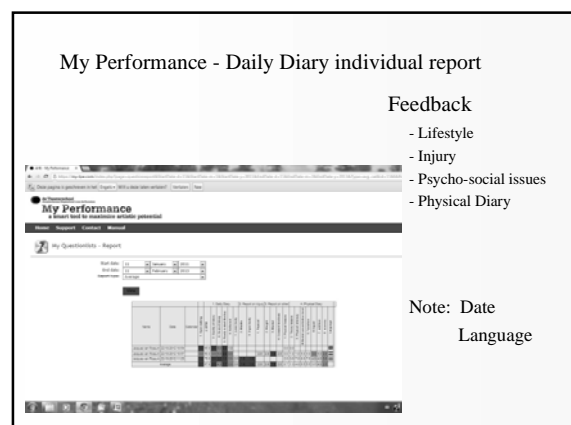
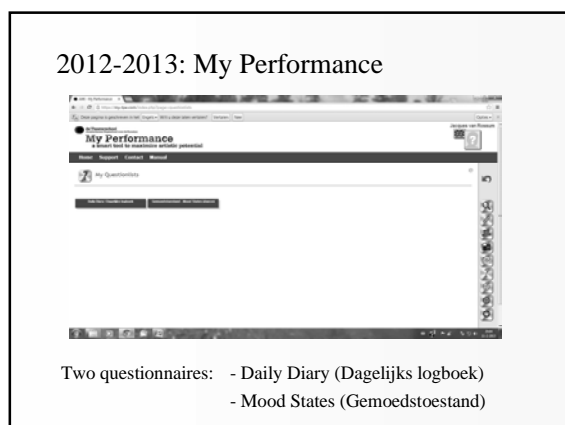
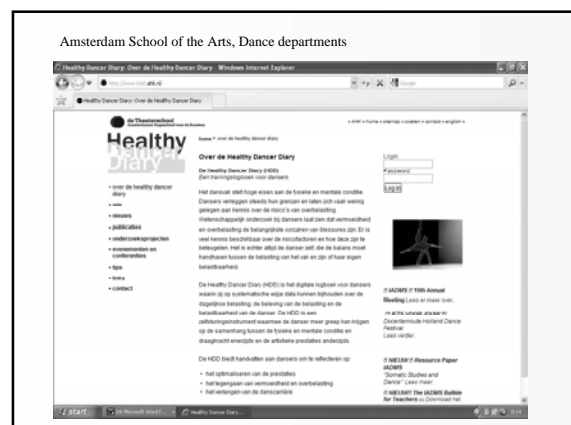
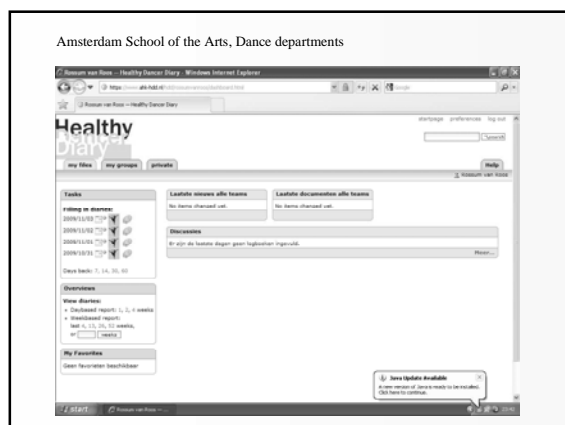
- from a paper version
- through an excel-file version
- to a digital format

"Development of a tool for dancers to generate means of self-control regarding the balance between load and loadability"

- 'RAAK-publiek'-project
- Sept. 2007 - Sept. 2009
- participants:
 - Amsterdam, AHK, Dance dept. (initiator of project)
 - Arnhem, ArtEZ
 - Rotterdam, Codarts
 - The Dutch National Ballet
 - International Dance Theater
 - Henny Juriëns Foundation

Daily Diary consists of 3 parts:

- lifestyle questions
- questions about activities
- POMS



Monitoring overload in athletes and dancers

Athletes

Digital tools to help the coach

Educate the coaches

Dancers

Digital self-help tool

Tutor the students

Not an ordinary girl...



- On doctor's orders: take rest (June 2010)
- Did take months to 'get back'

Newspaper interview
December 2012

- She made a comeback in November 2012
- 'Good intention? Not breaking down again!'



January 2013: On doctor's orders she has to take some weeks off, has to cancell concerts - 'oververmoeid' - exhausted



Finally:

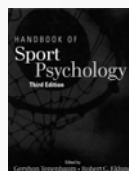
Prevention is better than cure

'The only proven treatment for staleness* is rest'

*staleness: prolonged imbalance between training and recovery

'There is preliminary evidence that prior history of staleness may increase susceptibility with future overtraining.'

(Berger and Tobar, 2007, p. 608)



Finished...

