

# DEVELOPING HEALTH ENHANCING PHYSICAL ACTIVITY MODULES FOR HIGHER AND VOCATIONAL EDUCATION

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Teaching in the spotlight: Learning from global communities

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# PROJECT GOALS: SPORT PHYSICAL EDUCATION AND COACHING IN HEALTH (SPEACH) PROJECT

- Raising awareness about behavioural change towards an active and healthy lifestyle
- **Developing Health Enhancing Physical Activity (HEPA) modules in Higher Education**
  - **Physical Education Training Education (PETE) &**
  - **Sport coaching education programmes**



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# BACKGROUND



- The **Health Enhancing Physical Activity** network in Europe (HEPA) aims to promote a better understanding of health-enhancing physical activity, and give a stronger voice to physical activity promotion in health policy and in other relevant sectors in Europe.

Healthy Lifestyle, Sports and Physical Activity

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# BACKGROUND: Children 2-15

	Age (years)					
	All children 2-15	2-4	5-7	8-10	11-12	13-15
Hours						
<b>Boys</b>						
Weekday	3.3	2.8	2.8	3.0	3.7	4.2
Weekend day	4.2	3.2	3.8	4.3	4.6	5.3
Base	862	216	192	177	124	153
<b>Girls</b>						
Weekday	3.2	2.8	2.7	3.1	3.5	4.3
Weekend day	4.0	3.2	3.9	4.1	3.8	5.1
Base	868	212	184	191	135	146

**Sedentary time per day in children, by age and gender, *England 2012 (BHF, 2015)***

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# BACKGROUND: Young people and adults

QD1 How often do you exercise or play sport?

	Regularly	With some regularity	Seldom	Never	Don't know
EU28	8%	33%	17%	42%	0%
<b>Gender</b>					
Man	9%	36%	18%	37%	0%
Woman	7%	30%	16%	47%	0%
<b>Age</b>					
15-24	11%	53%	17%	19%	0%
25-39	8%	38%	21%	33%	0%
40-54	8%	31%	20%	41%	0%
55 +	8%	22%	12%	58%	0%

*Eurobarometer, (March 2014)*

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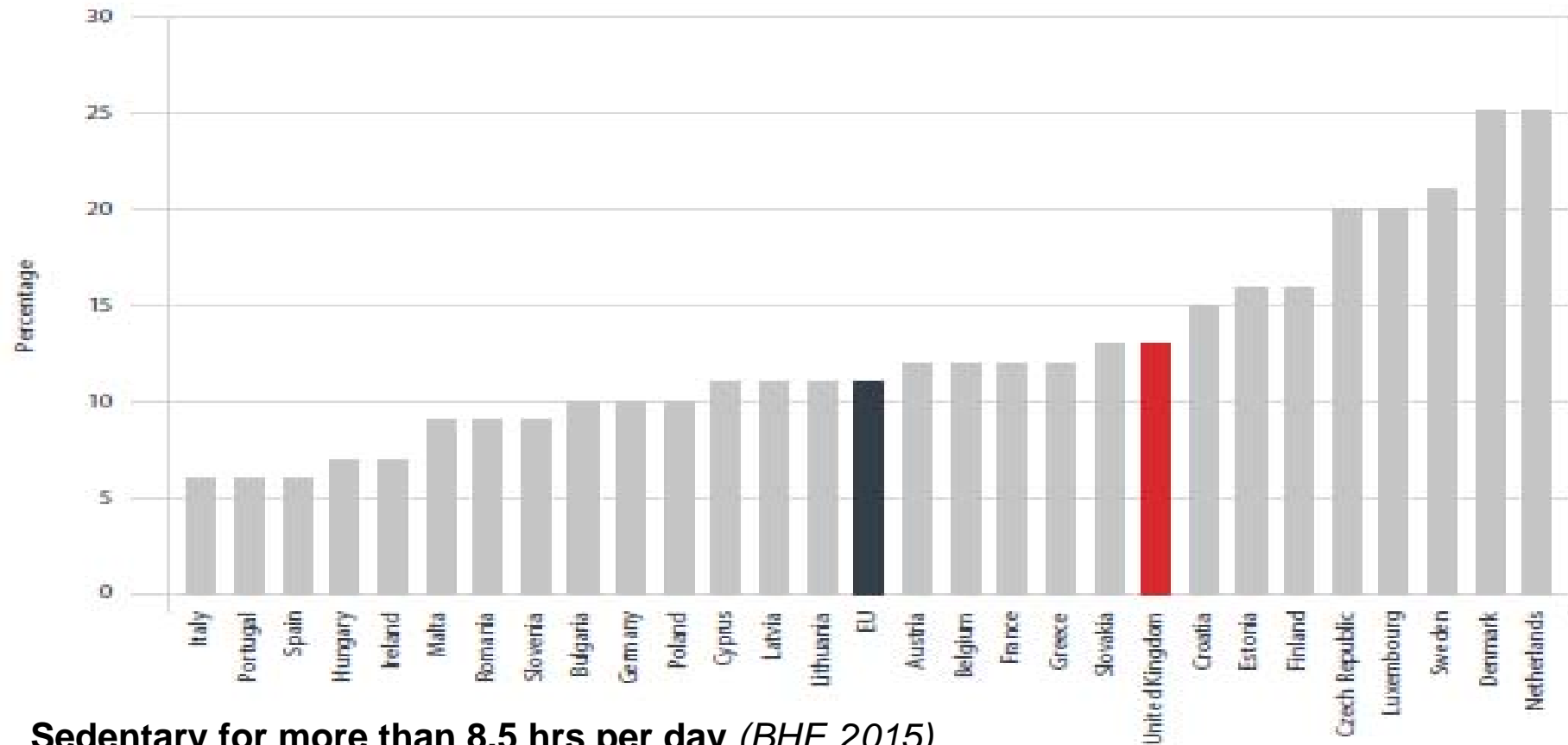
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# BACKGROUND: Adults Sedentary Behaviour



Sedentary for more than 8.5 hrs per day (BHF, 2015)

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# BACKGROUND: Interdisciplinary approach

## DEFINITION

“Interdisciplinary studies is a process of answering a question, solving a problem, or addressing a topic that is too broad or complex to be dealt with adequately by a single discipline, and draws on the disciplines with the goal of integrating their insights to construct a more comprehensive understanding”  
(Repko, 2011, p.16)

## KEY THEMES AND DRIVERS

- Sociocultural and economic trends in education and workforce
- Development of the discipline(s)

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# BACKGROUND: Interdisciplinary teaching strategies

*(Lyall, Meagher, Bandola and Kettle, 2015)*

## INTERACTIVE METHODS

- Project-based learning (PBL)
- **Case study methods**
- Role-playing
- Simulations
- Virtual methods
- Peer-assessment and review
- Peer-assisted learning (PAL)
- Small-group teaching

## CO-TEACHING / TEAM TEACHING

- **Co-creation of syllabus and case studies**
- **Advanced planning and negotiation with co-teacher**
- **Co-advising with industry representatives**
- Taking turns in teaching
- Creating learning community

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# BACKGROUND: Why case study?

- Case study provides a form of inquiry that elevates a view of life in its complexity (*Thomas, 2011*)
- Case study imitate real-life settings and real-world complexities and are highly dependent on students' individual efforts. (*Goodman and Huckfeldt, 2013*)
- case-based teaching led to students' stronger critical-thinking skills (89.1%)
- better ability to make connections across multiple content areas (82.6%)
- deeper understanding of concepts (90.1%)  
(*Herreid, 2011*)

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# PROJECT DESIGN



- *Management, monitoring & evaluation*
- **Needs analysis**
- **Module development**
- **Training concept development**
- **Piloting, review & validation**
- *Quality assurance*
- *Sustainability*

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# NEEDS ANALYSIS



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# SURVEY RESULTS

Gender	Respondents	%
Male	426	65 %
Female	234	35 %
<b>Total</b>	<b>660</b>	<b>100.0 %</b>

Country	Respondents	%
Belgium	99	15.0 %
Denmark	73	11.1 %
Lithuania	92	13.9 %
Portugal	86	13.0 %
Spain	76	11.5 %
The Netherlands	167	25.3 %
The United Kingdom	67	10.2 %
<b>Total</b>	<b>660</b>	<b>100.0 %</b>

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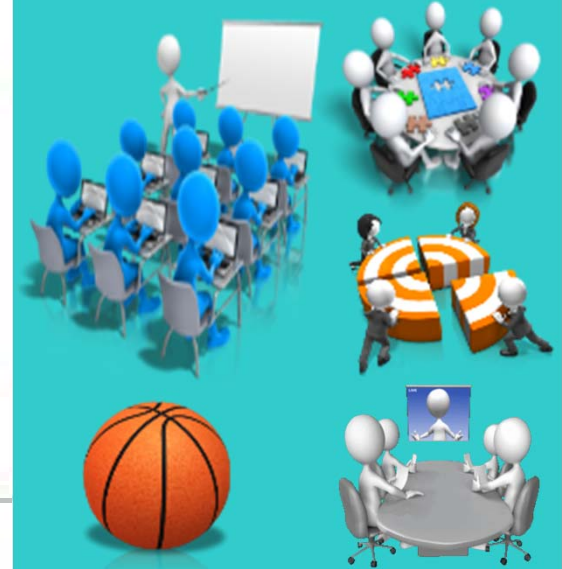
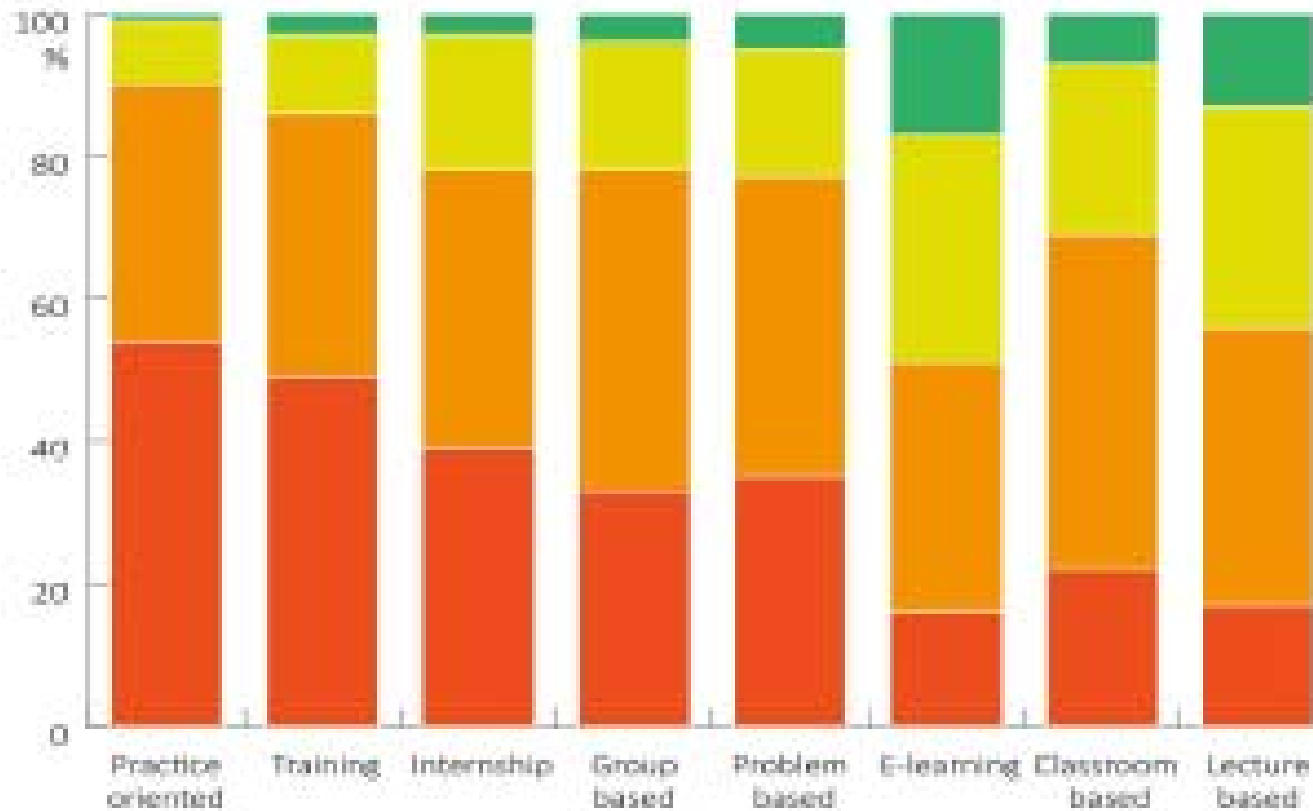
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# NEEDS ANALYSIS

## IMPORTANT LEARNING METHODS

IMPORTANT LEARNING METHODS



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# NEEDS ANALYSIS

## MOST IMPORTANT CONTENT

### Top 5 among PETE students:

1. Changing behaviour and motivation theories: 92 %
2. Physical activity for specific groups: 89 %
3. Personal leadership: 86 %
4. Health policy: 82 %
5. Nutrition: 79 %

Least important is: *Specific epidemiology* (62 %).

### Top 5 among students in the field of coaching/training:

1. Changing behaviour and motivation theories: 88 %
2. Personal leadership: 85 %
3. Nutrition & Health Policy: 82 %
4. Physical activity for specific groups & Testing and exercise prescription: 78 %

Least important is: *Specific epidemiology* (60 %).

### Experts: What is the most important content to focus on?

- Content such as health policy, motivation theory and nutrition
- General packages relevant for every sports discipline (for example nutrition)
- Specific content focusing on the possibility of specialisation.

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# MODULE DEVELOPMENT

	Themes / Scientific approaches	Responsible partner	Co-developer (PE)	Co-developer (CO)
1	<ul style="list-style-type: none"> <li>▪ Changing behavior + Motivational Theories</li> <li>▪ Specific target groups</li> </ul>	Hanze	LSU	NOC*NSF
2	<ul style="list-style-type: none"> <li>▪ Health Policy</li> <li>▪ Personal</li> </ul>	SDU	VUB	ICCE and ESDRM
3	<ul style="list-style-type: none"> <li>▪ Changing behavior + Motivational Theories</li> <li>▪ Health Policy</li> </ul>	VUB	LSU	NOC*NSF and ESDRM
4	<ul style="list-style-type: none"> <li>▪ Nutrition</li> <li>▪ Personal leadership</li> </ul>	CCCU	SDU	ICCE
5	<ul style="list-style-type: none"> <li>▪ Changing behavior + Motivational Theories</li> <li>▪ Testing &amp; prescription</li> </ul>	Hanze	LSU	NOC*NSF

For each theme, **two complex HEPA case studies** were submitted by each responsible partner for peer evaluation – one case study selected for generating a new module.

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# MODULE DEVELOPMENT

	<b>Title: Complex HEPA challenge</b>	<b>Responsible partner</b>	<b>Co-developer (PE)</b>	<b>Co-developer (CO)</b>
<b>1</b>	<ul style="list-style-type: none"> <li>Stimulating sport and physical activities for children with special needs towards a brighter future</li> </ul>	Hanze	LSU	NOC*NSF
<b>2</b>	<ul style="list-style-type: none"> <li>Promoting HEPA among children and youth</li> </ul>	SDU	VUB	ICCE and ESDRM
<b>3</b>	<ul style="list-style-type: none"> <li>A healthy lifestyle for the whole family!</li> </ul>	VUB	LSU	NOC*NSF and ESDRM
<b>4</b>	<ul style="list-style-type: none"> <li>Nutrition, digital technology and physical activity for adults</li> </ul>	<b>CCCU</b>	<b>SDU</b>	<b>ICCE</b>
<b>5</b>	<ul style="list-style-type: none"> <li>Influencing and monitoring behaviour towards HEPA</li> </ul>	Hanze	LSU	NOC*NSF

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# MODULE DEVELOPMENT

The Challenge: Nutrition, digital technology and physical activity for adults

**The Case:** You (and your team) have been tasked by your professional body to develop a **programme of health enhancing physical activity for a new client group, middle-aged adults (40-59).**

*This programme will be piloted in your region in the first instance with the intention of rolling it out nation-wide. Your programme needs to bring together various policies, provisions and stakeholders that provide Physical Activities for this age group. **The unique characteristic of this programme will be the integration of information and wearable technology to support participants in their journey to participate in walking sports or other physical activities; to understand the changes of the human body; and the impact of nutrition and physical activity on their health.***

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# MODULE DEVELOPMENT: Module templates

- Title
- The Issue
- The Setting
- The Complex HEPA Challenge
- Module handbook \*23 parameters
- **\*Learning outcomes (LO)**
  - Level 4-5 (Vocational)
  - Level 6 (Bachelors)
  - Level 7 (Masters)
- **\*Student assignment(s)**
  - Task 1: Knowledge Enrichment Activity (20%)
  - Task 2: Assignment: Scientific report (group task) (40%)
  - Task 3: Portfolio of engagement with clients and the workplace (individual task) (40%)

Week to week schedule		
Week	Subject	Topic .. Content
1/2	Introduction	Nutrition and physical activity
3/4	Nutrition	Concepts and physical activity
5/6	Nutrition	Physiological applications and HEPA
7/8	Nutrition	Physiological applications and HEPA
9/10	Field trip	Target population settings
10/11	Digital technology	Technology for health enhancing physical activity
13/14	Leadership	Practical Workshop: Walking physical activities for participants
15/18 -20	Work based learning	Tutor and peer consultations
22-25	Preparation Assessment	Tutorials

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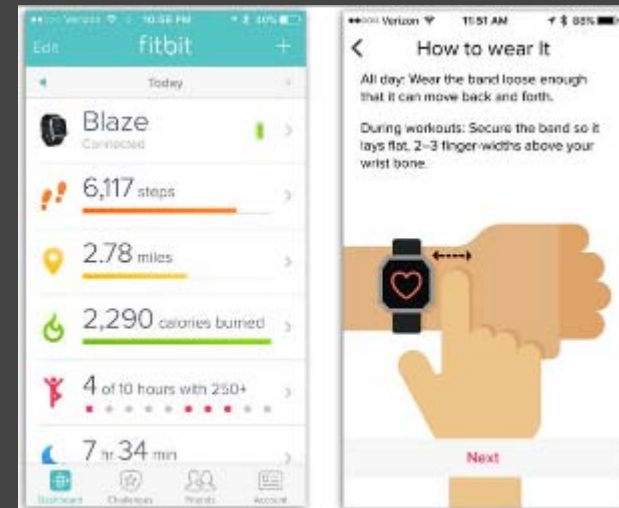
# TRAINING CONCPET DEVELOPMENT

## LEARNING OUTCOME

**3. Record, analyse, interpret and critically evaluate data in this field, including the use of digital technology.**

## ASSESMENT TASKS

**Task 2: Assignment: Scientific report (group task) (40%)**



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# TRAINING THE TRAINERS

Case based challenge: wearable technology

## Class based learning & Group work

### Activity



- ❖ Lab work: review wearable technology and apps that will be of interest to your client group for nutrition and physical activity.
- ❖ Discuss your findings with your classmates and share your findings. Upload your findings to a virtual learning environment that can be accessed by you and your future clients.

❖ *Web links, Books, Journals, Reports*

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# PILOTING THE MODULES

- From 6-10 February 2017, **65 students from eight European countries** joined the international SPEACH week hosted at Hanze University of Applied Sciences Groningen, The Netherlands.
- Each module was piloted through **20 hours of intensive team teaching** in one week by trained teachers in HE.
- **Three newly developed HEPA modules** were taught in authentic educational and field settings.



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- **Student feedback**

I know how to promote a healthy lifestyle through sport (p< .001\*\*\*)

I know how to adapt a curriculum to fit HEPA needs (p< .000\*\*\*)

I know how to design a health promotion programme (p< .000\*\*\*)

I know how to motivate children (and parents) for a healthy lifestyle? (p< .015\*)

# PILOTING AND EVALUATING THE MODULES

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# http://speech.hanze.nl/



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*SPEACH: supporting physical education teachers and sports coaches to promote an active and healthy lifestyle*



Register and download the HEPA modules now!

**The Sport, Physical Education and Coaching in Health (SPEACH) project**  
Bringing Health Enhancing Physical Activity (HEPA) into sports

Go directly to our modules



### Special Needs

Stimulating sport and physical activities for children with special needs



### Policy Approach

Promoting HEPA among children and youth



### Healthy Family

Healthy Lifestyle for the whole family!



### Physically Active Adults

Nutrition, digital technology and HEPA for adults



### Influencing Behaviour

Influencing & monitoring behaviour towards HEPA

# Conclusion

## DEVELOPING HEALTH ENHANCING PHYSICAL ACTIVITY MODULES FOR HIGHER AND VOCATIONAL EDUCATION

- The development of the five modules by three partners from different institutions and **disciplines** was a transformational journey.
- The **combination of areas of content** required the use of **team teaching** approaches in Higher Education.
- Students were delighted that theory and practice were combined in each module through **case studies and a variety of teaching activities**.
- Students felt **that interdisciplinary modules** were authentic to the studies and the assessments provided a focus on the content and children, young people, adults and their families as one would in the **world of work**.

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**Thank you for listening**

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