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# Promotion of physical activity and sport in adolescents – first experiences of the Internet programme [www.feelok.ch](http://www.feelok.ch)

## Abstract

The physical activity programme of feelok makes use of the multidimensionality of this health-related Internet platform for adolescents. It consists of an “energy test” providing individualised feedback on physical activity behaviour, a section for physically inactive individuals, one for physically active youths, and other tools. In 2008, feelok had 100 840 visits of more than three minutes duration, of which 12.0% concerned the physical activity programme. There are indications that feelok and its physical activity programme reach a broad range of adolescents and that its tools and elements are well accepted and appreciated. Further research, development and implementation strategies will be needed to maintain the attractiveness of the programme and to improve its reach and impact on physical activity behaviour.

## Zusammenfassung

Das Bewegungs- und Sportprogramm von feelok profitiert von der multithematischen Ausrichtung dieser Gesundheitsplattform für Jugendliche. Es besteht aus einem Bewegungs- und Sporttest mit Rückmeldungen zum individuellen Verhalten, aus einer Sektion für inaktive und einer für aktive Jugendliche sowie aus anderen interaktiven Funktionen. Im Jahr 2008 hatte feelok 100 840 Besuche von mehr als drei Minuten Dauer, von denen 12,0% auf das Bewegungs- und Sportprogramm entfielen. Es gibt Hinweise darauf, dass feelok und sein Bewegungs- und Sportprogramm ein breites Spektrum von Jugendlichen anspricht und dass seine Elemente positiv beurteilt werden. Weitere Forschung und Entwicklung sowie weitere Umsetzungsstrategien werden nötig sein, um die Attraktivität des Programms zu erhalten und um seine Reichweite und Wirksamkeit in Bezug auf die angezielte Förderung von sportlicher Aktivität zu erhöhen.

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## Introduction

In Switzerland as in other countries, there is growing concern about decreasing levels of physical activity in children and adolescents (Martin et al., 2006). Among the different approaches to physical activity promotion, the Internet has the advantage of good availability and the potential to reach great numbers of individuals at acceptable costs. However, reaching specific target groups such as adolescents and motivating individuals to reflect or even change their behaviour is a challenge (Wanner et al., in press).

So when an Internet-based intervention for physical activity promotion in adolescents was to be developed in Switzerland, it was decided to do it by extending an existing and well established health-related Internet portal for this target group.

This Internet application is called [www.feelok.ch](http://www.feelok.ch) (figure 1) and – including physical activity – now addresses ten topics: alcohol, work, cannabis, nutrition, love and sexuality, smoking, self-confidence, stress, and suicide risks. Various methods are used to present the contents to the target group: texts, games, tests, animations, forums, videos as well as other interactive elements. feelok is therefore a suitable tool not only for adolescents who are able to understand complex information but also for those who find it difficult to read long texts. In addition, the programmes on cannabis,

smoking, alcohol and stress – and now also on physical activity – offer stage-specific interventions based on the Transtheoretical Model (Prochaska and Velicer, 1997).

feelok is promoted through a variety of measures: workshops with teachers and sports coaches, brochures and posters distributed at school, networking with nationally renowned institutions for each health topic, links on other Web sites, magazine and newspaper articles, presentations during congresses or events. A handbook for teachers as well as worksheets for pupils are available free of charge to facilitate the use of feelok in schools.

feelok is a network-based Web site supported by 34 institutions in Switzerland and Austria: The University of Zurich is responsible for the coordination of the network, for the technical as well as the scientific aspects of the intervention; other institutions renowned for their expertise in the respective fields are responsible for the quality, evidence-based content and update of the programme on their topic; others provide financial support for the project or selected objectives; some institutions conduct evaluation studies on certain aspects of feelok or support the dissemination of the intervention in various settings.

For the physical activity component of feelok, originally only the development of a programme for insufficiently active youths had been planned. However, in a survey of users of feelok between



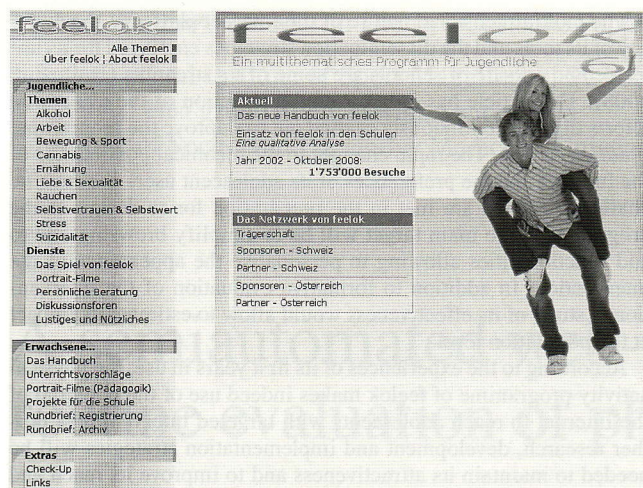


Figure 1: The homepage of feelok with indication of the 10 topics covered, services, background information for teachers and recent news

10 and 19 years in 2005 ( $N=436$ ) 56.2% reported that they exercised twice or more often outside school hours. Therefore it was decided that the physical activity programme of feelok should address both physically inactive and active youths: The first in order to help them to become more active, the second in order to support them to remain active in sports.

During the years 2004 to 2008, the section of feelok promoting physical activity and sports was developed with the following elements for the different target groups (figure 2):

- An “energy test” is available for all youths and estimates the energy expenditure through physical activity during the previous week. It classifies the adolescent user as inactive, partially active or active and suggests accordingly the visit of other elements of the programme. Partially active youths can choose if they prefer to work with the contents of the section for inactive or for active adolescents.
- Inactive youths are suggested to confront themselves with the benefits as well as with the perceived drawbacks of physical activity. The stage-specific intervention is primarily based on the Transtheoretical Model (Prochaska and Velicer, 1997): Young people who would like to change their behaviour are guided through the process of defining and attaining their target behaviour. For those who have no motivation to change, on the other hand, possible reasons are examined and individual feedback is given to foster the intention to change.
- Three tools target adolescents active in sports to help them maintain their level of physical activity: The interactive “sport discipline compass” recommends some out of 94 activities suitable to them according to their personality profile; video clips from the national programme “Youths+Sport” provide an attractive introduction to different sport activities. Finally, a regularly updated list of local sport clubs offering the different activities within the context of “Youths+Sport” and their contact details are provided in a database.
- Further interactive tools are available to all youths and also to teachers, such as the “Dart fit” game suggesting exercises shown on video, the “Starbugs dance” with instructions und music, and the section “active breaks in school” with video instructions for teachers.

The purpose of this publication is to describe the use of the physical activity programme of feelok, the profile of its users and their appreciation of the different programme elements.

## Methods

A software running in the background of the feelok Web site continuously monitored the use of the intervention and recorded how

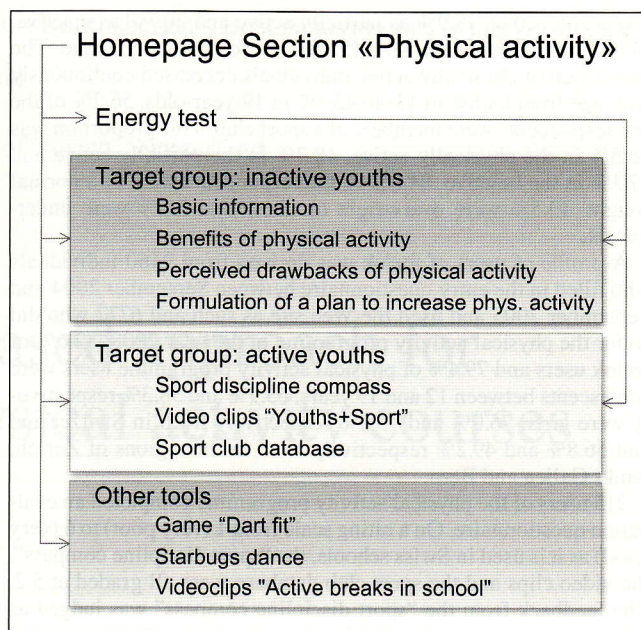


Figure 2: The site map of the physical activity programme of feelok. According to the results of the “energy test”, one of the two target group specific sections is recommended to visitors

often and how long visitors interacted with single elements of the Web site. This software was based on ASP, Access and Adobe Flash technology. The results of the different tests, for the “energy test” and the “sport discipline compass” including socio-demographic characteristics of the users, were recorded in a database.

Between September 2004 and September 2005, 4–5 questions eliciting information on the respondents’ profile were integrated on the entry page of [www.feelok.ch](http://www.feelok.ch). Every two weeks the items were replaced with new ones, only the questions about sex and age did not change. 14.0% of the visitors of feelok answered the questions ( $N=11\,846$ ).

Users of the sport discipline compass had the option to register with their e-mail address. If they did so, they were automatically invited to fill in an evaluation questionnaire about the physical activity programme of feelok.

## Results

In the year 2008, the monitoring software showed that feelok as a whole was used 100 840 times in visits of more than 3 minutes. In 30.1% of these visits the users worked with the contents of the section on love and sexuality. Next in line followed the sections on smoking (14.4%), physical activity (12.0%), alcohol (9.0%), self-confidence (7.9%), nutrition (7.2%), stress (6.3%), work and cannabis (both 6.1%) and suicide risks (1.1%).

Of the 16 938 visits of the physical activity programme, 12 136 lasted more than 3 minutes. On average, each visit lasted 20.4 minutes in the section for inactive and 20.9 minutes in the section for active youths. 9.4% of the visitors worked with the section for inactive individuals, 47.5% with the section for active youths, and 43.1% with the other tools of the physical activity programme. Probably there were multiple visits of some sections by the same person. However, with the statistic tool of feelok it was not possible to quantify this phenomenon.

17 649 unique visitors were using the “energy test”; 4324 completed it which took on average 5.4 minutes. The sport discipline compass was used by 6729 visitors, 3923 answered all 111 questions which took on average 10.9 minutes. The “Youth+Sport” video clips were downloaded 14 950 times and the sport club database was queried 14 945 times.

41.5% of the individuals completing the “energy tests” were boys ( $n=1794$ ), 58.5% girls ( $n=2530$ ). 60.4% were classified as



physically active, 18.9% as partially active and 20.7% as inactive. More boys (71.6%) than girls (52.6%) were physically active. The proportion of physically active individuals decreased continuously with age from 68.8% in 13- to 45.3% in 19-year-olds. 56.2% of the test respondents were members of a sport club. This proportion was 68.5% in the physically active, 48.3% in the partially active and 27.3% in the inactive. 84.0% of the respondents were of a normal weight, 13.5% were overweight or obese and 2.5% were underweight.

A profile of users of feelok was derived from 9460 individuals who filled in the entry questionnaire between September 2004 and September 2005 and used the Web site as such and 6777 who did so for the physical activity programme in the year 2008. 82.6% of feelok users and 79.4% of physical activity programme users were adolescents between 12 and 19 years, 53.9% and 58.3% respectively were girls, 76.0% and 73.5% respectively lived in Switzerland and 56.8% and 49.2% respectively lived in the regions of Zurich, Sankt Gallen and Bern.

215 users of the physical activity programme completed an evaluation questionnaire. On a rating scale from 1 (very poor) to 6 (very good) as it is used in Swiss schools, the "sport discipline compass", the video clips and the sport club database were all graded at 5.2. The feedback from the "sport discipline compass" was judged as adequate and correct by 65.0% of respondents. 30.4% reported they would explore a new sport because of this feedback and 75.1% would recommend the use of the compass to their friends.

## Discussion

feelok is a well established Internet platform that reaches a considerable number of adolescents both as a multidimensional health intervention and as a physical activity programme. In 2008, the latter has been used for a total time of 3024 hours which is the equivalent of an intervention delivered through a hypothetical public health professional on 378 eight-hour working days. Nearly 10% of the users of the physical activity programme worked with the section for physically inactive individuals, almost 50% with the section for physically active youths, the remaining users worked with other tools of the programme (see figure 2). Though repeated and single visits on the Internet were not distinguished and the users' profile and acceptance of the different elements of the intervention have only been assessed in self-selected samples, there are indications that feelok and its physical activity programme reach a broad range of adolescents and that its tools and elements are well accepted and appreciated.

While feelok is only available in German, its physical activity programme has been integrated in the French-speaking prevention platform [www.ciao.ch](http://www.ciao.ch) and the sport club database is also available in Italian through the "Youth+Sport" Web site [www.gioventuesport.ch](http://www.gioventuesport.ch) as well through the website [www.ti.ch/infogiovani](http://www.ti.ch/infogiovani). The need and the possibilities for an additional section addressing 8- to 11-year-olds are currently being explored.

The multidimensional nature of the Internet platform, the diversity of its tools and the dissemination strategies employed for its use inside and outside of schools are some of its strengths (Hofmann, 2008). This article has only covered a selection of the evaluation efforts that are continuously carried out to improve the programme (Padlina, 2009). The rapid changes in the technical possibilities of the Internet and the preferences of its adolescent users are specific challenges which are met in the preparation for re-design of the programme: The main target will be to simplify browsing and to add functionalities allowing to personalise the appearance of the intervention. In addition to formative evaluation of the intervention, a study of its effectiveness would allow to estimate its impact at the population level.

According to the experiences of its first years in use, the physical activity programme of feelok makes indeed use of the potential of the Internet to reach adolescents with targeted interventions. Further research, development and implementation strategies will be needed to maintain its attractiveness and to improve its reach and effect on physical activity behaviour.

## Acknowledgements

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