



# **The Effects that Sports and other Organized Activities have on School Grades and Drug Use among Adolescents**

Rakel Steinsen

2015

BSc in Psychology

Author: Rakel Steinsen

ID number: 27272

Department of Psychology  
School of Business

## **Foreword**

Submitted in partial fulfilment of the requirements of the BSc Psychology degree, Reykjavik University, this thesis is presented in the style of an article for submission to a peer-reviewed journal.

## Abstract

In modern society many adolescents participate in some extracurricular activities after school so it's important to research if they have positive or negative effects in the adolescent's life. The aim of this study was to research the effects that sports and other organized activities have on school grades and drug use among adolescents. Participants in this study were around 4000 students in 9th and 10th grade in Iceland, around 2000 each year that was researched. Students answered questions that discussed sports, organized activities, school grades and drug use. Two hypotheses were presented: (1) Sports and other organized activities affect school grades among adolescents. (2) Sports and other organized activities affect drug use among adolescents. Because there are data from two different years we can see if there is some difference between the years. There was significant effects on school grades for adolescents that participate in sports and organized activities both in 2006 and 2009. There was also significant effects on drug use for adolescents who participated in sports both 2006 and 2009 but there were only significant effects on drug use for adolescents that participated in organized activities in 2006 but not in 2009.

## Útdráttur

Í nútíma samfélagi stunda margir unglingar íþróttir eða aðrar skipulagðar tómstundir eftir skóla svo mikilvægt er að rannsaka hvort það hafi jákvæð eða neikvæð áhrif á líf unglinganna. Markmið þessarar rannsóknar var að kanna hvort íþróttir eða aðrar skipulagðar tómstundir hefðu áhrif á einkunnir í skóla og fíkniefnaneyslu unglunga. Þátttakendur í þessari rannsókn voru um það bil 4000 nemendur í 9. og 10. bekk á Íslandi, um 2000 nemendur bæði árin sem voru rannsökuð. Nemendur svöruðu spurningum sem fjölluðu um íþróttir, skipulagðar tómstundir, einkunnir í skóla og fíkniefnaneyslu. Tvær tilgátur voru settar fram: (1) Íþróttir og aðrar skipulagðar tómstundir hafa áhrif á einkunnir í skóla meðal unglunga. (2) Íþróttir og aðrar skipulagðar tómstundir hafa áhrif á fíkniefnaneyslu meðal unglunga. Þar sem við höfum gögn frá tveimur árum getum við einnig séð hvort það sé einhver munur milli ára. Það voru marktæk áhrif á einkunnir í skóla hjá unglingum sem tóku þátt í íþróttum eða öðrum skipulögðum tómstundum bæði árið 2006 og árið 2009. Það voru einnig marktæk áhrif á vimuefnaneyslu unglunga sem tóku þátt í íþróttum eða öðrum skipulögðum tómstundum árin 2006 og 2009 en það voru einungis marktæk áhrif á fíkniefnaneyslu fyrir unglunga sem tóku þátt í skipulögðum tómstundum árið 2006 en ekki árið 2009.

## The Effects that Sports and other Organized Activities have on School Grades and Drug Use among Adolescents

Scholars indicate that participation in extracurricular activities, like sports and other organized activity, is a productive use of adolescents' leisure time and can provide clear opportunities for growth and development (Larson, 2000). There is growing evidence of research showing beneficial effects of participation in extracurricular activities. Sports and other organized activity have been positively linked to school performance such as grades, test score and school engagement (Cooper, Valentine, Nye and Lindsay, 1999). Extracurricular activity has also been associated to reduce problem behavior like substance use (Mahoney and Cairns, 1997).

In one study, that studied the connections between participation in a range of high school extracurricular and developmental outcomes in youth, results showed that adolescents who participate in sports or school clubs had higher grades than adolescents who were not involved in sports or school clubs. In the same study it was also examined if adolescents who participate in sports or school clubs were at lower risk of using alcohol and marijuana. Those results showed that boys who participate in sports or school clubs were at lower risk using alcohol and marijuana but girls that participate in sports or school clubs did not show significant difference in using alcohol and marijuana (Fredricks and Eccles, 2006).

In a longitudinal study from 1999-2007 result showed that boys who participate in sports were less likely to use marijuana and cocaine than boys who did not participate in sports. Girls who participate in sports were also less likely to use marijuana and cocaine but they were also less likely to smoke cigarettes than girls who did not participate in sports (Taliaferro, Rienzo and Donovan, 2010). These results show that there is difference between how boys and girls behave in general and it could be something about how they behave under different social situation, for example under peer pressure.

Even though there are studies that have shown athletic involvement predicted higher alcohol use and other risk behavior (Eccles and Barber, 1999), most research show that involvement in sports is associated with improved psychological well-being, positive social development, and higher educational and occupational accomplishment through young adulthood (Barber, Eccles and Stone, 2001). Also research has shown that participation in sports has positive outcomes on development because adolescents that participate learn skills, values, initiative, responsibility, persistence and self-control (Larson, Hansen, & Moneta, 2006). The arguments about these results are that few studies have adjusted for the self-selection factors, why some adolescents choose to participate in extracurricular activity and some choose not to. The differences in the outcomes between adolescents that choose to participate in extracurricular activity and those who choose not to participate in extracurricular activity may echo preexisting differences between the two groups (Fredricks and Eccles, 2006). The self-selection factor is really important because it is a person's choice to participate in extracurricular activity and that choice can very well be the difference between the person that participates in extracurricular and the person that don't participates in extracurricular that is shown in the results of some studies.

Participation in extracurricular activities that encourages positive development is more effectively verified by longitudinal studies that adjust for self-selection factors and include measures of the dependent variable on multiple occasions (Larson, 2000).

Study that used that kind of longitudinal design showed that involvement in extracurricular activities in the 10th grade anticipated educational outcomes, psychological adjustment, and drug abuse in the 12th grade (Eccles and Barber, 1999). Results of another longitudinal study also support these finding and showed that sports and other organized activity are connected with lower levels of substance use among adolescents (Moilanen, Markstrom and Jones, 2014). This design is really good to examine the effects that sports or other organized

activities have on school grades and drug use because same persons are observed repeatedly over long period of time and that gives researchers a good overview of their development.

Most studies have either measured activity contribution with dichotomous methods or have combined all extracurricular activities together into a single display, though there are few studies have examined the outcomes of contributing in a range of activities (Eccles and Barber, 1999; Fredricks and Eccles, 2006). In a study that examined the relation between the range of activity participation and development there was found that contribution in a variety of activity contexts anticipated more positive academic adjustment (Fredricks and Eccles, 2006). When all extracurricular activities are put together into single indicator the results may indicate that some extracurricular activities have positive effect on school grades and drug use among adolescents when they really don't have any beneficial effects.

Another longitudinal study tested for connections of extracurricular participation and a range of student characteristics. Result showed that the most consistent interaction effects were for socioeconomic status, adolescents from low-income families benefits more from extracurricular participation than adolescents from high-income families (Marshand and Kleitman, 2002). In a similar study that examined the relation between sports and alcohol use, the result showed that positive association between sports participation and alcohol use is stronger among girls in lower socioeconomic status schools and boys in higher socioeconomic status schools (Hoffmann, 2006). These results show that socioeconomic status can have major impact on the benefits of extracurricular activities among adolescents. Socioeconomic status is based on education, income and occupation and is often broken in to three categories: Low socioeconomic status, middle socioeconomic status and high socioeconomic status (Quon and McGrath, 2014). It can be really beneficial to examine these categories separately to see if extracurricular activities have beneficial impact on school grades and drug use among adolescents in different socioeconomic status.

When looking at substance use in a systematic review of 17 longitudinal studies results showed that sports reduce the risk of drug use, especially use of non-cannabis related drugs, but only 50% of the studies found negative association between sport participation and marijuana use. However 80% of the studies found sport participation associated with decreased illicit drug use. In these 17 studies only three showed that participation in sports reduced the risk of alcohol use (Kwan, Bobko, Faulkner, Donnelly and Cairney, 2014). When looking at the results on so many studies it's clear that sports are beneficial in decreasing drug use among adolescents but what is interesting is that alcohol use may not be in that category at least according to these studies. Alcohol use is widespread among adolescents and almost 80% have used alcohol by the end of high school in the United States (O'Malley, Johnston and Bachman, 1998).

Previous studies indicate that sports and other organized activities affects school grades and drug use among adolescents. Two hypotheses were presented according to that. First one is that sports or other organized activities affect school grades among adolescents. Second one is that sports or other organized activities affects drug use among adolescents. Because there is data from two different years we can also see if there is some difference between these years.

## **Method**

### **Participants**

Participants were students in 9th and 10th grade in all primary schools in Iceland in 2006 and 2009. In 2006 valid answers were from 7430 students and from that around 2000 students were chosen in random sampling to use in this study. Girls were 987 and boys were 976, 40 students did not disclose their gender. In 2009 valid answers were from 7714 students and also from that around 2000 students were chosen in random sampling to use in this study. Girls were 986 and boys were 938, 42 students did not disclose their gender. The

study was presented in the classroom for those students who were in school on the day of the study so the overall response rate in the country was 80,1% in 2006 and 83,5% in 2009.

### **Design**

In this study were used questionnaires by ICSRA called "Ungt fólk" that contained 105 questions on 36 pages in 2006 (Kristjánsson, Sigfúsdóttir and Sigfússon, 2006) and 96 questions on 31 pages in 2009 (Guðmundsdóttir, Kristjánsson, Sigfúsdóttir and Sigfússon, 2009). The questionnaires by ICSRA dealt with education, health and future vision among other things but in this study we only used questions that dealt with school grades, extracurricular activities and drug use (see Appendix A, p. 18-19). In both hypotheses we have two independent variables, the first one sports and the second one organized activities. In the first hypothesis the dependant variable is school grades and in the second hypothesis the dependant variable is drug use.

### **Procedure**

Execution and analysis of the study was commissioned by ICSRA. Questionnaires were sent to all schools in the country where teachers saw to submit them. With each questionnaire followed unmarked envelope which participants put the questionnaire in after they finished. Participants where asked not to write name or identification number on questionnaires so it would be impossible to trace the answers to them. They were asked to answer all the questions as well as they could and ask for help if they needed it. All students who were in class the day of the survey answered the questionnaire (Kristjánsson, Sigfúsdóttir and Sigfússon, 2006; Guðmundsdóttir, Kristjánsson, Sigfúsdóttir and Sigfússon, 2009). SPSS statistical software was used for statistical analysis. In the first hypothesis the effects of two independent variables, sports and organized activities, where examined on one dependent variable, school grades, by multiple linear regression. The dependent variable, school grades, was assembled from four sections from question 18 in 2006 and four section from question 21

in 2009 (see Appendix A, p. 18-19). In the second hypothesis the effects of two independent variables, sports and organized activities, were examined on one dependent variable, drug use, by multiple linear regression. The dependent variable, drug use, was assembled from six sections from question 77 in 2006 and six sections from question 74 in 2009 (see Appendix A, p. 18-19).

## Results

Table 1 shows descriptive statistics on the average score that students estimated that they got in exams in Icelandic, mathematics, English and Nordic language in 2006 and 2009.

Table 1

*Descriptive statistics for school grades in 2006 and 2009.*

| School grades | Mean | Median | Std. Deviation | Minimum | Maximum |
|---------------|------|--------|----------------|---------|---------|
| 2006          | 5,23 | 5,50   | 1,37           | 1,00    | 8,00    |
| 2009          | 5,44 | 5,50   | 1,35           | 1,00    | 8,00    |

In 2006 the independent variables only explained 5% of the distribution of the school grades  $F(2, 1774)=44,30$ ;  $p<0,05$  by using multiple linear regression. The F-test was significant ( $p < 0.05$ ), which suggests that the factors that were examined had an impact on school grades. In 2009 the independent variables explained 6% of the distribution of the school grades  $F(2, 1784)=57,05$ ;  $p<0,05$  by using multiple linear regression. The F-test was significant ( $p < 0.05$ ), which suggests that the factors that were examined had an impact on school grades.

Table 2 shows the effect of the factors that were examined on the student's grades in 2006 and 2009. The factor that had more impact on the the first hypothesis presented was sports both in 2006 ( $\beta=0,189$ ;  $p<0,05$ ) and 2009 ( $\beta=0,212$ ;  $p<0,05$ ).

Table 2

*Multiple regression on school grades.*

| Independent variables | B     | Beta  | t     | Sig.  |
|-----------------------|-------|-------|-------|-------|
| 2006                  |       |       |       |       |
| Sports                | 0,151 | 0,189 | 8,018 | 0,000 |
| Organized activities  | 0,080 | 0,083 | 3,515 | 0,000 |
| 2009                  |       |       |       |       |
| Sports                | 0,168 | 0,212 | 9,104 | 0,000 |
| Organized activities  | 0,086 | 0,093 | 3,996 | 0,000 |

Table 3 shows descriptive statistics on the average drug use (hass, amfetamin, LSD, e-pills, cocaine and mushrooms) among students in 2006 and 2009.

Table 3

*Descriptive statistics for drug use in 2006 and 2009.*

| Drug use | Mean | Median | Std. Deviation | Minimum | Maximum |
|----------|------|--------|----------------|---------|---------|
| 2006     | 1,06 | 1,00   | 0,32           | 1,00    | 7,00    |
| 2009     | 1,05 | 1,00   | 0,32           | 1,00    | 7,00    |

In 2006 the independent variables explained 2% of the distribution of the drug use  $F(2, 1829)=16,26$ ;  $p<0,05$  by using multiple linear regression. The F-test was significant ( $p < 0.05$ ), which suggests that the factors that were examined had an impact on drug use. In 2009 the independent variables only explained 0,1% of the distribution of the drug use  $F(2, 1858)=5,23$ ;  $p<0,05$  by using multiple linear regression. The F-test was significant ( $p < 0.05$ ),

which suggests that the factors that were examined had some impact on school grades.

Table 4 shows the effect of the factors that were examined on the student's grades in 2006 and 2009. The factor that had more impact on the second hypothesis presented was also sports both in 2006 (beta=-0,017;  $p < 0,05$ ) and 2009 (beta=-0,010;  $p < 0,05$ ). The reason that sports had more impact in 2009 even though organized activities had the same beta value is because the t-test was not significant in organized activities (beta=-0,010;  $p > 0,05$ ).

Table 4

*Multiple regression on drug use.*

| Independent variables | B      | Beta   | t      | Sig.  |
|-----------------------|--------|--------|--------|-------|
| <b>2006</b>           |        |        |        |       |
| Sports                | -0,017 | -0,096 | -4,075 | 0,000 |
| Organized activities  | -0,016 | -0,075 | -3,161 | 0,002 |
| <b>2009</b>           |        |        |        |       |
| Sports                | -0,010 | -0,052 | -2,215 | 0,027 |
| Organized activities  | -0,010 | -0,045 | -1,906 | 0,057 |

When using multiple regression it's important to follow eight assumptions, they were examined and all met (Field, 2013).

### **Discussion**

The results indicates that the first hypothesis was right because there was significant effects on school grades for adolescents that participates in sports and organized activities both in 2006 and 2009. There was also significant effects on drug use for adolescents who participated in sports both 2006 and 2009 but there where only significant effects on drug use for

adolcents that participated in organized activities in 2006 but not in 2009. The second hypothesis was right in 2006 but only sports had significant effects on drug use in 2009 not organized activities. This results are equivalent with what previous research has shown, that sports and other organized activity have been positively linked to school performance such as grades, test score (Cooper, Valentine, Nye and Lindsay, 1999) and to reduce problem behavior like substance use (Mahoney and Cairns, 1997). Based on these results we can concluded that sports and other organized activities have positive effect on school grades and drug use among adolescents. The methodological limitations are few and for exemple in this study we did not examined boys and girl separatly. Previous research has shown that there is difference between how boys and girls behave in general (Fredricks and Eccles, 2006). Why they behave differently can only be known if the difference between the sexes is research better in this context specifically. Another limitation in this study is that we have preexisting data so the self-selection factor is not taking into consideration. It is a person's choice to participate in extracurricular activity and that choice can very well be the difference between the person that participates in extracurricular and the person that don't participates in extracurricular (Fredricks and Eccles, 2006). That means that studys, like this one, that do not adjust for the self-selection factors are basically researching two types of adolescents that choose to participate or choose not to participate in extracurricular rather than the effects the extracurricular has on them and their choice. Longitudinal study would be a better choice because same persons are observed repeatedly over long period of time and that gives researchers a good overview of their development (Larson, 2000). It could also be very good to look at the range of activities to see if their are some extracurricular activities that are more beneficial or more harmful than others for adolescents to participate in to predict good school grades and lower the risk of drug use (Eccles and Barber, 1999). Finally it would be interesting to examine the categories of socioeconomic status separately; low socioeconomic

status, middle socioeconomic status and high socioeconomic status, to see if extracurricular activities have beneficial impact on school grades and drug use among adolescents in different socioeconomic status (Quon and McGrath, 2014). In a future study it would be great if all these factors could be included in the methodologic of the study to get the most accurate results and better overview over the effect that sports and other organized activities have on school grades and drug use among adolescents.

## References

- Barber, B. L., Eccles, J. S. and Stone, M. R. (2001). Whatever happened to the jock, the brain, and the princess? Young adult pathways linked to adolescent activity involvement and social identity. *Journal of Adolescent Research*, 16(5), 429-455. Retrieved from <http://hrproxy.hir.is:2071/ehost/detail/detail?vid=4&sid=fd8ffbc9-78a0-4e01-a631c0c00a6c0c0e%40sessionmgr4004&hid=4104&bdata=JnNpdGU9ZWwhvc3QtbGl2ZQ%3d%3d#db=aph&AN=6389637>
- Cooper, H., Valentine, J. C., Nye, B. and Lindsay, J. J. (1999). Relationships between five after-school activities and academic achievement. *Journal of Educational Psychology*, 91(2), 369-378. Retrieved from <http://hrproxy.hir.is:2071/ehost/detail/detail?vid=41&sid=f7ff23d1-bd91-4ab58a661df8dea1416b%40sessionmgr4002&hid=4104&bdata=JnNpdGU9ZWwhvc3QtbGl2ZQ%3d%3d#db=pdh&AN=1999-03660-017>
- Eccles, J. S. and Barber, B. L. (1999). Student council, volunteering, basketball, or marching band: What kind of extracurricular involvement matters? *Journal of Adolescent Research*, 14(1), 10-44. Retrieved from <http://hrproxy.hir.is:2089/ehost/detail/detail?vid=4&sid=d7c43144-e862-4ad3afb96ab2f43470ef%40sessionmgr198&hid=102&bdata=JnNpdGU9ZWwhvc3QtbGl2ZQ%3d%3d#db=aph&AN=1412871>
- Field, A. P. (2013). *Discovering statistics using IBM SPSS statistics: and sex and drugs and rock "n" roll* (4th edition). Los Angeles: Sage.
- Fredricks, J. A., and Eccles, J. S. (2006). Is extracurricular participation associated with beneficial outcomes? Concurrent and longitudinal relations. *Developmental Psychology*, 42(4), 698-713. Retrieved from <http://hrproxy.hir.is:2071/ehost/detail/detail?vid=5&sid=f7ff23d1-bd91-4ab5->

8a661df8dea1416b%40sessionmgr4002&hid=4104&bdata=JnNpdGU9ZWhvc3QtbGl2ZQ%3d%3d#db=pdh&AN=2006-08097-009

Guðmundsdóttir, M. L., Kristjánsson, Á. L., Sigfúsdóttir, I. D. and Sigfússon, J. (2009). *Ungt fólk 2009: Menntun, menning, tómstundir, íþróttaiðkun og framtíðarsýn ungmenna á Íslandi*. Reykjavík: Rannsóknir & greining ehf. Retrieved from <http://www.rannsoknir.is/media/rg/skjol/Ungt-folk-8.---10.-bekkur-2009.pdf>

Hoffmann, J. P. (2006). Extracurricular Activities, Athletic Participation, and Adolescent Alcohol Use: Gender-Differentiated and School-Contextual Effects. *Journal of Health & Social Behavior*, 47(3), 275-290. Retrieved from <http://hrproxy.hir.is:2071/ehost/detail/detail?vid=15&sid=fd8ffbc9-78a0-4e01a631c0c00a6c0c0e%40sessionmgr4004&hid=4104&bdata=JnNpdGU9ZWhvc3QtbGl2ZQ%3d%3d#db=aph&AN=22630075>

Kwan, M., Bobko, S., Faulkner, G., Donnelly, P. and Cairney, J. (2014). Sport participation and alcohol and illicit drug use in adolescents and young adults: A systematic review of longitudinal studies. *Addictive Behaviors*, 39(3), 497-506. Retrieved from [http://hrproxy.hir.is:2076/full\\_record.do?product=UA&search\\_mode=GeneralSearch&qid=9&SID=X2qA1NPfpZrdV62OuZG&page=1&doc=7#](http://hrproxy.hir.is:2076/full_record.do?product=UA&search_mode=GeneralSearch&qid=9&SID=X2qA1NPfpZrdV62OuZG&page=1&doc=7#)

Kristjánsson, Á. L., Sigfúsdóttir, I. D. and Sigfússon, J. (2006). *Ungt fólk 2006: Menntun, menning, tómstundir og íþróttaiðkun ungmenna á Íslandi*. Reykjavík: Rannsóknir & greining ehf. Retrieved from <http://www.ru.is/lisalib/getfile.aspx?itemid=11875>

Larson, R. W. (2000). Toward a Psychology of Positive Youth Development. *American Psychologist*, 55(1), 170-184. Retrieved from <http://hrproxy.hir.is:2071/ehost/detail/detail?vid=5&sid=48e9e1cf-012c-4f14-8a44d1b8784de67e%40sessionmgr4004&hid=4104&bdata=JnNpdGU9ZWhvc3QtbGl2ZQ%3d%3d#db=aph&AN=2908577>

- Larson, R. W., Hansen, D. M. and Moneta, G. (2006). Differing profiles of developmental experiences across types of organized youth activities. *Developmental Psychology*, 42(5), 849– 863. Retrieved from <http://hrproxy.hir.is:2071/ehost/detail/detail?vid=8&sid=fd8ffbc9-78a0-4e01-a631c0c00a6c0c0e%40sessionmgr4004&hid=4104&bdata=JnNpdGU9ZWWhvc3QtbGl2ZQ%3d%3d#db=aph&AN=22415182>
- Mahoney, J. L., and Cairns, R. B. (1997). Do extracurricular activities protect against early school dropout? *Developmental Psychology*, 33(2), 241– 253. Retrieved from <http://hrproxy.hir.is:2089/ehost/detail/detail?vid=4&sid=534103ca-b99d-4ef7ba5d4dae5bf8233b%40sessionmgr111&hid=102&bdata=JnNpdGU9ZWWhvc3QtbGl2ZQ%3d%3d#db=aph&AN=9711153633>
- Marsh, H. W. and Kleitman, S. (2002). Extracurricular School Activities: The Good, the Bad, and the Nonlinear. *Harvard Educational Review*, 72(4), 464-515. Retrieved from <http://hrproxy.hir.is:2089/ehost/detail/detail?vid=6&sid=d7c43144-e862-4ad3afb96ab2f43470ef%40sessionmgr198&hid=102&bdata=JnNpdGU9ZWWhvc3QtbGl2ZQ%3d%3d#db=aph&AN=8865188>
- Moilanen, K. L., Markstrom, C. A. and Jones, E. (2014). Extracurricular Activity Availability and Participation and Substance Use Among American Indian Adolescents. *Journal of Youth and Adolescence*, 43(3), 454-469. Retrieved from [http://hrproxy.hir.is:2076/full\\_record.do?product=UA&search\\_mode=GeneralSearch&qid=2&SID=X2qA1NPfpZrdV62OuZG&page=1&doc=6](http://hrproxy.hir.is:2076/full_record.do?product=UA&search_mode=GeneralSearch&qid=2&SID=X2qA1NPfpZrdV62OuZG&page=1&doc=6)
- O'Malley, P. M., Johnston, L. D. and Bachman, J. G. (1998). Alcohol use among adolescents. *Alcohol Health and Research World*, 22(2), 85– 93. Retrieved from <http://hrproxy.hir.is:2121/ehost/detail/detail?vid=9&sid=732f179e-281a-4777-a6729903af16c8c9%40sessionmgr110&hid=106&bdata=JnNpdGU9ZWWhvc3Qtb>

G12ZQ%3d%3d#db=aph&AN=97312116

Quon, E. C. and McGrath, J. J. (2014). Subjective socioeconomic status and adolescent health: A meta-analysis. *Health Psychology, 33*(5), 433-447. Retrieved from <http://hrproxy.hir.is:2182/ehost/detail/detail?vid=3&sid=164796c8-a9ac-4216-8de997a443bacd60%40sessionmgr4004&hid=4104&bdata=JnNpdGU9ZWhvc3QtbG12ZQ%3d%3d#db=pdh&AN=2013-39987-001>

Taliaferro, L. A., Rienzo, B. A. and Donovan, K. A. (2010). Relationships Between Youth Sport Participation and Selected Health Risk Behaviors From 1999 to 2007. *Journal of School Health, 80*(8), 399-410. Retrieved from <http://hrproxy.hir.is:2071/ehost/detail/detail?vid=21&sid=fd8ffbc9-78a0-4e01a631c0c00a6c0c0e%40sessionmgr4004&hid=4104&bdata=JnNpdGU9ZWhvc3QtbG12ZQ%3d%3d#db=aph&AN=51938048>

## Appendix A

### Questions: 2006/2009

1/1. What gender are you?

Male  Female

18/21. In what range have your ratings in the following subjects been this winter?

a) Icelandic

under 4  around 4  around 5  around 6  around 7  around 8  around 9   
around 10

b) Mathematics

under 4  around 4  around 5  around 6  around 7  around 8  around 9   
around 10

c) English

under 4  around 4  around 5  around 6  around 7  around 8  around 9   
around 10

d) Nordic language

under 4  around 4  around 5  around 6  around 7  around 8  around 9   
around 10

77/74. How often (if ever) have you used the following substances?

b) Hass

never  1-2 times  3-5 times  6-9 times  10-19 times  20-39 times  40 times or  
more

d) Amfetamin

never  1-2 times  3-5 times  6-9 times  10-19 times  20-39 times  40 times or  
more

e) LSD

never  1-2 times  3-5 times  6-9 times  10-19 times  20-39 times  40 times or more

f) E-pills

never  1-2 times  3-5 times  6-9 times  10-19 times  20-39 times  40 times or more

g) Cocaine

never  1-2 times  3-5 times  6-9 times  10-19 times  20-39 times  40 times or more

i) Mushrooms

never  1-2 times  3-5 times  6-9 times  10-19 times  20-39 times  40 times or more

90/86. Do you participate in sports or other organized exercise?

almost never  less than once a week  once a week  2-3 times a week  4-5 times a week  almost every day

101/92. Do you participate in organized activities?

almost never  less than once a week  once a week  2-3 times a week  4-5 times a week  almost every day