

ActiveChat: Development of an 8-week school-based intervention to increase motivation for physical activity and reduce sedentary behaviour in secondary school pupils



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Introduction

- The aim of the ActiveChat programme was to develop and pilot a student-centred learning programme to be delivered to S1-S3 secondary school pupils (11-14 year olds)
- The ActiveChat programme was conducted within the umbrella of Models of University-Schools Engagement (MUSE) which is an integrated project to promote collaboration between researchers, university students and school pupils
- 15% of children and adolescents 11-15 years meet the physical activity guidelines in Scotland (Currie et al., 2011)
 - The focus of ActiveChat was to promote the importance of increasing physical activity and reducing sedentary behaviour, by actively engaging pupils in research-based learning
- The ActiveChat programme was underpinned by three components of the Self-Determination Theory - Autonomy, Competence and Relatedness (Ryan & Deci, 2000)
- Lesson learning outcomes were aligned with the third phase learning outcomes of the Curriculum for Excellence (CfE) (Education Scotland)

Methods

- Curriculum for Excellence documentation was analysed and learning outcomes for the third phase of learning were extracted
- The ActiveChat programme was designed to incorporate:
 - 1) emphasis of the importance of increasing physical activity and reducing sedentary behaviour;
 - 2) understanding the different types of physical activity (sport, exercise, active living);
 - 3) promoting research in exercise science through pupils' own research tasks;
 - 4) learning outcomes of the Curriculum for Excellence in areas of Health and Wellbeing, Literacy, Numeracy, Technology and Expressive Arts;
 - 5) engaging Pupil Voice through group discussions and asking pupils' opinions.
- Lessons were designed for pupils to experience autonomy (through voicing their opinions), competence (completing assigned tasks) and relatedness (the class experiencing the programme together)
- ActiveChat was piloted as an educational knowledge exchange programme at a local high school in Glasgow, UK
- The participants were in a mixed gender S3 (aged 13-14 years) class (N = 15)

Results

- The ActiveChat programme was delivered by 3 ActiveChat mentors: A PhD student and 2 undergraduate students
- Through piloting the ActiveChat programme, it was established that this type of programme can be integrated within the school curriculum
- To fit into the school timetable, the end result was a 10-week programme consisting of 1 x 50-minute lesson per week and addressed 29 different learning outcomes across five areas of the Curriculum for Excellence

Learning outcomes were:

- 10 Mental, Emotional, Social and Physical Health;
- 12 Literacy and English;
- 2 Technologies;
- 2 Expressive Arts;
- 3 Mathematics and Numeracy.

The Curriculum for Excellence outcomes were achieved through a) learning about physical activity, sedentary behaviour and research, b) pupil voice, c) data collection and processing, and d) delivering PowerPoint presentations



Figure 1. A snapshot of the materials used in the ActiveChat programme.

Take Home Messages

What works?

- Team work - pupils responded well to team tasks
- Introducing new devices - pupils enjoyed using pedometers and looking at accelerometer data output

What needs improved?

- Data analysis - session was too easy for some and too difficult for others
- PowerPoint presentation - try to increase pupil confidence for speaking out to an audience throughout the programme

Conclusion

Overall, the ActiveChat programme emphasises the importance of physical activity and sedentary behaviour whilst addressing key learning outcomes for the Curriculum for Excellence. These qualities mean it can be successfully delivered in a school setting. Further evaluation of the programme is currently ongoing.

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References

Currie, C., Levin, K., Kirby, J., Currie, D., Van Der Sluijs, W. & Inchley J. (2011). HBSC Scotland National Report, Health Behaviour in School-Aged Children: World Health Organization Collaborative Cross-National Study (HBSC)
Education Scotland. (n.d.). Curriculum Levels. Retrieved 15 May, 2015, from <http://www.education.scotland.gov.uk/learningandteaching/thecurriculum/howisprogressassessed/stages/index.asp>
Ryan, R.M. & Deci, E.L. (2000). The Darker and Brighter Side of Human Existence: Basic Psychological Needs as a Unifying Concept, *Psychological Inquiry: An International Journal for the Advancement of Psychological Theory*, 11(4), 319-338