FINALIST IN THE BUSINESS IMPACT – ASPIRING CATEGORY

Health screening in schools: a radical new solution
City University London | Thomson Screening Solutions

"...quite simply the most efficient and cost-effective way to manage child health screening"

The problem

Learning has been defined as "the acquisition of information through the senses". It follows that children with sensory deficits such as poor vision or hearing loss are disadvantaged in a learning environment.

It is estimated that at least 1 in 5 primary school children have a vision or hearing problem. Early detection and intervention in these cases can have a significant impact on the social and educational development of these children.

Vision and hearing screening in schools was introduced over 100 years ago and the system has provided a useful safety net. However, current methods are inefficient, expensive and lack sensitivity and specificity.

The solution

A team at City University London led by Professor David Thomson has developed a radical solution for health screening in schools, which is set to revolutionise the detection and management of childhood vision and hearing problems in the UK and beyond.

The solution is based around screening software which runs on a standard laptop and a cloud-based server system.

The software manages the entire screening process including:

- Managing parental consent
- Vision and hearing screening
- Collection of height and weight measurements
- Analysis of results
- Preparation of high quality customised reports for parents
- Referral reports
- Automatic collation of feedback from secondary clinics
- Audit reports
- Import and Export to other databases.

The software has been shown to be sensitive, specific and extremely cost effective, greatly reducing the overheads of providing a comprehensive school screening service.

Knowledge / technology transfer

Following extensive clinical trials, the system has been brought to market by a spin-out company from City University London (Thomson Screening Solutions).

The project reflects the benefits of close collaboration between technology transfer experts and scientists / inventors. Working as a team, the group has been able to take a radical idea and set up the necessary funding and infrastructure to bring the product to market.

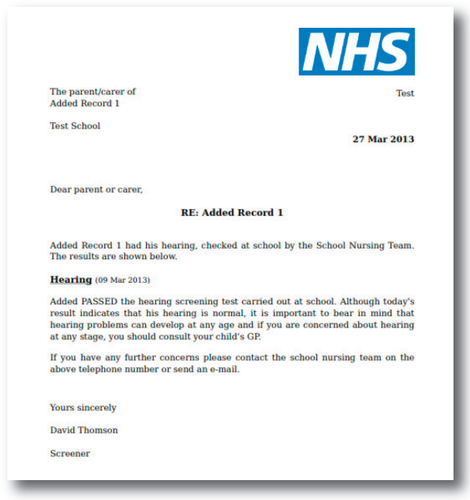
The company now employs a team of five and is set for rapid expansion of the next few years.

Impact

Approximately 750,000 children enter the school system each year. Approximately 150,000 of these children will have significant vision or hearing problems of which they are unaware. These children will be disadvantaged at school to some degree.

Vision and hearing screening using the School Screener software can be completed in less than 10 minutes and the test will accurately identify more than 95% of those with vision or hearing problems.

Approximately 200,000 will be screened using the system next academic year and rapid growth within the UK and overseas is predicted for subsequent years.


NHS

The parent/carer of
Added Record 1

Test

Test School

27 Mar 2013

Dear parent or carer,

RE: Added Record 1

Added Record 1 had his hearing, checked at school by the School Nursing Team. The results are shown below.

Hearing (09 Mar 2013)

Added PASSED the hearing screening test carried out at school. Although today's result indicates that his hearing is normal, it is important to bear in mind that hearing problems can develop at any age and if you are concerned about hearing at any stage, you should consult your child's GP.

If you have any further concerns please contact the school nursing team on the above telephone number or send an e-mail.

Yours sincerely

David Thomson

Screener

Summary

- Scientists at City University London identified a problem which is impacting the social and educational development of millions of children worldwide.
- Working closely with knowledge/transfer experts at City University London, the team developed a radical solution.
- Using seed capital provided by City University London, the necessary trials were conducted and software developed to a commercial standard.
- A spin-out company was established and a team with the experience and skills to bring the product to market was assembled.
- Software supplied by the company will be used to screen approximately 200,000 children next year with rapid expansion predicted over the next few years.

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