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The Impact of Learning for Sustainability on Educational Outcomes: A Summary of Findings

What is Learning for Sustainability?

Learning for Sustainability (LfS) is a Scottish educational approach to learning [1], that encourages learners and educators to explore the concepts of sustainable development, global citizenship and outdoor learning in ways which develop the skills, knowledge and values needed to live sustainable lifestyles [2,3]. At its most effective, LfS is delivered across the curriculum and extends to influence the life and ethos of an educational setting. Learning for Sustainability is aligned to the United Nations Sustainable Development Goals (SDGs)[4], offering a starting point or 'way in' to explore local issues within a global context and vice versa. Whilst there is strong evidence of the effectiveness of LfS in developing pro-environmental attitudes and behaviours, the focus of this review is on the impact of LfS on broader educational outcomes.



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Process

The University of Edinburgh was commissioned to review literature relating to the educational impact of LfS. However, as LfS with its three inter-related dimensions is a relatively new concept, there is limited research on Scottish educational outcomes, so the literature examined includes international research covering sustainability education more broadly. Opening up the study in this way revealed a huge increase in peer-reviewed research from a range of disciplines (not just educational research) conducted since 2000, and specifically within the last decade. To keep things manageable, data from the past five years was prioritised and screened for quality and relevance to key themes. The main findings of the full report [5] are summarised below.



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Findings

Impact on the personal development of learners:

Learning for Sustainability can support young people to explore, experience and come to know themselves, their connection to the world around them, and the contributions they can make to society now and for the future. It can engage them in local community issues which can help them to understand the interdependencies between 'their place' and the wider world, and their role within those relationships. This type of understanding can help young people build confidence to act, develop respect for themselves and others, and provide opportunities to flourish across different aspects of their lives.

Impact on understanding of citizenship: Learning for Sustainability can enable young people to think about the connections and dependencies between different aspects of life. This can include considering the relationships between people of different backgrounds, nationalities and cultures, and our collective and individual relationships with the natural world. As young people explore LfS in this way they can discover a range of perspectives on issues such as fairness, justice and equity. This can help them to understand that our actions have consequences for other human beings and the natural world, and that when we act we have responsibilities as well as rights - a core feature of citizenship.



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Impact on academic attainment: As a holistic approach to education, LfS has the potential to support progression and 'attainment' across Curriculum for Excellence (CfE). This is particularly so through outdoor learning, where there is increasingly strong evidence that experiences in nature can boost academic learning, including in subject areas unrelated to the outdoor context. The research stressed the significance for pupils who were 'underachieving' and those with 'learning difficulties', highlighting the generally calmer, quieter, outdoor environment and the opportunity for more co-operative, yet self-led learning. Further, the review also highlighted the benefits of time spent outdoors in terms of health and wellbeing, stress reduction, improved mental health and confidence of young people, all of which are known to support academic attainment. This aligns closely with the emphasis in CfE on good health and wellbeing (alongside literacy and numeracy) [6] as the foundation of all attainment, and as a responsibility of all school staff.



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Impact on skills for life and work beyond formal education: LfS can encourage the development of critical thinking skills. It can help young people to uncover and unpick complex issues. It can also support creativity, allowing learners to imagine solutions to existing and emerging issues. Learning for Sustainability can therefore offer an opportunity to develop and practice skills necessary to thrive in an increasingly fast-paced, uncertain world.

Impact on closing the poverty-related attainment gap and reducing inequity within education: No literature was found that examined how LfS might specifically address the poverty-related attainment gap. However, it is clear that LfS affords an opportunity to do so indirectly by raising awareness of the relationship between a sustainable future and a more equal society. It can also offer opportunities to address issues of social justice and 'fairness' by enabling learners to engage with local, national and global issues as part of a wider community or as individuals.

Impact on overall educational setting: Learning for Sustainability can improve the culture, and therefore indirectly support improvement within an educational setting. However, time and resources are required to ensure that LfS is meaningfully embedded. This includes allowing everyone time to fully explore some of the complex issues covered by LfS and consider how they apply in their local contexts.



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Conclusions

As LfS policy and practice become more widespread, a deeper understanding of the value of integrating education for sustainable development, global citizenship and outdoor learning, should emerge. However, the review concludes that whilst the Scottish approach to LfS is novel internationally, there is robust evidence of its value in attainment, personal development and environmental stewardship.

This review did not set out to examine evidence regarding the effectiveness of LfS in developing pro-environmental attitudes and behaviours, however it was a clear and significant finding, with studies highlighting the particular importance of fostering emotional connections to nature through time spent outdoors.

In terms of broader educational outcomes, the findings are significant for both policy and practice as they position LfS as an excellent context through which all aspects of CfE can flourish, enabling learners to develop and display the values and dispositions outlined in its 'four capacities'.¹ Building teacher confidence through pre-service and professional development opportunities will help them recognise and maximise the potential of LfS to contribute to these broad educational outcomes.

Further, an LfS-based, whole-setting approach, which is a key feature of Scottish Government LfS policy, offers a way to build a 'learning community'; where educators and pupils alike are encouraged and supported to work together towards a sustainable and equitable future, whilst simultaneously motivating and inspiring young people to become independent learners.

Resources

- Education Scotland – A Summary of Learning for Sustainability resources <https://education.gov.scot/improvement/learning-resources/a-summary-of-learning-for-sustainability-resources>
- Learning for Sustainability Scotland: #thisislfscase studies <https://learningforsustainabilityscotland.org/thisislfsc>

¹ A central focus of Curriculum for Excellence is to help learners to become successful learners; confident individuals; effective contributors and responsible citizens. These are known as the 'four capacities'.

References

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- [3] Scottish Government (2016). Vision 2030+ concluding Report of the Learning for Sustainability Implementation Group. Retrieved November 24, 2019, from <https://education.gov.scot/improvement/documents/res1-vision-2030.pdf>
- [4] The Division for Sustainable Development Goals (DSDG) in the United Nations Department of Economic and Social Affairs (UNDESA) acts as the Secretariat for the SDGs. Read more here: <https://sustainabledevelopment.un.org/?menu=1300>
- [5] Christie, B & Higgins P. (2020). Educational outcomes of Learning for Sustainability: A Brief Review of Literature. Scottish Government ISBN: 9781839604706 <https://www.gov.scot/publications/educational-outcomes-learning-sustainability-brief-review-literature/pages/3/>
- [6] Education Scotland. (2008) Curriculum for Excellence. Building the Curriculum 3: A Framework for Learning and teaching. Retrieved November 24, 2019, from <https://education.gov.scot/Documents/btc3.pdf>

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