Is Student Attainment affected by Educational Trust, Sense of Belonging and Locus of Control?
A Study of S5 Learners in a Scottish Secondary School

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Introduction

The educational landscape has altered significantly over the last two decades. Changes at the macrolevel in educational policy, curriculum and addition of governing bodies have placed greater accountability on institutions and staff, creating a performativity climate (Sheldon & Biddle, 1998; Edgington, 2016). This performativity climate can filter down to the microlevel, where teachers may focus on attainment rather than building positive relationships (Ibrahim & Zaatari, 2020). Relationships with teachers may be important for those lacking strong attachments and could moderate negative effects psychosocially and academically (Adams, 2014). Trust is necessary to build these positive student-teacher attachments (Tschannen-Moran, 2014) and help develop a sense of belonging (SOB) in school (Adams, 2014).

Students feel known and have a SOB when they are valued, respected and accepted and have better wellbeing and academic outcomes (Allen et al., 2018). With a global decline in SOB among adolescents (OECD, 2019) and the recent COVID pandemic, addressing ways to increase students' SOB is vital (Seymour et al., 2020). Trusting relationships can shape an internal locus of control (LOC) enabling autonomy and responsibility for learning, where students perceive outcomes are within their control, leading to greater wellbeing and attainment (Shojaee & French, 2014).

Since the introduction of Curriculum for Excellence in 2010, Scottish teachers require a holistic individualised relational approach; getting to know each individual. Yet, at the macrolevel (Figure 1), the modern accountability culture has largely placed the responsibility of student attainment on staff with less student responsibility for outcomes (Biesta, 2004). Thus, at the microlevel, teachers may feel pressure to focus on attainment rather than developing positive relationships. It is therefore import ant to explore how the cultural variables of trust and SOB (perhaps relating to the school ethos) might relate to individual factors such as LOC and the relationship with student attainment for different types of students.

Figure 1
Bronfenbenner's Ecological Theory of Development, Hchokr at English Wikipedia CC 3.0

Educational trust research mostly focuses on the adults' perspective (Neidlich et al., 2021) therefore this study will explore students trust in teachers and the relative importance of these factors (including SOB and LOC) for high, middle and low attainers in relation to theories of culture and development (Figure 1, Bronfenbrenner, 1979) and self-determination (Deci & Ryan, 1985).

Figure 2 - Educational Trust, Sense of Belonging and Locus of Control
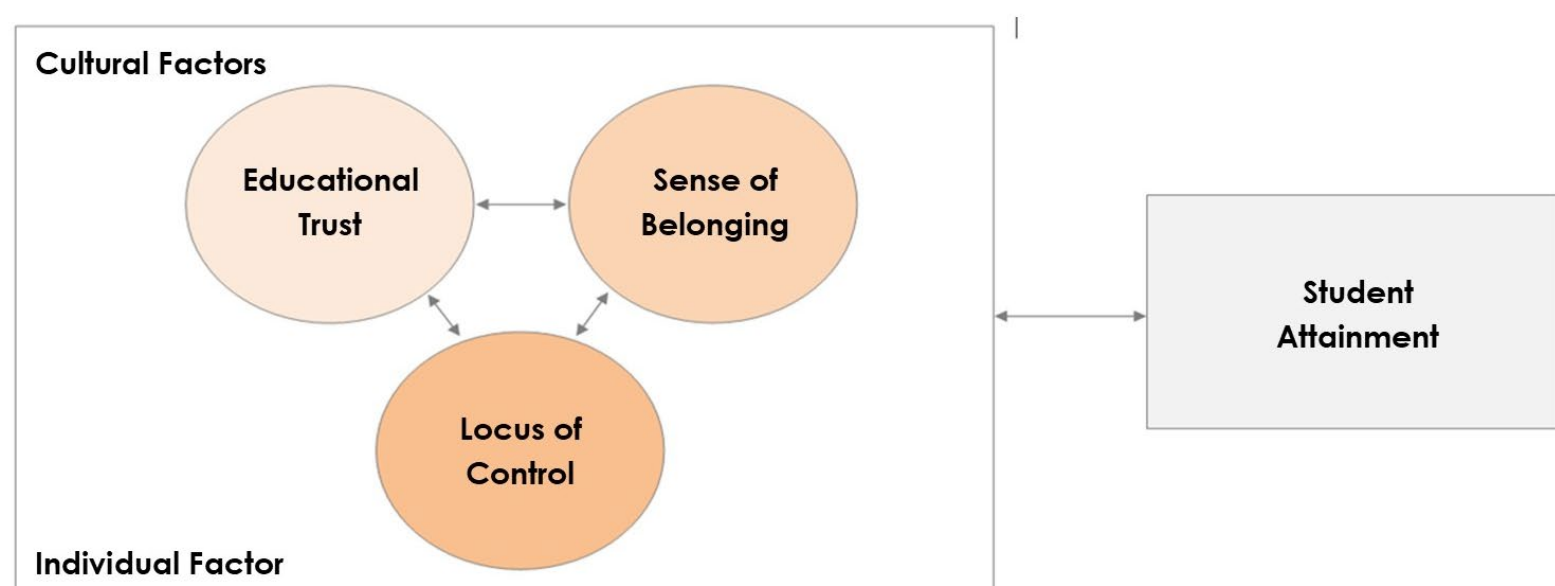
Hypotheses

It was predicted that cultural factors relating to trust and SOB along with the individual factor of LOC will relate to student attainment (Figure 2). Analysis was performed on both grouped (low, middle and high attainers) and ungrouped data to test the following hypotheses:

H_1: Attainment will be affected by the variables of educational trust, sense of belonging and locus of control.

H_0: Attainment is not affected by the variables of educational trust, sense of belonging and locus of control.

Method

Design

A survey study was conducted then regression analysis performed in SPSS on grouped (top 20%, middle 60% and lower 20% of attainers based on total SQA tariff points) and ungrouped data. The data was gathered from three questionnaires on educational trust (Forsyth, Adams and Hoy, 2011), SOB (Whiting, Everson and Feinauer, 2018) and LOC (Duttweiler, 1984).

Participants

Opportunity sampling of S5 students (n =86) at a Scottish Secondary School (divided into 17 top, 52 middle and 17 lower attainers based on Scottish Government performance comparisons).

Procedure

Following ethics approval students voluntarily completed the survey online during class time, using JISC software with the option to use a pseudonymised code instead of their full name to enable links with SQA tariff data from previous academic year.
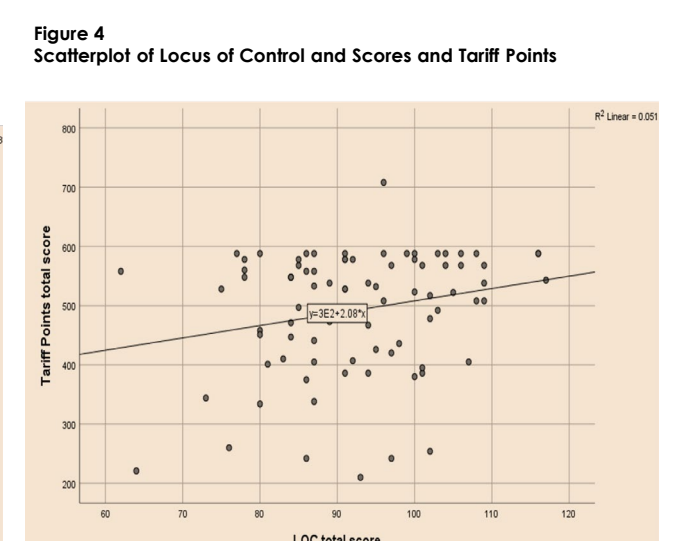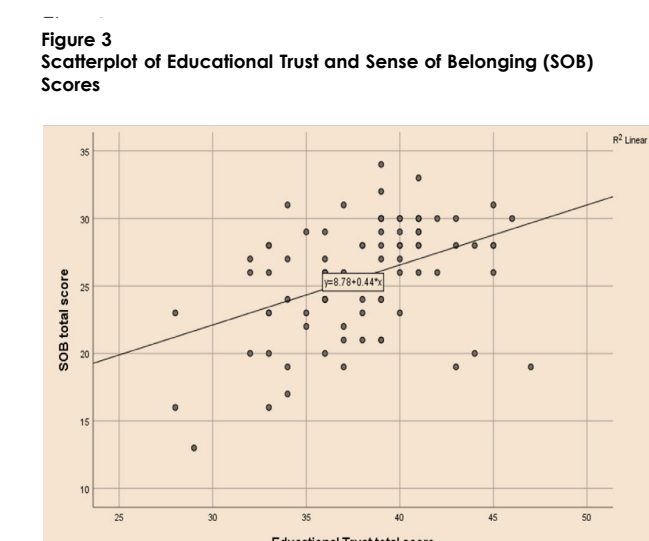
Results

The multiple linear regression analysis showed the model of educational trust, sense of belonging and locus of control did not significantly predict attainment for ungrouped (R_2 = 8.9%) or grouped data (R_2 = low 12%, middle 0.8%, high 1.7%). Relationships (Table 1) for ungrouped data suggest a significant moderate correlation existed between ET and SOB (Figure 3). A weak positive correlation was found between SOB and LOC and LOC and attainment (Figure 4).

Table 1

Descriptive Statistics and Correlations for Study Variables

Variable	n	M	SD	1 (ET)	2 (SOB)	3 (LOC)
1. Educational Trust (ET)	86	38.0	4.0	—		
2. Sense of Belonging (SOB)	86	25.7	4.2	0.422**	—	
3. Locus of Control (LOC)	86	92.4	11.1	0.116	0.256*	—
4. Tariff Points	86	492.3	102.4	-0.069	0.170	0.226*

*$p < .05$. **$p < .01$

Figure 3
Scatterplot of Educational Trust and Sense of Belonging (SOB) Scores
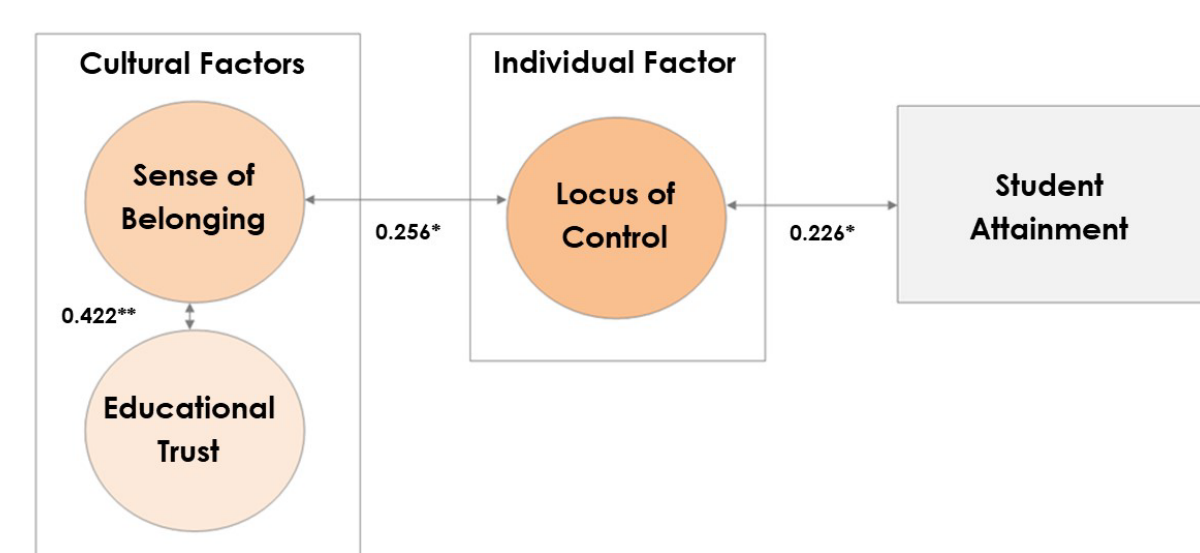
Figure 4
Scatterplot of Locus of Control and Scores and Tariff Points

Discussion

The hypothesis (H_1) was not supported, although the findings suggest a relationship between the variables. ET and SOB are positively correlated, SOB and LOC are correlated and LOC is correlated with attainment. LOC should be considered as an important factor in enabling student belief that they have control over their own outcomes. Whilst no direct relationship was found between educational trust, SOB and attainment there appears to be an indirect relationship with LOC leading to impact on attainment (Figure 5). Enabling environments which allow for student responsibility and self-determination (Deci & Ryan, 1985) through autonomy, competence building and relatedness (SOB) can address the effects of the macrolevel accountability culture which has arguably eroded some student responsibility.

Figure 5 - Educational Trust, Sense of Belonging and Locus of Control Correlations

References

Adams, C. M. (2014). Collective Student Trust: A Social Resource for Urban Elementary Students. Educational Administration Quarterly, 50(1), 135–159. https://doi.org/10.1177/0013161X13488596

Allen, K., Allen, K., Kern, M. L., Kern, M. L., Vella-Brodrick, D., Vella-Brodrick, D., Hattie, J., Hattie, J., Waters, L., & Waters, L. (2018). What schools need to know about fostering school belonging: A meta-analysis. Educational Psychology Review, 30(1), 1-34. https://doi.org/10.1007/s10648-016-9389-8

Biesta, G.J.J. (2004). Education, Accountability, and the Ethical Demand. Can the Democratic Potential of Accountability Be Regained? School of Education and Lifelong Learning. Educational Theory Vol. 54, No. 3 University of Illinois

Bronfenbrenner, U. (1979). Contexts of child rearing: Problems and prospects. American Psychologist, 34(10), 844-850. https://doi.org/10.1037/0003-066X.34.10.844

Deci, E. L., & Ryan, R. M. (1985). Intrinsic Motivation and Self-Determination in Human Behavior. Berlin: Springer Science & Business Media.

Duttweiler, P.C. (1984). The internal control index: a newly developed measure of locus of control. Educational and Psychological Measurement 44, 209-212. Edgington, U. (2016) Performativity and accountability in the UK education system: a case for humanness, Pedagogy, Culture & Society, 24:2, 307-312, DOI:10.1080/14681366.2015.1105467

Forsyth, P., Adams, C. & Hoy, Wayne. (2011). Collective Trust: Why Schools Can't Improve Without It

Ibrahim, A. & Zaatari, W.E. (2020) The teacher–student relationship and adolescents' sense of school belonging, International Journal of Adolescence and Youth, 25:1, 382-395, DOI: 10.1080/02673843.2019.1660998

Niedlich, S., Kallfaß, A., Pohle, S. and Bormann, I. (2021), A comprehensive view of trust in education: Conclusions from a systematic literature review. Rev Educ; 9: 124-158. https://doi.org/10.1002/rev3.3239

OECD (2019), PISA 2018 Results (Volume III): What School Life Means for Students' Lives, PISA, OECD Publishing, Paris, https://doi.org/10.1787/acd78851-en

Scottish Government, Attainment for All, https://statistics.gov.scot/data/attainment-for-all

Seymour, K., Skattebol, J. and Pook, B. (2020), "Compounding education disengagement: COVID-19 lockdown, the digital divide and wrap-around services", Journal of Children's Services, Vol. 15 No. 4, pp. 243-251.

Sheldon, K. M., & French, C. (2014). The Relationship between Mental Health Components and Locus of Control in Youth. Psychology, 5, 966-978. doi: 10.4236/psych.2014.58107

Shojaee, M. & French, C. (2014). Trust Matters. Leadership for Successful Schools (2nd Edition). Bossey-Bass

Tschannen-Moran, M. (2014). Trust Matters. Leadership for Successful Schools (2nd Edition). Bossey-Bass

Whiting, E.F., Everson, K.C., & Feinauer, E. (2018). The Simple School Belonging Scale: Working Toward a Unidimensional Measure of Student Belonging. Measurement and Evaluation in Counseling and Development, 51, 163- 178.