Can educational psychologists enhance learning outcomes for all? Meeting the challenge and adding value to national priorities.

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Outline

• Context of national challenges
  ✓ Dynamics of poverty and developmental outcomes

• Government response - visions and priorities

• Challenges to the profession

• Meeting the challenge and adding value
  ✓ Understanding the context of poverty
  ✓ Understanding why/how poverty influences outcomes
  ✓ The demand for ‘evidence’
  ✓ The future
Poverty as context of national challenges

Mrs Jones has two children and a husband. They just get by on the money Mr Jones earns working in his job, and social support that provides housing and other services for the family.

Mrs Smith also has two children and a husband. They live comfortably on Mr Smith’s salary from the law firm where he works. The Jones family is much poorer than the Smith family. Almost everyone thinks, and research confirms, that the Smith children are more likely to succeed than the Jones children.
Poverty related gaps

Gaps before start of school (3-5)  Gaps during school

6-13 months in problem solving

11-18 months in expressive vocabulary

[Bar chart showing gaps over time for different years and deprivation levels]
Gap in destinations

Percentage of Pupils

Destination

Least Deprived

Most Deprived
Poverty affects other developmental outcomes

Higher prevalence of
- Emotional and behavioural difficulties
- Additional support needs/SEN
- Stress & depression
- Somatic complaints
- Pervasive negative thinking

These problems can reinforce or are reinforced by poor cognitive outcomes (e.g. Sosu & Schmidt, 2017, Frontiers in Psych)
Dynamics of poverty and developmental outcomes
i. Timing and persistency of poverty and child cognitive outcomes (Schoon et al., 2011)

- Poverty in first year of birth (pnn) more detrimental compared to poverty at second (nnp) or third year (nnp) of birth.

- Children who experience persistent poverty (ppp; ppn; npp) have lower cognitive scores that those who were never poor or poor on only one occasion.
ii. Income Volatility

• Constitutes **income shock** likely to affect outcomes

• Findings
  ➢ Affects outcomes over and above average income
  ➢ Effect may depend on **form of volatility**
    ➢ upward, downward or fluctuating
    ➢ GUS data - £2000 gain over short time associated with increased cognitive outcomes from age 3 to 5.

(Sosu & Schmidt, 2018; Hardy 2014)
The response from government…

Grand Visions and National Priorities
16 National outcomes

- We have tackled the significant inequalities in Scottish society.
- We have improved the life chances for children, young people and families at risk.
Scotland's National Performance Framework

OUR VALUES
We are a society which treats all our people with kindness, dignity and respect, upholds the rule of law, and acts in an open and transparent way.

We are open and connected and have a positive contribution internationally.

We live in communities that are inclusive, empowered, resilient and safe.

Performance of our 81 National Indicators: as at 27 September 2018

Performance Improving: 11% (9 out of 81)

Performance Maintaining: 48% (39 out of 81)

Performance Worsening: 2% (2 out of 81)

Performance TBC/No Data: 38% (31 out of 81)
The power of declarations…?

On the attainment gap…

“Every young person should have the same advantage I had”
“Let me be clear – I want to be judged on this. If you are not, as First
Minister, prepared to put your neck on the line on the education of our
young people then what are you prepared to. It really matters.”
(Scotsman, 2015)

On widening access…

‘[A] child born today in one of our most deprived communities will, by the
time he or she leaves school, have the same chance to go to university as
a child born in one of our least deprived communities. That means we
would expect at least 20% of university entrants to come from the most
deprived 20% of the population.’ (SG, 2014)
Broad frameworks of support provided

• Attainment challenge
• National Improvement Framework
The Challenge…!

What
[The Problem]

Where
[The Destination]

How
[Means for achieving set goals]
The ‘How’ depends on understanding…

Poverty

Context

Mechanisms
(why)

Outcomes

Evidence
Context of Poverty in Scotland
Who is living in poverty?

- 70% live in families where someone is working (SG, 2017)
- upward trend in in-work poverty reflects increases in the number of working households in low paid (Scottish Government, 2017)
Worklessness is not restricted to those in poverty. A sizeable proportion of those at the bottom of the income scale are working.
Why does poverty lead to poorer development outcomes?

*Individual and structural mechanisms*
i. Family Stress Model (Conger & Conger…): PARENTS

The Family Stress Model

- Parental Stress
- Parental Depression
- Parenting Behaviours
- Children's Outcomes
- Parental Relationship Conflict
- Family Income
Study on poverty and **conduct problems** in **Scottish children**

*Sosu & Schmidt (Frontiers in Psychology, 2017)*
ii: CHILD Stress:
(Blaire et al, 2011, child dvt)

- Children in poverty - higher levels of stress hormones
- Greater allostatic load (wear and tear of chronic stress)
- Stress hormones associated with executive function/prefrontal cortex/hippocampus
- Associated with information processing and decisions about how to cope with new situations
‘I think that the biggest impact of poverty on the children and parents I encounter is insecurity, inferiority and stress.’

‘Financial worries are a huge concern for many of our families and have an impact on parents’ mental health and their ability to cope with challenging circumstances’

‘I see parents too stressed to cope, in appalling housing, leading to no energy to focus on the needs of their disabled children’
How can this knowledge influence what we do?
Teacher-child closeness and sensitivity leads to positive social, behaviour and learning outcomes.
• Positive teacher relationship can counteract negative home relationships

• Children with insecure attachment show low aggressive behaviour if they are close to their teachers (e.g., Buyse et al. 2009, Social Development)

• Increasing use of nurture groups in Scottish schools
• Do they provide an avenue for teacher-child closeness/stress reduction?
• Systematic documentation of the evidence is needed - OPPORTUNITY
What professionals do matter

- Students recognise the significant impact of teachers

‘My chemistry teacher really sparked my interest in chemistry so from second year, I was more interested. I ended up taking chemistry all the way up to [upper secondary] which kinda brought me on to forensics. As soon as she found what I wanted to do, it kind of sparked her interest, and kind of interacted with me to make sure I got there’ (University Student, in Sosu et al. 2016)

- Teacher effect greater at secondary school level

- Effects are greater for those from disadvantaged backgrounds
Structural factors
i. Neighbourhood effect

Children in poor areas exposed to five times as many fast food takeaways

More than 400 schools in England have 20 or more takeaways nearby, data reveals, with the problem at its worst in London

- Do more takeaways near schools affect younger pupils’ diets?

Increasing numbers of fast food takeaways are springing up close to schools in England, with pupils in the most socially deprived areas exposed to five times as many outlets as their richest peers.

Data provided to the Guardian by Cambridge University’s Centre for Diet and Activity Research (Cedar) shows more than 400 schools across England have 20 or
ii. Poverty and School Exclusion

Table 8.2: Cases of exclusion and rate per 1,000 pupils by gender, additional support needs and Scottish Index of Multiple Deprivation (SIMD 2012), 2014/15

<table>
<thead>
<tr>
<th></th>
<th>Cases of exclusions</th>
<th>Rate per 1,000 pupils</th>
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<tbody>
<tr>
<td>Male</td>
<td>14,667</td>
<td>42.6</td>
</tr>
<tr>
<td>Female</td>
<td>3,763</td>
<td>11.3</td>
</tr>
<tr>
<td>Pupils with Additional Support needs</td>
<td>9,688</td>
<td>69.0</td>
</tr>
<tr>
<td>Pupils with no Additional support needs</td>
<td>8,638</td>
<td>16.1</td>
</tr>
<tr>
<td>Lowest 20% of SIMD (Most deprived)</td>
<td>7,579</td>
<td>52.0</td>
</tr>
<tr>
<td>Highest 20% of SIMD (Least deprived)</td>
<td>1,005</td>
<td>7.9</td>
</tr>
</tbody>
</table>

Scottish Government (2016)
iii. School practices-ability grouping

- Restriction of opportunity to learn for students in lower ability groups

- Students in top groups required to learn at pace which is, for many students, incompatible with understanding

- Students from 'setted groups' unhappy with their placement (see Francis et al, 2016, Cambridge Journal of Education for review)
Students experiences of ability grouping  
(Boaler et al., 2000)

High ability:  
“He explains it as if we're maths teachers. He explains it like really complex kind of thing, and I don't get most of the stuff”

Low ability:  
“We come in, sit down, and there's like work on the board and he just copy it. I think it's all too”

“We do baby work off the board”

“It's easy and it's boring”
iv. Stigma and Prejudice

Those in poverty are stigmatised (Greig Ingles and colleagues, 2018)

Some participants also discussed how negative attitudes and stereotypes can be attached to particular places or neighbourhoods:

“…they just see, they're from [that area] they drag their weans up, they're dirty, they're lazy, they don't work. And this has been since I was a kid, I've always lived here.”
Stigma and prejudice can lead to teacher/professional bias

- evidence that teacher judgements and assessments of primary school pupils can be systematically biased.

- Teachers stereotype according to income, gender, SEN and ethnicity (Campbell, 2015; Jnl of Soc Pol).

- Raises questions about the predominant use of ‘teacher judgement’

- How can we overcome biases?
Is poverty Fatalistic?

The evidence suggests No!
Is this fatalistic? – not necessarily

- Not all children in poverty perform poorly
  - We need to know more about protective factors

- Concept of ‘plasticity’ suggests that enriched experiences can reverse even severe negative effects *(Sonuga-Barke et al, The Lancet, 2017)*

- We need to be careful with ‘deficit views’ of parents and children from low income families
Proportion of students ‘resilient’ in PISA (see GBR=28%)

➢ What factors influence resilience?
...parents are optimistic

Maternal educational aspiration that their children obtain degree and above (GUS Sweep 4)

<table>
<thead>
<tr>
<th>Mothers Socioeconomic Status</th>
<th>% of Mothers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never worked</td>
<td>68.9</td>
</tr>
<tr>
<td>Semi-routine and routine</td>
<td>63.1</td>
</tr>
<tr>
<td>Lower supervisory and technical</td>
<td>69.6</td>
</tr>
<tr>
<td>Small employers and own account workers</td>
<td>63.6</td>
</tr>
<tr>
<td>Intermediate</td>
<td>73.8</td>
</tr>
<tr>
<td>Managerial and professional</td>
<td>86.5</td>
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The Outcome…

The need for ‘evidence’
Evidence of Impact

- Greater demand for evidence of impact of what we do - CHALLENGE

- Several practices in Scottish education but relatively little robust evidence of effect

- Attainment challenge leading to numerous innovative practices

- Need to evidence these innovations - OPPORTUNITY
Types of evidence required…

- Evidence on outcome
  - Attainment, engagement, progression
  - Social, emotional and behaviour changes
  - Administrative data – e.g., library usage, attendance

- Evidence on process
  - Systematic documentation of what was done
  - Key ingredients for success
  - Challenges and changes made
  - Lessons learnt
The future
Changing perceptions…

who is an educational psychologist?
INFLUENCING…

• Public debate on critical issues
• Challenging existing orthodoxies and practices
• Continue to respond to public consultations
• Creating greater visibility through greater presence at national/international conferences and our writings
Thank You

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