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Evaluating employer career interventions in English schools

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Government policy on English schools' careers activities indicates an emphasis on employer interventions over traditional career guidance. A literature review suggested that the impact of employer interventions on students' career learning was less fully researched than that of traditional guidance. This study evaluates and compares the impact of career guidance interviews and selected employer careers interventions. Using a pre-test – post-test quantitative methodology (n=233) to measure the interventions' effects on different career learning outcomes, the study suggests that vocational guidance interviews are more effective than employer interventions at enhancing the vocational identity and decision-making self-efficacy of year 10 and 11 students.



Introduction

Historically, employers' involvement in schools' career education, information, advice and guidance (CEIAG) activities was only 'supplementary, complementary and alternative' (Stanley & Mann, 2014, p. 38); in particular employers were not generally involved in providing career guidance. This changed from 2014 onwards, with the UK Government stating that 'Employers are integral to great careers advice' (Department for Education, 2017, p.10), and statutory guidance requiring schools in England to 'ensure real-world connections with employers lie at the heart of the careers strategy' (Department for Education, 2018, p. 22). Encounters with employers and the workplace comprise two of the Gatsby Foundation's eight benchmarks of good careers guidance (Holman, 2014), which are endorsed by Government. There is also one benchmark related

to 'opportunities for guidance interviews with a career adviser'. This policy of affording employers the prime role in schools' CEIAG programmes has been criticised, notably for setting up a 'false polarity... between employer engagement and career adviser interviews' (Watts, 2014, p. 3) and ignoring their 'distinctive and complementary' benefits (Careers Sector Stakeholder Alliance, 2014, p. 2).

There has been a debate about the relative roles of employer interventions and traditional career guidance in schools' CEIAG programmes, but research examining the relative impact of each type of intervention is limited. This article reports the results of a study which explores and compares the different career learning benefits of the two approaches. We will briefly summarise the relevant literature on the benefits of career guidance interviews and employer events, introduce the research project and the results, and then discuss their possible implications.

Literature review

Career guidance interviews

The range of career activities found in secondary schools is broad (Hooley, Marriott, Watts & Coiffait, 2012) but at the heart of many CEIAG programmes lies a guidance interview with a career practitioner (Gibson, Oliver & Dennison, 2015). In a recent literature review, Everitt, Neary, Delgado and Clark (2018) conclude that whilst the evidence base is not robust, personal guidance seems to have a positive impact on a range of outcomes, including personal effectiveness (e.g. self-awareness and self-esteem), career readiness (e.g. career planning and career decision making) and educational outcomes (e.g. improved attendance and attainment). The authors' conclusions echo the results of a meta-analysis (Whiston, Sexton & Lasoff, 1998) which attests to the

benefits of guidance interviews in schools, highlighting as a key learning outcome the development of the self-concept. Similarly, a more recent meta-analysis (Whiston, Li, Mitts & Wright, 2017) demonstrates the significant effect sizes associated with personal career guidance counselling.

Employer engagement

There is evidence that employer engagement is associated with improved longer-term labour market outcomes (Percy & Mann, 2014), such as higher wages (Kashefpakdel & Percy, 2016). These positive outcomes may reflect wider benefits of employer engagement conceptualised by Stanley and Mann (2014) as improved human capital (employability skills and academic attainment), social capital (personal connections with employers) and cultural capital (raised aspirations and broadened perspectives). However, this evidence of improved labour market outcomes and analysis of improved human, social and cultural capital contrasts with a relative lack of evidence on the effects of employer engagement on career learning. Mann and Dawkins (2014a, 2014b) identify employer careers fairs as specifically designed to support students' career thinking. They are widely used in schools (Bimrose et al., 2014) and are specifically endorsed by the UK Government (Department for Education, 2018). Mann, Dawkins and McKeown (2017) report that teachers consider careers fairs to be the single most effective employer intervention for high achieving students and among the most effective in helping students understand both the world of work and what is needed to get jobs. In what we believe to be the only report measuring the impact of a careers fair, Kolodinsky et al. (2006) reported that a half-day career fair caused a strong short-term increase in the occupational self-efficacy of US adolescents. But the impact of careers fairs is somewhat under-researched (Careers & Enterprise Company, 2016).

Comparing interventions

Research comparing a range of different types of career interventions in general terms highlights the value of personal guidance. A 1988 meta-analysis (Oliver & Spokane, 1988) concluded that individual guidance was the most effective career intervention per hour, but that a greater aggregate effect-per-

hour was obtained (because of the larger number of subjects involved) through classroom activities and, to a lesser extent, structured workshops. Whiston, Brechstein and Stevens (2003) compared a range of interventions' effects on different outcomes, concluding that practitioner-free interventions were generally less effective than practitioner interventions, and these findings were echoed in Whiston's more recent meta-analysis (Whiston et al., 2017) which suggested that personal guidance had larger effect sizes than other types of interventions. The importance of practitioner involvement has been emphasised by Savard and Michaud (2005), who reported that labour market information (LMI) had virtually no impact on young people's career development unless transmitted through a practitioner, because the complexity of unmediated LMI made it difficult for young people to process.

Empirical evidence directly comparing the effectiveness of employer interventions and guidance interviews is very limited (Stanley & Mann, 2014), but the views of young people in schools in the UK have been examined. Mann and Dawkins (2014b) found that 'young people interact with employers in very different ways to school staff' (p. 4). Other research found young people perceived employers' career support as 'more genuine', 'from experience', 'straight' and 'trusted...as opposed to a career adviser or teacher 'telling' you what to do' (Jones & Mann, 2014, slide 16).

These findings – that young people find employers' information more impactful than careers advisers' – may be explained by research into the cognitive mechanisms used by young people to process information and make decisions. The tendency for decision-makers to ascribe greater value to information from trusted personal contacts and direct experience - 'hot' information - than abstract or official 'cold' information (first identified by Ball & Vincent, 1998) has also been widely observed in young people's career decision making (Archer, 2000). Foskett and Hemsley-Brown (2001) found that students placed a greater premium on 'experiential information' (including face-to-face contact with outside visitors such as employers) than paper-based information. Foskett and Hemsley-Brown (1999) also observed that whereas guidance interviews tend to explore the personal choices learners bring to the

discussion, employer presentations introduce possible occupations, including previously 'invisible' jobs.

The evidence then supports the view that the two types of career intervention each offer important but complementary benefits (Watts, 2014). Employer interventions may broaden young people's awareness of opportunities more than guidance interviews, but other research suggests that guidance interviews may help young people to process information more effectively than employer interventions. For example, the wide range of occupations represented at careers fairs is likely to mean that learners will find at least some of the occupations irrelevant to them personally. This is significant because students process occupational information less effectively where the occupations are not highly relevant to them personally (Parr & Neimeyer, 1994). The challenge of identifying the most relevant information is compounded by the overall volume of information available at a careers fair (Sweller, 1988). Extraneous cognitive load is further increased by information which is irrelevant to them personally (the 'redundancy effect' risk – Yeung, Jin & Sweller, 1998). Applying these concepts to a careers fair it is easy to envisage students being hindered in processing relevant careers fair information by both the volume of information and the proportion which is irrelevant. The lack of practitioner support (identified as important by Savard & Michaud, 2005) is also unhelpful.

Finally, employer representatives might be expected to focus on positive aspects of their occupations, whereas a practitioner in a guidance interview should be balanced, also discussing occupations' negative aspects. That could further lead us to expect poorer decision making from careers fairs, because people differentiate between occupations more effectively using mixed occupational information than with purely positive information (Haase, Reed, Winer & Bodden, 1979).

We see then that the literature contains evidence of the career learning impacts of personal guidance interviews with career practitioners and the general benefits of employer engagement. However, research (and quantitative research in particular) specifically on the career learning impacts of employer interventions, both generally and in comparison with personal guidance, is not well developed. It is this gap in the

literature which this current research addresses, comparing the career learning impacts of a traditional guidance interview with two employer interventions; a careers fair and a careers fair supported by classroom workshops (wraparounds).

Method

Participants

The research was carried out in nine state schools in the Leeds region during the 2014/5 school year, using an independent samples design. Each intervention was evaluated in three of the nine schools, with schools allocated between intervention groups to make the groups as equivalent as practicable. Three of the schools surveyed year 10 students (14-15 years old); the other six surveyed year 11 students (15-16 years old). Students were randomly selected for participation, except that the year 10 students who received a guidance interview were all selected as requiring additional targeted career support to prime them for their forthcoming year 11 CEIAG programme.

Measures

The study compared the three interventions by assessing their impact on three different career learning outcomes, using well-established instruments to measure each, as follows.

- Vocational identity ('a clear and stable picture of one's goals, interests, and talents' – Holland, Daiger & Power, 1980, p. 1) was measured with 15 questions from the vocational identity sub-section of My Vocational Situation (Holland et al., 1980).
- Opportunity awareness ('knowing what work opportunities exist and their entry requirements' – Hillage & Pollard, 1988, p. 2) was assessed using five questions from the 'Amount of Information' and 'Satisfaction with Information' subscales in the Career Exploration Survey (Stumpf, Colarelli & Hartmann, 1983).
- Career Decision-making Self-efficacy (decision-making) - a measure of subjects' confidence that they can successfully make and implement

career choices - was measured by 20 questions from the Career Decision-Making Self-Efficacy Scale – Short Form (Betz, Klein & Taylor, 1996).

These three career learning outcomes represent the self-awareness, opportunity awareness and decision learning elements of the widely-used DOTS framework for what should be learned from a career education programme (Law & Watts, 1977). They also correspond to the three core general areas of the Career Development Institute Framework for Careers, Employability and Enterprise Education (Career Development Institute, 2015). They are therefore familiar to English schools. They are also more proximate to the interventions than other outcomes such as labour market destinations or earnings.

The three instruments were judged appropriate for this age group and UK terms were substituted for American ones (e.g. 'CV' for 'resume'). The questions were identical in the pre-intervention and post-intervention surveys.

Interventions

Schools were given guidelines to promote consistency within each intervention type. Guidance interviews lasted 20 to 30 minutes, and careers fairs 75 and

120 minutes. At careers fairs each employer had a small stand for students to visit. Wraparounds were led by careers practitioners. The first wraparound prepared students for the careers fair by discussing the employers and the kinds of discussions students might have with them. The wraparound after the careers fair helped students reflect on the information gleaned from the fair and their next steps. Wraparounds lasted around 20 to 45 minutes.

Procedure

Surveys were completed and collected in sealed envelopes within two school days either side of the intervention. Participants had no other career intervention between the first and second surveys. The research was carried out in accordance with applicable ethics requirements. It proved impracticable for schools to set up procedures to pair individual students' pre-intervention and post-intervention surveys. In addition, absences and exclusions meant that most schools reported smaller numbers of students completing post-intervention surveys than pre-intervention surveys. Table 1 shows the number of students returning pre-intervention and post-intervention surveys in each intervention group, by school year and gender.

Table 1: Numbers of students returning pre-intervention and post-intervention surveys

Group		Year 10 Students		Year 11 Students		Total Students	
		Pre-intervention	Post-intervention	Pre-intervention	Post-intervention	Pre-intervention	Post-intervention
guidance interview	Male	18	18	26	19	44	37
	Female	18	18	23	14	41	32
	Total	36	36	49	33	85	69
careers fair	Male	-	-	30	30	30	30
	Female	-	-	58	45	58	45
	Total	-	-	88	75	88	75
fair/wrap-around	Male	18	17	18	11	36	28
	Female	56	50	10	11	66	61
	Total	74	67	28	22	102	89
Total	Male	36	35	74	60	110	95
	Female	74	68	91	70	165	138
	Total	110	103	165	130	275	233

Cronbach's alpha scores were above 0.80 for all the pre-intervention and post-intervention results, suggesting good reliability.

Data analysis

A one-way between-groups multivariate analysis of covariance was conducted to compare the effectiveness of the different interventions. The independent variable was the type of intervention (guidance interview, careers fair, fair/wraparound) and the dependent variables were the scores on the three measures (vocational identity, opportunity awareness and decision-making) after the interventions. Participants' pre-intervention scores on the three measures were used as the covariates in this analysis.

Preliminary checks were conducted to ensure that there was no violation of the assumptions of normality, linearity, homogeneity of variances, homogeneity of regression slopes and reliable measurement of the covariate.

Results

Pupils' scores on all three career learning outcomes (vocational identity, opportunity awareness and decision-making) increased following all three career interventions. The guidance interview group reported benefits in both vocational identity and decision-making which were significantly greater than those reported by the other intervention groups, indicating that the guidance interviews were more effective than the employer interventions in increasing vocational identity and decision-making for these students.

After adjusting for pre-intervention scores, a significant difference was found between the intervention groups on post-intervention scores $F(6,402) = 15.09$, $p < 0.001$, Wilks' Lambda = .67, partial $\eta^2 = .18$. This means that the nature of the intervention (guidance interview, careers fair or fair/wraparound) had an effect on the participants' scores as measured after the intervention. The effect was small, estimated to account for 18% of the overall variance in the scores.

The guidance interview students recorded post-intervention vocational identity scores significantly higher than both the careers fair students (mean difference between groups of 3.31, $p < 0.001$) and the fair/wraparound group (mean difference

between groups of 3.25, $p < 0.001$). This suggests that the guidance interview students experienced a greater increase in vocational identity following the intervention than the other groups' students. The effect size was small (partial $\eta^2 = .25$), suggesting that the nature of the intervention explained 25% of the overall variance between the groups.

The scores for decision-making after the guidance interview were also significantly higher than those after the careers fair (mean difference 6.73, $p < 0.001$) and the fair/wraparound (mean difference 4.20, $p < 0.05$), according to post hoc comparisons after controlling for the covariates of the pre-intervention scores. This indicates that the guidance interview students experienced a greater increase in decision-making following the intervention than the other groups' students. The effect size was small (partial $\eta^2 = .1$) suggesting that the intervention explained 10% of the overall variance between the groups.

There were no significant differences reported between the groups' opportunity awareness scores after the three interventions.

Table 2 presents the mean pre-intervention scores and the adjusted mean post-intervention scores when the covariate of pre-intervention scores are controlled for.

Discussion

This study shows that all three interventions (guidance interview, careers fair and fair/wraparound) improved each of the selected learning outcomes (vocational identity, opportunity awareness and decision-making). But whilst opportunity awareness was improved by guidance interviews and employer-centred careers fairs to the same degree, the guidance interview appears to have been a more effective mechanism for developing young people's vocational identity and decision-making than careers fairs. This is consistent with the meta-analysis findings of Oliver & Spokane (1988), Whiston et al. (2003) and Whiston et al. (2017) that individual career counselling has more impact than other interventions.

Vocational identity

It is perhaps not surprising that guidance interviews outperform careers fairs most strongly on vocational

Outcome	Intervention Group	Mean Pre-Intervention Score	Adjusted Mean Post-intervention Score	Standard Error
Vocational identity	guidance interview		11.57	.32
	careers fair	6.53	8.26	.37
	fair/wraparound		8.32	.28
Opportunity awareness	guidance interview		17.96	.36
	careers fair	14.19	16.78	.4
	fair/wraparound		17.37	.31
Decision-making	guidance interview		77.12	.93
	careers fair	64.31	70.39	1.05
	fair/wraparound		72.92	.82

Table 2: Adjusted means

identity. As noted above, a guidance interview is centred on individual students' personal circumstances and choices, with trained career practitioners encouraging them to make links from their goals and talents to the workplace. By contrast, careers fairs are structured to present occupational information, with less opportunity for dialogue about individuals' personal characteristics.

Decision-making

Decision-making refers to individuals' belief that they can process careers information and make personal choices. Careers fairs are likely to present a large amount of information, to broaden students' horizons, but with some of the occupations presented being irrelevant to individual students. This could lead to cognitive overload, making it hard for students to process the information (Parr & Neimeyer, 1994; Sweller, 1988; Yeung et al., 1998). By contrast, guidance interviews are likely to include a focus on identifying preferences from the range of opportunities discussed (Yates, 2013). Secondly, one would expect that while careers fair employers would promote opportunities positively, a guidance interview would be more balanced, discussing negative aspects of opportunities

as well as positives. Haase et al.'s (1979) findings indicate that the guidance interview's more balanced approach should help participants to differentiate between occupations more effectively. Finally, the conclusion that a careers practitioner-led guidance interview appears to support higher levels of decision-making is also consistent with Savard and Michaud's (2005) finding that career practitioner involvement is essential for young people to interpret occupational information.

Opportunity awareness

As discussed, careers fairs are structured to introduce students to a wide range of employers and opportunities, presented positively and with real-life impact by people working in those roles. By contrast the opportunities discussed at a guidance interview may be fewer in number, and lack the impact provided by a real-life employer, but they should be more relevant, and discussed with more balance, than at a careers fair. This study suggests that these different features of guidance interviews and careers fairs offer similar levels of opportunity awareness benefit, and that wraparounds do not improve the performance of careers fairs significantly in this respect.

Implications for policy and practice

This study assessed only career learning outcomes, and not the wider human, social and cultural capital benefits of employer interventions discussed above. But the study does suggest that employer interventions are not as effective as guidance interviews in helping students develop their vocational identity and decision-making. Policy should therefore recognise the complementary benefits of guidance interviews and employer engagement so that students not only benefit from interactions with employers, but are individually supported in interpreting employers' real-life occupational information and assimilating it into their own context and developing their vocational identity and decision-making.

Study limitations

This study was a field experiment, and as such there were a number of variables which could not be controlled for, as described below. Table 1 shows most groups reported differences between the numbers of pre-intervention and post-intervention surveys, with reductions in the numbers post-intervention surveys (a 14% reduction overall and similar reductions across the three interventions). It was not possible to ensure that the careers fairs and wraparounds had exactly identical structures or timings, because they were designed to meet the different student groups' and schools' individual circumstances.

Conclusion

This study indicates that whilst employer interventions in the form of careers fairs appear to have a positive impact, vocational identity and decision-making could be better served by guidance interviews. But each type of intervention is merely one component in a CEIAG programme. There is a widely argued view (e.g. Hooley et al., 2012) that the effectiveness of schools' CEIAG programmes is determined not so much by individual interventions, but rather how different interventions are connected together in a curriculum-wide approach, with each intervention deployed to develop career learning outcomes in the most effective sequence. Reflecting that view, further work is needed to evaluate different combinations of employer interventions and guidance interviews within

a curriculum, exploring for instance their impacts on students of different ages, whether in combination or individually. It is hoped that the findings of this study open up a valuable methodology allowing policy-makers and practitioners to better understand various interventions' different effects and so design CEIAG programmes which use the most appropriate interventions in the most effective sequences.



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Evaluating employer career interventions in English schools

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