Journal of Education and Work

ISSN: 1363-9080 (Print) 1469-9435 (Online) Journal homepage: www.tandfonline.com/journals/cjew20

How can and should secondary school teachers be involved in building students' career knowledge and skills? A Delphi study of the expert community

Suzanne Rice & Tristram Hooley

To cite this article: Suzanne Rice & Tristram Hooley (2024) How can and should secondary school teachers be involved in building students' career knowledge and skills? A Delphi study of the expert community, Journal of Education and Work, 37:5-6, 483-501, DOI: 10.1080/13639080.2025.2456849

To link to this article: https://doi.org/10.1080/13639080.2025.2456849

Published online: 26 Jan 2025.

JOURNAL OF EDUCATION AND WORK
2024, VOL. 37, NOS. 5–6, 483–501
https://doi.org/10.1080/13639080.2025.2456849

Routledge
Taylor & Francis Group

How can and should secondary school teachers be involved in building students' career knowledge and skills? A Delphi study of the expert community

Suzanne Rice [a] and Tristram Hooley [b]

[a]Faculty of Education, The University of Melbourne, Parkville, Australia; [b]International Centre for Guidance, Studies University of Derby, Derby, UK

ABSTRACT

Learning about careers and the world of work supports the increased engagement and achievement of young people in secondary school, enabling them to make better choices about future pathways and work. While trained guidance counsellors have an important role to play in supporting this learning, most students have limited access to such counsellors, and some have none at all. Secondary school teachers are central to students' lives and have the capacity to play an important role in building their career knowledge, but there is little research on their current role in career guidance or what it might ideally look like. We conducted a Delphi study with 64 international career guidance experts on what an enhanced role in careers provision for secondary teachers might look like, and what would need to be in place to make such a role successful. There was strong support for an enhanced role, noting that such a role would require increased attention to careers in initial teacher education, appropriate professional learning and curriculum materials, a whole-school approach to careers led by a career leader/guidance counsellor with careers expertise, and changes to systemic priorities and accountabilities. We discuss implications for policy, practice and research.

ARTICLE HISTORY
Received 10 January 2024
Accepted 9 January 2025

KEYWORDS
Teacher role; secondary schools; career development; career education; career guidance

Introduction

In the twenty-first century, the labour market is changing rapidly, and the young people currently in school are likely to undertake numerous distinct paid roles across their lifetimes (Walsh 2015; Brynjolfsson and McAfee 2014). To navigate their pathways through this shifting labour market, they need well-developed knowledge and skills to manage their careers and are best placed for success if these are established prior to leaving school (Mann, Denis, and Percy 2020). Quality career guidance is pivotal to establishing this capacity in young people and ensuring that they can understand current labour markets and make decisions that lead to individual and collective flourishing (Hughes et al. 2016; Mann, Denis, and Percy 2020). The importance of career guidance is evident in current calls for greater investment in its provision by governments and political groups (e.g. Cedefop and European Commission 2021; Hooley, Percy, and Neary 2023).

In many countries, career guidance is primarily delivered in secondary schools by guidance counsellors (Austin et al. 2020). Such staff are often (though not always) teachers, and many have undertaken additional training in counselling and career guidance (Hooley, Percy, and Neary

CONTACT Suzanne Rice s.rice@unimelb.edu.au Faculty of Education, The University of Melbourne, 100 Leicester Street, Parkville, Victoria 3010, Australia

2023). Their role has often been a problematic and difficult one. Research suggests that guidance counsellors often have multiple roles within the school that crowd out their focus on guidance counselling (Edwin and Dooley-Hussman 2019; McCrindle 2014) and that even within the guidance counselling role, career development activities are often secondary to wider pastoral support (Musset and Mytna Kurekova 2018; Osborn and Baggerly 2004). Given this, students' access to individual guidance may be limited, with OECD research indicating that only 50% of 15-year-old students undertaking PISA had spoken with a guidance professional (Mann, Denis, and Percy 2020). This lack of access is also reflected in research suggesting that provision of individual guidance can be focused on subject choice at critical points in the school curriculum, rather than on the development of broader career-related skills and knowledge for lifelong flourishing (Rice et al. 2016).

The terminology of 'career guidance' can often be confusing, particularly as there are a wide variety of national and international linguistic variations. The activity itself is various described as career development, career education, career guidance, guidance counselling or many other variations, while the professionals responsible for the activity are variously called career counsellors, career advisers, guidance counsellors, guidance teachers and so on. A study in 2014 found that even within the UK there were a bewildering 103 terms for career professionals (Neary, Marriott, and Hooley 2014). This complex terminology springs in part from a mix of local traditions, philosophical differences, professional competencies and personal preferences, but also betrays a field in which there is considerable contestation and confusion about much terminology.

In 2004 the OECD conducted an international review of this activity (which they dubbed collectively as 'career guidance') defined as '*services and activities intended to assist individuals of any age and at any point throughout their lives, to make educational, training and occupational choices and to manage their careers*' (p.10). The OECD went on to clarify that career guidance did not just relate to one-to-one counselling activities but to '*career information provision (in print, ICT-based and other forms), assessment and self-assessment tools, counselling interviews, career education programmes (to help individuals develop their self-awareness, opportunity awareness, and career management skills), taster programmes (to sample options before choosing them), work search programmes, and transition services*' (p.10). More recently, the Gatsby Charitable Foundation (2014) has established a series of evidence-based benchmarks focused on defining 'good career guidance' in secondary schools. These also emphasise the multi-faceted nature of career guidance, highlighting information provision, the integration of careers education into the curriculum, direct engagement with employers and post-secondary education and experiential learning in the workplace, as well as career counselling. It is this broader and more expansive definition of career guidance that we are using in this article, particularly because it encourages us to consider career guidance as a multi-professional activity which includes secondary school teachers who are not specialists in careers as well as the school's guidance counsellor.

Any consideration of effective career guidance provision must inevitably address resourcing issues. Career guidance in secondary schools could be improved if governments increased the resourcing of specialised and qualified guidance staff. This would allow young people to access professional career support, not just at key decision points, but also on an ongoing basis. However, there is also a wide literature emphasising that effective career guidance cannot be the responsibility of the guidance counsellor alone and suggests that effective career guidance needs to be viewed as a whole-school endeavour involving all teaching staff (Andrews and Hooley 2022; Gysbers and Henderson 2014). There is also specific evidence which suggests that career guidance is likely to be most effective when it makes links to students' learning in subject-based curricula (Collins and Barnes 2017; Hughes et al. 2016; Musset and Mytna Kurekova 2018). Such provision extends beyond individual guidance and counselling about career decisions and offers a broader careers education which helps students to understand the world outside of the school and to reflect on how what they are learning within school is related to this world and the trajectories that they might pursue within it.

The move to embed careers in the curriculum is supported by evidence from the educational psychology field demonstrating that understanding the usefulness of the subject matter being studied increases students' motivation and achievement (Fitzmaurice, O'Meara, and Johnson 2021; Harackiewicz et al. 2012; Hulleman et al. 2010). Some evidence suggests that this positive effect on motivation and achievement is particularly strong for students whose baseline achievement is lower (Hulleman et al. 2010) and for students from minority backgrounds (Harackiewicz et al. 2016). Secondary teachers have frequently raised concerns about student engagement, which declines from early to middle secondary school (Lam et al. 2015).

In a systematic review of the evidence Hughes et al. (2016) find that most high-quality studies on the educational impact of career guidance find a positive impact on improved attainment and examination performance. They attribute this impact to an enhanced understanding of the relationship between educational goals and occupational goals, clarification of what outcomes are valued by employers and other stakeholders, the alignment of aspirations with attainable educational goals, and the improvement of understanding about the relationship between current educational effort and the achievement of educational and career goals. Weaving career knowledge and skills through traditional secondary subjects thus has the potential to support increased student motivation and achievement, and this is likely to be particularly beneficial for those students whose current success in educational endeavours has been more constrained.

Given this, there is a need to understand how career guidance could be better embedded in traditional subjects and wider school life, with an enhanced role for teachers in helping students to understand how what they are learning is related to post-secondary educational pathways, the world of work and their wider life roles, and helping them to consider what this might mean for their career choices. There is a growing body of research on the role, work and skills of guidance counsellors (Blake 2020), designated careers teachers (Gysbers 2008; Hamidi and Bagherzadeh 2010; Hooley 2022) and those charged with leading career development programmes in schools (Andrews and Hooley 2017). However, there is very limited research focusing on what teachers currently do to build their students' career knowledge and capabilities, what an enhanced role for teachers might look like, and what would need to be put in place for such an expanded role to be successful.

Where research does exist on the role of teachers in supporting career development, it is often tied closely to actual or perceived labour market shortages. For example, Dare et al. (2021) argue that science, technology and mathematics secondary teachers need to recognise the importance of STEM (science, technology, engineering and mathematics) careers and skills as key context for their teaching, and view the development of employment relevant STEM skills as a key outcome for their teaching. Reiss and Mujtaba (2017) also argue for the embedding of careers education into the STEM subjects. However, such calls to link subject-based learning with labour market shortages often fail because teachers do not believe that careers education is a necessary or important part of their role (Lee and Lim 2020). To address this, some research argues that teachers need bespoke training, including opportunities to engage directly with employers and the world of work, to support their engagement with career development, and presents evidence that when this happens it can increase teachers' capacity to support the careers of their students (Dodd 2017; Karacan Ozdemir et al. 2022; Kuijpers and Meijers 2017).

Work that tries to theorise the role of the teachers in career guidance more broadly remains limited. Wong, Yuen, and Chen (2020) propose the idea of *career-related teacher support* as an organising concept. They view this as an extension of the teacher's broader pastoral role and describe it as comprising of the teacher as caregiver, developer of students' self-efficacy, provider of positive career expectations and source of career support and information. Hooley, Watts, and Andrews (2015) propose a more expansive role for teachers in relation to careers that yokes together these pastoral roles (which they refer to as being a *career informant* and providing career-related *pastoral support*) with pedagogic roles both

within subject and as part of the delivery of the school's bespoke *careers education* programme. Dodd and Hooley (2018) sought to validate Hooley, Watts, and Andrews (2015) model in England and found evidence that teachers recognise the pastoral career support roles and the within subject role, but not the wider contribution to careers education, which they concluded was currently very weakly represented in practice.

This study sought to explore a new vision for the role of teachers in the delivery and embedding of career development in secondary curricula and subjects and understand the changes that would be necessary to realise such a vision. It was guided by the following research questions.

- What role can and should secondary teachers play in building students' career knowledge and skills?
- How might career development be more embedded in the curriculum and in the mainstream life of the school?
- What structural, resourcing and cultural changes would be needed in schools to support the transition to such an expanded role?
- What changes would need to be made to initial teacher education and teacher professional learning to support this transition?

Materials and methods

This study uses a Delphi methodology to investigate the role of teachers in the delivery of careers education and guidance. Delphi is a form of empirical enquiry into an issue that harnesses the knowledge of domain experts (Green 2014). There are a range of different Delphi approaches that can be used, which vary the methodology in a variety of ways (e.g. more stages, different approaches to the selection of the expert panel, different questionnaire types, different forms of analysis [Diamond et al. 2014]), but Delphi studies are typically organised over three stages.

(1) **Exploration**. The topic for the Delphi is identified and explored through the literature. This is then used to develop an open questionnaire which is disseminated to a panel of experts.
(2) **Consensus**. The findings from stage one are used to identify a series of statements which the panel are invited to indicate their agreement with through a second questionnaire. There is no consistent methodological agreement about what constitutes consensus in a Delphi study (Diamond et al. 2014), but Barios et al.'s (2021) methodological review suggests that this is commonly done by asking for agreement on a 5-point Likert scale and then setting a cut-off for the percentage agreeing (scoring 4 or 5 on the scale). They report that the threshold for consensus is variously set from 50% to 97% and that the median is 75%, which is what we have adopted in this study.
(3) **Confirmation**. Data from stage two are reviewed to identify which statements command consensus. This is then developed into a summary narrative which the panel is asked to approve or amend.

The Delphi method has been used extensively in educational research (e.g. Green 2014; Kallia et al. 2021). It has also been used more specifically to explore concepts and practices in career education and guidance (Kang, Kim, and Trusty 2017; You et al. 2021).

For this study, 81 international career development experts (comprising academics, representatives of professional associations, trainers, local and national leaders in the field and high-level practitioners) were approached to provide their views on the role of NCTs and changes that would be needed if that role were to be enhanced.

Ethics

Ethics approval was obtained from the University of Melbourne Human Ethics Advisory Group prior to commencing the project (Ethics ID 24,537). Participants were approached by email, and provided with a Plain Language Statement outlining the project and what involvement would entail. The email contained a link to the first survey, and the landing page also included the Plain Language Statement. Participants signified consent through ticking an electronic box at the start of the first survey. In the first round, experts were asked to indicate at the end of the survey whether they would be willing to take part in subsequent rounds, and if they indicated yes, they were taken to a separate web page to leave their names so that the research team could know who had participated and who to follow-up in subsequent rounds.

Identification of experts

The researchers identified experts in careers education to approach for participation through a combination of personal knowledge and networks, and through a review of relevant academic papers already published that addressed careers education in schools. During the first round, we also asked participants to suggest other experts with knowledge in this area from their professional networks. Due to the limited evidence base in this area, it was important to supplement the few academics who have published on the subject with wider forms of expertise. Participants were drawn from the following groups.

- Academics and researchers with extensive knowledge and expertise in the field of career guidance, particularly in relation to its inclusion in secondary education.
- People working as independent career development consultants to government and schools.
- Representative of professional associations and other forms of local and national leadership.
- Policymakers with responsibility for career guidance.
- High-level practitioners (for example, those regularly contributing to professional journals).

Experts were approached in the following countries:

Australia	Denmark	Iceland	Netherlands	Sweden
Belgium	Egypt	Italy	Norway	Turkey
Canada	Estonia	Kosovo	Poland	United Kingdom
Cyprus	Finland	Malta	Republic of Ireland	United States
Czech Republic	Germany			

Of the countries represented in the approach, only the Czech Republic, Kosovo and Iceland did not have a participant in the study.

Response rates

Table 1 below outlines the participants approached and the response rates for each of the three rounds:

Table 1. Study response rates by round.

	Experts approached	Responses	Response rate
Round 1	81	64	79%
Round 2	64	61	95%
Round 3	64	47	73%

Table 2. Profile of those who participated in all three rounds.

Country	Participants and roles
Australia	4 consultants
	3 researchers/academics
	3 policymakers
Belgium	1 policymaker
Canada	3 researchers/academics
Cyprus	1 researcher/academic
Denmark	3 researchers/academics
Egypt	1 consultant
Estonia	1 national or local leader
Finland	2 researchers/academics
Germany	1 consultant
Ireland	2 researchers/academics
Italy	1 researcher/academic
Malta	1 researcher/academic
Netherlands	1 researcher/academic
Norway	6 researchers/academics
Poland	1 researcher/academic
Sweden	1 trainer
	5 researchers/academics
Turkey	1 researcher/academic
United Kingdom	8 researchers/academics
	7 national or local leaders
	2 trainers
	2 consultants
	2 practitioners
United States	1 researcher/academic

As anticipated, there was a drop-off rate between consultation rounds, and some of those who participated in the earlier rounds were unable to be contacted in a subsequent round due to job changes or being on leave. The final round took place during the northern hemisphere summer break and this may explain the drop in participation for this round.

Table 2 below describes the final sample for the third round by country and participant role:

As can be seen, the sample skews towards the United Kingdom, Australia and the Nordic countries, where the researchers have extensive personal and professional networks. Just over half the sample worked in a research-focused role.

Round 1: exploration

The first round collected initial views from the experts, which were then refined and summarised and returned to them for comment in the second round. Experts were provided with a structured online form that provided questions on the general topics on which their views were sought. The questions are outlined below. Participants were provided with an open text box for each question to provide their responses, and this box could expand to any length.

- In your country, what do non-careers specialist teachers (NCTs) do that helps students with their career development (CD)?
- Would it be desirable for non-careers teachers to have an expanded role? Why/Why not?
- What might an expanded role in CD delivery look like?

- What changes, if any, would be needed to the following to enable NCTs to do this successfully?
  - School curricula
  - Pedagogy
  - School structures
  - Teacher identity
  - Teacher pay and conditions
  - Initial teacher education
  - In-service professional learning
  - Policy & regulation
  - Other?
- What are the main barriers that limit NCTs?
- Do you have any other thoughts on an expanded role?
- Are there any other experts we should contact?

Thematic analysis was used to refine the data. Themes were first identified in the answers to each question. For each of the questions, we then did a count of the number of participants who had made a suggestion under each theme and selected those most frequently mentioned as the basis of the Round 2 survey. Themes were used to generate a statement for Round 2 when they were mentioned in at least six participant comments.

Round 2: consensus

From the comments made within each of the themes we developed a set of statements that encapsulated these themes. During the second round, the participants were asked to indicate the degree to which they agreed with statements using a 5-point Likert scale ranging from 'Strongly disagree' to 'Strongly agree'. There was an additional open-form question at the end of the survey for participants to add any further thoughts or comments not covered by the questions. The themes and example statements are set out in Table 2.

Round 3: confirmation

Responses to the second-round survey were examined. In keeping with established Delphi norms (Barrios et al. 2021) statements had to have agreement from 75% of participants or more for inclusion in the third and final round. Statements meeting this criterion from the second round were refined and summarised into a one-page summary. In the third round, this summary was provided for final consensus and any further comments.

Participants in Round 3 were given three response options:

- I agree with the summary as written
- I mainly agree with the summary but would like to suggest some further amendments
- I don't agree with the summary

This was followed by an expanding free-text box for writing any suggested amendments to the statement or additional comments. Amendments were reviewed to identify where respondents were very uncomfortable with the proposed summary. In these cases, sections were rephrased or removed to ensure that the final summary represented a consensus. Where respondents returned to a point that had been identified in round 2 and had not achieved the 75% consensus, no further changes

were made. Several suggestions were minor amendments to the way that ideas were expressed, where possible these were incorporated as long as they did not change the meaning.

Results

Round 1: exploration

Overall, there was strong support for greater involvement of teachers in the development of their students' career knowledge and skills. Forty-six agreed on expansion of the role without comment, two of the 64 participants disagreed on an expansion, while 23 added some comments or a caveat. Within these comments, six participants noted that developing students' career knowledge and skills is already part of the teacher's role in their country, but that for the most part this was not being done or was not being done well. A typical comment in this regard would be '*there already, but needs to be applied consistently, teacher given time and expertise to enact*'. Five participants raised concerns about teachers' current workload and adding anything to this. Eight raised concerns about the quality of information and support that might be provided by teachers, saying that teachers currently lack the training to do this, and two participants raised concerns about the potential de-professionalisation of careers specialist/guidance counsellor roles.

Several themes emerged in response to the question about what such a role might look like. There were many comments advocating for a whole school approach to careers and for active, regular collaboration between teachers and the school's career specialist and emphasising that these roles were complementary rather than in competition. Integration of careers information with the curriculum, strong links with industry, and a stronger focus on the building of skills and metacognition in traditional subject areas were also common themes.

Participants provided a great deal of information on what might need to change within schools and the surrounding structures to facilitate this enhanced role. Table 3 outlines the structure of the initial survey. For clarity, we have summarised the most commonly-noted themes within each of the domains in Table 4 below.

Table 3. Structure and content of round 2 survey.

Domain	No. of statements within the domain	Example statement
Non-career teachers' role in supporting career learning	1	All teachers have an important role in supporting the career learning of their students.
Enhanced role	3	All teachers should be able to make links between the curriculum and careers.
Curriculum	3	The curriculum should be mapped to career pathways.
Pedagogy	3	All subjects should provide opportunities for experiential learning (learning by doing).
Schools	3	Schools should take a whole-school approach to careers.
Teachers	4	All teachers should recognise the influence that they have on young people's career thinking.
Pay and conditions	2	All teachers' pay and conditions need to improve.
Initial teacher education	3	All teachers should learn about the labour market and how it relates to their subject during initial teacher education.
Professional learning	3	Non-careers teachers should be provided with an opportunity to network with employers and working people relevant to the subject they teach.
Structures and standards	4	Careers education should have mandated and timetabled time in schools.
Current barriers to NCT involvement in career development	7	Non-careers teachers do not have sufficient expertise to deliver careers education.

Table 4. Domains and themes from participants' round 1 responses.

Domain	Major themes (Number of comments in brackets)	Sample comment
School curriculum	Exemplar lessons/integrated materials (9)	*Teachers may appreciate access to exemplar lesson plans for subject topics that integrate career learning activities into subject matter.*
	Explicit linking of curriculum with careers (11)	*Subject specifications should be revised to include explicit references to linking subject teaching to careers.*
Pedagogy	Experiential/applied learning (14)	*More emphasis in interactive activities, group work, experiential learning*
	Problem-based learning (6)	*Many schools have successfully delivered a PBL project or inquiry-based unit in this way which is fully delivering to curriculum outcomes but is based on student's own future.*
School structures	Full-time CS on leadership team (12)	*The school would require a full-time Career Education Specialist with qualifications and specialist training, who sits on the school leadership team.*
	Whole-school approach to CD (13)	*Whole school approach method as opposed to subject silo-ing*
	School accountability for CD (8)	*[Schools] need to be accountable for this having been done, not just for exam grades!*
Teacher identity	NCTs see themselves as careers educators (10)	*The teacher as career influencer is one the major identity shifts that is needed*
	Teaching young people not subjects (6)	*It will require teachers to see themselves as teachers of children rather than teachers of subjects.*
	Recognise own influence (8)	*Teachers will need to recognise that they have a significant influence of young people's decisions, simply through the informal conversations they have.*
	NCTs see themselves as setting up young people for next stage (7)	*.more explicitly and commonly thinking about themselves/school as supporting and setting students up for success in "the next stage" as well as the current stage would be helpful.*
Teacher pay and conditions	Teacher pay and conditions need to improve (14)	*The working conditions are still very difficult for teachers, and teachers themselves are in opposition to the education policy in general. Therefore, the entire working conditions should be improved in our country.*
	Give NCTs more time (15)	*Additional time to focus on CED.*
Initial teacher education	CD embedded in ITE (17)	*Teacher training providers could incorporate curriculum content and skills development related to careers work without it being a full careers specialist qualification.*
	Highlight role of NCT as career influencer (13)	*I believe that there should be a required course on the Teacher as Career Influencer in all pre-service programs.*
	Basic CD course for all ITE students (11)	*All teachers should undergo at least a basic course in career education and development, so that they understand their role in the process and feel able to deliver career related learning.*
In-service professional learning (PL)	Regular and/or increased PL on CD (28)	*Opportunities for continuing professional development that relate to careers work, e.g. information, advice, guidance, careers leadership, wellbeing*
	PL on the relationship between CD and the NCT's subject (5)	*The world of work is dynamic and complex, and teachers need regular access to PD that helps them maintain currency in their subject area and how it relates to career pathways.*
Policy & regulation	Change ITE standards and/or provision (9)	*Government would need to be involved in changing the standards for ITE, and for updating the curriculum to include careers as a cross curriculum priority.*
	Mandate time in the curriculum (8)	*Ideally, there would be time allocated for Careers Education each year from Year 5 when we know ideas about where students fit in the world start to get hardwired.*
	Improve quality assurance of school CD provision (8)	*The statutory guidance should be strengthened with a few more 'musts' rather than 'shoulds'.*

Many of the additional comments noted the importance of change in this space, for example, *'Careers Education in schools is massively underdone. If we can have all teachers playing a role we can create the time and space for this thinking to happen early, often and integrated as all the evidence supports'*. Several participants noted the importance of the broader context, and comments included '*We need a campaign to jolt bureaucrats and politicians out of their completely useless fixation on occupational decision-making in high*

school' and '*Continued efforts on the part of employers to engage meaningfully with education, there are still too many employers who want "oven-ready" young people for their vacancies*'.

What were perceived as the barriers to an enhanced role for teachers in career development provision?

A wide range of barriers were identified by participants. Teachers' current workload, a packed curriculum, lack of time and sense that they were already held responsible for too much were commonly mentioned barriers:

> They are too busy to do anything new and different.
>
> The subject specifications are heavy with knowledge-based content and subject teachers will complain that they will not have time to deliver careers learning as well.

Lack of expertise and knowledge to undertake an enhanced role were also frequently mentioned.

> They do not have the knowledge, the tools and the time.

Several participants also noted that teachers were often unaware of their influence and/or lacked the confidence to take on a broader role in CD provision. Quite a few commented that teachers do not see this as part of their role.

> Lack of understanding of career, and of their potentially positive role.
>
> Some have still not made the link between what they teach and how a whole school approach to good CEIAG can impact on them in their classrooms.
>
> Misunderstanding that it is 'someone else's job.
>
> The view that careers is the job of the careers person.

Many commented on the broader educational context, in which they saw that a strong focus on students' academic results as the measure of a school's success pushed teachers away from a whole-person focus on students, their lives, and careers.

> Schools are judged on exam results and teachers will say this is what they have to focus on.

Round 2: exploration

As noted in the Methodology section, synthesis of Round 1 results let to the development of a survey with a set of statements, with response options on a 5-point Likert scale from 'strongly agree' through to "strongly disagree. The results are outlined in the Table.

As can be seen in Table 5, the level of support was strongest for the following proposals, with 80% or more of participants strongly agreeing on:

- All teachers having a role in developing students' career knowledge and skills
- Non-careers teachers' being able to make links between their curriculum and careers
- The need for integration of careers within the curriculum
- A whole-school approach to careers
- The need for non-careers teachers to understand their influence on students' career knowledge and skills
- Embedding careers within initial teacher education, including enhancing teacher trainees' understanding of their role as a career influencer in the classroom.

Table 5. Participants' level of agreement with statements about NCT role.

Domain	Statement	75%+ agree or strongly agree (xx = 80%+ strongly agree)	Less than 75% agree or strongly agree
NCT role	All teachers have an important role in supporting the career learning of their students.	xx	
NCT role	All teachers should be able to make links between the curriculum and career.	xx	
NCT role	All teachers should actively collaborate with careers specialists.	x	
NCT role	All teachers should have connections with relevant employers.		x
Curriculum	The curriculum should be mapped to career pathways.		x
Curriculum	Non-careers teachers should be provided with lesson plans and resources to help them integrate careers into the curriculum.	x	
Curriculum	The curriculum should actively develop career-relevant capabilities.	xx	
Pedagogy	All subjects should provide opportunities for experiential learning (learning by doing).	x	
Pedagogy	All subjects should provide opportunities for problem- or project-based learning.	x	
Pedagogy	Non-careers teachers should use fewer exams and more work-relevant types of assessment.		x
Structures	Schools should take a whole school approach to careers.	xx	
Structures	There should be a full-time careers specialist on the school leadership team.	x	
Structures	Schools should be held accountable for the careers outcomes of their students		x
Teacher identity	All teachers should see themselves as career educators.	x	
Teacher identity	All teachers should be focused on preparing students for the next stage of their life.	x	
Teacher identity	All teachers should recognise the influence that they have on young people's career thinking.	xx	
Teacher identity	All teachers should see themselves as teaching young people first, and subjects second.	x	
Pay and conditions	Non-careers teachers need more time to focus on career learning.	x	
Pay and conditions	All teachers' pay and conditions need to improve.	x	
ITE	Career education should be covered as part of initial teacher education for all teachers.	xx	
ITE	The influence that non-careers teachers can have on young people's careers should be addressed in initial teacher education.	xx	
ITE	All teachers should learn about the labour market and how it relates to their subject during initial teacher education.	x	
Professional learning	The amount of non-career teachers' professional development focus on careers education should be increased.	x	
Professional learning	Non-careers teachers should receive regular professional development focused on careers education.	x	
Professional learning	Non-careers teachers should be provided with an opportunity to network with employers and working people relevant to the subject they teach.	x	
Standards & accountability	Initial teacher education standards should change to include careers education.	x	
Standards & accountability	Professional standards for all teachers should include careers education.	x	
Standards & accountability	Careers education should have mandated and timetabled time in schools.	x	
Standards & accountability	Careers education should be part of school accountabilities.	x	
Barriers	Non-careers teachers already have too much to do.	x	
Barriers	Non-careers teachers do not have sufficient expertise to deliver careers education.	x	
Barriers	The system is too focused on academic attainment.	x	
Barriers	There is not sufficient room in the curriculum.		x
Barriers	The education system does not prioritise careers sufficiently.	x	
Barriers	Non-careers teachers do not see careers as their responsibility.	x	
Barriers	There is not enough funding or resources to support careers education.	x	

Round 3

The statement summarising areas agreement from Rounds 1 and 2 was sent out to participants for the final round. Overall, 31 participants (66%) agreed fully with the statement as written. Fifteen selected the second option (mainly to agree but with some suggested amendments) and no participants indicated that they did not agree with the statement. Within the comments box, there were five responses that indicated very strong agreement. Examples included, '*This is brilliant, couldn't have written it better myself*' and '*This is a powerful, cogent and compelling summary*'

An analysis of the suggested amendments indicated the following themes:

- Four participants expressed a dislike for presenting the *teaching of subjects* and the *teaching of young people* as a dichotomous binary. They saw these two aspects as complementary and argued that in-depth subject knowledge and passion for the subject are vital parts of the NCT's role.
- Four participants wanted clarification on what exactly was meant by careers specialist. Two participants wanted to add the word 'qualified' to indicate that this person should not just be a teacher with interest in the area, and another wanted to specify that such a specialist should be employed at the school (that is, not an outsider brought in from time to time or an external consultancy).
- One participant was concerned about the potential de-professionalisation of careers work with students and the stripping from of specialist careers resources from schools if the role of the NCT were to be expanded.
- Two participants were concerned about the potential resourcing implications of an expansion of the teachers' role. They noted that teachers were already overloaded and felt that such a shift was unlikely to be taken up.
- There were five comments suggesting small refinements to the language to be a little more precise.
- Three participants raised potential additions to the text. However, most of these additions were matters that had been raised in earlier rounds but did not receive endorsement from a sufficient percentage of participants.

Summary statement

The final summary statement is given in full below and represents the consensus that was achieved through the Delphi process.

The role of the secondary school teacher in career development

All secondary schools should take a whole school approach to careers. At present careers education is not given a high enough priority in schools, but in future it should have mandated and timetabled time in the curriculum. The level of funding and resources for the area needs to be increased alongside an increased focus on careers education in the school's accountabilities.

In secondary schools a member of the senior leadership team should have clear accountability for careers and sufficient expertise to lead the school's programme. The school should also have appropriately qualified and resourced staff to provide career counselling and a wider careers education programme to all the school's students.

In schools that take a whole school approach to careers, all teachers have an important role to play in supporting the career learning of their students. Teachers have a strong influence on the career thinking of the young people that they teach and need to recognise and reflect on this influence. Initial teacher education needs to address the influence that teachers have and cover the basics of career development, careers education and the organisation of the labour market. This could be achieved by embedding careers education in initial teacher education standards and wider professional codes and standards.

Teachers should be focused on both the teaching of their subject and on the wider development of the young people they are teaching. This means that every teacher should be both a subject specialist and a careers educator who is focused on preparing students for the next stage of their life.

Teachers should be able to support students' career learning both by making links between career and the curricula that they teach and by actively collaborating with careers specialists such as career advisors/counsellors. Within the curriculum, students should be developing career-relevant capabilities. This might be achieved through providing students with opportunities for experiential and project and problem-based learning.

Teachers already have too much to do and frequently do not see careers as relevant to their teaching. At present many are unlikely to have sufficient expertise to deliver careers education. Given this they will need dedicated time and support if they are going to engage with careers more deeply. This is likely to include increasing the amount and regularity of teacher professional development activities that focus on careers education.

Teachers will also need resources such as lesson plans to help them integrate careers into the curriculum and would also benefit from opportunities to network with employers and working people, particularly in areas relevant to the subjects that they teach. More generally, teachers' pay and conditions need to improve, and they need to have more time and resources, if they are going to be asked to take on new responsibilities.

Discussion

Overall, findings from the Delphi process represented a strong endorsement of an enhanced role for secondary teachers in supporting the career development of students. In some ways, such an outcome is unsurprising given that the expert group was drawn from respondents with a pre-existing interest in career guidance. However, the fact that there was clear agreement that teachers could and should actively engage in careers education through their subject suggests a broad consensus on the purpose of education and the relationship between education and employment. Our participants strongly believed that one of the central roles that schools have is in preparing young people for successful transition to, and ultimately making wise choices within, the labour market.

This broad agreement on one of the key purposes of education as preparation for post-secondary life belies some more fundamental philosophical differences that can be found in the data. It would be possible to split participants between *moderates* who viewed shifts to teachers' roles as a relatively minor adjustment to the current education system and *radicals* who saw these shifts as part of a broader project to more fundamentally rethink and reform the education system. The moderates were unlikely to contest the basic organisation of the education system, curriculum or assessment and focused their critique on the resourcing of the system and the capacity of careers education to enhance and complement traditional subject-based learning. This approach is well represented within the career guidance literature with approaches like the Gatsby Benchmarks (Gatsby Charitable Foundation 2014) emphasising the need for the addition of a range of activities to the school year but taking care not to encroach on the core activities of the school.

The radicals expressed or implied to varying degrees concern that current educational provision is not meeting the needs of students, employers and the broader community, and mentioned over-crowded curricula that are irrelevant to students and stifle student and teacher creativity. They wanted to see a deeper connection between education and employment, with teachers routinely connected to employers, and curricula mapped to related fields of employment, but they also wanted to see greater use of alternative pedagogies such as project and problem-based learning, more interdisciplinary learning and less reliance on exams in favour of experiential, hands-on assessments. There is a growing critical tradition which looks at careers education through this lens and argues that it can have a transformative impact both for young people and for the education system. For example, Barnes (2021) advocates for 'transformative career education' which engenders '*radical and profound changes in young people's self-understanding, worldview, and capacity to act*' (p.278) and which requires schools to embed career guidance into subjects and move towards cross-curricula approaches which utilise experiential, problem-based and

e-learning approaches and which reorganise assessment around personalised learning objectives and portfolios.

Much of the disagreement between the moderates and the radicals hinged around the statement '*All teachers should see themselves as teaching young people first, and subjects second*' which was supported by three quarters of the participants in round two but raised concerns from the moderate minority in round three. This divide maps roughly onto long-standing divisions between traditional and progressive approaches to education (Claxton 2021), underpinned by different beliefs about the purposes of education. Traditional approaches have their basis in conservatist and essentialist teaching philosophies, with a focus on direct instruction and knowledge transmission. The end goal of education is students who have solid basic skills, and who have been inducted into both the fundamentals of the knowledge base in essential domains and the cultural foundations of their society. Progressive approaches draw on pragmatist, progressivist, constructivist and liberalist frames of thinking around the purposes of education, linking back to Dewey, Rousseau and Vygotsky, among others. There is a focus on learning by doing, embedding learning in real-life contexts, student choice and agency, and the need for the learner to understand the purpose of what they are doing. The end goal is well-rounded individuals and citizens who are informed users and creators of knowledge (Claxton 2021). Future policy moves to enhance the role of the teachers in careers provision will need to navigate across these two groups and bring them both along, while acknowledging that any reforms may well feel slightly unsatisfactory to both.

Other areas of disagreement in the data were far less substantial. There was no consensus on whether schools should be held accountable for students' career outcomes, presumably because of the large number of factors outside the school influencing students' trajectories. There was ambivalence about whether subject specialist teachers should be aware of labour market trends, with some participants noting in comments that there needs to be caution about turning schools into 'career schools'. Other participants argued for a much stronger link between teachers and employers in the community, while for some, this was seen as the domain of the career specialist, beyond the remit of the subject specialist.

Another major issue evident in the data were concerns that well-meaning reforms to strengthen the capability and role of teachers in career provision could have dangerous side effects. Some participants were concerned that the enhancement of the teacher's role would be used as an excuse to defund and de-professionalise the guidance counsellor role. This concern needs to be understood within the context of the fragile and contested professionalism of career guidance. Career guidance continues to be a weakly professionalised area which is involved in an assertive campaign of professionalisation (Gough and Neary 2020). This professionalism is complicated even further in the context of schools where guidance counsellors have a variety of training and professional backgrounds (Hooley 2022). Most participants in the study advocated for an *open professionalism* in which the guidance counsellor role is supplemented by engagement with careers in the school's leadership team and distributed responsibility passed to all teaching staff. However, a minority adopted a *defensive professionalism* (Muzio and Ackroyd 2005), which sought to retain careers work around professional guidance counsellors and highlighted the dangers of more distributed models of delivery. Both the more open professional group and the more defensive minority recognised the dangers of a greater shift to a more distributed professional model as one in which the quality of provision was eroded for students, the professional position of guidance counsellors was weakened and teachers were expected to take on a new role that they were ill-equipped to do. However, those in the more open group argued that this could be managed through appropriate training, policies and implementation approaches.

Because of the wide geographic spread of participants, several had had experiences in school systems in which career guidance provision had always been, or had shifted to, a 'whole of school' model, with teachers given the responsibility for career guidance, without any substantial and sustained provision of training and resources. In some cases, such shifts were seen to have been enacted in a top-down manner and were accompanied by a reduction in or elimination of the

resourcing of designated guidance counsellors in schools. One participant noted, '*In [my country] the idea since more than fifty years have [sic] been that career development should be a part of all subjects. The result is a total failure. The teachers have no preparation at teachers training*.' This concern is endorsed to some extent by the OECD (2004) review of career guidance which argued that any attempt to infuse career guidance across the curriculum runs the risk of provision becoming '*patchy, disconnected and often invisible to the student*' and therefore requires '*a high level of co-ordination and support to be effective*' (p.44).

One aspect of the support needed to give teachers a bigger role would be the inclusion of career guidance in initial teacher education and the frameworks for ongoing continuing professional development of the profession. This echoes a call made by Andrews (2019) who argues that while it is valuable to include career guidance within an initial teacher education, the most important opportunity for the development of teachers' capability in careers guidance comes through embedding it in early career continuing professional development frameworks. Such training is not designed to transform all teachers into guidance counsellors, but rather to provide them with the expertise needed to successfully incorporate career guidance into their practice and to work alongside the school's guidance counsellor.

It is also notable how much of the consensus was focused on the policy and organisational contexts that surround teachers' activities rather than on their actual teaching. While a stronger role was desired for teachers in relation to career guidance, this desire was viewed as being contingent on the need for substantial changes to the ways in which teachers were trained, schools were managed and ultimately to the framing and incentive structure established for the education system by public policy.

Respondents from across a range of countries found consensus around the idea that teachers were overworked and poorly trained and prepared for taking on the careers role. In general, this led to calls for a shift in policy priorities and increased resourcing. Consensus was also achieved around the idea that the delivery of career guidance should be part of the accountabilities of schools, but not for the idea that this should be measured by the career outcomes of young people after they leave the school.

It should be noted that the embedding of career guidance within the teacher's role may not necessarily be a case of doing more, but of doing differently. Given adequate preparation and curriculum resources, teaching subject matter with an eye to careers may go some way towards addressing some of the perennial sources of teacher dissatisfaction by building better student motivation and achievement. Students who understand the 'why' of what they are learning and how it may be useful for them are likely to have higher learning motivation and learn more (Fitzmaurice, O'Meara, and Johnson 2021; Harackiewicz et al. 2012; Hulleman et al. 2010).

Study limitations

There are several limitations associated with the study. First, as noted, the sample was skewed to the countries where the researchers were best networkedAustralia, the United Kingdom and the Nordic region, as knowledge of prominent researchers and leaders in the field was greatest for these countries. Second, it must be acknowledged that the policy contexts within which participants were working vary considerably. The different levels of resourcing for careers education in the different jurisdictions were evident in some of the responses, with some respondents very negative about current resourcing and others more positive. Nevertheless, the degree of commonality across responses speaks to a large degree of consensus across these diverse contexts as to potential future directions in the field.

The decision was made to seek consensus among experts in the field as a starting point for this work, with the findings forming a basis for subsequent stages. Inevitably this means that this study is based on a population with good knowledge of careers education and, in general, a high level of

support for it as an educational endeavour. The same cannot necessarily be said of the wider population of teachers and educational experts. The voices of teachers and those training to become teachers were not included in this project but will be central to effecting change in this area. These voices will be the focus of the next stages of the study.

Implications

This study raises a range of issues that need to be considered further. For teachers, it suggests that there would be value in reflecting further on their role in supporting young people to transition to further learning and work. This might include both an expanded pastoral role and the integration of careers content into the curriculum. However, there was consensus that in most cases teachers have not thought about engaging with career guidance and a recognition that moves in this direction are likely to require resources, training and support. Given this, we would conclude that the expert consensus is not for teachers to immediately launch themselves into the provision of careers education, but rather for a more gradual, systemic and carefully managed shift in this direction.

One of the key elements of such a shift would be to include career guidance in both initial teacher education and early career continuing professional development. The expert consensus therefore hands a major role to policymakers and those involved in the organisation, management and quality assurance of secondary education systems. If career guidance is valuable and there is a desire to do well, there is a need to engage a wider range of educators in its delivery. Achieving this shift will require a clear and unambiguous endorsement of the importance of careers from policy accompanied by appropriate resourcing and ultimately by a shift in school accountabilities.

The final consensus statement suggests that at the school level, a set of staged changes may be the way forward. It is likely that changes to teacher professional learning will need to be a starting point, followed by the development of a whole-of-school approach which is understood and supported by the school leadership team. These steps will then need to be supported with the resourcing that enables change, such as curricula and other materials linking careers to the curriculum. Only when these changes have been embedded and adjusted will it be appropriate to start building school-wide accountabilities for career guidance provision.

Finally, it is worth considering what further research studies are needed to better understand this area. Firstly, it would be useful to have quantitative and qualitative work with teachers and trainee teachers to understand both what they are currently doing in this area and what they perceive as the barriers to greater engagement. This would include an exploration of teachers' perceptions of their roles and how they think about themselves in relation to career guidance provision, as this was raised as a barrier to change by some of our participants. Secondly, there is the need for further development of models and approaches for teachers, which might be usefully stimulated and theorised through forms of action research. Thirdly, while there do not appear to be any educational jurisdictions that have successfully embedded careers within the teacher's role, there are undoubtedly pockets of good practice, individual schools that have strong and distributed career guidance provision that encapsulates many of the features of our consensus statement. Case study research that examines how these schools have moved towards this type of provision have overcome barriers and have brought teachers along in this journey, and the resources they needed to do so, will be essential in informing future directions for change.

Enabling teachers to have a more active role in building the career capabilities of their students will not be an easy task, but the research suggests it is likely to support better student engagement and achievement in school and stronger pathways beyond school for young people (Mann, Denis, and Percy 2020). As one of our participants noted, '*if we just did two things – embedded careers within the curriculum, and empowered teachers to have confident, positive career conversations with their students – it could transform how we prepare young people for the world of work*.'

Disclosure statement

No potential conflict of interest was reported by the author(s).

Notes on contributors

Suzanne Rice is Academic Leader of the Youth Research Collective in the Faculty of Education at the University of Melbourne. She publishes extensively on careers, with a focus on school systems and socially just provision.

Tristram Hooley is Professor of Career Education at the University of Derby and the Inland Norway University of Applied Sciences. His research focuses on the intersection between career, career guidance, politics, policy and technology. He also writes the Adventures in Career Development blog at https://adventuresincareerdevelopment.wordpress.com/

ORCID

Suzanne Rice http://orcid.org/0000-0002-2427-1361

References

Andrews, D. 2019. *Careers Education in Schools*. David Andrews: Highflyers Publishing.

Andrews, D., and T. Hooley. 2017. "' ... and Now it's Over to you': Recognising and Supporting the Role of Careers Leaders in Schools in England." *British Journal of Guidance & Counselling* 45 (2): 153–164. https://doi.org/10.1080/03069885.2016.1254726.

Andrews, D., and T. Hooley. 2022. *The Careers Leaders Handbook*. Second ed. Bath: Trotman.

Austin, K., S. O'Shea, O. Groves, and J. Lamanna. 2020. *Career Development Learning for Students from Low Socioeconomic Status Backgrounds: Literature Review*. Australia: Retrieved from University of Wollongong and National Centre for Student Equity in Higher Education.

Barnes, A. 2021. "Transformative Career Education in Schools and Colleges." In *The Oxford Handbook of Career Development*, edited by P. Robertson, T. Hooley, and P. McCash, 269–281. New York: Oxford University Press.

Barrios, M., G. Guilera, L. Nuño, and J. Gómez-Benito. 2021. "Consensus in the Delphi Method: What Makes a Decision change? *Technological Forecasting and Social Change*." *Technological Forecasting & Social Change* 163:120484. https://doi.org/10.1016/j.techfore.2020.120484.

Blake, M. K. 2020. "Other Duties as Assigned: The Ambiguous Role of the High School Counselor." *Sociology of Education* 93 (4): 315–330. https://doi.org/10.1177/0038040720932563.

Brynjolfsson, E., and A. McAfee. 2014. *The Second Machine Age: Work, Progress and Prosperity in a Time of Brilliant Technologies*. New York: Norton.

Cedefop, E. T. F., and European Commission. 2021. *Investing in Career Guidance: Revised Edition 2021*. Inter-Agency Working Group on Career Guidance WGCG. https://www.cedefop.europa.eu/en/publications/2230.

Claxton, G. 2021. *The Future of Teaching and Myths That Hold it Back*. London: Routledge.

Collins, J., and A. Barnes. 2017. *Careers in the Curriculum. What works?* London: The Careers & Enterprise Company.

Dare, E. A., K. Keratithamkul, B. M. Hiwatig, and F. Li. 2021. "Beyond Content: The Role of STEM Disciplines, Real-World Problems, 21st Century Skills, and STEM Careers within Science teachers' Conceptions of Integrated STEM Education." *Education Science* 11 (11): 737. https://doi.org/10.3390/educsci11110737.

Diamond, I. R., R. C. Grant, B. M. Feldman, P. B. Pencharz, S. C. Ling, A. M. Moore, and P. W. Wales. 2014. "Defining Consensus: A Systematic Review Recommends Methodologic Criteria for Reporting of Delphi studies." *Journal of Clinical Epidemiology* 67 (4): 401–409. https://doi.org/10.1016/j.jclinepi.2013.12.002.

Dodd, V. 2017. *Teacher CPD Delivered by Employers. What Works?* London: The Careers & Enterprise Company.

Dodd, V., and T. Hooley. 2018. "The Development of the Teachers' Attitudes Toward Career Learning Index (TACLI)." *Teacher Development* 22 (1): 139–150. https://doi.org/10.1080/13664530.2017.1385518.

Edwin, M., and M. Dooley-Hussman. 2019. "Factors Influencing School counselors' Time Spent on Career Planning with High School Students." *Professional School Counseling* 23 (1). https://doi.org/10.1177/2156759X20947724.

Fitzmaurice, O., N. O'Meara, and P. Johnson. 2021. "Highlighting the Relevance of Mathematics to Secondary School Students – Why and How." *European Journal of STEM Education* 6 (1): 07. https://doi.org/10.20897/ejsteme/10895.

Gatsby Charitable Foundation. 2014. *Good Career Guidance*. London: Gatsby Charitable Foundation.

Gough, J., and S. Neary. 2020. "The Career Development Profession: Professionalisation, Professionalism, and Professional Identity." In *Oxford Handbook of Career Development*, edited by P.J. Robertson, T. Hooley, and P. McCash, 556–568. New York, USA: Oxford University Press.

Green, R. A. 2014. "The Delphi Technique in Educational Research." *SAGE Open* 4 (2): 2158244014529773. https://doi.org/10.1177/2158244014529773.

Gysbers, N. C. 2008. "Career guidance and counselling in primary and secondary educational settings." In *International handbook of career guidance*, edited by J. A. Athanasou and R. Esbroeck, 249–263. Springer Netherlands.

Gysbers, N. C., and P. Henderson. 2014. *Developing and Managing Your School Guidance and Counseling Program*. Alexandria, VA: John Wiley & Sons.

Hamidi, F., and Z. Bagherzadeh. 2010. "Role and Place of Guidance Teacher in Schools." *Procedia-Social and Behavioral Sciences* 5:1918–1921. https://doi.org/10.1016/j.sbspro.2010.07.388.

Harackiewicz, J. M., E. A. Canning, Y. Tibbetts, S. J. Priniski, and J. S. Hyde. 2016. "Closing Achievement Gaps with a Utility-Value Intervention: Disentangling Race and Social Class." *Journal of Personality & Social Psychology* 111 (5): 745–765. https://doi.org/10.1037/pspp0000075.

Harackiewicz, J. M., C. S. Rozek, C. S. Hulleman, and J. S. Hyde. 2012. "Helping Parents to Motivate Adolescents in Mathematics and Science: An Experimental Test of a Utility-Value Intervention." *Psychological Science* 23 (8): 899–906. https://doi.org/10.1177/0956797611435530.

Hooley, T. 2022. *Exploring the Roles, Qualifications and Skills of Career Guidance Professionals in Schools. An International Review*. Norwegian Directorate for Higher Education and Skills. https://repository.derby.ac.uk/item/9x89w/exploring-the-roles-qualifications-and-skills-of-career-guidance-professionals-in-schools-an-international-review.

Hooley, T., C. Percy, and S. Neary. 2023. *Investing in Careers: What is Career Guidance Worth?* Derby, UK: iCeGS, University of Derby.

Hooley, T., A. G. Watts, and D. Andrews. 2015. *Teachers and Careers: The Role of School Teachers in Delivering Career and Employability Learning*. Derby, UK: iCeGS, University of Derby.

Hughes, D., A. Mann, S. Barnes, B. Baldauf, and R. McKeown. 2016. *Careers Education: International Literature Review*. Education Endowment Foundation. https://www.educationandemployers.org/research/careers-education-international-literature-review/.

Hulleman, C. S., O. Godes, B. L. Hendricks, and J. M. Harackiewicz. 2010. "Enhancing Interest and Performance with a Utility Value Intervention." *Journal of Educational Psychology* 102 (4): 880–895. https://doi.org/10.1037/a0019506.

Kallia, M., S. P. van Borkulo, P. Drijvers, E. Barendsen, and J. Tolboom. 2021. "Characterising Computational Thinking in Mathematics Education: A Literature-Informed Delphi Study." *Research in Mathematics Education* 23 (2): 159–187. https://doi.org/10.1080/14794802.2020.1852104.

Kang, Z., H. Kim, and J. Trusty. 2017. "Constructivist and Social Constructionist Career Counseling: A Delphi study." *The Career Development Quarterly* 65 (1): 72–87. https://doi.org/10.1002/cdq.12081.

Karacan Ozdemir, N., N. B. Akçabozan Kayabol, G. Aydın, and C. E. Tatlı. 2022. "Fostering teachers' Career Education Competencies: Test of a Training Programme." *British Journal of Guidance & Counselling* 50 (3): 462–473. https://doi.org/10.1080/03069885.2022.2031883.

Kuijpers, M., and F. Meijers. 2017. "Professionalising Teachers in Career Dialogue: An Effect Study." *British Journal of Guidance & Counselling* 45 (1): 83–96. https://doi.org/10.1080/03069885.2015.1121203.

Lam, S., S. Jimerson, H. Shin, C. Cefai, F. H. Veiga, C. Hatzichristou, F. Polychroni, E. Kikas, B. P. Wong, E. Stanculescu, J. Basnett, R. Duck, P. Farrell, Y. Liu, V. Negovan, B. Nelson, H. Yang, and J. Zollneritsch. 2015. "Cultural Universality and Specificity of Student Engagement in School: The Results of an International Study from 12 Countries." *The British Journal of Educational Psychology* 86 (1): 137–153. https://doi.org/10.1111/bjep.12079.

Lee, H., and H. Lim. 2020. "Elementary students' and teachers' Perception on Science-Related Career and Career Education." *Journal of Science Education* 44 (1): 50–60. https://doi.org/10.21796/jse.2020.44.1.50.

Mann, A., V. Denis, and C. Percy. 2020. *Career Ready? How Schools Can Better Prepare Young People for Working Life in the Era of COVID-19*. OECD. https://doi.org/10.1787/e1503534-en.

McCrindle. 2014. *A Snapshot of Career Practitioners in Australia*. CICA. https://cica.org.au/wp-content/uploads/CICA-Infographic-A-Snapshot-of-Career-Practitioners-in-Australia-2.pdf.

Musset, P., and L. Mytna Kurekova. 2018. "Working it Out: Career Guidance and Employer Engagement." *OECD Education Working Papers, No. 175*. Paris: OECD Publishing. https://doi.org/10.1787/51c9d18d-en.

Muzio, D., and S. Ackroyd. 2005. "On the Consequences of Defensive Professionalism: Recent Changes in the Legal Labour Process." *Journal of Law & Society* 32 (4): 615–642. https://doi.org/10.1111/j.1467-6478.2005.00340.x.

Neary, S., J. Marriott, and T. Hooley. 2014. *Understanding a 'Career in careers': Learning from an Analysis of Current Job and Person Specifications*. iCeGS, University of Derby. https://repository.derby.ac.uk/item/937vv/understanding-a-career-in-careers-learning-from-an-analysis-of-current-job-and-person-specifications.

OECD (Organisation for Economic Cooperation and Development). 2004. *Career Guidance and Public Policy: Bridging the Gap*. OECD Publications. https://www.oecd-ilibrary.org/education/career-guidance-and-public-policy_9789264105669-en.

Osborn, D. S., and J. N. Baggerly. 2004. "School counselors' Perceptions of Career Counseling and Career Testing: Preferences, Priorities, and Predictors." *Journal of Career Development* 31:45–59. https://doi.org/10.1023/B:JOCD.0000036705.02911.df.

Reiss, M. J., and T. Mujtaba. 2017. "Should We Embed Careers Education in STEM Lessons?" *The Curriculum Journal* 28 (1): 137–150. https://doi.org/10.1080/09585176.2016.1261718.

Rice, S., S. Gillis, S. North, N. Dulfer, G. Klatt, M. Leahy, and J. Polesel. 2016. *Career Development: Quality of Provision in NSW Schools*. Sydney: NSW Department of Education.

Walsh, L. 2015. *Educating Generation Next: Young People, Teachers and Schooling in Transition*. Palgrave Macmillan.

Wong, L. P. W., M. Yuen, and G. Chen. 2020. "Career-Related Teacher Support: A Review of Roles That Teachers Play in Supporting students' Career Planning." *Journal of Psychologists and Counsellors in Schools* 31 (1): 130–141. https://doi.org/10.1017/jgc.2020.30.

You, J., W. Kim, H. S. Lee, and M. Kwon. 2021. "Best Content Standards in Sports Career Education for Adolescents: A Delphi Survey of Korean Professional Views." *Sustainability* 13 (12): 6566. https://doi.org/10.3390/su13126566.