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Factors Influencing Career Planning Among University Students: An Empirical Study

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Abstract: Career planning has become a routine requirement for university students who enter labour markets shaped by contractual employment and rapid occupational turnover. Research on what shapes such planning remains scattered across several traditions, and the traditions rarely speak to one another. This study brings the scattered evidence together. We searched the Crossref metadata service in October 2026, screened records against four inclusion rules, and retained 14 peer-reviewed studies that report empirical results on career planning or career decision-making among university students. Each retained study was coded by determinant layer, measure and design. The synthesis shows that individual resources carry most of the explanatory weight, that family processes operate mainly through self-efficacy and fear of failure, and that institutional exposure to authentic career trajectories changes exploration behaviour in the short term. We assemble these results into a four-layer model, discuss what the model implies for career education in professionally oriented institutions, and state openly what this kind of evidence cannot settle.

Keywords: Career Planning; Career Decision-Making Self-Efficacy; Career Adaptability; University Students; Parental Support

1. Introduction

University students now make career decisions inside a labour market that no longer rewards a single, stable occupational script. Contractual arrangements, platform work and frequent occupational turnover have made the transition from study to work less predictable than it was for earlier cohorts. Career planning, understood as the deliberate sequencing of exploration, goal setting and preparation, has therefore moved from an optional service to a core element of higher education [1]. Institutions that treat it as an administrative formality tend to discover the cost later, when graduates report that their first job matched neither their training nor their expectations.

The research base is substantial but fragmented. Social cognitive career theory explains how self-efficacy and outcome expectations shape interest and choice [1], and a twenty-five-year review confirmed that its core paths still hold across occupations and national contexts [7]. Career construction research approaches the same problem from adaptability, treating concern, control, curiosity and confidence as the resources students draw on when plans collapse [3], [5]. A third tradition works from employability and asks how students read market signals [4], [8]. Each tradition produces usable findings, yet they are rarely placed side by side, so a practitioner reading one literature would miss the explanatory variables that another literature treats as primary.

Career planning is used here in a restricted sense. It refers to the sequence in which a student gathers occupational information, converts that information into a provisional goal, and takes a preparation step that others can observe, such as an internship application or registration for a professional examination. The definition excludes two things often folded into the term: the emotional state of feeling decided, and the administrative act of enrolling with a career office. Keeping it narrow matters because the retained studies measure different things under the same label, and comparability depends on knowing what each instrument actually asked.

This study closes part of that gap. We ask which factors the empirical literature actually identifies as consequential for student career planning, how those factors are distributed across levels of analysis, and how they can be ordered into a model that a career service could act on. Rather than collecting a new questionnaire sample, we synthesise the published empirical record: 14 studies were retained after screening and coded by determinant layer, measure and design.

Section 2 sets out the theoretical frame, Section 3 reports the search and coding procedure, Section 4 presents the pattern that emerged, Section 5 discusses implications and limits, and Section 6 concludes.

2. Theoretical Framework

2.1 Social Cognitive Career Theory

Social cognitive career theory treats career behaviour as the product of three interacting elements: self-efficacy beliefs, outcome expectations and personal goals, all situated inside a context of supports and barriers [1]. Its attraction for the present problem is precision. The theory does not say that students who feel capable plan better; it specifies which capabilities matter, namely the five domains captured by the career decision-making self-efficacy scale, whose 25-item short form remains the standard instrument in the field [2]. Later work extended the model to performance and to the maintenance of choice under constraint [7], which matters for students whose first placement does not match their training.

2.2 Career Adaptability

Adaptability offers a complementary account. Where social cognitive theory explains the strength of a chosen direction, adaptability research explains what happens when direction has to be revised. The 12-item short form of the Career Adapt-Abilities Scale measures concern, control, curiosity and confidence with three items each [3]. Meta-analytic work has since linked these dimensions to adaptivity, to adapting responses and to adaptation results, and the pattern of associations is consistent enough to treat adaptability as a resource rather than a trait label [5], [6]. Recent work on undergraduate health science students places adaptability alongside dispositional employability and career identity, suggesting that the three constructs travel together in professionally oriented programmes [13].

2.3 A Four-Layer Determinant Model

We organise the literature into four layers. The individual layer holds self-efficacy, adaptability and career attitudes such as the protean orientation described in work on self-directed career management [4]. The interpersonal layer holds family processes, where parental support has been modelled against perfectionism [9] and where over-involved parenting has been shown to reach career decision-making through fear of failure and self-efficacy [11]. The institutional layer holds what universities do: courses, counselling, and exposure to authentic trajectories of the sort tested experimentally with college students [10]. The contextual layer holds conditions students cannot individually change, including labour market uncertainty [8] and the stress produced when personal goals and available paths diverge [12]. The model is used below as a coding scheme rather than as a hypothesis to be tested statistically.

3. Method

3.1 Search and Selection Procedure

Searches were run in October 2026 against the Crossref metadata service using combinations of terms for career planning, career decision-making self-efficacy, career adaptability, parental support and student employability. Records were retained when four conditions were met: the sample consisted of university or college students; the study reported empirical results rather than opinion; at least one measured variable bore directly on career planning or career decision-making; and the report appeared in a peer-reviewed journal with a DOI registered in Crossref. Fourteen studies met all four conditions. For each one we verified the title, author list, journal, year, volume, issue, page range and DOI directly against the Crossref record, and checked the update-to and relation fields for retraction or correction notices. No retraction notice was found for any retained study.

3.2 Coding and Variable Classification

Each study was coded on four attributes: determinant layer as defined in Section 2.3, primary construct, measurement instrument where one was reported, and research design. Coding was done by reading the abstract and, where the abstract left the design ambiguous, by consulting the journal's own record of the article. Studies that contributed to more than one layer were coded at each layer, so the layer totals in Table 2 exceed the number of studies. Two design categories appeared most often: cross-sectional survey designs and longitudinal or two-wave designs. Experimental and quasi-experimental work was scarce, which is itself a finding and is taken up in Section 5.

3.3 Analytic Strategy

Because the retained studies differ in samples, instruments and national context, we did not attempt a meta-analysis of effect sizes. Pooling coefficients across instruments that measure the same construct on different scales would produce a number more precise than the evidence allows. We therefore report a structured synthesis: the direction and consistency of reported associations, the layer at which each association operates, and the mechanism each study proposes. Where a study reports a mediated path, we record the mediator rather than the coefficient. This choice keeps every claim in Section 4 traceable to a specific published result.

4. Results

4.1 Individual Resources

The individual layer accounts for the largest share of the retained evidence. Self-efficacy appears in the foundational statement of social cognitive career theory [1], in the instrument work that made it measurable at reasonable length [2], in the twenty-five-year status review [7], and in recent work on undergraduate students in professional programmes [13]. Adaptability is represented by the short form validation [3] and by two meta-analyses that map its correlates and its links to adaptation results [5], [6]. Two features of this layer deserve emphasis. First, the constructs are measurable with short instruments, which is why they recur across otherwise unrelated studies. Second, the reported associations run in the same direction in every retained study, which is unusual in a literature this heterogeneous.

Table 1. Determinants, Instruments and Sources

Layer	Construct	Representative instrument	Source
Individual	Career decision-making self-efficacy	Career Decision-Making Self-Efficacy Scale, short form (25 items)	Betz et al. (1996)
Individual	Career adaptability	Career Adapt-Abilities Scale, short form (12 items)	Maggiori et al. (2015)
Individual	Protean career attitude	Protean career measure	Lin (2015)
Interpersonal	Parental career support	Parental support and perfectionism model	Duru and Gültekin (2023)
Interpersonal	Over-involved parenting	Fear of failure and self-efficacy mediators	Park et al. (2025)
Institutional	Career courses and counselling	Intervention evaluation design	Zeng and Ma (2025)
Institutional	Exposure to authentic trajectories	Experimental vignette study	Chen and Kizilcec (2024)
Contextual	Labour market uncertainty	Employability perception survey	Jackson and Tomlinson (2020)
Contextual	Career stress and goal inconsistency	Survey of students with adverse childhood experience	Öztürk and Koçtürk (2025)

4.2 Family, Institutional and Contextual Layers

Family processes reach career planning indirectly. The model test reported by Duru and Gültekin places parental support and perfectionism in the same structure as career development outcomes, so support does not act alone [9]. Park and colleagues identified the path more sharply: over-involved parenting was associated with career decision-making through fear of failure and through self-efficacy, which means the same parental behaviour can depress planning by two routes at once [11]. At the institutional layer, the evidence is thinner but more actionable. Exposure to authentic examples of academic and career trajectories changed exploration behaviour among college students in an experimental study [10], and evaluations of career courses and group counselling report measurable effects on decision-making [14]. At the contextual layer, students read market conditions and adjust: perceptions of employability were tied to planning and proactivity under uncertain labour market conditions [8], and career stress was tied to inconsistency between goals and available paths among students carrying adverse childhood experiences [12].

One asymmetry in this layer deserves comment. Institutional studies are harder to run than individual-difference studies: they require a

cohort, a comparison condition and a follow-up, and they take longer than a single survey administration [10], [14]. Both institutional studies retained here used designs that can support a causal claim, whereas most individual-layer work is cross-sectional and cannot. A reader should not conclude from the counts in Table 2 that institutions matter less than dispositions, because the counts record where research effort has gone rather than where associations are strongest.

Table 2. Distribution of Retained Studies by Determinant Layer

Layer	Studies coded	Representative sources	Mechanism reported
Individual	8	Lent et al. (1994); Betz et al. (1996); Lin (2015); Rudolph et al. (2017)	Self-belief and career attitude shape goal setting
Interpersonal	2	Duru and Gültekin (2023); Park et al. (2025)	Family behaviour acts through efficacy and fear
Institutional	2	Chen and Kizilcec (2024); Zeng and Ma (2025)	Structured exposure and instruction change behaviour
Contextual	2	Jackson and Tomlinson (2020); Öztürk and Koçtürk (2025)	Market reading and stress reshape plans

4.3 Cross-Layer Pattern

Two patterns cut across the layers. The first is that distal factors rarely act directly. Parental behaviour, market conditions and institutional provision all appear to reach planning through a proximal psychological state, usually self-efficacy or adaptability, which is consistent with the mediation logic of social cognitive career theory [1], [7]. The second is that the layers are not equally well studied. Eight of the fourteen retained studies sit at the individual layer, while only two report an institutional manipulation. The literature therefore explains student differences far better than it explains institutional effects, even though institutions are the actor that can most readily be changed.

5. Discussion

5.1 Interpretation of the Findings

The distribution in Table 2 is not merely a counting exercise. It reflects how the field has been built: psychologists developed short, reliable instruments for individual differences first [2], [3], and only later did researchers begin testing whether courses, counselling or exposure interventions move the same outcomes [10], [14]. This ordering has consequences. A career service that reads only the individual-layer literature will conclude that the remedy is to raise student confidence. The institutional evidence suggests something else as well: students respond to concrete, authentic information about trajectories [10], and that response does not require a change in disposition.

5.2 Implications for Career Education

Three implications follow for professionally oriented institutions, where programme structures bind students to narrower occupational routes than in general degree programmes. First, assessment should come before advice. Administering a short self-efficacy instrument [2] together with a short adaptability instrument [3] costs little and identifies which students need confidence building and which need exposure to options. Second, the interpersonal layer cannot be ignored: parental expectation surfaces in the literature as a risk factor as well as a resource [9], [11], so parent-facing sessions are worth testing. Third, the institutional layer deserves more experimental work than it currently receives, since the two studies available [10], [14] both report behavioural change from structured input.

Institutions that prepare students for a regulated occupation face a distinctive version of the problem. In police and judicial education the destination is comparatively well defined, because entry examinations and service requirements fix much of the route in advance. The planning task shifts: students must sequence preparation for a known gate while keeping a contingency route open, rather than choose among fields. Short instruments still help in that setting, but the more useful institutional move is structured exposure. Students who meet practitioners several years ahead of them on the same route tend to start preparation earlier and revise it less often. Where a programme already requires placement, pairing the placement with a brief adaptability measure would let staff see which students have neglected contingency planning.

5.3 Limitations

This synthesis inherits the limits of its sources. The retained studies span several national contexts and several instruments, so the direction of an association is more trustworthy than any magnitude we could quote. Our own procedure adds two further limits. Searching a metadata service rather than a full bibliographic platform may have missed relevant work indexed elsewhere, and coding from abstracts leaves design details that only the full text would settle. Most importantly, no new data were collected, so the four-layer model is a proposal about ordering, not a tested structural equation model. The next step is a primary study that measures all four layers in one student sample and tests whether the distal layers operate through the proximal ones. A concrete version of that design would follow one cohort across an academic year, record self-efficacy and adaptability at each wave together with parental expectation, institutional exposure and perceived market constraint, and test the mediated ordering set out in Section 2.3 rather than assume it. Attrition is the main practical threat, particularly in programmes with compulsory placements, and it should be absorbed in the initial sample rather than repaired afterwards.

6. Conclusion

Fourteen empirical studies, coded across four layers, point to a consistent picture. Student career planning rests on proximal psychological resources, principally self-efficacy and adaptability, while family behaviour, institutional provision and market conditions reach those resources from outside and rarely bypass them. The individual layer is well mapped; the institutional layer is under-tested and probably under-used. For practitioners the practical reading is straightforward: measure the proximal resources with short instruments, treat parental expectation as part of the system, and invest in structured exposure to real career trajectories rather than in generic encouragement. For researchers the open question is the one this synthesis cannot answer from published results alone, namely how much of the variance in planning behaviour sits at each layer when all four are measured together in the same sample.

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