

# Career indecision and career indecisiveness in high school and vocational training students: a scoping review

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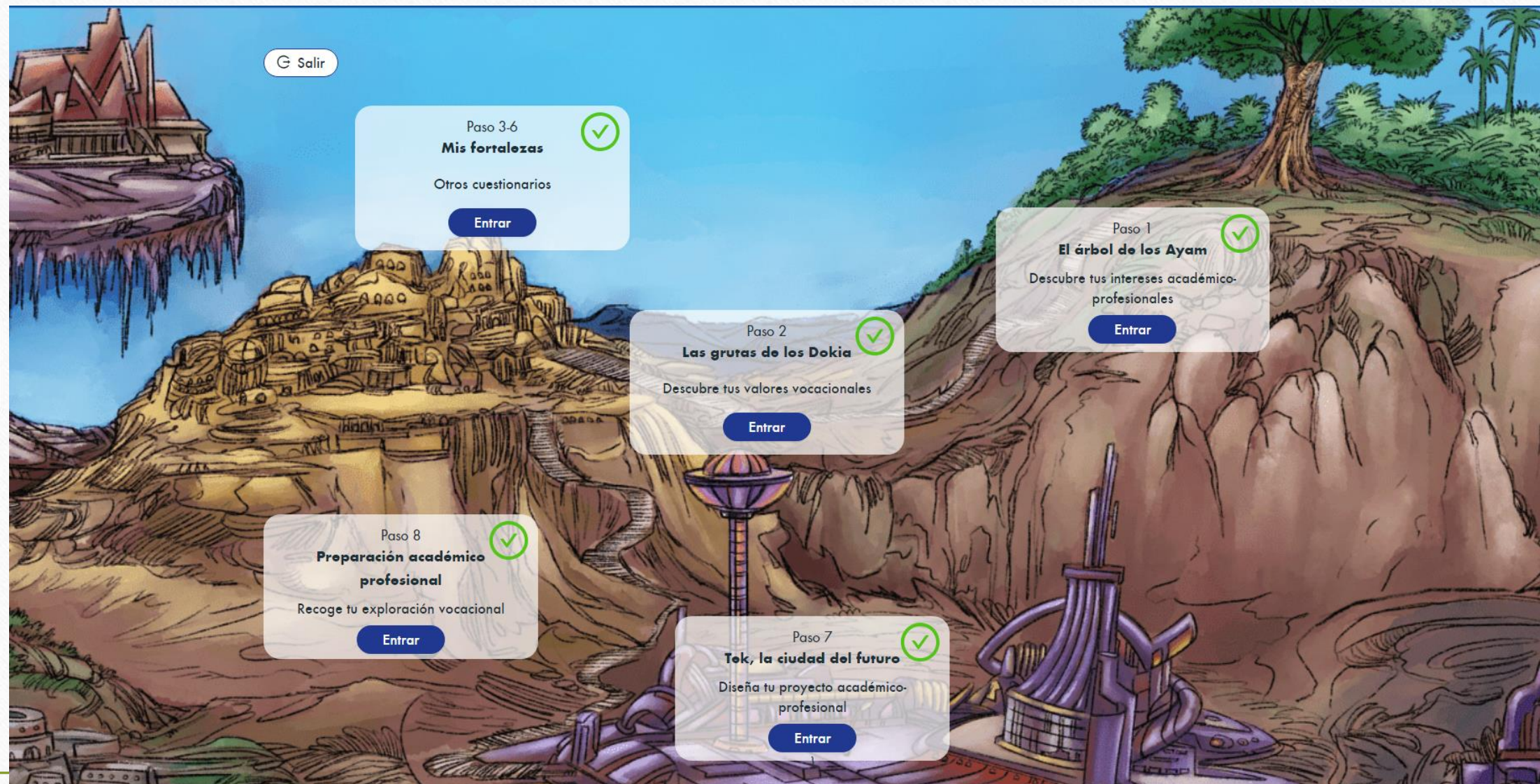
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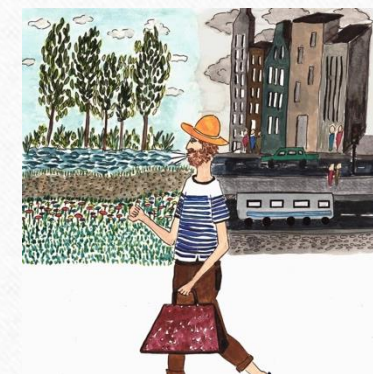


# Introduction

Non-linear academic-professional trajectories and the need for periods of transformation and adjustment (Argyropoulou & Kaliris, 2018)



Predicting labor market: Globalization (social, political, economical, technological, climate transitions) (Di Maggio, et al., 2021)



Projection of self in the future (variety of options, rates of unemployment, job insecurity). Imagine and aspire a possible future (Malinić et al., 2024 )



Increase in anxiety, low self-esteem, loneliness, and depression in adolescents (Echavarren, 2024; Jen et al., 2024).

Isatopia's Illustrations. <https://www.isatopia.com/>

# Objectives

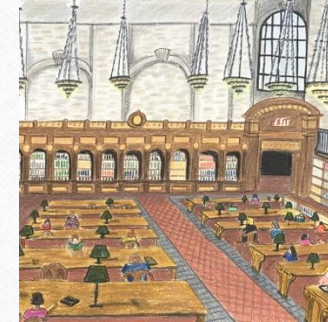


To describe the evidence regarding career indecision and career indecisiveness in high school and vocational training students, identify areas for future research linked to main variables, development or adaptation of measurement instruments, and evaluate the creation of intervention programs.

- (1) to identify the **key variables** that are predicting or are related to career indecision and indecisiveness;
- (2) to identify the **predominant instruments** and their cross-cultural reliability and validity;
- (3) to analyze **the intervention programs** implemented to prevent or intervene in both types of indecision, considering the instruments used, their target variables, and their outcomes.



# Theoretical basis



- Leading contemporary authors have emphasized classic theoretical models and practical application of career development theory in recent decades (e.g. Lent y Brown, 2013, 2020; Lent, et al., 1994; Savickas, 1995, 2020; Savickas et al., 2009).
- Career indecision is one of the most studied topics in the field of vocational psychology, defined as the various difficulties individuals encounter while choosing a career.
- As an unidimensional construct (Crites, 1969, p. 303), from a multidimensional perspective (Gati et al., 1996; Saka et al., 2008; Levin et al., 2022). Two main distinct types have been considered:
  - (1) Normative or developmental career indecision is understood as indecision that can occur in all individuals in their developmental and decision-making process and that can be resolved, for example, with more information and meaningful life experiences.
  - (2) Indecisiveness is attributed more as a personality factor and persists over time, where the person presents high anxiety, showing an inability to choose between various options.
- Moreover, from a constructivist perspective, career indecision has been viewed as a sign of transformation in progress as part of the normal experience that people have when are going to lose their place in life, and they need to find another one.

# Theoretical basis: systematic & literature reviews

Study	
Martincin & Stead (2015)	Relationship between career indecision the Big Five personality constructs (NEO-PI, Costa and McCrae, 1992) within 25 studies
Whiston et al. (2017)	This meta-analysis of career choice intervention is a replication of Brown and Ryan Krane's (2000) meta-analysis. Included 57 published and unpublished studies.
Xu & Bhang (2019)	Review of the last 20 years on the structure and measurement of career indecision and indecisiveness.
Udayar et al., (2020)	The association between the two types of career indecision and four types of self-evaluations: generalized self-efficacy, process-related self-efficacy, content-related self-efficacy, and self-esteem. Reviewed 86 articles
Amaral et al. (2022)	The association of career indecision with depression, negative thoughts, and the role of self-efficacy and sense of control among school leavers : reviewed 9 articles.
Pryasantha et al. (2022)	The main factors influencing career indecision, after analyzing 118 articles and determinants for future studies.



# Methodology

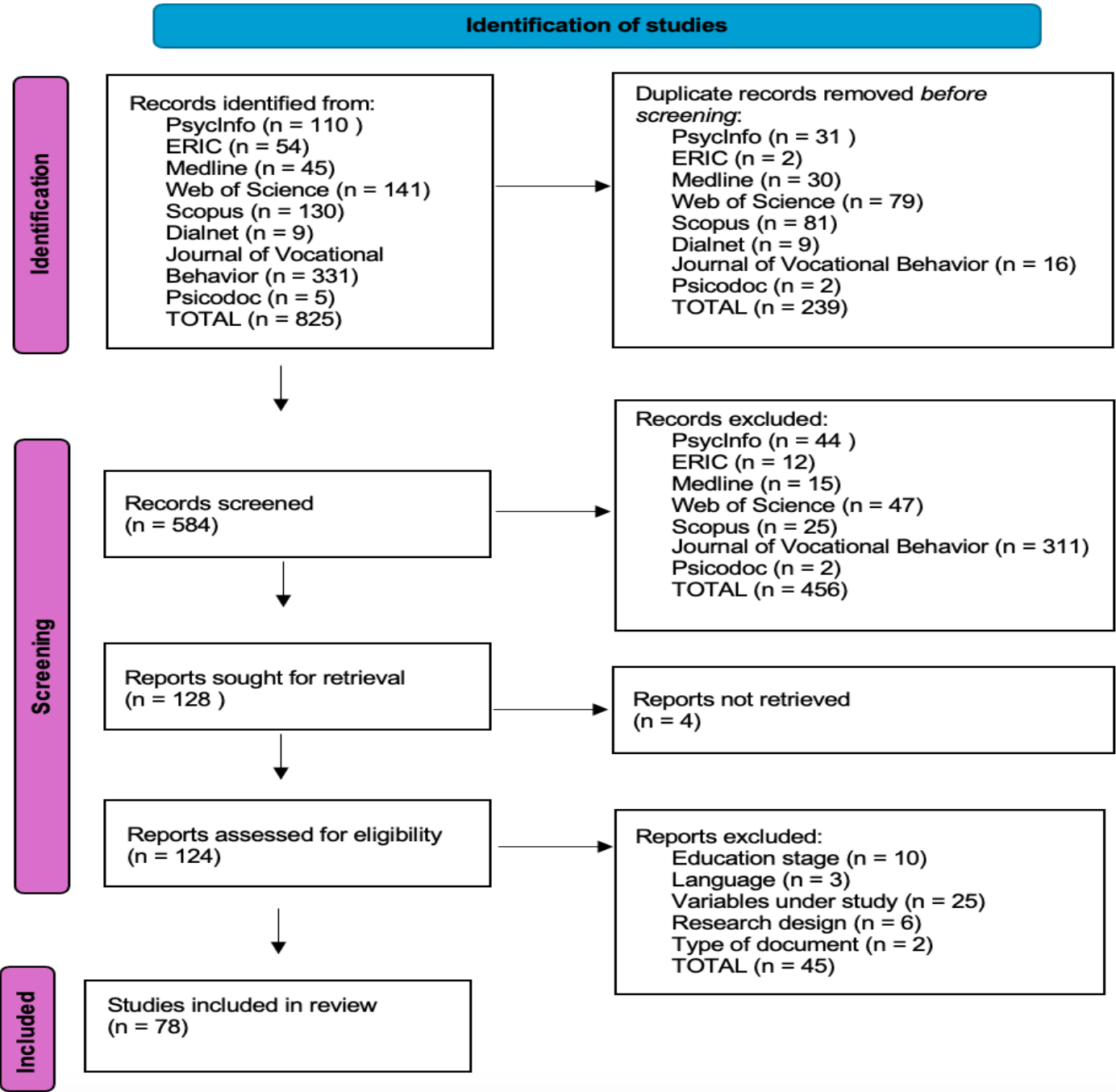


## Eligibility criteria

- (1) include articles from peer-reviewed journals and exclude other types of documents (e.g., thesis, conference abstracts) and all those that had not undergone the peer-review process;
- (2) include high school and basic and intermediate vocational training and exclude other educational stages or work-related studies
- (3) include studies in Spanish and English, as these are the languages in which the reviewers are fluent, and exclude any other language
- (4) include studies carried out between 2007 and 2023 and exclude those before 2007, taking as a temporal reference the work of Saka and Gati (2007), and the multidimensional view of the constructs, covering the last 16 year, and Savickas et al. (2009).
- (5) include empirical studies (quantitative, qualitative and mixed) and exclude works without methodological information.



<https://osf.io/aqmjh>





# Methodology: extraction of information

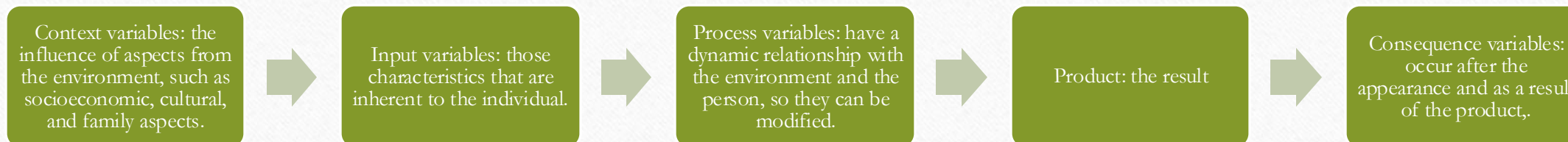


Author(s)	Aim	ES	Sample	IT	Method	Research Design	Data collection tool	Indecision	Study dimensions	Data analysis
1. Ambiel et al. (2018)	1; 2; 3	1	1; 4	-	2	1; 4; 8	1	1; 3	1; 2; 3; 4; 5; 6	1; 3
2. Arslan et al. (2022)	1	1	2; 4; 5	-	2	1; 4; 8	1	1; 3	1; 79; 80; 81; 87	3; 6
3. Argyropoulou et al. (2007)	1	1	1; 4	-	2	1; 4; 8	1	1; 3	9; 10; 11	3; 5
4. Atli (2016)	5	1	1; 4	2	2	3; 7	1; 2; 3	1; 3	12	2; 4
5. Azpilicueta et al. (2019)	6	1	1; 4	-	2	1; 4; 8	1	1; 2; 3; 4	1	1; 5
6. Babarović y Šverko (2016)	25	1	1; 4	-	2	1; 4; 8	1	1; 4	1; 4; 88	1; 5; 6
7. Babarović y Šverko (2019)	6	1	1; 4	-	2	1; 4; 8	1	1; 4	5; 88	1; 3; 5
8. Bacanlı (2016)	6; 9	1	1; 4	-	2	1; 4; 8	1	1; 4	1	1; 3; 5
9. Baltacı et al. (2020)	7; 8	1	1; 4	-	2	1; 4; 8	1	2; 4	1; 13; 14	1; 2; 6; 7
10. Charokopaki y Argyropoulou (2019)	1	1	1; 4	-	2	1; 4; 8	1	1; 3	1; 5; 7	1; 3
11. Chen et al. (2022)	5	1	1; 4	1	2	3; 7	1	1; 4	1; 12; 66	1; 3; 6
12. Creed et al. (2007)	10	1	1; 4	-	2	1; 5; 6	1	1; 3	1; 5; 12; 15	1; 2; 3
13. Culpepper et al. (2015)	5	1	1; 4; 6	1	2	3; 7	1; 2; 3	1; 3	15; 76; 90; 91	1; 2
14. Denault et al. (2019)	1	1	1; 4; 5	-	2	1; 5; 6	1; 2	1; 3	1; 6; 83	1; 3; 5
15. Di Fabio y Kenny (2011)	5; 12	1	1; 4	1	2	2; 7	1	1; 2; 3; 4	16	1; 2

# Methodology: synthesis of information



To organize the variables that define or relate to career indecision/indecisiveness, the CIPP model (Stufflebeam & Shinkfield, 2007), was applied. An acronym for the phases: Context, Input, Process and Product. In addition, it has also been included a fifth phase, collecting the consequences (CIPP-C).

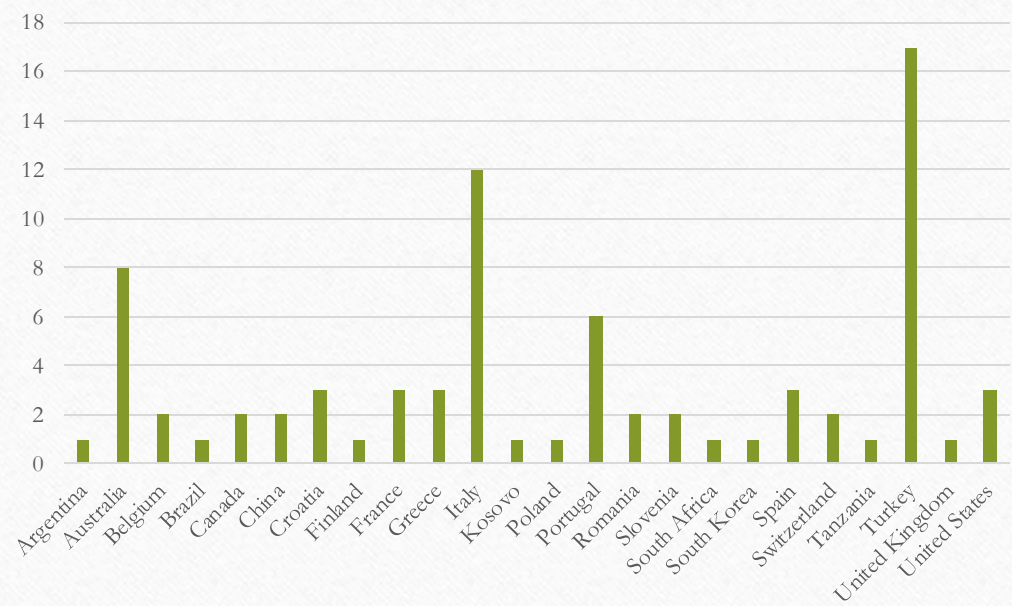






# Results

Countries



Year of publication



# Results

1. **Key variables that are predicting or are related to career indecision and indecisiveness: 66 studies**





Context	Input	Process	Consequence
<p><b>Grade level</b> (Azpilicueta et al., 2019; Babarović &amp; Šverko, 2016; Bacanlı, 2016; Duru, 2022; Kulcsár et al., 2020; Lozano &amp; Repetto, 2007; Šverko &amp; Babarović, 2019)</p> <p>Social relationships:</p> <p><b>(+) Parental interference</b> (Parola et al., 2023); parental intrusiveness (Arslan et al., 2022); &amp; parental lack of engagement (Parola &amp; Marcionetti, 2022; Parola et al., 2023).</p> <p><b>(-) Social support</b> (Jeimini-Gashi et al., 2021); <b>family support</b> (Nota et al., 2007); <b>parental support</b> (Marcionetti &amp; Rossier, 2016; Parola et al., 2023; Parola &amp; Marcionetti, 2022); <b>family cohesion in male students</b> (Koumoundourou et al., 2010)</p> <p><b>Parenting style:</b></p> <p><b>(+) authoritarian and permissive</b> (Koumoundourou et al., 2010; Sovet y Metz, 2014)</p> <p><b>(-) authoritative</b> (French) and <b>authoritarian</b> (Corean) (Sovet y Metz, 2014)</p> <p><b>Socioeconomic status:</b></p> <p><b>(+) low</b> (Kalalahti et al., 2017)</p>	<p><b>Personality traits:</b></p> <p><b>(+) Neuroticism*</b> (Ambiel et al., 2018; Duru et al., 2021; Marcionetti &amp; Rossier, 2016; Pečjak &amp; Košir, 2007; Kirdök &amp; Korkmaz, 2018)</p> <p><b>(-) Conscientiousness, extroversion, openness, &amp; agreeableness</b> (Duru et al., 2021; Marcionetti &amp; Rossier, 2016; Šverko &amp; Babarović, 2019)</p> <p><b>(+) External locus of control</b> (Kirdök &amp; Harman, 2018)</p> <p><b>(-) Emotional intelligence (trait)*</b> (Di Fabio &amp; Saklofske, 2014)</p> <p><b>(-) Core self-evaluations</b> (Koumoundourou et al., 2010)</p> <p>Gender:</p> <p><b>(+) Female role stress</b> (Arslan et al., 2022)</p> <p><b>Decision-making styles:</b></p> <p><b>(+) Panic &amp; avoidant</b> (Pečjak et al., 2019)</p> <p><b>(-) Self-confident</b> (Pečjak et al., 2019)</p>	<p><b>(+) Worry</b> (Karacan-Ozdemir, 2019)</p> <p><b>(+) Vocational anxiety*</b> (Seker, 2020)</p> <p><b>(+) Academic procrastination</b> (Günes &amp; Owen, 2020)</p> <p><b>(-) Time perspective</b> (Ferrari et al., 2010)</p> <p><b>(-) Self-efficacy at: a) Career decision making</b> (Charokopaki &amp; Argyropoulou, 2019; Duru, 2022; Duru et al., 2021; Marcionetti &amp; Rossier, 2016); <b>b) Career search</b> (Jemini-Gashi et al., 2021; Nota et al., 2007); <b>c) Generalized</b> (Argyropoulou et al. 2007)</p> <p><b>(-) Self-esteem</b> (Charokopaki &amp; Argyropoulou, 2019)</p> <p><b>(-) Career maturity</b> (Babarović &amp; Šverko, 2016; Duru, 2022; Creed &amp; Patton, 2007)</p> <p><b>(-) Career adaptability</b> (Babarović &amp; Šverko, 2019; Karacan-Ozdemir, 2019; Parola &amp; Marcionetti, 2022)</p> <p><b>(+) Identity exploration</b> (Paixão &amp; Gamboa, 2022)</p> <p><b>(+) Large number of vocational interests</b> (Argyropoulou et al. 2007)</p> <p><b>(+) Occupational aspirations &amp; expectations discrepancies</b> (Patton &amp; Creed, 2007a; Patton &amp; Creed, 2007b)</p> <p><b>(-) Career exploration</b> (Denault et al., 2019; Paixão &amp; Gamboa, 2017, 2022)</p> <p><b>(-) Amount of information</b> (Paixão &amp; Gamboa, 2022)</p> <p><b>(-) Optimism</b> (Charokopaki &amp; Argyropoulou, 2019; Grigor &amp; Turda, 2022)</p> <p><b>(-) Hope for success</b> (Zaleszczyk &amp; Kot, 2015)</p> <p><b>(-) Mental well-being*</b> (Şeker, 2020)</p> <p><b>(-) Life satisfaction</b> (Parola &amp; Marcionetti, 2022)</p> <p><b>Motivation:</b></p> <p><b>(+) controlled</b> (Paixão &amp; Gamboa, 2022); occupational amotivation* (Jung, 2013a, 2013b, 2018; Jung &amp; McCormick, 2010; Jung &amp; Young, 2017).</p> <p><b>(-) autonomous*</b> (Paixão &amp; Gamboa, 2022)</p>	<p><b>(+) Career planning and career exploration</b> (Creed et al., 2007)</p> <p><b>(-) Occupational intention</b> (Jung, 2018)</p> <p><b>(+) Vocational anxiety</b> (Nalbantoglu Yilmaz &amp; Cetin Gunduz, 2018)</p> <p><b>(+) Emotional distress</b> (Kulcsár et al., 2020a)</p> <p><b>(-) Salary at 34 years old</b> (Sabates et al., 2017)</p> <p><b>(-) Engagement*</b> (Šverko &amp; Babarović, 2019)</p> <p><b>(-) Study satisfaction*</b> (Šverko &amp; Babarović, 2019)</p>

## Career indecisiveness

Context	Input	Process	Consequence
<b>Grade level:</b> <b>(+) Last grade (12th)</b> (Baltacı et al., 2020) <b>No differences</b> (Öztemel, 2013) <b>Social relationships:</b> <b>(+) Paternal psychological control</b> (Lo Cascio et al., 2015) <b>(-) Family communication</b> (Lo Cascio et al., 2013) <b>(-) Mother and father attachment</b> (Vignoli, 2009) <b>(-) Perceives social support*</b> (Baltacı et al., 2020)	<b>Personality traits:</b> <b>(+) Neuroticism*</b> (Ambiel et al., 2018; Di Fabio & Palazzeschi, 2013; Germeijs & Verschueren, 2011b; Öztemel, 2014) <b>(-) Conscientiousness, extroversion</b> (Germeijs & Verschueren, 2011b; Öztemel, 2014) & <b>openness</b> (Germeijs & Verschueren, 2011b) <b>(+) Anxiety (trait)</b> (Germeijs & Verschueren, 2011a; Lo Cascio et al., 2013; Santos & Ferreira, 2012; Santos et al., 2024; Vignoli, 2015) <b>(-) Emotional intelligence (trait)*</b> (Di Fabio & Saklofske, 2014) <b>(-) Core self-evaluations</b> (Di Fabio & Palazzeschi, 2012) <b>(+) External locus of control</b> (Santos & Ferreira, 2012; Santos et al., 2014) <b>Gender:</b> <b>(+) Female</b> (Baltacı et al., 2020; Germeijs & Verschueren, 2011b; Lo Cascio et al., 2013, 2015; Soytürk & Öztürk, 2019; Vignoli, 2009)	<b>(+) Vocational anxiety</b> (Lo Cascio et al., 2013; Vignoli, 2015) <b>(+) Identity exploration*</b> (Ambiel et al., 2018) <b>(-) Career exploration*</b> (Ambiel et al., 2018; Vignoli, 2015) <b>(-) Self-esteem*</b> (Lo Cascio et al., 2013, 2015; Santos & Ferreira, 2012; Santos et al., 2014; Santos & Gonçalves, 2017; Soytürk & Öztürk, 2019) <b>(-) Generalized self-efficacy</b> (Ambiel et al., 2018) <b>(-) Perceived cognitive failure</b> (Di Fabio & Palazzeschi, 2013) <b>(-) Goal instability*</b> (Santos & Gonçalves, 2017) <b>(-) Basic psychological needs</b> (Baltacı et al., 2020) <b>(-) Meaning in life</b> (Gómez Arceo, 2010)	<b>(+) Seek Career Counselling</b> (Ambiel et al., 2018) <b>(-) Decision stability</b> (Germeijs & Verschueren, 2011a)

*Note. Only direct relationships that evolve in the same direction (+) or in the opposite direction (-) to the product are collected.*

*\*Relationships that predict indecision.*



Unidimensional instruments	Studies	Intervention programs
Career Decision Scale (CDS, Osipow, et al., 1976)	11	3
Career Indecision Scale (Teixeira y Magalhães, 2001)*	1	
Indecisiveness Scale (IS, Germejs y De Boeck, 2002)*	7	
Indecisiveness Scale (IS, Frost y Shows, 1993)*	6	1
Personal Indecisiveness Scale (Bacanli, 2000, 2005)*	2	
Career Decision Inventory (CDI, Çakır Mehmet, 2004)	3	2
<b>Multidimensional instruments</b>		
Career Factors Inventory (CFI; Chartrand et al., 1990)**	1	
Vocational Indecision/Decision Questionnaire (Gómez Arbo, 1992)	1	
Career Decision Making Difficulties Questionnaire (CDDQ, Gati, et al., 1996; Gati & Saka, 2001)#	24	4
Career Decision Profile (Jones & Lohmann, 1998)#	1	
Ideas and Attitudes on School-Career Future High School Version (Soresi & Nota, 2003)	1	1
Emotional & Personality-Related Career Decision-Making Difficulties (EPCD, Saka et al., 2008)*	3	
<b>Coping with career indecision instrument</b>		
Coping with Career Indecision Scale (CCIS; Turan, 2017)		1

# Results



**2. Predominant instruments that measure career indecision and indecisiveness and their cross-cultural reliability: 78 studies**

Measurement instruments	CDS (Osipow et al., 1976, 1987)	CDDQ (Gati et al., 1996; Gati y Saka, 2001)	IS (Frost y Shows, 1993)	IS (Germejis & De Boeck, 2002)	EPCD (Saka et al., 2008)	CFI (Chartrand et al., 1990)
Albania	.95					
Argentina	.81					
Canada (French)		.94				
China	.73 - .76	.81 - .87				
South Korea		.92				
Croatia		.74 - .92				
France		.91		.84 -.86		
Greece	.80 - .86	.92				
Slovenia		.55 - .93				
Spain		.89 - .91				
Italy	.82	.73 - .93	.85	.83 - .85		.84
Poland		.88				
Portugal	.87 -.90		.80 - .83			
Romania		.80				
Switzerland (Italian)		.91				
Turkey	.86	.82 - .93			81 - 91	





# Results

- Intervention programs:
  - Time varies from 1 session to 5 months
  - Individual or group sessions
  - Rarely online
  - At school centers primarily
  - Follow up: only 4 studies (after 3 weeks, 3 or 4 months)
  - Counselors, teachers and mentors
  - Interviews: Career Interest Profile, motivational interview
  - No programs for vocational training.

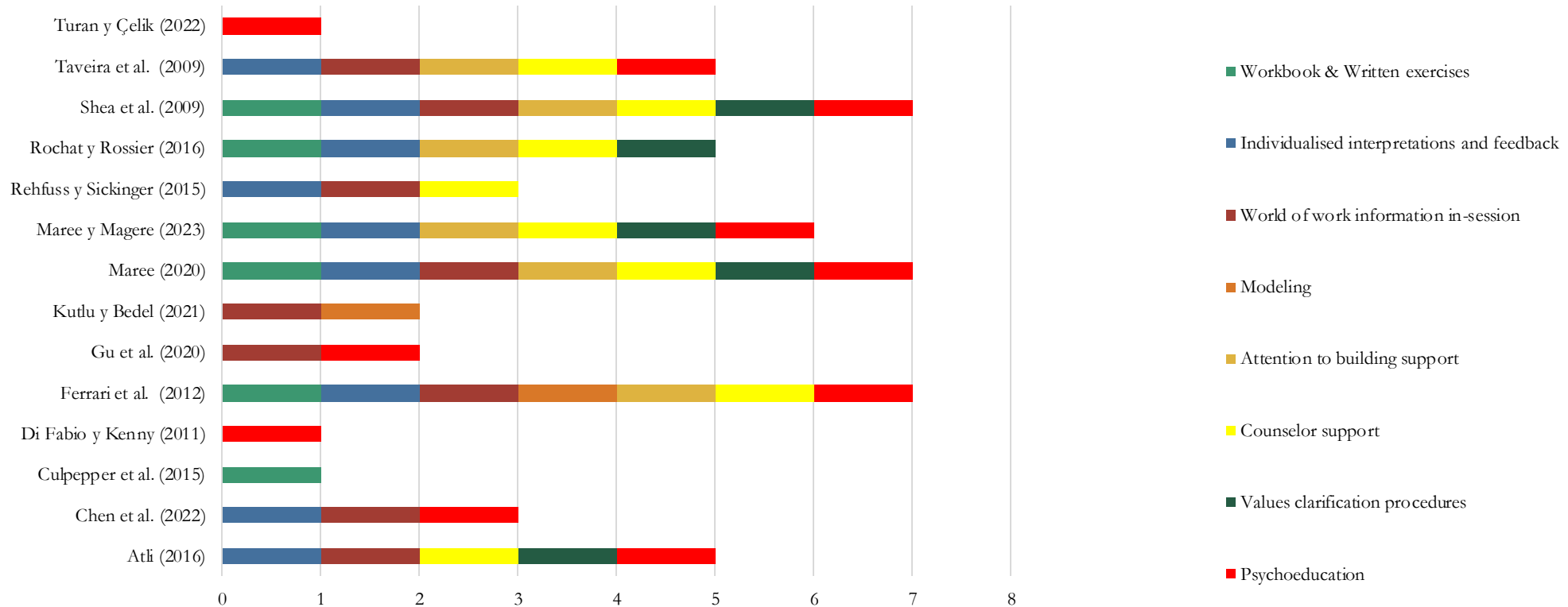
## **3. Intervention programs implemented to prevent or intervene on both types of indecision, considering the instruments used, their target variables, and their outcomes: 14 studies**

- CIPP-C:
  - Context: supports, family communication and influence, peer communication and teacher communication.
    - Studies with populations at risk incorporate work on sexism, racism, migrant experience, cultural context.
  - Input: personality (self-exploration)
  - To prevent or cope with consequences: action planning, subjects and educational/career pathways choice, professional project, difficulties anticipation (solutions, barriers, resources available), coping strategies.

Study	Atli (2016)	Chen et al. (2022)	Culpepper et al. (2015)	Di Fabio & Kenny (2011)	Do Ceu Taveira et al. (2009)	Ferrari et al. (2012)	Gu et al. (2020)	Kutlu & Bedel (2021)	Maree (2020)	Maree & Magere (2023)	Reh fuss & Sickinger (2015)	Rochat & Rossier (2016)	Shea et al. (2009)	Turan & Çelik (2022)
Self-exploration	X	X	X		X	X	X		X	X	X	X	X	
Career exploration	X	X			X	X	X	X	X	X			X	X
Career maturity/ Career adaptability	X	X									X			X
Emotional intelligence (ability)				X										
Self-esteem			X											
Academic Achievements			X						X					
Hope						X								
Optimism						X								
Self-efficacy					X	X	X		X				X	
Irrational beliefs					X	X		X		X		X		
Motivation														X
Time perspective				X		X	X						X	X
Career goals						X								



# Results: Key ingredients for effective interventions



# Conclusions

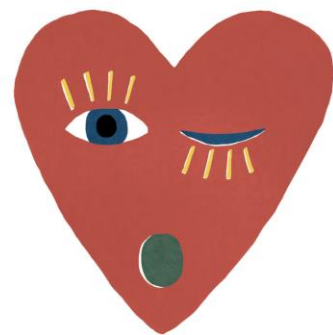
- Differentiation between career indecision and career indecisiveness.
- **Key variables:** social support, personality traits, self-perceptions, self-evaluations. Considered emotional, cognitive, personality, social, cultural and educational factors. Some are more present than others.
  - However more factors need to be accounted, from a bigger systemic perspective regarding the macro context.
- **Measurement instruments:**
  - For career indecision: CDS, CDDQ. Primarily CDDQ.
  - For career indecisiveness: IS.
  - Career Construction Interview
- **Successful interventions for career indecision include** self-exploration, career exploration, and emotional management. No specific programs for career indecisiveness (career indecisiveness can significantly impact an adolescent's mental health, self-esteem, and future career prospects).
- The review identifies a gap in research:
  - Broader social and environmental factors and their impact on career outcomes, suggest a need for community-based approaches in career guidance.
  - Lack of studies connected with mental health (Amaral et al., 2022).
  - Vocational training intervention programs: are these students being supported by career guidance services?
  - Career indecisiveness intervention programs.
  - Career construction & qualitative approaches/ mixed methods
  - Other types of self-expression techniques for the narratives, not exclusively.
  - Inclusion of the support network: family figures, educational figures, mentors.
  - Digital use.
- Limitations: keyterms (leaving out other perspectives from career guidance theories), grey literature.



# Practical implications

- Provide spaces for quietness, and expressive tools, and promote reflection, dialogue, and experiences (context) – too much noise.
- Accompany the youth in their uniqueness in shared world/context while they are maturing. Coordination between services, and counselors. Community involvement.
- Authors summarizing:
  - self-management skills;
  - deal with uncertainty as a life-partner;
  - emotional identification and management;
  - gender and cultural factors;
  - social, educational and career expectations from cultural and individual expectations;
  - choices and life project responsibilities (strengths and difficulties);
  - active agents;
  - coping strategies;
  - self-esteem and self-efficacy;
  - cognition (fears, pessimistic views and irrational beliefs);
  - career exploration (supported);
  - cultural perspective;
  - self acceptance, motivation and compromise;
  - biographical beings (time perspective, projection towards the future)

# Kiitos että olet täällä





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