

Facilitating Career
Decision-Making

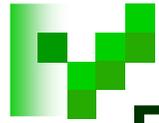
**Facilitare il Career
Decision-Making**

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Hebrew University of Jerusalem

**Presented at the
National Congress of Vocational Guidance**

Sperlonga, Italy, May 2010



Parsons (1908)

Zytowski (2008)



100 Years of Career Guidance - Honoring Frank Parsons



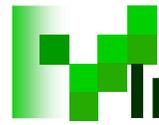
By: Dr. Don Zytowski
Kuder Director of Research

It was exactly 100 years ago, 1908, that Frank Parsons, a Boston attorney and social reformer, set out several fundamental concepts of vocational guidance, or career counseling, as we call it today. From the fundamental concepts, three emerged as

main principles of career choices: 1) "a clear understanding of yourself," 2) "a knowledge of different lines of work," and 3) "true reasoning on the relation of these facts."

3. True Reasoning

"True reasoning" was never elaborated by Parsons. Today, research on decision-making under risky conditions is probably the modern equivalent of true reasoning, but has received little application in vocational psychology. A history of the vocational guidance movement by John Brewer, gives details of a printed form that the Vocational Bureau used, calling for notes on certain points—vital principles, interesting and inspiring ideas, helpful suggestions and applications to life, and the like.



Indeed, it is difficult to make career decisions:

Infatti, è difficile prendere decisioni professionali



- Quantity of Information:
often large N of alternatives and factors, within-occupation variance →
information is practically unlimited

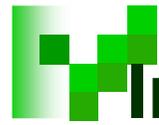
Quantità dell'informazione:

**si ha a che fare spesso con un ampio N di alternative e fattori,
con una varianza occupazionale → l'informazione è
praticamente illimitata**

- Quality of Information:
soft, subjective, fuzzy, inaccurate, biased

Qualità dell'informazione:

semplice, soggettiva, incoerente, non accurata, errata



Indeed, it is difficult to make career decisions:

Infatti, è difficile prendere decisioni professionali



- Uncertainty about:
the individual's future preferences, future career options, unpredictable changes and opportunities, probability of implementing choice

Incertezza circa:

Le preferenze dell'individuo sul proprio futuro, le future opzioni professionali, i cambiamenti e le opportunità non prevedibili, le probabilità di implementare le scelte

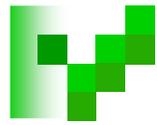
- Non-Cognitive Factors:
emotional and personality-related factors, necessity for compromise, actual or perceived social barriers and biases

Fattori non cognitivi:

Fattori emozionali e di personalità, necessità di pervenire ad un compromesso, barriere sociali e distorsioni reali o percepite

- Lack of knowledge about the process is among the prevalent difficulties

Una delle maggiori difficoltà è la mancanza di conoscenza relativamente al processo



How can we facilitate Career Decision Making?

Come possiamo facilitare il decision-making professionale?



- Many factors contribute to the complexity and difficulties involved in the career decision-making process

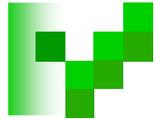
Molti fattori contribuiscono alla complessità e alle difficoltà implicate nel processo di decision-making professionale

- Career counseling may be viewed as **decision counseling**, which aims at facilitating the clients' decision-making process, and promoting better career decisions

Il counseling professionale può essere considerato un *counseling decisionale*, il cui scopo è di facilitare il processo decisionale dei clienti, e promuovere migliori decisioni professionali

- By adopting and **adapting** decision theory to the unique features of career decisions, theoretical knowledge can be translated into practical interventions to facilitate individuals' career choices

Adottando e *adattando* la teoria decisionale alle singolari caratteristiche delle decisioni professionali, la conoscenza teorica può tramutarsi in interventi pratici per facilitare la scelta professionale degli individui



**The Basis of Guidance:
Assessing clients' needs involves**



Le basi dell'orientamento:

Valutare i bisogni del cliente

- **Locating the focuses of the client's career decision-making difficulties**
Individuare ciò che determina le difficoltà nel career decision making del cliente
- **Appraising the degree to which the client's preferences are crystallized**
Valutare quanto le preferenze del cliente sono cristallizzate
- **Assessing the client's decision-making status**
Valutare lo status decisionale del cliente
- **Acknowledging the client's career decision-making profile (pattern, style):**
Interventions aimed at facilitating career decision making should be tailored to the client's career decision-making profile (pattern, style)
Individuare il profilo decisionale del cliente (pattern, stile):
Gli interventi finalizzati a facilitare il career decision-making dovrebbero tenere conto di tale profilo



Career Decision-Making Difficulties

Le difficoltà nel career decision-making



- The first step in helping individuals is to locate the focuses of the difficulties they face in making career decisions

Il primo passo per aiutare le persone è quello di individuare le fonti delle difficoltà che incontrano nel prendere decisioni circa il loro futuro



Career Decision-Making Difficulties

Le difficoltà nel career decision making

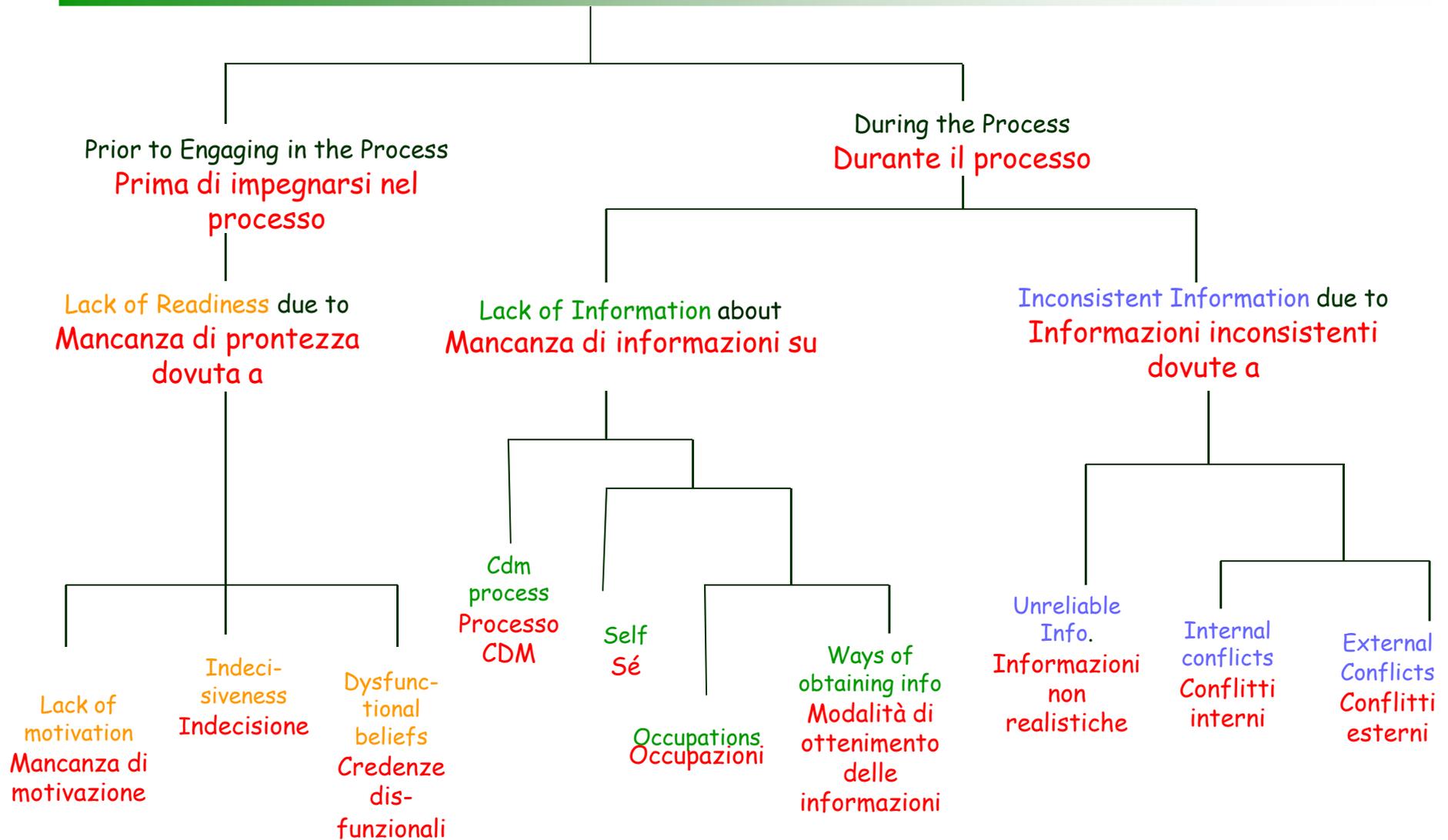


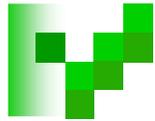
- Gati, Krausz, and Osipow (1996) proposed a taxonomy for describing the difficulties (see next slide), based on:
Gati, Krausz, e Osipow (1996) hanno proposto una tassonomia per descrivere le difficoltà (vedi la prossima diapositiva), basata su:
 - the stage in the decision-making process during which the difficulties typically arise
La fase nel processo decisionale durante la quale tendono ad emergere le difficoltà
 - the similarity between the sources of the difficulties
La similarità delle fonti di difficoltà
 - the effects that the difficulties may have on the process and the relevant type of intervention
Gli effetti che le difficoltà possono avere sul processo e la rilevanza dell'intervento



Locating the Focuses of Career Decision-Making Difficulties

Individuare le cause delle difficoltà nel career decision-making professionale (Gati, Krausz, & Osipow, 1996)





www.cddq.org



The aim of this free, anonymous site (with no advertisements) is to assist you in making better career decisions



CDDQ

The **CDDQ's** goal is to locate the focuses of your **career decision-making difficulties**, and to recommend ways to overcome them



PC

PC will provide you feedback about the degree to which your **career preferences** are crystallized; that is, how well you know what you're looking for in your future career



CDMP

New!
The goal of **CDMP** is to enable you to learn about your **career decision-making profile (style)**



PIC

PIC will provide you with a systematic, 3-stage process leading to making a better career decision



MBCD

Now also free
MBCD actually guides you through the prescreening stage, helps to locate "promising options", and then allows you to get relevant information

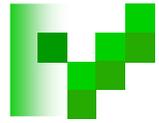
For career counselors (information for experts)

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The Career Decision-Making Difficulties Questionnaire (*CDDQ*)



- The *CDDQ* was developed
 - to test this taxonomy and
 - to serve as a means for assessing individuals' career decision-making difficulties
- Il *CDDQ* è stato messo a punto
 - per testare questa tassonomia e
 - per valutare le difficoltà di decision-making delle persone
- Cronbach Alpha internal consistency estimate: .93-.95 for the total *CDDQ* score

La consistenza interna stimata con l'Alpha di Cronbach va da .93 a .95 per il punteggio totale del *CDDQ*

The difficulty	does not describe me ----- describes me well								
I like to do things my own way .	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9
I expect that entering the career I choose will also solve my personal problems .	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9
I believe there is only one career that suits me .	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9
I expect that through the career I choose I will fulfill all my aspirations .	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9
I believe that a career choice is a one-time choice and a life-long commitment .	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9
I always do what I am told to do, even if it goes against my own will .	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9

Continue



Assessment of Career Decision-Making Difficulties involves:

Valutare le difficoltà di decision-making implica:



■ Measuring the difficulties

Misurare le difficoltà

- computing the 10 difficulty scale scores
calcolare i punteggi relativi alle 10 scale di difficoltà
- computing the 3 major cluster scores
calcolare i punteggi nelle 3 categorie principali
- computing the total *CDDQ* score
calcolare il punteggio totale al CDDQ

■ Interpreting the Client's difficulty profile

Interpretare il profilo di difficoltà del cliente

- locating **salient**, **moderate**, or **negligible** difficulties
individuare le difficoltà più consistenti, quelle moderate e quelle meno consistenti
- evaluate confidence of interpretation
valutare la fiducia nell'interpretazione



CDDQ

Career Decision-making Difficulties Questionnaire

www.cddq.org

Feedback for: **Linda**

August 29, 2007

Based on the analyses of your responses, we are doubtful of your attentiveness to the questionnaire. It is possible, that you did not read the sentences carefully before you responded or that you were rushing as you completed the questionnaire. In addition, we found a low level of consistency in your responses to similar statements. Therefore, the following feedback might be inaccurate and should be regarded with reservation.

First, you will be presented with the categories in which your responses reflect salient difficulties. Then, the categories in which your responses reflect moderate difficulties will be presented and finally, we will present our recommendations regarding the steps you can take in order to address those difficulties.

Your responses reflect **significant** difficulties involving:

Type of difficulty	Score 1-9
General Indecisiveness	

A high score in this area reflects a state



CDDQ

Career Decision-making Difficulties Questionnaire

www.cddq.org

Feedback for: **Lisa**

October 8, 2007

Based on your responses to the questionnaire, you will be presented with a summary of your personal difficulties in the career decision-making process.

First, you will be presented with the categories in which your responses reflect salient difficulties. Then, the categories in which your responses reflect moderate difficulties will be presented and finally, we will present our recommendations regarding the steps you can take in order to address those difficulties.

Your responses reflect **significant** difficulties involving:

Type of difficulty	Score	1-9
General Indecisiveness - A high score in this area reflects a state of general difficulty in making decisions . Many people tend to be indecisive in various areas of their lives. Decisions are often accompanied by hesitation and fear of failure or commitment. People who are generally indecisive may therefore procrastinate or repeatedly change their mind once they have reached a decision. Sometimes they may feel they need others to affirm their decision in order to feel that they have made the right choice.	5.7	
Lack of Information about the Decision Making Process - A high score in this area reflects a lack of knowledge about how to reach a decision wisely , and specifically about the steps involved in the career decision-making process. For instance, you may not know what factors to take into account, or may encounter difficulties in combining the knowledge you have about yourself (for example, your strengths and weaknesses) with information on the various career options (for example, what abilities are required for a specific occupation).	7.3	
Lack of Information about the Self - A high score in this area reflects a situation where you feel that you do not have enough		

Your responses also reflect **moderate** difficulties involving:

Type of difficulty	Score 1-9	
Lack of Motivation - A high score in this area reflects a lack of willingness to make a decision at this point in time . This may indicate that you don't feel like making the decision now, or it may stem from a belief that there is no need to invest time and effort trying to make a career choice, since time will lead you to the right decision.	3.7	
Lack of Information about the Self - A high score in this area reflects a situation where you feel that you do not have enough information about yourself . You may not know what you want - for example, what work conditions you prefer or whether you are talented enough in a certain field, or whether you possess certain personality traits that are critical for a specific occupation.	3.3	
Internal Conflicts - A high score in this area reflects a state of internal confusion . Such conflict may stem from difficulties in compromising between the many factors you view as important, (for example, you have been accepted at a particular college, but your partner lives in a different city). Internal conflicts may also arise when an attractive occupation involves a certain unattractive element (such as the long training needed to become a physician), or when several occupations seem equally attractive.	4.6	

Recommendations:

We recommend finding an expert career counselor who can provide you with answers to some of your questions about your preferences, abilities and talents, using professional assessment tests and questionnaires. The counselor will also help you deal with your difficulties in making decisions in general, and help you solve your conflicts related to career decision making.

We advise you to search the Internet for information on relevant career options. Be aware that the quality of the information and its source are sometimes questionable. In case of doubt, try to check the information using several sources. Guidance in the stages involved in making career decisions can be found on this site. Of course, your career counselor will guide you through the steps in your decision-making process.

The following are some general recommendations regarding information sources that can help you progress in the decision-making process. In addition, we are providing you with specific recommendations regarding the steps that might help you address each of your salient and moderate difficulties. The Internet could be a very helpful tool in the exploration your career decision-making difficulties, whether you are visiting sites that charge a fee or not. The Internet is, without question, the most comprehensive and attainable source of information, and we recommend you start your search for information there. The internet will help you deal with your:

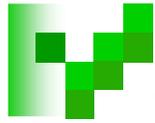
Dysfunctional beliefs

Lack of information about the decision making process

Lack of information about occupations

Unreliable information

However, it is important that you are aware of the quality, objectivity and reliability of the source of information you choose to use. Some of the information is biased and comes to serve a commercial purpose. It is therefore recommended that you

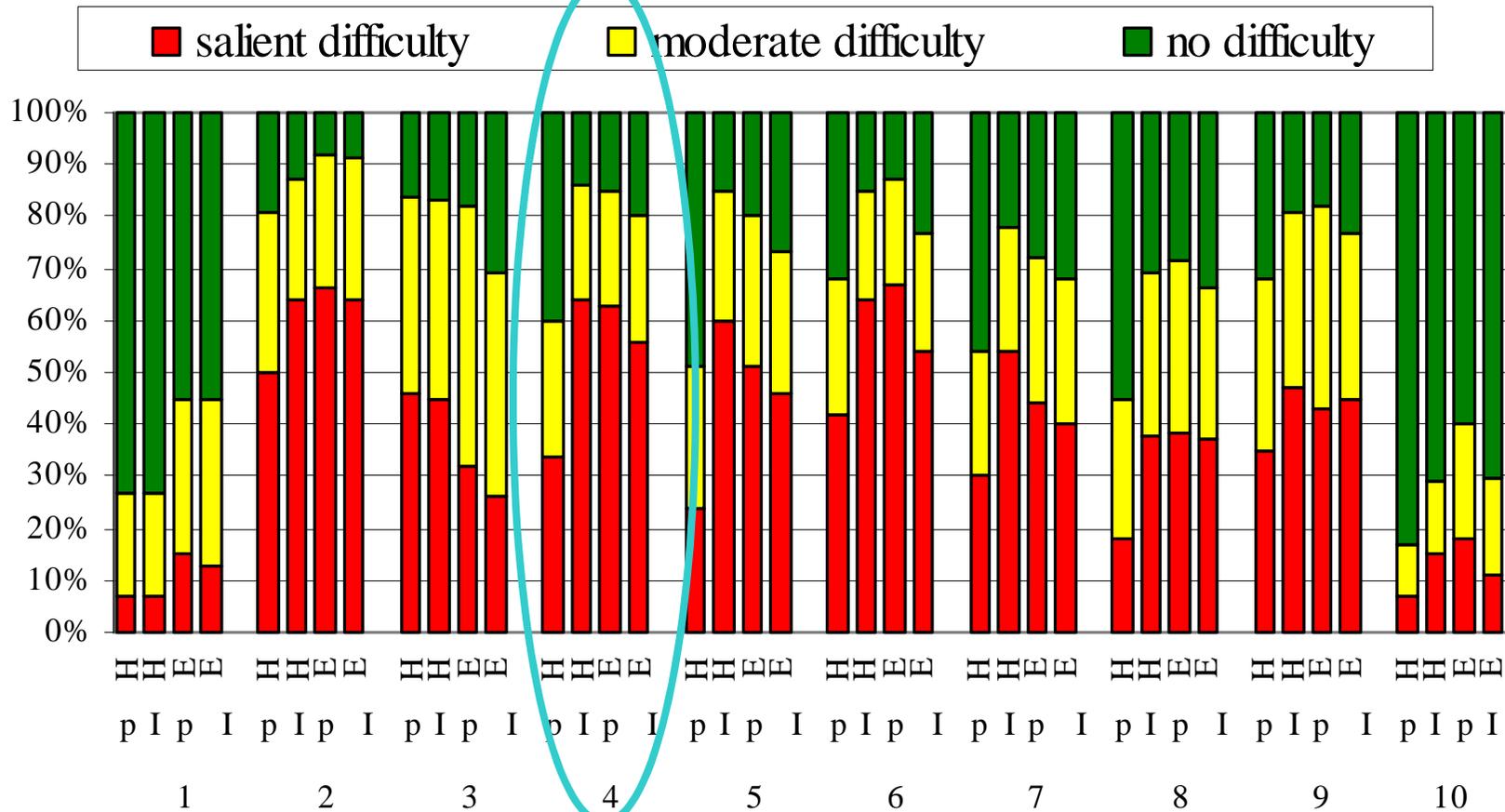


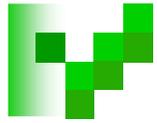
Among the salient difficulties is “**lack of information about the career decision-making process**”



Una delle difficoltà maggiori è “la mancanza di informazioni circa il processo di career decision making”

The Distribution of the Three Levels of Difficulties (negligible, moderate, salient difficulty) in the Ten Difficulty Categories and the Four Groups (N = 6192; H-Hebrew, E-English, p-paper and pencil, I-Internet)





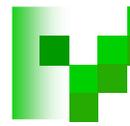
Previous Decision-Theory-Based Approaches relied on: **Teorie decisionali**



- **Normative** decision theory (how individuals *should* make decisions), but this approach is

La teoria decisionale *normativa* (come gli individui dovrebbero prendere le decisioni), ma questo approccio è

- too rational
troppo razionale
- too arbitrary
troppo arbitrario
- too quantitative
troppo quantitativo
- exceeds human's information-processing capability
supera la capacità dell'essere umano di processare l'informazione



Previous Decision-Theory-Based

Approaches relied on:

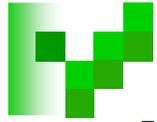
Modelli precedenti di Decision Making



- **Descriptive** decision theory (how individuals **actually** make decisions) is not helpful either – it mainly documents human weakness

La teoria decisionale *descrittiva* (come gli individui realmente prendono le decisioni) non è utile - documenta semplicemente la debolezza umana

- heuristics, biases, and fallacies
euristiche, distorsioni ed errori
- limited information-processing capabilities
limitate capacità di processare l'informazione



We adopt the *Prescriptive* approach:
Abbiamo adottato l'approccio Prescrittivo

Helping the client:

Per aiutare i clienti:

make better career decision

a prendere la migliore decisione professionale

Specifically, using the **PIC** model

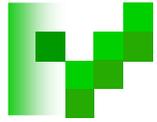
Nello specifico, utilizzando il modello **PIC** (Gati & Asher, 2001):

Prescreening

In-depth exploration **Esplorazione approfondita**

Choice

Scelta

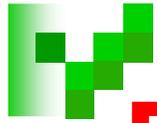


Guidance in the career decision-making process

Prescreening career alternatives to locate a small and manageable set of promising occupations
Individuare un piccola gamma di opzioni promettenti

In-depth exploration of those promising alternatives to locate the suitable ones
Esplorazione approfondita delle alternative promettenti per individuare quella più adatta

Choice of the most suitable alternative
Scegliere l'alternativa più adatta



Prescreening



- Goal: Locating a small set (about 7) of promising alternatives that deserve further, in-depth exploration

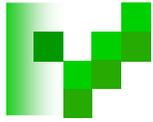
Obiettivo: individuare un piccola gamma di (circa 7) opzioni promettenti con le quali procedere per un'ulteriore esplorazione approfondita

- Method: Sequential Elimination (based on the elimination-by-aspects strategy - Tversky, 1972, which was shown to be compatible with the ways people actually make decisions)

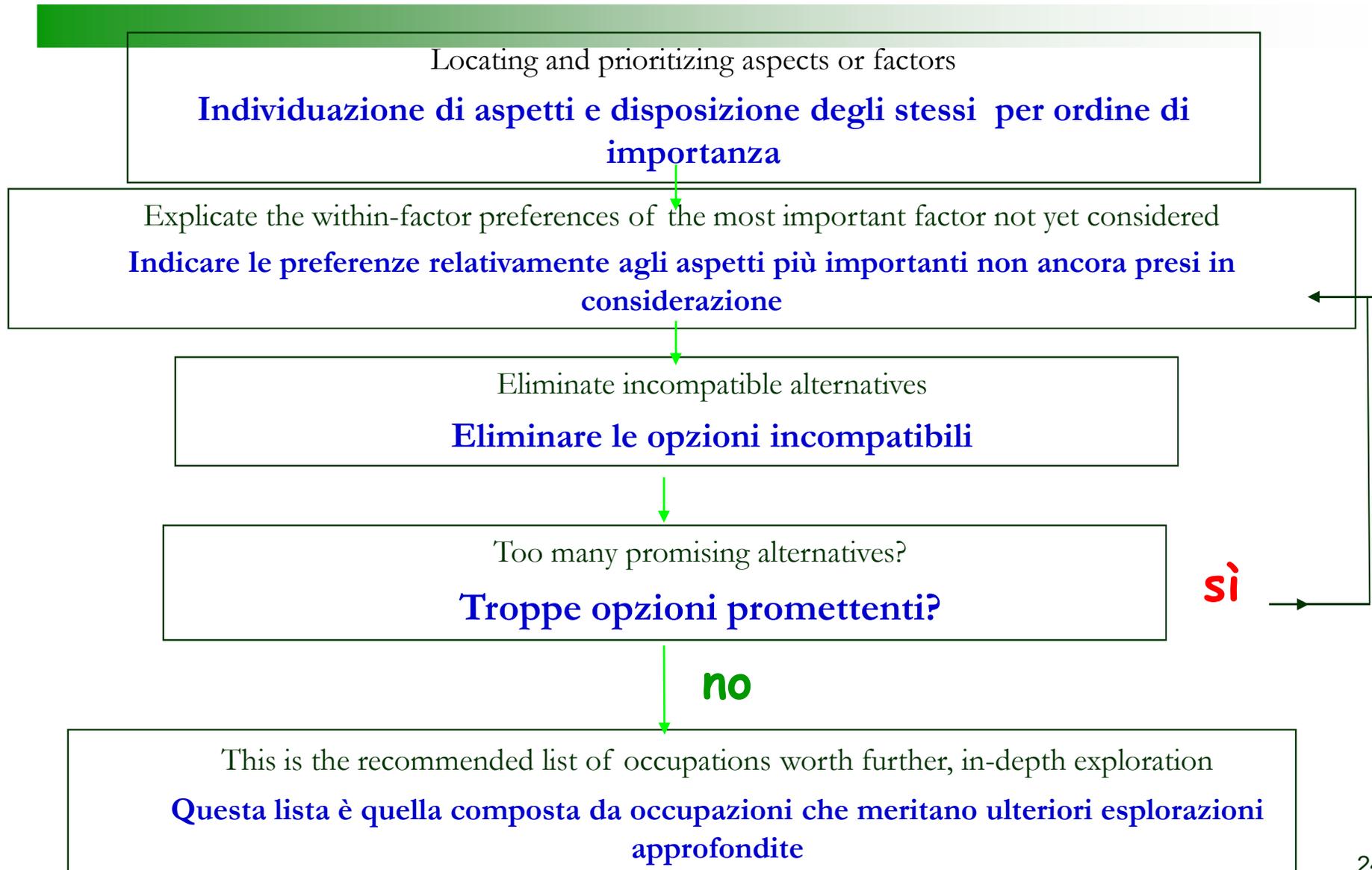
Metodo: Eliminazione Sequenziale (basata sulla strategia ad eliminazione sulla base degli aspetti- Tversky, 1972, che sembra essere compatibile con il modo in cui le persone di fatto prendono decisioni)

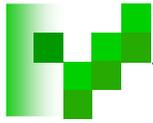
- Outcome: A list of verified promising alternatives worth further, in-depth exploration

Risultati: Una lista di opzioni promettenti con le quali procedere per un'ulteriore esplorazione approfondita



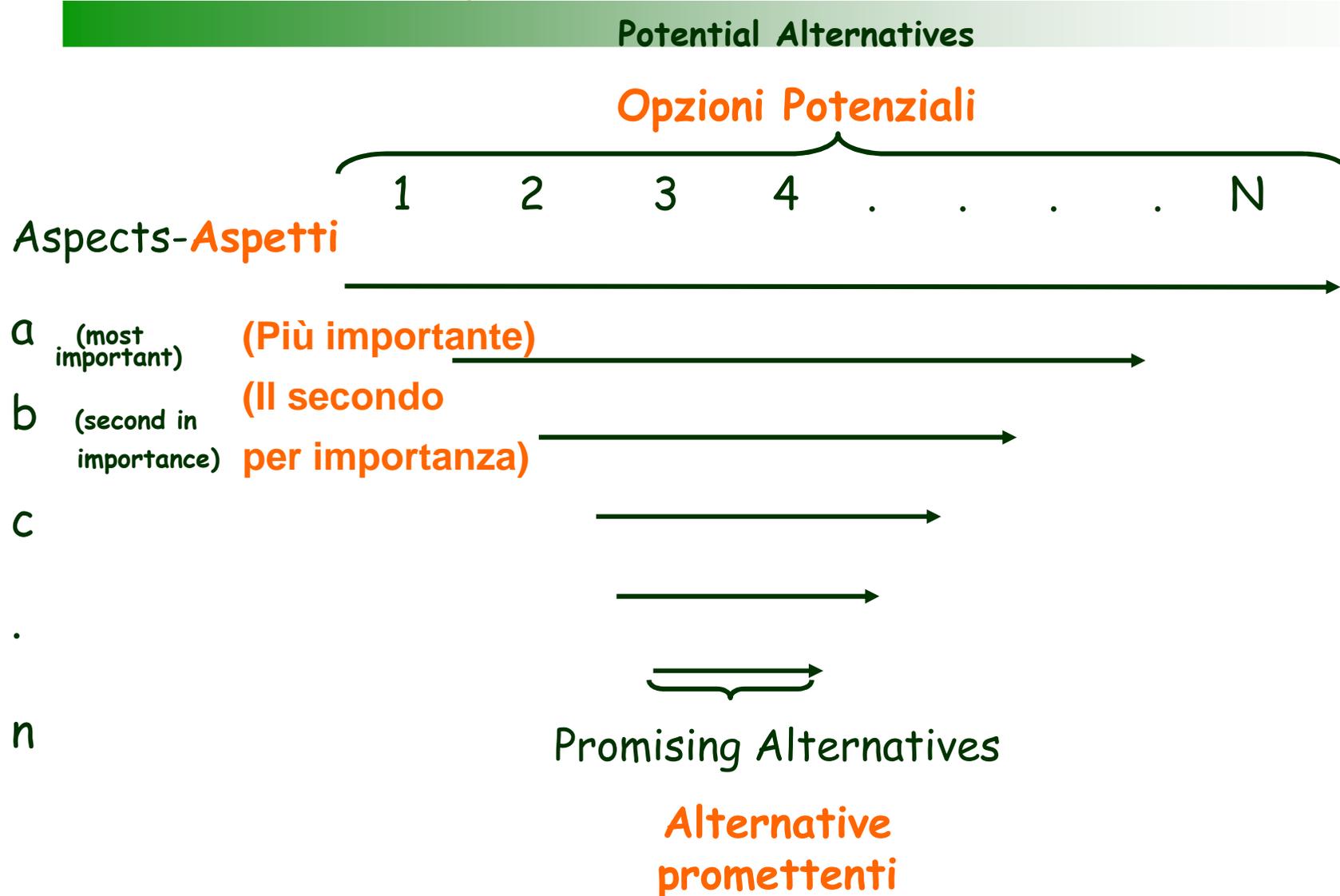
Steps in Sequential Elimination Fasi nell'eliminazione sequenziale





A Schematic Presentation of the Sequential Elimination Process (within aspects, across alternatives)

Una presentazione schematica del processo ad eliminazione
(nell'ambito dei singoli aspetti, tra le alternative)





- Goal: Locating alternatives that are not only promising, but suitable for the individual.

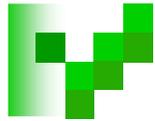
Obiettivo: Individuare le alternative che non sono solo promettenti, ma adatte e vantaggiose per l'individuo

- Method: "zoom in" on one promising alternative at a time, collecting additional, comprehensive information about it:

Metodo: Lente di ingrandimento su un'alternativa promettente, tramite la raccolta di ulteriori informazioni

- Is the occupation INDEED suitable for me?

La professione è davvero adatta e vantaggiosa per me?



- verifying compatibility with one's preferences in the most important aspects

Verificare la compatibilità fra le proprie preferenze e gli aspetti più importanti

- considering compatibility within the less important aspects

Considerare la compatibilità relativamente agli aspetti meno importanti

- considering willingness to meet the occupation's requirements

Considerare la possibilità di soddisfare i requisiti delle occupazioni

- Am I suitable for the occupation?

Sono “adatto” per la professione?

- probability of actualization

probabilità di realizzazione

- fit with the core aspects of the occupation

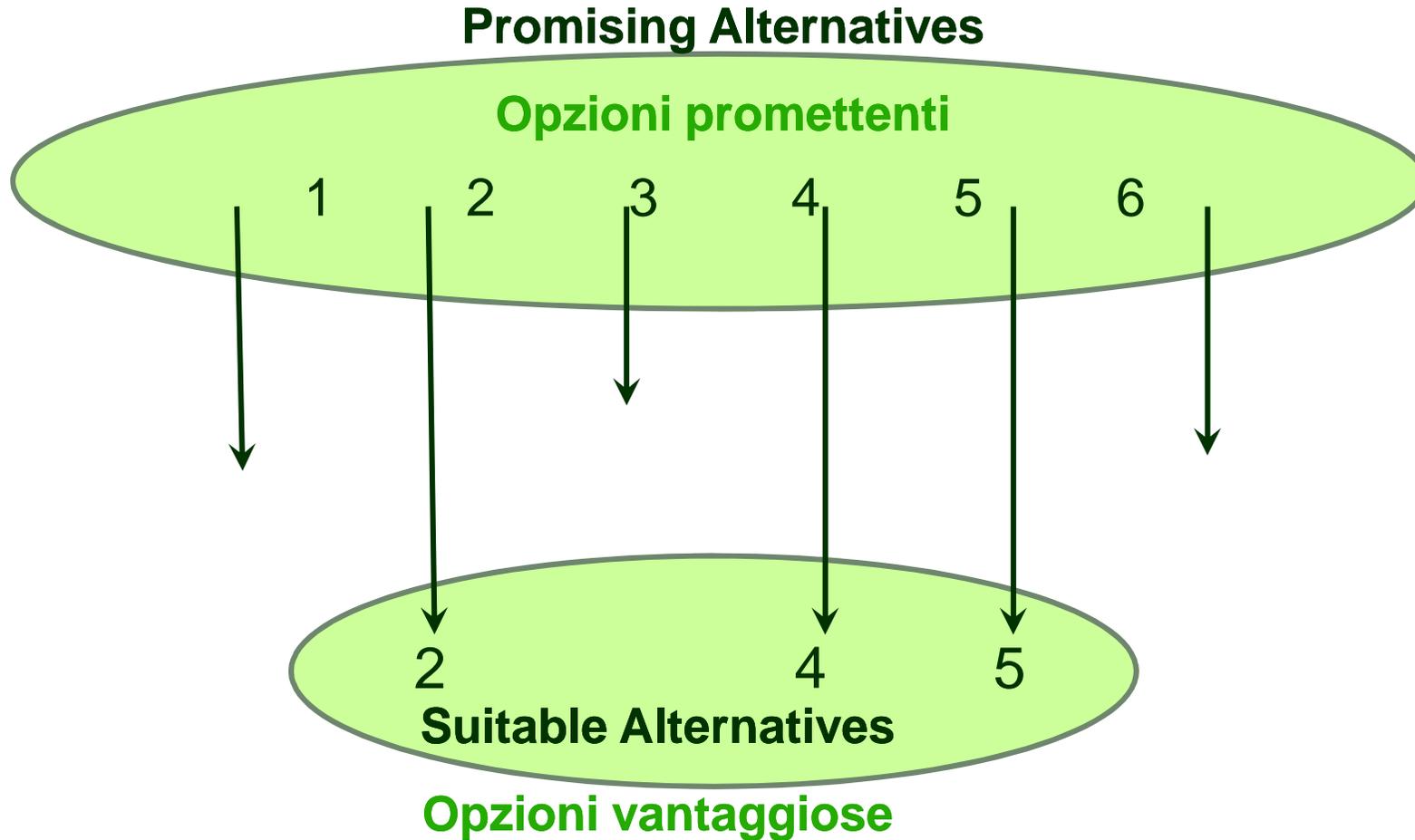
adattamento agli aspetti centrali della professione

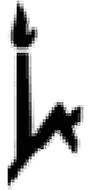
- Outcome: A few most suitable alternatives (about 3-4)

Risultati: Individuazione di una lista di opzioni vantaggiose (circa 3-4)

A Schematic Presentation of the In-depth Exploration Stage (within-alternative, across aspects)

Rappresentazione schematica della fase di esplorazione approfondita (entro le alternative, tra gli aspetti)





- Goal: To choose the most suitable alternative and rank-order additional, second-best alternatives

Obiettivo: Scegliere l'opzione più vantaggiosa e mettere in ordine di importanza le alternative di 'seconda scelta'

- Method-**Metodo**:

- A detailed, refined comparison among the suitable alternatives, focusing on the differences among them

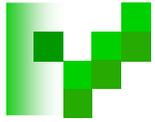
Confronto dettagliato e raffinato fra le opzioni adatte/vantaggiose, focalizzandosi sulle differenze tra le opzioni

- pinpointing the most suitable alternative

Individuare l'opzione migliore

- is it likely that I can actualize it?

È probabile che possa realizzarla?



- if not: selecting second-best alternative(s)

se no: scegliere l'opzione/le opzioni di seconda scelta (i)

- if yes: am I confident in my choice?

se sì: sono convinto della mia scelta?

- if not: Return to In-depth exploration stage

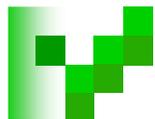
se no: ritorno alla fase di esplorazione approfondita

- if yes: Done!

se sì: Fatto!

- Outcome: An alternative or a rank-order of alternatives

Risultati: Un'alternativa o un elenco di alternative disposte per ordine di importanza



www.cddq.org



The aim of this free, anonymous site (with no advertisements) is to assist you in making better career decisions

 CDDQ	 PC	 CDMP	 PIC	 MBCD
The CDDQ 's goal is to locate the focuses of your career decision-making difficulties , and to recommend ways to overcome them	PC will provide you feedback about the degree to which your career preferences are crystallized; that is, how well you know what you're looking for in your future career	New! The goal of CDMP is to enable you to learn about your career decision-making profile (style)	PIC will provide you with a systematic, 3-stage process leading to making a better career decision	Now also free MBCD actually guides you through the prescreening stage, helps to locate "promising options", and then allows you to get relevant information

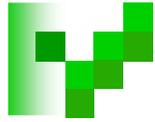
For career counselors (information for experts)

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MBCD



Making Better Career Decisions

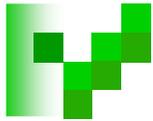
MBCD is an Internet-based career planning system that is a unique combination of

MBCD è un sistema di pianificazione professionale disponibile in internet che combina in modo unico

- a career-information system
un sistema di informazioni professionali
- a decision-making support system
un sistema di supporto al processo di decision-making
- an expert system
un sistema esperto

Based on the rationale of the **PIC** model, **MBCD** is designed to help deliberating individuals make better career decisions, specifically, helping them in the prescreening and in-depth exploration stages

Basato sulla teoria del modello PIC, l'MBCD è stato messo a punto esplicitamente per aiutare le persone a prendere migliori decisioni professionali, nello specifico, per aiutarli nella fase di prescreening e nella fase di esplorazione approfondita



MBCD

Making Better Career Decisions



- *Choosing an occupation or an academic major is one of the most important decisions you are about to make.*
- *Today's world of work offers a large variety of possibilities, and many people find it difficult to choose a career path.*
- *MBCD will help you make better career decisions and decreases the chance of wasting time and money or regretting the results of an ill-considered choice.*

What would you like to do now?

- I would like to [use MBCD now](#).
- I would like to get [more information](#) on MBCD.

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Stage One

All 28 factors are listed in the first two columns. Click on the  for a description of the factor. Select 10 to 15 that you want to use in your search.

Each time you click on a factor, it will be moved to the next numbered line in the third column. The factor most important to you should be number one. If you make a mistake, click on the title on the right and it will be moved back to the left. You can also change the priority order by clicking on the  or . When you are ready to proceed, click on Continue.

	Organize 
Artistic 	
Assist and care for others 	Plants or animals 
	Responsibility for others 
Design equipment or systems 	Shift work 
Enterprising 	
Flexible hours 	Travel 
Independence 	
Indoors or outdoors 	Variety 
Influence others 	
Job prospects 	
Math or science 	Work with the public 

Priority Order:

1.	 Physical activity 
2.	  Education and training 
3.	  Work with hands 
4.	  Advise 
5.	  Urban or rural 
6.	  Wages 
7.	  Problem solving 
8.	  Communicate 
9.	  Attention to detail 
10.	  Supervise 
11.	 Teach 
12.	
13.	
14.	
15.	

[Continue](#) 



Physical activity

Some jobs require physical activity, like walking, climbing, or lifting. Other jobs require sitting or standing in one place most of the time. 

How much physical activity do you want in a job?

- A great deal
- A lot
- Somewhat
- A little
- Sitting, rarely moving around

Check all levels you are willing to consider.

- A great deal
- A lot
- Somewhat
- A little
- Sitting, rarely moving around

[Sort](#) 



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[Sort](#)

Results

361 occupations were eliminated by your preferences above. There are 147 occupations remaining on your list. If you want to change your preferences for this factor, you must click on the [Sort](#) option to update the results. When you are ready to proceed, click on [Next Factor](#).

[Eliminated by Last Choice](#)

[Not On Your List](#)

[On Your List](#)

147

361

361

[Next Factor](#)



View Occupations On Your List

The occupations matching your preferences are listed below. Click on  to see how your preferences match the occupation's requirements. Click on the occupation title to view a complete description.

[Compare Occupations](#) 

[Stage Three Options](#) 

Number of occupations on your list: 8

Occupations On Your List

[Chiropractors](#) 

[Clergy](#) 

[Farm and Home Management Advisors](#) 

[Funeral Directors](#) 

[Hairstylists and Cosmetologists](#) 

[Marriage and Family Therapists](#) 

[Mental Health Counselors](#) 

[Psychologists](#) 



MBCD - Making Better Career Decisions™

[[Start Over](#) | [Log out](#)]

Computer Security Specialists

[[Print](#) | [Return to List](#)]

Overview

- [Task list](#)
- [Common work activities](#)
- [Working conditions](#)
- [Physical demands](#)
- [Skills and abilities](#)
- [Knowledge](#)
- [Preparation](#)
- [Helpful high school courses](#)
- [Hiring practices](#)
- [Licensing / Certification](#)
- [Wages](#)
- [Employment](#)
- [Outlook](#)
- [Interests](#)
- [Advancement opportunities](#)
- [References](#)

Overview

Computer security specialists set up plans to protect companies' information and technology from outsiders.

Click on each **topic** to view information about the occupation.

Richard Pryce (aka [redacted]) joined the U.S. Air Force [redacted] when he saw that sensitive files were stolen and feared the worst. It turns out that Pryce had only downloaded one or two files, and was using a very old computer. The reason for his hacking? He was convinced that he might find evidence that alien landings on Earth were true. Regardless of Pryce's reason, "hacking" is a serious danger to computer security. In fact, keeping systems safe from hackers is one of the many aspects of doing business.

Computer security specialists work with companies to build secure computer systems. They question managers and staff about their current security methods. They find out what information the company wants to protect. Specialists also learn what information employees should be able to access. Computer security specialists use their findings to plan the security system.

At a glance

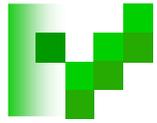


- Plan, build, and maintain security plans and systems
- May work evenings and weekends
- Sit for long periods of time
- Must keep up-to-date on latest technology
- Training usually lasts two to four years
- Earn \$57,060 per year (national average)

Related Information

- [America's Job Bank](#)
- [Occupations](#)

Specialist [redacted] They may also make changes to existing software code. [redacted] Specialists test the system to make



Making

Better

Career

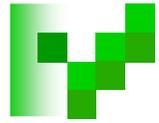
Decisions



Prendere le decisioni professionali migliori

Does it really work?

Funziona realmente?



Criteria for Testing the Benefits of *PIC* and of *Making Better Career Decisions*



Criteri per verificare i Benefici del PIC e dell'MBCD

- Users' perceptions of *MBCD*

Percezione di coloro che usano l'MBCD

- Changes in user's degree of decidedness

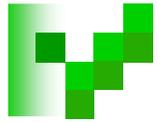
Cambiamenti sul grado di decisionalità di colui che usa il MBCD

- Perceived benefits

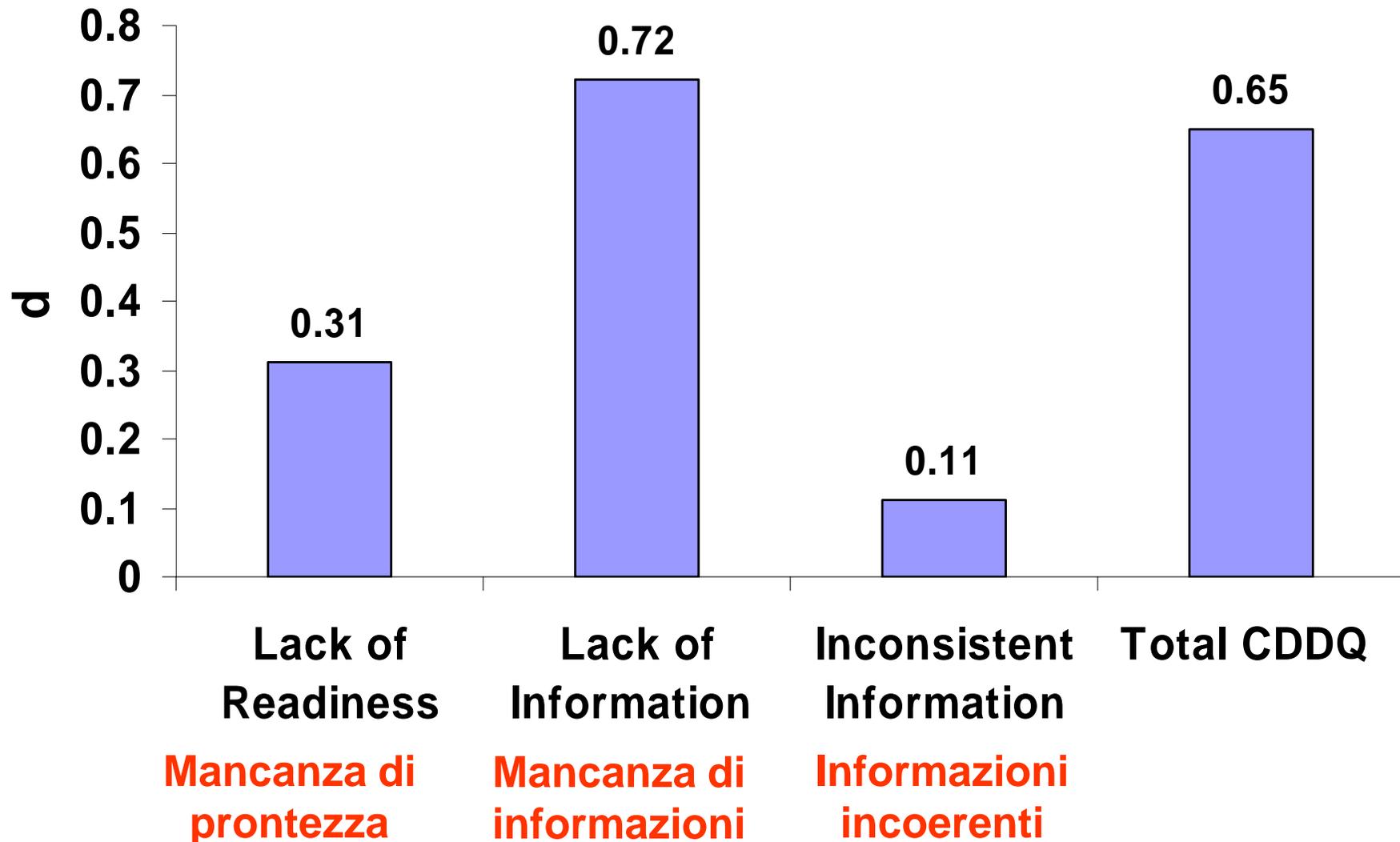
Benefici percepiti

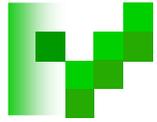
- Locate factors that contribute to positive outcomes

Individuare i fattori che comportano risultati positivi

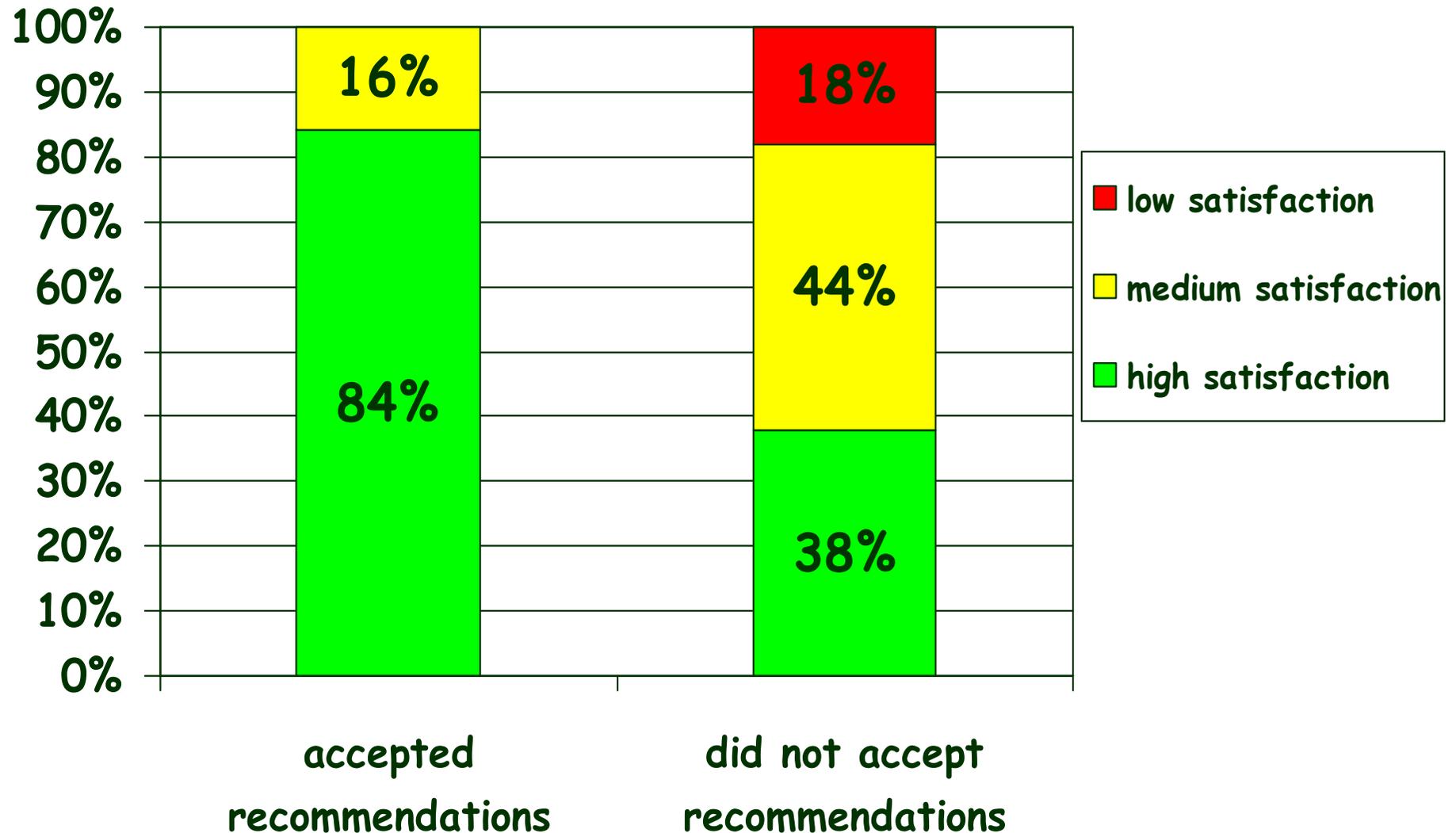


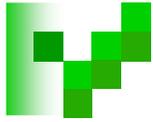
MBCD's Effect (Cohen's d) on Reducing Career Decision-Making Difficulties



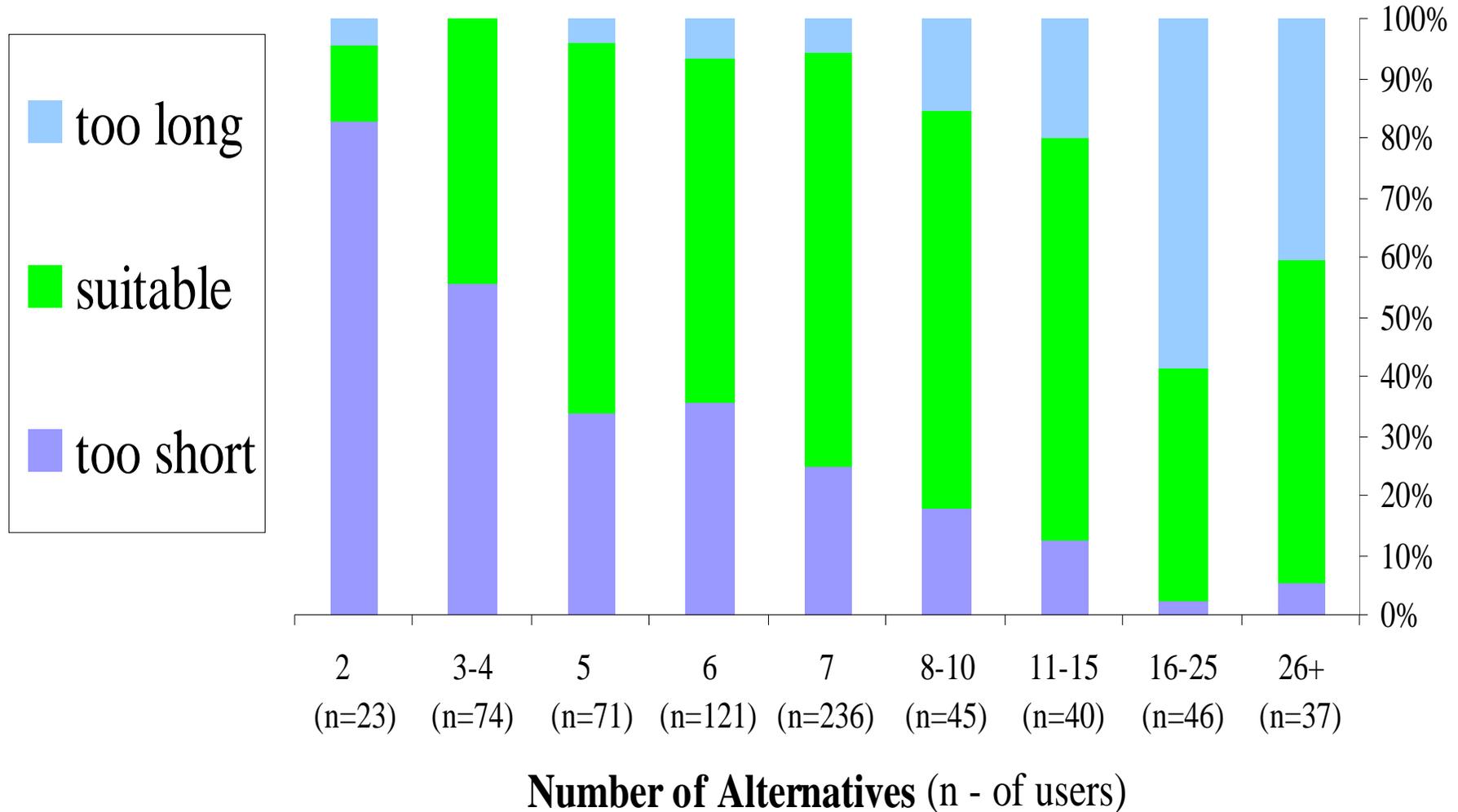


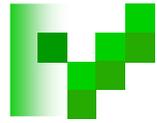
Results -Occupational Choice Satisfaction by Acceptance and Rejection of *MBCD*'s Recommendations (based on sequential elimination)





Perceived Suitability of the "Promising Alternatives" List (N=693)

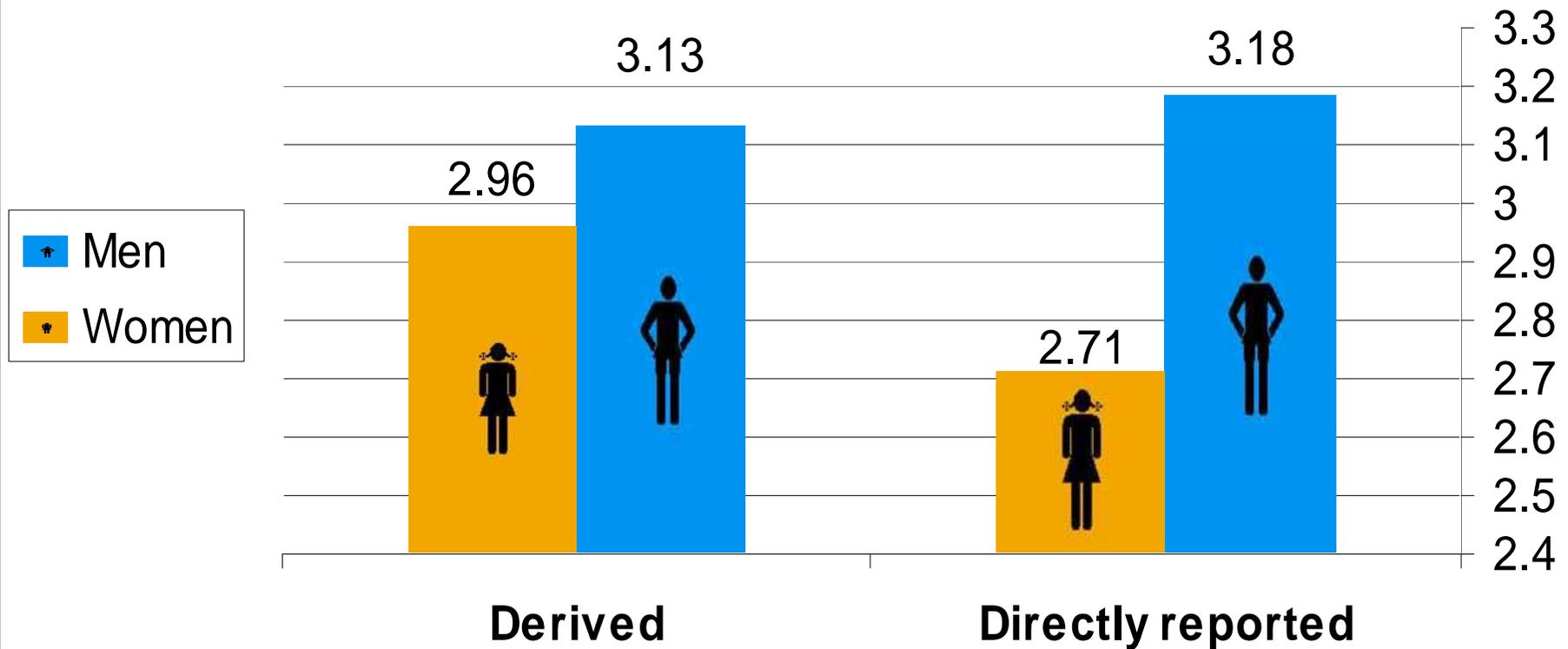




Gender Differences in Directly and Indirectly Elicited Preferred Occupations (Gadassi & Gati, 2009)



Means of the Femininity-Masculinity Ratings According to Type of List and Gender



Summary of Major Findings

Sintesi dei risultati principali



- **PIC** is compatible with individuals' intuitive ways of making decisions (Gati & Tikotzki, 1989)

Il PIC è compatibile con le modalità intuitive con cui gli individui prendono le decisioni

- Most users reported progress in the career decision-making process (Gati, Kleiman, Saka, & Zakai, 2003)

Molti di coloro che lo hanno usato hanno riportato dei progressi nel processo di career decision-making

- Satisfaction was also reported among those who did not progress in the process

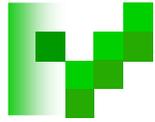
Si è inoltre riscontrata soddisfazione anche tra coloro che non hanno riportato progressi nel processo

- Users are “goal-directed” – the closer they are to making a decision, the more satisfied they are with **MBCD**

Coloro che lo usano sono “rivolti all’obiettivo”-più vicini essi sono al prendere una decisione, più soddisfatti sono dell’MBCD

- The list of Recommended Occupations is less influenced by gender stereotypes (Gadassi & Gati, 2009)

La lista delle Professioni suggerite è meno influenzata dagli stereotipi di genere

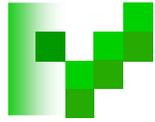


Additional factors

Fattori aggiuntivi



- Consider the client's **career decision-making profile** (pattern, style)
Considerare il profilo di decision-making professionale dei clienti (pattern/stile)
- Help the client deal with the need to **compromise**
Aiutare le persone a gestire la necessità di pervenire ad un compromesso
- Help clients deal with **uncertainty** (about themselves, about the world of work)
Aiutare i clienti a far fronte all'incertezza (circa se stessi e circa il mondo del lavoro)
- Help combining **intuitions** with the outcome of the systematic process
Aiutare a combinare le intuizioni con il risultato di un processo sistematico



In Conclusion – Features of our Approach



- Prescreening is essential when the number of potential alternatives (e.g., occupations, majors, jobs) is large

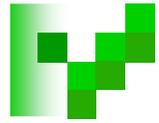
La fase di prescreening è essenziale quando il numero di potenziali alternative è consistente

- Instead of focusing on occupations (alternatives) we suggest to **focus on aspects** or characteristic of the options

Invece di porre l'attenzione sulle occupazioni (alternative) suggeriamo di mettere a fuoco gli aspetti o caratteristiche delle opzioni

- Instead of the “snap-shot” – static assessments of vocational interests (e.g., the 3-highest RIASEC Holland's code), use for prescreening a wide range of factors aspects elicited by a **dynamic, interactive process**

Anziché un'istantanea – frutto di un assessment statistico degli interessi professionali (per esempio, i primi 3 livelli dei codici RIASEC di Holland), si suggerisce di utilizzare per il prescreening una vasta gamma di aspetti elicitati da un processo dinamico e interattivo



To sum up



- Career choices are based on decision-making processes, therefore career counseling is also **decision counseling**

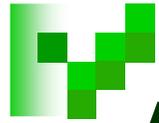
In considerazione del fatto che le scelte professionali sono basate sui processi di decision-making, il career counseling si caratterizza come un *counseling decisionale*

- Decision theory can be translated into **practical interventions** aimed at facilitating individuals' career decision-making

La teoria decisionale può essere tradotta in interventi finalizzati a facilitare il career decision making delle persone

- Many tools were transformed into user-friendly **Internet-based systems**, which can be incorporated into counseling interventions

Molti strumenti sono stati trasformati in sistemi disponibili in internet di facile utilizzo, che possono essere incorporati negli interventi di counseling



And Finally...



- The theory-based interventions can and should be **empirically tested** for concurrent and predictive validity as well as practical effectiveness

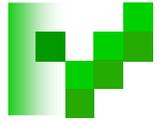
Gli interventi basati sulla teoria possono e dovrebbero essere empiricamente testati per la validità concorrente e predittiva così relativamente all'efficacia pratica

- The goal should be promoting a **systematic** decision making process – not a rational one
Specifically –

Making Better Career Decisions

L'obiettivo dovrebbe essere quello di promuovere un processo di decision making sistematico non uno razionale

Prendere Decisioni Professionali Migliori



For further information:

www.cddq.org



Thank
You!



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