

**THE MULTIPLE POTENTIALS APPROACH TO
ASSESSMENT FOR CAREER GUIDANCE**

*A culturally based
career guidance assessment tool for Tunisia*

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THE MULTIPLE POTENTIALS PROFILE

SECTION 1

TECHNICAL MANUAL

1. INTRODUCTION

The Multiple Potentials Profile is a tool that has been developed to support career guidance and counselling activities in Tunisia. Taking a methodologically integrated approach that blends qualitative and quantitative techniques, the tool offers a comprehensive, culturally grounded framework that could help the career chooser make informed career decisions. The tool rests upon the contemporary understanding that human abilities are multidimensional and that the deepest insights are obtained when **Interests, Aptitudes and Opportunities** are examined conjointly in consonance with the cultural context in which the assessment is conducted. This multidimensional, culturally mediated view of the person emphasises that **all individuals have the talents and abilities** to forge a successful career trajectory. Therefore, this approach sets the person as his/her own norm, since the objective of assessment is not a norm-based comparison with external standards, but rather a person-centred profiling of Potentials. With this in view, the overarching intention of the Multiple Potentials Profile is to help the individual gain knowledge about his/her Potentials such that he/she can self-mediate career development successfully.

The following are the main concepts on which the Multiple Potentials Profile is based:

- The Multiple Potentials Framework.
- Interests.
- Aptitudes.
- The Interest-Aptitude Overlap.
- The Mixed Methods Approach.

The following sections explain these foundations of the Multiple Potential Profile in greater detail.

2. The Multiple Potentials Framework

Earlier understandings of human intelligence were somewhat unidimensional and focused excessively on the Intelligence Quotient (IQ). Since the 1980s, this view has been replaced by the understanding that human potentials are multidimensional. Various researchers over the last two decades have presented cross cultural evidence to show that human intelligence manifests itself in multiple ways. The Multiple Potentials Framework has adapted these ideas and uses a 5-potential framework. A brief description is given below with a more detailed description presented in Appendix 1.

A. **The Linguistic Potential**, is about language. A person with a high Linguistic Potential would:

- Be sensitive to meanings of words.
- Use language fluently.
- Use words skilfully.
- Expresses him/herself in words clearly and attractively.
- Write well.

Examples of Careers

- Journalism
- Lawyer
- Social Scientist

B. **The Analytical-Logical Potential**, is about reasoning and applying logic. A person with a high Analytical-Logical Potential would be good at:

- Calculations.
- Analysing data.
- Mathematics.
- Solving problems.
- Making plans and timetables to meet goals and targets.

Examples of Careers

- Computer Scientist
- Economist
- Investment Banker

C. **The Spatial Potential**, is about art and design. People with a high Spatial Potential would:

- Be good at visualization.
- Be good at making detailed observations.
- Have a rich imagination.
- Be good at using colours and shapes.
- Transform observations and imaginations into realities through drawing and designing.

Examples of Careers

- Architect
- Graphic Designer
- Cartographer

D. **The Personal Potential**, is about interacting with human beings. People with a high Personal Potential would:

- Be able to understand others' moods and thoughts.
- Be sensitive to others' feelings.
- Have good interpersonal skills and the ability to understand behaviour.
- Be able to help people with their difficulties and promote their wellbeing.
- Be able to manage and lead people.

Examples of Careers

- **Psychologist**
- **Medical Doctor**
- **Human Resource Manager**

E. **The Physical-Mechanical Potential** is about using one's body. People with a high Physical-Mechanical Potential would:

- Have high strength and stamina.
- Be good at mechanical skills.
- Understand machines, equipment and tools.
- Use their physical capabilities well.
- Work accurately with fingers, hands and small muscles of the hands.

Examples of Careers

- **Mechanical Engineer**
- **Marine Scientist**
- **Orthotist and Prosthetist**

All of us have all five Potentials, but at varying levels. For some of us, the highest Potential maybe related to the Linguistic Potential while the Physical Mechanical Potential may be low. For someone else, the Spatial Potential maybe the highest while the Analytical-Logical Potential may be low. But it is important to remember that all of us have potentials and different combinations of potentials. Please see Appendix 1 for further details about the Multiple Potentials Framework.

3. INTERESTS, APTITUDES AND POTENTIALS

An important proportion of the engagement between a career counsellor and a client focuses on bringing together information that would sharpen self-awareness for effective career decision making. It is here that Interests, Aptitudes and Potentials come in.

3.1. What are Interests?

The construct of Interest has been central to some of the most well-known approaches to career guidance and counselling. Broadly speaking, Interests are activities that we like and enjoy. More specifically, Interests are:

- Activities that the person wants to pay more attention to.
- Activities that evoke curiosity.
- Matters that motivate a person to follow and know more about.
- Activities that a person considers meaningful and worthwhile.
- Activities that do not bore a person.
- Interests are affected by experiences and external influences and the strength of an interest can increase or decrease.

Interests are like the steam in a locomotive. They are factors of a person's personality that motivate and drive him or her.

Two vital points need to be noted about interests:

- *Interests can change.* Interest profiles are likely to go through great variations upto around the age of 16 to 18 years. It is only after this stage (when the person is closer to adulthood), that interests are likely to be more stable. The strength of an interest is closely related to:
 - Exposure to an activity. A person who lives in the mountains is less likely to have an interest in Oceanography when compared with someone who lives on an island.
 - Personal experiences with an activity. Positive experiences increase interest.
 - The belief that one can do well at an activity (self-efficacy).
 - Attitudes and preconceived notions held by the individual and significant others in the person's life (e.g. career beliefs) about an activity.

- *High interest does not signify high ability.* An interest in a particular activity indicates that the individual is drawn toward it and derives enjoyment from it. It does not necessarily mean that he or she is good at that activity.

Careers education can help the young person explore his/her Interests *before* making a commitment.

The first part of the Multiple Potentials Profile is the **Multiple Potentials Interest Inventory (MPII)**. This is an **interest inventory** that has been adapted for use in Tunisia. The details of how this tool was adapted for Tunisia are provided in section 6 below. Information from this tool could help the individual become more aware of activities that he/she is attracted toward.

However Interests can change and merely being interested is not a sufficiently strong platform upon which career decisions can be made. Self-understanding for making effective career choices needs to go further and that brings us to the next construct upon which the Multiple Potentials Profile stands.

3.2. What are Aptitudes?

Aptitudes are the other side of the coin of self-understanding. Aptitudes reflect:

- Activities that a person is naturally inclined toward.
- Activities for which a person could develop a high level of skills.
- Activities that a person can naturally do well and for which the person has an innate talent.
- Activities that a person does not find difficult.
- Activities at which a person can usually excel.
- Aptitudes are not so strongly affected by external influences and they do not change easily.

If Interests are the steam in a locomotive, Aptitudes could represent the engine – the actual ability to move toward and be successful in the execution of a specific set of tasks.

A further point to be taken note of is that at the heart of a career lie a *group of skills* or skill sets. Most careers require *combinations* of aptitudes. A career in architecture for example would require spatial as well as logical skills. The aptitude profile of a successful jewellery designer is likely to be characterised by sensitivity to colour, shape and form, along with fine motor skills. Therefore a career comprises a group of tasks. The aptitude to do well at as many of the tasks linked to a particular career as possible contributes to success in that career.

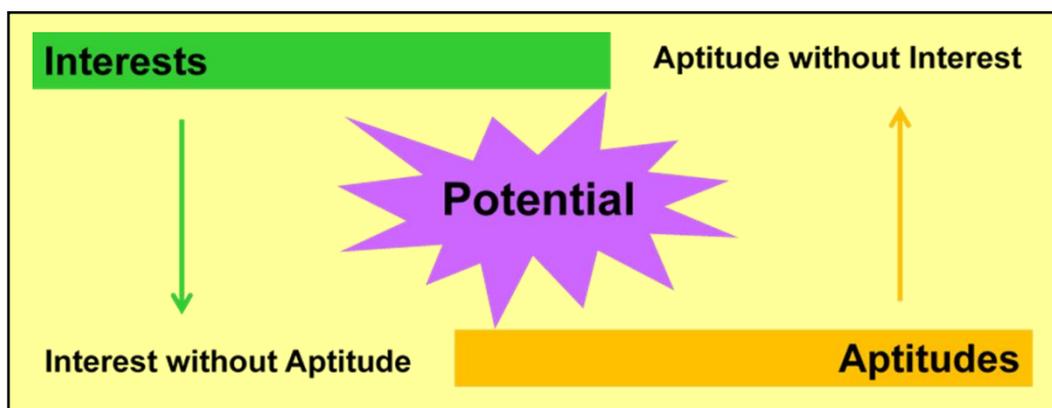
The Strengths and Accomplishments Questionnaire (SAQ) is the second part of the Multiple Potentials Profile. This is an assessment method that blends qualitative and quantitative methods to ensure that the tool is contextually grounded and at the same time offering the assessor a framework within which objective measurements can be made. Further details about the SAQ are provided in Sections 5 and 6.

3.3. Potential: The Interest and Aptitude Combination

Interests and aptitudes are both essential aspects of self-discovery. A limitation of some systems of career counselling is that focus is brought to bear on just one of these two facets of the individual's personality. Some systems are driven by the analysis of interests, while others lay emphasis on aptitude tests. According to our model the analysis of interests and aptitudes for self-understanding is not an either or question. It is important that the career chooser is able to discover his/her interests *as well* as his/her aptitudes.

It is here that a vital point emerges. An interest inventory would facilitate the delineation of a person's interest profile, while an aptitude test would help discover personal talents and capabilities. Closer analysis would reveal that some of the interests identified might not match the individual's aptitude profile. Similarly, it is also possible that the individual may not show an interest in careers linked to some of her aptitudes. The all-important task before the career counsellor therefore is to help the career chooser discover the point of overlap between a person's interests and aptitudes. The figure below provides a schematic representation of this interaction between interests and aptitudes.

Interest-Aptitude Overlap



It is the discovery of this *overlap* that matters. The Multiple Potentials Framework refers to this overlap, this mixing of Interests and Aptitudes as “**Potential**”. Identifying the person’s Potentials would help identify specific career areas in which the individual would not only be interested but for which he/she would also possess talents.

The word *skill* is often used synonymously with the word aptitude. This is not entirely correct. A skill has to be *learned*. This implies, going through education and training and passing successfully through the curriculum of a course. Anyone can develop any skill, if he/she has an opportunity to take up a course related to that skill. However, a critical point that is often missed is that when a person goes through a course that draws upon his/her high potentials (interest + aptitude), it is likely that the emerging skills will be stronger than the skills that emerge from a course that draws upon the person’s lower potentials. Therefore, it is vital that course selection is connected to one’s Potentials.

4. THE MIXED METHODS APPROACH

The rationale underlying methods of assessment and measurement have been the subject of extensive debate and the field has differentiated into the quantitative (psychometric) and the qualitative (non-psychometric) positions.

4.1. Quantitative Approaches to Assessment

Based on trait-factor theory, the older, quantitative school was established on the postulation that individuals possess a distinctive configuration of intrinsic traits and qualities which can be accurately *measured* and *quantified*. Hence, assessment methods emerging from the trait-factor approach are usually quantitative-psychometric in their approach. Observations are expressed as quantities, usually in numbers (e.g., IQ = 121 or Linguistic aptitude = 23/50). Tests are administered in a “standardised” manner: testing conditions, test instructions, scoring and interpretation are expected to be uniform across test-takers and testing environments. The meaning of an individual’s score is obtained by comparing the individual’s performance against a “norm”: the performance of a representative sample (e.g., a score of 23/50 on a test of Linguistic aptitude may be interpreted as “below average” according to the norms of that test).

Psychological tests such as these are useful when they are:

- standardised and statistically validated for the group for which they are intended
- age and gender appropriate
- suitable to the cultural background of those on whom the test is administered
- implemented by a person who has been trained in the administration of that test
- scored accurately and interpreted on the basis of appropriate norms

An important feature of psychometric devices is that the limitations of the test and the ambit of its effective functioning are clearly articulated. Psychometric approaches are expected to declare the

various kinds of error that are possible at the statistical level and the limits of a particular test, for example by reporting standard error and estimates of reliability and validity. The validity and reliability of psychological tests are largely statistical and mathematical constructions and therefore require certain assumptions to be met if the results are to be valid and reliable. This reliance of quantitative methods on statistics has been pointed to as a limitation. This becomes particularly obvious when tests are adapted for use in contexts outside which they were originally constructed. For example, since many psychological tests are developed using samples composed primarily of Anglo-Americans, normative data for the use of these devices with other racial, ethnic groups are rarely developed. It is not uncommon for assessment instruments to be directly translated from the American and European versions, without re-standardising the translated versions.

4.2. Qualitative Approaches to Assessment

The qualitative school, places the individual and the context, rather than the testing method or instrument at the centre of the process. Qualitative approaches aim at *describing* and *explaining* rather than measuring or quantifying. They are non-numerical and rely on verbal, non-mathematical descriptions. For example, the qualitative observer would not say, Linguistic aptitude = 23/50 but would *describe* the aptitude in terms of the person's fluency with words, sensitivity to shades of meanings and so on. Where quantitative approaches are mainly cross-sectional, qualitative methods take a longitudinal view point.

Qualitative methods allow matters to be considered in detail and in depth. On the other hand, going back to the question of error, the quality of the data obtained relies heavily on the counsellor / assessor. It is possible that the biases, idiosyncrasies and preoccupations of the assessor influence the direction that the interview takes. This can also contribute to error. In the case of quantitative methods, the error is known at least as an estimate. With qualitative approaches, error can remain unknown. Further, these methods imply intense engagements between client and counsellor which most often may be possible only at a one-to-one level or at best in small groups. This is a limitation that could be sharply felt in contexts where the numbers of clients who require career guidance runs into the thousands! Bringing interventions to scale, in an economical, yet rigorous manner may be difficult through qualitative methods.

In summary, a critical evaluation of the quantitative and qualitative approaches indicates that *both* are valuable and as with any single system, both have their limitations. It also seems that assessment as an exercise would be poorer if it rests only on *one* of these methods.

4.3. Assessment and the Cultural Interface

Underlying the points made in the previous paragraphs is the often ignored fact that culture is a powerful, yet unacknowledged, arbitrating factor. It is quite possible that a construct being measured or a method being used in a certain culture may be unknown, considered odd, or perhaps even improper in another culture. A lack of sensitivity to cultural factors can completely subvert the assessment process, as well intentioned as it may be. This criticism is commonly directed toward the quantitative approaches. However, the same criticism could also be true of the qualitative methods. Almost all the theoretical positions discussed above are rooted in sociocultural processes that characterise the West and assume that the individual has the cultural freedom and the economic resources to be able to volitionally engage in career development. This may not be the norm in non-Western, collectivist cultures.

4.4. A Blended Approach to Assessment

In response to these controversies, contemporary methods of assessment attempt to *blend* qualitative and quantitative methods. The aim is to ensure that the testing method is contextually grounded and at the same time able to offer the assessor a framework within which objective measurements can be made. Such an approach presents two important methodological requirements:

- A. *Item Creation:* The questions that make up the test must be such that they fall within the *lived experience* of the test-user. A question about mountains to a test-user who lives in the plains would be irrelevant to that person's lived experience. Similarly a question about sandy beaches would fall outside the lived experience of a person who lives in the mountains. If test results are to be reliable, it is critical that the test's items lie within the test-taker's sphere of experience.

- B. *Test Administration and Scoring:* An assessment system that takes a blended approach would use *both* qualitative and quantitative approaches when the test is administered and scored. Such a test would be in tune with the circumstances that surround the test-taker and the opportunities made available to the test-taker by his/her socioeconomic environment, schooling, and cultural background. It would not expect the individual to respond to items for which he/she has no exposure or experience. At the same time, the test would rely upon a psychometric logic and draw upon quantitative methodology.

It is against this theoretical background that the Multiple Potentials Profile has been constructed. The following sections provide specific information on the construction of the tool for Tunisia.

5. THE MULTIPLE POTENTIALS PROFILE: AN OVERVIEW

The consultant to this project has formulated the Multiple Potentials Profile as a method that responds to the critiques of assessment for career guidance presented above. This method has been presented to over 30 countries and has been adapted for use in India, Sri Lanka, Rwanda, Vietnam, Maldives, Nepal, Bangladesh, Norway and Sweden.

The system comprises two questionnaires: the Multiple Potential Interest Inventory (MPII) and the Strengths and Accomplishments Questionnaire (SAQ). These questionnaires are designed to work together to build the individual's Potential Profile.

Given below is an overview of the system.

5.1. Multiple Potentials Interest Inventory (MPII)

This is an interest inventory that taps the five factors of the multiple potentials framework described in Section 2 above. It was initially, standardized for the Indian context on a randomly drawn, stratified sample of close to 9,000 Indian adolescents-young adults in the age range of 14-to-21 years. Initially, the MPII was constructed from an item pool of about 250 items per Potential are through a process of item and factor analyses. Items reflect occupational tasks associated within a particular Potential area. For example, the item, "Present information to people in a written form" is linked to the Linguistic factor. Similarly, the item, "Use data to make predictions" is linked to the Analytical-Logical factor, and so on for the other factors of the Multiple Potentials Framework. A rating scale is used by the participant to rate each activity for how much he/she would like to engage with it as a part of his/her work life. Response choices are anchored to 5 scale points where 1 indicates the lowest and 5, the highest level of interest. The maximum obtainable score per factor is 60 and respondents' scores are summed separately for each factor. The score obtained on each factor yields an *Interest Profile* across the five factors. Therefore the MPII is the quantitative component of the Multiple Potentials Profile. Further information on the construction and psychometric properties of the original version of the MPII is provided in Appendix 6.

This initial version of the MPII has subsequently been used in 32 other countries and the item pool has been substantially expanded to give it a much more international character. It is today used as a base template for adaptation and re-standardisation as per the lived realities in a given culture.

This expanded item pool of the MPII has been adapted for the Tunisian context using the standard procedures for adaptation, the details of which are provided in Section 6 below.

5.2. The Strengths and Accomplishments Questionnaire (SAQ)

5.2.1. Key features of the (SAQ)

A. Activities and Response Categories:

The Strengths and Accomplishments Questionnaire (SAQ) is an approach to aptitude assessment that attempts to blend qualitative and quantitative methods. The framework for assessment is based on the Multiple Potentials Framework (MPF), described in Section 2 above. The structure of the instrument is based on the logic of Likert scaling. To illustrate, the figure below shows an extract from the Linguistic Tunisian SAQ. As seen in the figure, the instrument comprises two parts: Activities and Response Categories referred to as “levels of accomplishment”. The Activities are anchored to this continuum of Response Categories, with increasing numeric values assigned to each category.

Activities and Response Categories of the Tunisia SAQ Template

MY LINGUISTIC ACCOMPLISHMENTS								
Q.No	ACTIVITY	EXPLANATION	EXAMPLES	Personal Level	School / Club / Association / Youth House		High level recognition (District, Province, National)	Gained Benefits or Earning
				LEVEL 1 I am involved in this activity at the personal level OR I have been appreciated for this activity by family / friends	LEVEL 2 I participate in such activities OR I am known for this activity	LEVEL 3 I have won prizes or awards for this activity in public	LEVEL 4 I have been recognised at a high level for this activity	LEVEL 5 I gained benefit (e.g., scholarship) through this activity OR I have earned financially from this activity
1	Learn and study topics related to language in school	Learn concepts related to language such as grammar and, word meanings as part of study activities.	studying English, French, Arabic or any other language; discussing language questions with teacher; making notes of language subjects; doing reading and writing exercises related to language; doing extra reading or taking up online classes to strengthen language skills					

B. Accomplishments as indicators of talent and aptitude

The SAQ method rests on the assumption that a person's *accomplishments* in real life reflect his/her talents and potentials. Accomplishment is defined as any activity in which the person has been consistently involved and which has been noticed by others. Items therefore comprise a list of activities through which a person could have registered accomplishments. Response categories reflect opportunities that *actually exist* in the person's life situation through which he/she can register various levels of accomplishment. Clients are required to select Activities they have experienced and indicate the levels at which they have registered accomplishments for those Activities.

C. Accommodating variations in opportunity structures

Keeping in mind that *opportunity structures vary* from one context to another, the Tunisian SAQ provides the student the possibility of choosing the activities for which he/she has the highest number of accomplishments. The Tunisian SAQ has been structured to have a total of 12 Activity areas per potential area. Out of the 12 activities given, the client is required to only choose *any 9* based on the frequency of the occurrence of that activity in his/her life. Levels of accomplishment carry increasing numeric values. Accordingly, accomplishment Level 1 is given 1 mark, while accomplishment Level 5 is given 5 marks, because a Level 5 accomplishment reveals a higher level of capability than Level 1. The SAQ is scored by totalling the number of Accomplishments a person registers for a given Potential area. Each Potential area is scored separately. More detailed examples are given in the Facilitator's Note section below.

D. Person-centered profiling

It must be noted that the aim of assessment is not to identify how high a person's score is. Instead the objective is to identify the *pattern of scores* across the five factors. Therefore, the SAQ lays greater emphasis on the *shape rather than the height* of the individual's Potential Profile. Interpretation of scores is not based upon norms. Instead the SAQ uses the person as his/her own norm. The objective of an SAQ based assessment is not norm-based comparison but rather a person-centred profiling.

5.2.2. Item Generation: A Blended Approach

The SAQ blends the qualitative with the quantitative and attempts to ensure that the instrument is culturally and contextually grounded and at the same time able to offer the assessor a framework within which *objective* measurements can be made. Each Activity in the SAQ is supported by Explanations and Examples. These Explanations and Examples are drawn entirely from the cultural context in which a given SAQ is going to be applied.

In order to arrive at such a scale, the manner in which the scale's items are generated is crucial. Given below is a description of how SAQ items are generated for specific cultural contexts.

The Activity list, the Response Categories as well as the Explanations and Examples are all drawn from the lived experience of the clients for whom the SAQ is intended. This material is generated through quantitative methods such as frequency analyses and qualitative methods such as systematic observations, focus group discussions, checklists and open ended questions. Participants for item generation include representative samples of the target group, and other significant adults such as community elders, teachers, parents, related government officials, NGO and other welfare workers. Desk review of text books, reports and other relevant materials is also conducted. The information collected is then composed into items and iteratively presented to an informed local group that is qualified to comment on selection of items for the final scale. *Universality of relevance* of the Activity and Response Category to the target group is an

important criterion for item selection. It is critical that the Activities, Response Categories, Explanations and Examples finally selected lie within the test-taker's sphere of experience.

When constructing such a device, it is also important to clearly indicate its limitations. Given the fact that the material that composes an SAQ is drawn exclusively from the cultural context for which it is intended, an SAQ developed for one context will have poor relevance to another context. For example, one of the items that emerged for the Tunisian SAQ is the existence of *Youth Houses* in the country through which students can learn skills and showcase their talents. This unique aspect of the Tunisian system has been included in the Response Category section as one of the channels through which a Tunisian young person can show off his/her talents. Such a provision does not exist in the same form in other countries. Therefore the Tunisian SAQ is relevant only to Tunisia and its use is limited to Tunisia.

In summary the SAQ is *qualitative* in the manner in which it allows the assessor to construct an assessment protocol that is in tune with the opportunities offered to the test-taker by his/her socioeconomic environment, schooling, and cultural background. As mentioned previously, it does not expect the individual to respond to items that may not be relevant to his or her situation. Instead the SAQ endeavours to tie in with the person's lived experience. On the *quantitative* side, the SAQ rests upon the psychometric logic of a rating scale. Also, an SAQ assessment yields a *score* for each of the Potential areas. To this extent, the SAQ draws from the quantitative methodology. Resting as it does upon both the qualitative and quantitative paradigms, the SAQ follows the mixed methods approach to assessment.

6. CONSTRUCTION OF THE MULTIPLE POTENTIALS PROFILE FOR TUNISA

6.1. The Sample

Data were collected from a student and an adult sample by a professional Tunisian market research company, based on online training provided by the consultant.

The surveys were conducted during public health induced lockdowns and access to the sample was restricted. Hence the convenience sampling method was used, based on the availability of participants. Since face-to-face interactions were not possible, participants were interviewed via telephone, by trained data collectors as per a pre-prepared interview schedule. The questionnaires were administered in Arabic. The opt-in method of recruitment was followed and informed consent was obtained from all participants. Confidentiality was preserved by anonymising the data to a participant number.

The details of the sample are as follows:

- The **student sample** comprised a total of 1510 secondary school boys and girls in the age range of 14 to 19 years from 8 different regions of the country. The sample was stratified according to socioeconomic status and geographical region of residence.
- The **adult sample** comprised a total of 306 male and female secondary school teachers and teacher educators in the age range of 26 to 52 years, from the same 8 regions of the country as the student sample. All respondents were university educated, with teaching experience ranging from 5 to 22 years.

Specific details of the sample are provided in Appendix 2.

The method of data collection was pilot tested under the supervision of the consultant with a small sample of students.

6.2. The Survey Tools

A. Tools used with the student sample:

- *Multiple Potentials Interest Inventory (MPII)*. As described above, this is a standardised, quantitative, closed-ended interest inventory based on a rating scale. It was used as a base questionnaire for adaptation to the Tunisian context.
- A set of 8 *open ended questions* designed to elicit qualitative, narrative information from students on their daily lives and lived experience. Please see Appendix 3 for a list of the questions.

B. Tools used with the adult sample:

- A set of 8 *open ended questions* designed to elicit qualitative, narrative information from the adult sample on the students' daily lives, their lived experience, information pertaining to the ways in which students express their talents, pursue their interests and public locations in which students can showcase their talents in Tunisia.

6.3. Translation and Validation

The original material was supplied by the consultant to the Tunisian team in English. The source language was English and the target language was Arabic, for this translation exercise. The aim was to create an Arabic version that is conceptually equivalent to the original English material. That is, the language used in the Arabic version should be natural and acceptable in the target culture and should practically give the same results as the English original. The focus was on cross-cultural and conceptual translation, rather than on linguistic/literal equivalence. The forward-translation and blind, back-translation method was used to achieve this goal.

The process followed was as follows:

- Forward translation > Validation > Blind, Back-translation > Verification > Pre-testing > Final version

The draft final version was shown to a vetting group in Tunisia comprising representatives from the education and labour ministries and teachers and counsellors working with the 14-to-19 years age band. A minimum of 5 persons were required to comment on the draft questionnaires and answer the following questions:

- Are the questions relevant to the target group? If No, kindly indicate which question and how it can be improved or whether it should be dropped.
- Are any questions beyond the comprehension level of the target group? If Yes, kindly indicate which question and how it can be improved or whether it should be dropped.

Adaptations were made as per the feedback received and the Arabic questionnaires were finalised.

6.4. Data Analysis

Data examination began through a qualitative analysis of the material obtained through the open ended questions. The narrative responses obtained from the student and adult sample were subjected to thematic analysis. Themes were generated and reviewed iteratively by the consultant and a team of experts.

As described above, *universality of relevance* of all the material composing the SAQ is a fundamental requirement. In other words, the material finally selected must lie within test-takers'

sphere of experience. Therefore, quantitative techniques were employed and the themes emerging from the qualitative thematic analysis were subjected a frequency analysis. Items that had a low frequency of occurrence across the sample were dropped.

The themes that emerged were grouped as per the multiple potential categories they best fitted. These items were used to compose the Activities and the Explanations and Examples section for each of the Potential areas. For example, “taking up online classes to strengthen language skills” was grouped under the Linguistic Potential, “doing mathematical calculations” was categorised under the Analytical-Logical Potential and so on.

A similar process of blending thematic analysis with frequency distributions was followed to identify items to compose the Response Categories, typical for the Tunisian context. The aim here was to identify platforms, locations, methods and provisions available to the majority of Tunisian students to showcase their accomplishments in public. For example, the analysis threw up Youth Houses, associations, school clubs, and organisations such as the Scouts, as channels available to Tunisian youth to learn skills and show off their talents. Such items were used to compose the graded Response Category for the Tunisian SAQ.

These were the steps and stages followed to construct the Tunisian Multiple Potentials Profile. The next section describes the procedure for administering and scoring the questionnaire and actually building the student’s Multiple Potential Profile.

End of Section 1

THE MULTIPLE POTENTIALS PROFILE

SECTION 2

FACILITATOR'S NOTES

7. ADMINISTRATION OF THE TUNISIAN MULTIPLE POTENTIALS PROFILE

This section provides details pertaining to facilitation and administration of the Tunisian SAQ with students. This description is for face-to-face administration either with individuals or groups. The same principles could be followed to develop an algorithm for an automated online version.

Notes to the Facilitator

Use the notes given at the beginning of the Multiple Potential Profile - Student Booklet (and any other teaching-learning material you may wish to develop), to explain the following concepts to the students:

- What are interests?
- What are aptitudes?
- Potential as the interest-aptitude overlap.
- The Multiple Potentials framework.

Once students have been oriented and the concepts have been clarified, begin the assessment with the Multiple Potentials Interest Inventory.

7.1. The Multiple Potentials Interest Inventory (MPII)

Notes to the Facilitator

This MPII is a standardised interest inventory adapted for Tunisian students. This activity provides a structured format to help students systematically think about their work related interests. It is based on the concept of Multiple Potentials. Each Potential area has a set of 12 *Activities* related to careers linked to that potential. Each Activity is also given an Explanation. Participants are to rate each activity for how much they would like to engage in it as a part of their work life. A summation of the ratings yields an *interest profile* across the different Potential areas.

Intended Learning Outcomes

At the end of this activity the participant should be able to:

- articulate that all of us have a number of interests.
- articulate that only some of these interests are related to one's work life.
- build an interest profile.

Duration

This is not a timed test and there is no time limit. Given below is a guideline you can follow as an indication of how long the MPII usually takes to administer.

- Introduction and instructions: 15 minutes.
- Interest inventory: 60 minutes.
- Scoring and Interpretations: 15 minutes.
- *TOTAL:* 90 minutes

Material Required

Ensure that each student has a complete set of the Multiple Potentials Profile booklet and that they have opened the booklet to the MPII section.

Method

Give a brief introduction to the activity taking care to distinguish between interests in *Personal* Life and *Work* Life. Provide illustrations to differentiate between work and personal interests as follows:

- 'Personal' interests are activities that a person would like to pursue outside the world of work. These are activities from which the person does not expect remuneration and could be hobbies or leisure time activities.
- 'Work' interests on the other hand are activities that the person wants as part of his or her career. These are activities in which the person would like to specialise and activities from which the person would expect to gain remuneration.
- Highlight for example that many of us are interested in 'spending a lot of time outdoors'. But only some of us may want to *work* outdoors.

Next, remind students of the difference between interest and aptitude:

- Interests are activities we enjoy.
- Aptitudes are activities we are good at.
- This is a questionnaire that focuses only on interests.

Now explain the 5-point rating scale clearly. Do one or two trials to ensure that all have understood how the rating scale works. Read through a selection of the interest items (or all if time permits). Discuss what each item means.

Now instruct the participants as follows:

"As you know interests can be influenced by outside forces. Your friend's response may affect your response. So it is important that you work entirely by yourself. In case you do not understand any item raise your hand and I will come to explain it to you. Read through each item. Think carefully about how much you would like to practice this activity in your *work* life. Use the 5-point rating scale to mark your level of interest. Enter your ratings for each interest area. Remember you are marking the level of your interest – not your aptitude."

Once the instructions are clear, students can begin marking their responses for each activity. Provide clarifications in case students ask.

Scoring

Once all students have completed the inventory, ask them to total up their ratings *separately* for each potential. Participants can then enter their scores into the box: "My Interest Profile" at the bottom of the worksheet.

Interpretation

The maximum score for each Potential area is 60 (5 x 12). Higher scores indicate higher levels of interest in each category. Discuss the meaning of these scores. Check particularly on participants who do not agree that their profile truly reflects their interests. Such individuals may go through the checklist again to 'fine tune' their interest orientations.

By the end of the activity each participant should be able to describe his or her interests in terms of the multiple potentials format.

Conclusion

Draw the activity to a close by reminding participants that interests are only one part of one's Potential and that the next activity will focus on their aptitudes.

7.2. The Strengths and Accomplishments Questionnaire (SAQ)

Notes to Facilitator:

Aptitude Tests are standardised psychometric devices designed to identify an individual's talents. It is essential that certain statistical criteria (development of the test, method of administration, norms for interpretation) are met if the results of an aptitude test are to be valid and reliable. Given these difficulties with aptitude tests, the Multiple Potentials approach does not focus on tests and other psychometric instruments. Instead, the activity draws from a technique for self-observation that focuses on the person's accomplishments in *real life*. This instrument is called the Strengths and Accomplishments Questionnaire (SAQ). It is based on the Multiple Potentials format.

Intended Learning Outcomes

At the end of this activity the participant should be able to:

- use his or her real life experiences and accomplishments to identify areas of strength
- describe personal strengths in the Multiple Potentials format

Duration

This is not a timed test and there is no time limit. Given below is a guideline you can follow and an indication of how long the SAQ usually takes to administer.

- Introduction and instructions: 15 minutes.
- SAQ: 60 minutes.
- Scoring and Interpretation: 30 minutes.
- *TOTAL*: 105 minutes.

Material Required

Ensure that each student has a complete set of the Multiple Potentials Profile booklet and that they have opened the booklet to the SAQ section.

Method

Distribute the work sheet. Use the notes given at the beginning of the SAQ to explain the meaning of the word 'accomplishment'. It is any activity in which the person has had some level of success that has been noticed by others. Give a few examples (e.g., being a class leader, organising an outing, repairing something).

Introduce the SAQ covering the following points:

- Point out that each Potential area has been given 12 activities. Beside each activity is an explanation of the activity along with examples. Remind students that very similar activities were seen in the *Multiple Potentials Interest Inventory* worksheet.
- Point out that each activity has been given 5 levels of *accomplishment*. Each level is higher than the previous one. Carefully explain each level of accomplishment with examples.
- Ask the students to go over the 12 activities. They are to select 9 activities out of the 12. They should select activities based on the following:
 - Activities which are most familiar and common to their personal life.
 - Activities for which the student can fill up the most number of accomplishment levels.
- Each student is to circle the 9 activities that he/she has selected.
- Only 9 activities are to be selected. Not more. Not less.
- Ask the students to read the first activity selected and look at the first level of accomplishment (I am involved in this activity at the personal level). Instruct the students that if this is true for him/her, a tick mark is to be placed in the box under Level 1. Read the second level of

accomplishment. If this is true for the student, a tick mark is to be placed in the box below Level 2. Students are to go on this way for all 5 Levels.

- Inform students that they can mark as many or all Levels of accomplishment if they are true for him/her. The cell is to be left blank if it is not true for him/her.
- Inform students that if he/she marks an accomplishment level that is not true, the final calculations will be wrong and the guidance he/she receives will not be correct.

Note:

- Go around the class, look at each worksheet and ensure that participants have selected 9 activities. Not more. Not less.
- Ensure that students understand the levels of accomplishment and the meanings of each activity in the list.
- Ensure a student marks a level of accomplishment only if it is true for him/her.

Scoring

- The levels of accomplishment have values ranging from 1 to 5. The first column (I am involved in this activity at the personal level) is taken as the lowest level of accomplishment and given a value of 1 mark. The last column (My expertise has been used professionally) is taken as the highest level of accomplishment and given a value of 5 marks. The marks therefore are:
 - Level 1 = 1 mark. Level 2 = 2 marks. Level 3 = 3 marks. Level 4 = 4 marks. Level 5 = 5 marks.
- Therefore, the maximum possible score for one Activity = 1 + 2 + 3 + 4 + 5 = 15 marks.
- The number of Activities the student is expected to mark is 9. Therefore, the maximum possible score for one Potential area is = 15 marks per activity x 9 Activities = 135.
- Scores are to be entered into the Accomplishments Profile table.
- Students are to find the total scores for each Potential area in this way.
- Each Potential area is to be totalled separately.

As an illustration for calculation purposes, given below is an example from the Linguistic Potential where the total Accomplishment score = 35. Please see the Multiple Potentials Profile booklet for the complete questionnaire.

MY LINGUISTIC ACCOMPLISHMENTS						MY LINGUISTIC ACCOMPLISHMENTS										
Q.No	ACTIVITY	EXPLANATION	EXAMPLES	Personal Level	School / Club / Association / Youth House	High level recognition (District, Provincial, National)	Gain'd Benefits or Earning	Q.No	ACTIVITY	EXPLANATION	EXAMPLES	Personal Level	School / Club / Association / Youth House	High level recognition (District, Provincial, National)	Gain'd Benefits or Earning	
				LEVEL 1 I am involved in this activity at the personal level OR I have been appreciated for this activity by family / friends.	LEVEL 2 I participate in such activities OK I am known for this activity	LEVEL 3 I have won prizes or awards for this activity in public	LEVEL 4 I have been recognized at a high level for this activity OR I have earned financially from this activity					LEVEL 1 I am involved in this activity at the personal level OR I have been appreciated for this activity by family / friends.	LEVEL 2 I participate in such activities OR I am known for this activity	LEVEL 3 I have won prizes or awards for this activity in public	LEVEL 4 I have been recognized at a high level for this activity OR I have earned financially from this activity	LEVEL 5 I gained benefit (e.g. scholarship) through this activity OR I have earned financially from this activity
1	Learn and study topics related to language in school	Learn concepts related to language such as grammar and word meanings as part of study activities	studying English, French, Arabic or any other language; discussing language questions with teacher; making notes of language subjects; doing reading and writing exercises related to language; doing extra reading or taking up online classes to strengthen language skills	✓	✓			6	Check written material for accuracy	Read written information to check if it contains any errors	checking language to see if answers are correct; participate in spelling competitions	✓		✓	✓	
2	Gain information related to language on my own	Learn about language by speaking, reading or writing. Learn about something new by reading, listening or viewing about it. Gain information about a new topic	obtaining knowledge about language through library books or online sources; reading books in other languages; studying word meanings; practicing language skills; reading newspaper for information; listening to news and television programmes	✓	✓			7	Transform thoughts and ideas into words	Use words and sentences to convey an idea or opinion to others	writing essays, stories, poems, lyrics for songs; participating in writing competitions; writing letters; posting blogs; chatting on social media	NOT SELECTED		✓		
3	Using languages	Learn new languages. Learn word meanings. Learn to speak and write well in a language	going through dictionary; practicing language; writing poems, essays or stories; helping others with language homework	✓	✓			8	Translate material from one language to another	Use knowledge of two or more languages to translate and explain	interpret stories, poems, fairy tales and jokes from one language to another in speech or writing; read or listen to something in one language and explain it in another language	✓		✓		✓
4	Read, understand and use written or spoken material	Listen to what is being said and understand its meaning. Understand and interpret information or ideas by listening to others. Read written information and understand the meaning that it conveys	listening to or reading stories, poems, fairy tales and jokes; reading magazines and books; reading biographies of famous people; listening to news, lectures and speeches on TV or online programmes; writing essays, poems or stories	✓	✓			9	Participate in drama and acting	Use words and sentences to convey your message; emotions or ideas through a drama. Enact a story using language onstage or through video	writing a drama script; participating in school drama; writing a video script; acting in a video; participating in poetry and recitation competitions	NOT SELECTED				
5	Use dictionaries and word lists	Use dictionaries to understand the meanings of new words. Learn meaning of new words	reading dictionary; learning new words; looking for the meaning of new words; playing word games such as crosswords	NOT SELECTED				10	Participate in debates and discussions	Discuss questions and make arguments based on reliable information to prove a point	participating in debate competitions; discussing with friends about different topics; expressing opinions about different topics	✓				
								11	Communicate ideas to people by speaking	Talk actively so that people like to listen. Use language correctly. Be clear in speech	open invitation; debating; making speeches; telling stories	✓				
								12	Teach and train others	Communicate knowledge to others by teaching them and giving explanations about a topic	teaching a subject to others; explaining or giving information to friends	✓				

Linguistic Accomplishments	Level 1		Level 2		Level 3		Level 4		Level 5		TOTAL
	Total ticks	Value									
	9	9x1 = 9	4	4x2 = 8	3	3x3 = 9	1	1x4 = 4	1	1x5 = 5	9 + 8 + 9 + 4 + 5 = 35

In this way students are to go over their entries and use the Accomplishments Profile table to work out their scores for each of the Potential areas.

7.3. Building the Potential Profile

7.3.1. Scoring

This is the final step in Multiple Potential Profile system. By now, the two units of data to construct the Profile have been collected, through the **Multiple Potentials Interest Inventory** and the **Strengths and Accomplishments Questionnaire**.

In this system provision is also made for the student to add a **Self-Rating** for each of the 5 multiple potentials. The student is given 5 marks per Potential area as follows:

Poor = 1, Below Average = 2, Average = 3, Above Average = 4 and Good = 5.

For example, if the student feels he/she *Poor* in Linguistic activities he/she will rate him/herself 1, if the student feels he/she is *Good* at Linguistic activities he/she will give him/herself a score of 5. In this way all Potentials are to be given a Self-Rating.

As shown in the My Multiple Potentials Profile table below, each assessment has a weightage (a maximum score) as follows:

- Interest Profile: 12 items per Potential x 5 maximum points per item, maximum score = 60.
- Accomplishments: 9 Activities per Potential x 15 maximum points per Activity = 135.
- Self-Rating: 5 maximum points per Potential area = 5.

This adds up to a Maximum Score of 200 points per Potential area. For convenience the total score is to be divided by 2, to convert the score into a percentage for each Potential area.

7.3.2. Integrating the data

The facilitator is now required to help the student integrate all the data to build his/her Multiple Potentials Profile. This is done by entering the data in the My Multiple Potentials Profile table. The steps to be taken are as follows:

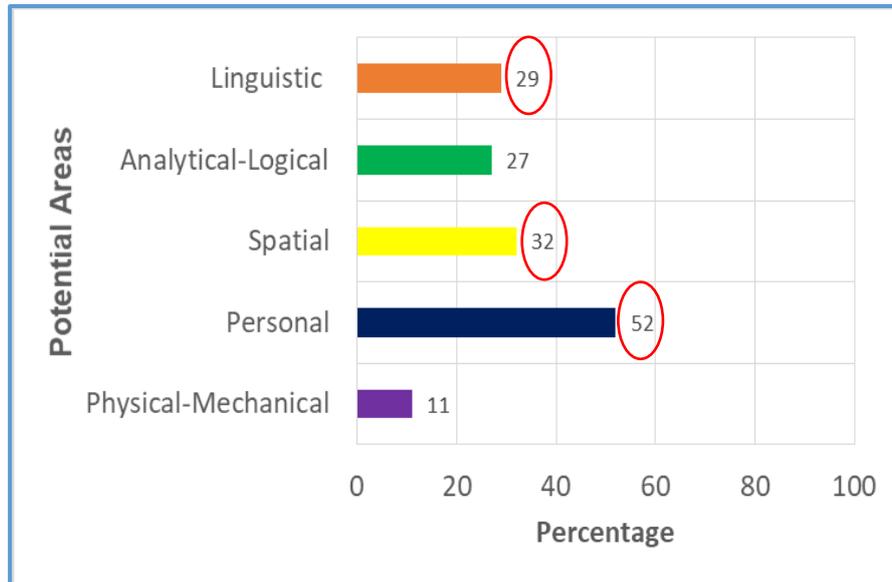
- Instruct the student to enter the scores from the Interest Profile and Accomplishments Profile into the My Multiple Potentials Profile table.
- In the row titled Self Rating, the students are to rate themselves for how good they are for that Potential on scale of 1 to 5 where the minimum rating is 1 and maximum is 5.
- The student is to work out the total for each Potential Area by adding up the marks for each area.
- The Maximum Marks for each potential is 200. After calculating the Total Marks, the student should divide the Total Marks for each area by 2 to get their percentage for each area. In case the student obtains a decimal, instruct them to round it to the next highest whole number. The percentage is written in the last row of the Potential Profile table.

Given below is an example.

Assessment Method	Maximum Score	Linguistic	Analytical-Logical	Spatial	Personal	Physical-Mechanical
Interest Profile	12x5 = 60	20	36	26	48	12
Accomplishments	15x9 = 135	35	15	35	52	9
Self-Rating	5	3	3	3	4	1
Total Score	200	58	54	64	104	22
Potential Profile	Total Score/2 = 100	29	27	32	52	11

In this example, the three highest Potentials are: Personal, Spatial and Linguistic.

As shown in the example below, a grid has also been provided to help the student draw his/her own Multiple Potentials Profile.



Students can then select the three highest Potentials from the profile and match them with careers that require these Potentials or combinations of these Potentials to make their career choices.

With this we come to the end of the Multiple Potentials Profile exercise.

8. CONCLUSION

In conclusion it is asserted once again that within the multiple potentials approach to assessment, the aim is not to identify how high a person's score is. Instead the objective is to identify the pattern of scores. Therefore, the multiple potentials approach lays greater emphasis on the shape rather than the height of the individual's potential profile, where the person is his/her own norm. With this in view, the multiple potentials approach lays a strong emphasis on tying the content and method of assessment to the cultural and lived realities of the test-taker.

A final point to be noted is that the outcomes of assessment are sometimes accorded (both by the counsellor and the client) a status of infallibility. This is a danger that must be guarded against. An assessment device, whatever its form, is merely a tool used to gather information. It is vital that career counselling is not reduced to a variety of test taking and assessment exercises and that the career aspirant is not limited by the results of these exercises. Career counselling ought to go beyond—placing the individual and not the test at the center of the process of career development.

APPENDIX 1

The Multiple Potentials Framework.

Excerpt from:

Arulmani, G., & Nag-Arulmani, S. (2004).

Career Counselling: A Handbook. New Delhi, India: Tata McGraw Hill.

Understanding the human potential has been an area of psychological research for more than a century. An interesting theory about the human potential that has emerged in the recent past is the theory of Multiple Intelligences propounded by Howard Gardner. On the basis of his research Gardner presents in his book *Frames of Mind* (1983) the postulation that the human potential has numerous facets and that it is multidimensional. This description of the human potential provides a useful framework within which to help a young person understand and identify personal interests and aptitudes. Gardner in his later work has gone on to expand on his initial theory. Our experience in using the theory has indicated that 5 of the potentials described by Gardner are most relevant for guidance and counselling. Presented below is a brief description of the 5 potential areas described by Gardner that we have adapted to suit the Indian situation and use as a framework within which to provide careers education.

The Linguistic Potential

This potential area reflects the fluency of language. It is the ability to manipulate words and expressions. A person with a high linguistic ability is sensitive to the meaning of words, and to the skill of using words effectively to communicate. Linguistic ability may be manifested in the spoken form. The public speaker who is able to hold an audience at rapt attention or the counsellor who is able to accurately reflect the client's sentiments and emotions are examples of the linguistic ability at the *spoken* level. The linguistic potential may also manifest itself in the written form. Powerful essays that changed the history of nations, poetry that captures the sound of raindrops, or the presentation of a news item in newspapers or blogs are examples of the linguistic potential in the *written* form.

The Analytical-Logical Potential

The person's ability to think logically, analyse, understand cause-effect relationships and solve problems is reflected by the analytical-logical potential. The ability to understand the underlying dynamics of a problem, the ability to see the links between components and create solutions are related to the human ability to analyse and apply *logic*. Similarly the ability to extract information from a mass of data, make sense of this information, identify trends and patterns and make predictions, all rest on the analytical-logical potential.

An important point to be noted is that this potential is often associated with science and mathematics. This is an erroneous linkage. A wide range of human endeavour requires logical ability. The archaeologist who is able to tell us about the dressing habits of a civilisation based on extrapolations from an ancient comb discovered on a site, uses logical skills as much as another person involved in abstract mathematics.

The Spatial Potential

This is the potential that describes the ability to perceive, visualise and transform observations into concrete realities. It is the sensitivity to space and the ability to manipulate space at the *two dimensional* level or at the *three dimensional* level. Activities linked to design draw heavily from the spatial potential. The architect who can 'place' a building on a vacant plot of land in his/her mind's eye or the sculptor who 'releases' an image from a block of stone use their spatial talents and abilities. The sensitivity to colour is another manifestation of the spatial potential. The interior designer who transforms the ambience of a drab room by merely changing the colour of the curtains uses his/her spatial ability.

Creativity is concept that is often confused with the spatial potential. This is an erroneous assumption. Creativity is a fundamental human quality that is undergirds almost all aptitudes and potentials. We are often confronted by non-creative artists and designers, who can only copy the

works of others. Alternatively a creative writer or a creative logician brings originality to their respective aptitudes. It is important that creativity is understood as a core human trait and not as an aptitude. The spatial potential reflects the creativity in dealing with space.

The Personal Potential

The knowledge of self and the sensitivity to others reflect the personal potential. People exhibiting this potential would have a high degree of control and awareness over their own feelings and values. A person with a high personal potential is sensitive to the moods and emotions of others. These are people who can understand others and are attuned to the forces that influence and mould human behaviour. A common misunderstanding is that people who are 'extraverted' have high personal skills. This may not always be true. The ability to make others laugh or be the soul of a party reflects the personal intelligence as much as the capacity to quietly understand others, their moods, thoughts and behaviour. Most importantly, the person with a high personal potential would be able to logically arrive at the *reasons behind a unit of behaviour* and would be able to influence and mould human behaviour.

The Physical-Mechanical Potential

Some of us are especially fluent in the use of our bodies. The physical-mechanical potential is linked to the mastery over the motions and expression of the body. It is the fluency of movement. The dancer who is able to 'show' us the agony of a tree being felled, the actor who transforms a corner of the stage into the heaving deck of a ship simply by the way he/she moves, use their *bodies* to communicate feelings, moods, emotions and messages.

Careers that require *stamina* and *strength* also require the physical-mechanical potential. Sports persons, protection service specialists would require the physical-mechanical potential.

This potential is also linked to the person's *mechanical* ability. These are people who demonstrate an innate sensitivity to the laws of mechanics and are good at the use of tools. Typically engineers, technicians and others involved with machines and equipment demonstrate a well-developed physical mechanical ability.

Conclusion

It is important to note that these potentials characterise *all* human beings. All of us for example demonstrate the ability to use words and speak a language. All human beings have the ability to apply logic and spatial skills. The personal, physical and mechanical skills similarly characterise the behaviour of all human beings. The point to be noted is that some of these potentials develop to higher levels than other potentials within the profile of a given individual. It is this *profile* that a career counselling programme is interested in. Observations and suitable testing techniques enable us to identify areas in which an individual demonstrates a higher potential. These 'highs' and 'lows' provide a framework within which career counselling can progress.

APPENDIX 2

Details of Student Sample from whom data were collected

	Gender		Socioeconomic Background				Geographical Location							
	Boys	Girls	Upper class	Upper middle class	Lower middle class	Popular class	Great Tunis	North East	North West	Center East	Sfax	Center West	South East	South West
Total Number of Students = 1510	671	839	183	224	257	846	333	225	183	246	144	221	85	73

Details of Adult Sample from whom data were collected

	Gender		Geographical Location							
	Female	Male	Great Tunis	North East	North West	Center East	Sfax	Center West	South East	South West
Total Number of Respondents = 306	172	134	92	42	32	41	24	29	23	23

APPENDIX 3

Strengths and Accomplishments Questionnaire (SAQ): Survey Form for Tunisia STUDENT QUESTIONNAIRE 2 (SQ2)

1. Write down any 5 things that you did this month.
2. Write down any 5 things that you do during your vacations.
3. Write down 5 activities that you like very much.
4. Write down any 3 things you do in your spare time / your hobbies.
5. Write down any 3 things what you are good at.
6. Write down any 3 activities for which you were recognised or won prizes in your life.
7. Write down any 3 jobs you would like to do?
8. Write down all the activities you do in school, other than studies.

APPENDIX 4

Strengths and Accomplishments Questionnaire (SAQ): Survey Form for Tunisia ADULTS QUESTIONNAIRE (AQ1) Questions for interactions with Adults engaged with adolescents and youth

Age	Gender	Education
Occupation	Years of Experience	Which is the group you have most experience with (e.g., high school students, drop outs, unemployed youth)

1. Write down 3 to 4 activities that this target group, is commonly involved in other than studies.
2. List 3 to 4 extracurricular activities that this target group, has access to. Eg: Debating, Making Projects, Drawing, Social Work, Physical Activities.
3. List 3 to 4 activities within the target group's normal experience which would indicate his/her capacities in the following categories:

Category	Definition	Example of Activity
Linguistic	sensitivity to words and the ability to use language (written or oral), effectively	Debates; writing essays
Analytical-Logical	ability for analysis, reasoning and application of logic to solve problems, find solutions and make diagnoses	Making projects; planning and organising activities; handling finances.
Spatial	sensitivity to colour, line and form and the ability to manipulate three/two dimensional space, to design.	Drawing; making things; craft activities
Personal	Sensitivity to others' feelings and, interpersonal skills and the ability to understand behaviour.	Helping others; doing social work
Physical-Mechanical	ability to use physical capabilities, efficiently at the fine and/or gross motor level, stamina, strength and control over the movements of the body.	Farming; taking care of livestock; repairing things, sports

4. List out 2 to 3 locations that give opportunities for students/youth to show their talents. E.g., school, inter-school, youth group, community events, events during festivals. These locations must be commonly available.
5. Write down 3 to 4 common beliefs your students/youth have about the future and about work. Eg: It is better to go to the city; I am poor so I can't get a good job.
6. List out 3 to 4 influences on your students/youth decision making.
7. To whom do students/youth usually go for advice regarding career or job?
8. Write the title of any well-known stories from your culture that are related to work, success and prosperity.

APPENDIX 5

PROTOCOL FOR TRANSLATION OF SURVEY MATERIAL FOR STRENGTHS AND ACCOMPLISHMENTS QUESTIONNAIRE (SAQ)

Background to the Strengths and Accomplishments Questionnaire

The Strengths and Accomplishments Questionnaire (SAQ) has been developed by Gideon Arulmani to provide a culturally grounded method of assessment for career guidance. It blends qualitative and quantitative methods ensuring that the testing method is contextually grounded and at the same time able to offer the assessor a framework within which objective measurements can be made. The SAQ ensures that its items lie within the test-taker's sphere of lived experience. Therefore the content of the instrument is generated through qualitative and quantitative methods such as systematic observations, focus group discussions, checklists and open ended questions.

The SAQ method rests on the assumption that a person's accomplishments in real life reflect his/her talents and potentials. *Accomplishment is defined as any activity in which the person has been consistently involved and which has been noticed by others.* Items therefore comprise a list of activities through which a person could have registered accomplishments. Response categories reflect opportunities that actually exist in the person's life situation through which he/she can register various levels of accomplishment. Clients are required to select activities they have experienced and indicate the levels at which accomplishments have been registered for those activities. The aim of assessment is not to identify how high a person's score is. Instead the objective is to identify the pattern of scores. Therefore, the SAQ lays greater emphasis on the shape rather than the height of the individual's potential profile. Interpretation of scores is not based upon norms. Instead the SAQ uses the person as his/her own norm.

In summary the SAQ is qualitative in the manner in which it allows the assessor to construct an assessment protocol that is in tune with the opportunities offered to the test-taker by his/her socioeconomic environment, schooling, and cultural background. At the same time, resting as it does upon the psychometric logic of a rating scale, the method draws upon quantitative methodology.

The SAQ was developed in India in 2010. It has subsequently been adapted for use in Sri Lanka, Maldives, Nepal, Vietnam, Bangladesh and Sweden (for use with refugees and immigrants).

Each version of an SAQ is specifically developed to suit the characteristics of a given culture. Therefore, the development of an SAQ for a particular culture takes into account the opportunities available in that culture. The process of ensuring as a best a cultural fit as possible, begins with systematic and rigorous translation of the original English material.

Material for Translation

Questionnaire and Code	Comment
Student Questionnaire (SQ1) Interest Profile.	Ready for Translation
Student Questionnaire (SQ2) Open Ended Questionnaire for Students	Ready for Translation
Student Questionnaire (SQ3) Levels of Accomplishment	Ready for Translation
Adult Questionnaire (AQ1)	Ready for Translation

Open Ended Questionnaire for Adults	
Formatting the tool for survey	To be developed by the translation team after the after Arabic SAQ has been finalised, before the survey
Facilitators' Notes for administration and scoring of SAQ	To be developed after Arabic SAQ has been finalised, after the survey and analysis have been completed

Steps to be followed

The material has been supplied in English. The source language is English and the target language is Arabic, for this translation exercise. The aim of this process is to create an Arabic version of the tools so that the tools are conceptually equivalent to the original English material. That is, the language used in the Arabic version should be natural and acceptable in the target culture and should practically give the same results as the English original. The focus is on cross-cultural and conceptual translation, rather than on linguistic/literal equivalence. A well-established method to achieve this goal is to use forward-translations and back-translations.

Implementation of this method includes the following steps:

- Forward translation
- Validation
- Blind, Back-translation
- Verification
- Pre-testing
- Final version

1. Forward translation

Forward translation is the translation of the English original into the target language: Arabic. A translator who is familiar with the terminology of the topic covered by the tools should be given this task. The translator should be fully fluent in English but ideally, his/her mother tongue should be the target language: Arabic.

The translation from English to Arabic should focus on conceptual rather than literal translations. The following points must be kept in mind by the Forward Translator.

- Translate keeping the target audience in mind. Ensure that the respondent will understand the translated questionnaire easily.
- Search for the conceptual equivalent of a word or phrase, not a word-for-word translation, i.e. not a literal translation.
- Consider the definition of the original terms and translate them in the most relevant way.
- Use natural and acceptable language that can be easily understood by the target audience.
- Be simple, clear and concise. Fewer words are better. Long sentences with many clauses should be avoided.
- Avoid the use of any jargon. Do not use technical terms that cannot be understood easily. Do not use colloquialisms, idioms or terms that cannot be understood by the target audience.
- Consider issues of gender and age applicability and avoid any terms that might be considered offensive to the target population.

2. Validation

This Arabic version should be shown to people who are familiar with the target group. Their feedback should be obtained and the language must be adjusted accordingly.

NOTE:

During the forward translation and validation, if it is felt that any items are culturally alien or inappropriate, the author must be informed.

Once a satisfactory version of the Arabic version has been completed, this version should be given for back translation.

3. Blind, Back-translation

The Arabic version must now be translated back into English using the blind, back-translation procedure. Blind, back-translation is the translation of the Arabic version back into English, by an independent translator who has not seen the English original and does not take the help of the English original. That is, the back-translator is “blind” to the English original. This translator should be fluent in English and Arabic. The back-translator must have no knowledge of the English original. The following points are to be kept in mind:

- The back-translator must not see the English original. The translator must do the back translation only from the Arabic version.
- The aim of the back-translation is not to make any corrections or changes to the Arabic version. The aim is to provide an accurate translation of the Arabic version to English, as it is. The back-translation should also include any mistakes in the Arabic version, as it is.
- If the back-translator has any suggestions to improve the Arabic version, this must be noted separately and sent to the Author in English.

After the material has been back-translated, it must be sent to the author of the survey for verification.

4. Verification

The back-translated English questionnaire must be sent to the Gideon Arulmani the author. He will check the back-translated English version with the English original. If there are inconsistencies, Gideon will mark these errors and send it back to the Forward Translators for final correction.

5. Pre-testing

The final Arabic version should be given to about 10 members of the target group for their feedback. The main feedback required is whether all the items are understandable. If any items are difficult to understand, the Arabic version must be adjusted accordingly. If major changes are required, the author must be intimated.

6. Final version

The final Arabic version should be the result of all the steps described above. With this the translation from the English original to Arabic will be completed.

7. Formatting the tool for the survey

Once the final Arabic version has been developed, the tool has to be formatted as per the template provided by the Gideon.

Implementation Plan

	Action Point	Deadline
1	Supply of Survey material and instructions for translation	Submitted by Gideon on 4 th November.
2	Select Forward and Back Translators	
3	Completion of Arabic version by Forward Translator	
4	Validation of Arabic Version	
4	Completion of back translation to English	
5	Verification of the English back translation by Gideon	2-3 days after the English back translation is submitted
6	Pre-Testing	
7	Finalisation of the Arabic version	
8	Formatting the tool for survey	

APPENDIX 6

PSYCHOMETRIC DETAILS OF THE MULTIPLE POTENTIALS INTEREST INVENTOR (MPII)

See the following for the full published papers:

Arulmani, G. (2014). Assessment of interest and aptitude: A methodologically-integrated approach. In G. Arulmani., A. J. Bakshi., F.T.L. Leong. & A. G. Watts (Eds.), *Handbook of career development: International perspectives* (pp. 609-630). New York, USA: Springer.

Arulmani, G. (2015). The question is the answer: The cultural preparedness approach to assessment for career guidance. In M. McMahon & M. Watson (Eds.), *Career Assessment: Qualitative Approaches*. (pp. 207-220). Melbourne: Sense Publishers.

The Multiple Potentials Interest Inventory (MPII) is an interest inventory that taps the five factors of the multiple potentials framework. It has been standardized for the Indian context on a randomly drawn, stratified sample of close to 9,000 Indian adolescents-young adults in the age range of 14-to-21 years (Arulmani, 2005a). The MPII was constructed from an item pool of about 250 items per factor through a process of item and factor analyses. Items reflect occupational tasks associated with a particular factor. For example, the item, "Present information to people in a written form" is linked to the linguistic factor. Similarly, the item, "Use data to make predictions" is linked to the analytical-logical factor, "Design things from ideas" to the spatial factor, "Understand people's feelings and behaviour" to the personal factor, and "Be involved in physically demanding work" to the physical-mechanical factor. With 12 such items for each factor, the scale comprises a total of 60 items. Participants rate each activity for how much they would like to engage in it as a part of their work life. Response choices are anchored to 5 scale points where 1 indicates the lowest and 5, the highest level of interest. The maximum obtainable score per factor is 60 and respondents' scores are summed separately for each factor. The score obtained on each factor yields an interest profile across the five factors.

The validity of each of the MPII factors was examined by testing the correlations between respondents' ratings and external criteria: ratings by parents/teachers of respondents (i.e., criterion-related concurrent validity). That is, parents/teachers provided their estimate of respondents' interest levels across the MPII factors based on their everyday interactions with the respondents. Positive, statistically significant correlations ranging from .62 to .81 have been consistently obtained between external criterion estimates and respondents' interest scores, across the five factors and across samples from different age bands, socioeconomic status groups, and geographical locations, indicating that the MPII has an acceptably high validity. Tests of split-half reliability have shown high and significant Pearson's Correlation ranging between .74 and .83 for all the factors. This also indicates that the scale has high internal consistency. The test-retest reliability of the MPII has been examined for different age groups, gender, and socioeconomic status (SES) level. The 3-month reliability coefficients ranged between .72 and .91.