



Distributors of Psytech International

Assessment Instrument and Software

Fifteen Factor Questionnaire Plus (15FQ+)

**South African User Guide and
Research Reference**

**Psytech South Africa
Nanette Tredoux
Crystal Clack**

The Fifteen Factor Personality Questionnaire Plus (15FQ+)

Introduction

Table of contents

Table of contents	1
Introduction	3
Structure of this manual	3
Classification status of the 15FQ+	3
Conditions of use and professional responsibilities	3
Purchasing 15FQ+ materials and scoring services	4
Constructing of test batteries	4
Administration of the 15FQ+	4
Scoring of the 15FQ+	4
Reporting on the 15FQ+	4
What the 15FQ+ measures	6
Respondents for whom the 15FQ+ is suitable	6
Level of Education	6
Proficiency in English	7
15FQ+ applications	7
A history of the 15FQ+ in South Africa	7
Some cautionary notes:	8
Computer-assisted reports	8
How do the computer-generated reports work?	9
What are the advantages of computer-generated reports?	9
Are computer-assisted reports open to abuse?	9
What about competency-based reports?	10
Administration instructions for the 15FQ+	10

Introduction

This guide is for users and potential users of the Fifteen Factor Questionnaire Plus (15FQ+). It is noteworthy that this version of the test is the 15FQ+, with emphasis on the plus. This is to distinguish this test from the 15FQ, which is a different test. The difference is substantial, therefore it is important not to confuse the two.

This guide should be used in conjunction with the Technical Manual for the 15FQ+, published by Psytech International. It does not replace the Technical Manual, but it is intended to provide the additional information that South African users need.

This user guide will be updated regularly as new research evidence becomes available. Psytech manuals and user guides are distributed electronically – at no charge - via the company's web site, and it is incumbent on the user to ensure that they download the updated versions regularly. Hard copies of the latest versions of the user guides can also be purchased from the company if users prefer not to download the document themselves.

Structure of this manual

The manual is divided into the following sections:

- **Introduction**
 - This section covers the background to the questionnaire, administration instructions and general advice on its use in South Africa.
- **Norms**
 - This section contains descriptions of the various norm groups available for the 15FQ+ – the composition of the norm groups, basic statistics on 15FQ+ scales and stanine tables.
- **Reliability**
 - This section contains reports on the reliability studies done on the 15FQ+ in South Africa – the composition of the groups, reliability coefficients and Standard Error of Measurement where suitable data exists.
- **Validity**
 - This section contains reports on the validation studies done on the 15FQ+ in South Africa

Studies will be added to the various sections as they are completed. The date when it was last updated appears on every study. Every section has its own table of contents and introductory section.

Classification status of the 15FQ+

The 15FQ+ was evaluated and classified as a psychological test by the Psychometrics Committee of the Health Professions Council in 2002. The process of evaluation and classification is a lengthy one. Feedback reports received from the test reviewers indicate that the 15FQ+ meets the requirements for classification as a psychological test and a classification certificate was issued in July 2002. The test battery is currently on the list of classified tests.

Conditions of use and professional responsibilities

The 15FQ+ must be used under the control of a Psychologist, Psychometrist (Independent Practice), or Registered Counsellor.

Purchasing 15FQ+ materials and scoring services

When purchasing test materials or scoring services relating to the 15FQ+, the signature and registration number of a Psychologist Psychometrist (Independent Practice) or Registered Counsellor is required.

Constructing of test batteries

Only a Psychologist Psychometrist (Independent Practice) or Registered Counsellor may decide which tests or questionnaires to use for a particular purpose. Psychometrists registered for supervised practice or other role players such as HR Practitioners or line managers may not act independently of the Psychologist, and may not overrule the Psychologist's decisions.

Administration of the 15FQ+

- The test may be administered by a Psychologist, Psychometrist (Independent Practice) Registered Counsellor or a Psychotechnician.
- Psychometrists (Supervised Practice) have to be supervised by a Psychologist.

Scoring of the 15FQ+

The 15FQ+ may be scored by

- A Psychologist,
- A Psychometrist (Independent Practice),
- A Psychometrist (Supervised Practice)
- A Registered Counsellor, or
- A Psychotechnician.

The scoring of the 15FQ+ is always done by computer. The act of scoring is pure data capture and no interpretation is involved. Detailed instructions for scoring the 15FQ+ by computer can be found on the GeneSys Online platform, under tutorials. There are videos and downloadable PDFs. Special training in the use of the software is available and we strongly recommend attending this.

Reporting on the 15FQ+

The choice of which computerised report to use should be made by:

- A Psychologist, Psychometrist (Independent Practice) or a Registered Counsellor.

Psychometrists registered for supervised practice and Psychotechnicians should consult with a Psychologist about the most suitable report to use.

The choice of which norm group to use should be made by:

- A Psychologist, Psychometrist (Independent Practice) or a Registered Counsellor.

Psychometrists (Supervised Practice) and Psychotechnicians should consult with a Psychologist about the most suitable norm group to use.

Feedback on 15FQ+ reports

Feedback on 15FQ+ reports may be done by Psychologists, Psychometrists (Independent Practice) or Registered Counsellors. Psychometrists registered for supervised practice and Psychotechnicians may give feedback on the 15FQ+ within clearly circumscribed guidelines laid down by a Psychologist, and provided proper supervision, with regular consultation, is maintained.

What the 15FQ+ measures

The 15FQ+ measures the following personality scales:

fA	Distant Aloof	Empathic
β	Low Intellectance	High Intellectance
fC	Affected by Feelings	Emotionally Stable
fE	Accommodating	Dominant
fF	Sober Serious	Enthusiastic
fG	Expedient	Conscientious
fH	Retiring	Socially-bold
fI	Hard-Headed	Tender-minded
fL	Trusting	Suspicious
fM	Concrete	Abstract
fN	Direct	Restrained
fO	Confident	Self-doubting
FQ1	Conventional	Radical
FQ2	Group-orientated	Self-sufficient
FQ3	Informal	Self-disciplined
FQ4	Composed	Tense-driven

For detailed information about the constructs measured by the 15FQ+ please consult the 15FQ+ technical manual.

The technical manual gives an overview of the theoretical basis for the constructs, as well as a more in-depth discussion where the typical behaviour of high scorers and low scorers for each scale is discussed.

Respondents for whom the 15FQ+ is suitable

Level of Education

The 15FQ+ is intended for respondents with at least an educational level of Grade 12. One must be sensitive to the fact that educational standards have differed considerably in South Africa. People from impoverished backgrounds are not likely to have had an education of the same standard as people from privileged backgrounds. The Psychology professional in charge of the assessment should evaluate the situation with care, taking into account the intended respondent's background, fluency in English and so forth.

It is also possible that a person who has not had formal education up to Grade 12 level, may in fact have acquired sufficient fluency in English and self-insight to complete a 15FQ+ to good effect. Every situation must be evaluated on its merits.

Our recommendation is that the 15FQ+ should preferably be used for persons with post-matric education. For persons with only a school-leaving certificate, the Occupational Personality Profile (OPPro) is preferred.

Proficiency in English

It may be necessary to test for proficiency in English. Some standardised measures of English language skills are available, and users could avail themselves of these. It is not recommended that persons with functional English levels below grade 10 should be required to complete the 15FQ+.

Considering the socio-economic history of South Africa, it is reasonable to suppose that there are many people who should not be tested with questionnaire measures, because they have not had sufficient exposure to formal testing situations or their language proficiency is inadequate. The Psychology professional should be realistic about this.

15FQ+ applications

The 15FQ+ was designed as a general purpose personality questionnaire, mainly for occupational use. Within this description there is a lot of scope for different applications of the questionnaire. Some situations where the 15FQ+ can be considered include:

- Selection - suitability for specific positions, of which the behavioural requirements are known.
- Counselling - including personal development, educational counselling, career choice counselling, and counselling to improve relationships.
- Development - including development of behavioural competencies for jobs, team building, self-insight, self-management and so forth.

The interpretation and feedback of the 15FQ+ results should be adapted to the intended purpose of the assessment.

A history of the 15FQ+ in South Africa

The 15FQ+ was introduced in 2000, and has effectively replaced the 15FQ, which was the earlier Factor-Based personality questionnaire marketed by Psytech. South African psychologists gave input in the formulation of the initial items, assisted with initial validation studies and commented on revisions of the questionnaire. South African companies participated in standardisation and validation studies on the 15FQ+.

The 15FQ+ has been widely adopted by South African organisations. Many thousands of respondents have been tested with the instrument. This manual is a step towards consolidating the information that has been gathered about this questionnaire.

Some cautionary notes:

- The 15FQ+ should not be used on its own as a selection instrument. It should always form part of an assessment battery that includes other measures, and preferably some non-test information as well.
- It is strongly recommended that a validation/integration interview should follow any assessment by means of tests or questionnaires. The interviewer should use this 15FQ+ opportunity to verify the test results, and put them into perspective relative to the respondent's background and the purpose of the assessment.
- Users should pay attention to the reliability and validity data available relating to the population group on which they intend to use the questionnaire.
- Users should use norm groups that are appropriate for the test version and the person being assessed.
- No person should be excluded from an opportunity or position because of a personality measure used in isolation.
- It should be pointed out that the 15FQ+ is not intended as a diagnostic measure for psychopathology.

Computer-assisted reports

Psytech's tests and questionnaires are all supported by computer-assisted reports. Some of the tests have a range of computer-assisted reports, allowing instant interpretation of the test results from a variety of perspectives. Some reports combine information from several tests. The 15FQ+ has four report sets, namely: the Complete Report Set, the Standard Report Set, the Advanced Report Set and the Coaching Report Set. Each set contains a different report, and they are listed as follows:

15FQ+ Complete Report Set

- 15FQ+ Extended Report
- 15FQ+ Profiles Report
- 15FQ+ Feedback Report
- 15FQ+ Derived Dimensions Report
- 15FQ+ Question Prompts Report
- 15FQ+ Competency Development Report
- 15FQ+ Derailers Report
- 15FQ+ Emotional Intelligence Report
- 15FQ+ Competency Selection Report
- 15FQ+ Standard Report
- 15FQ+ Ideal Profiles Report
- 15FQ+ Ideal Profile Results Spreadsheet
- 15FQ+ Extended Results Spreadsheet
- 15FQ+ Extended Group Report (Word)
- 15FQ+ Derailers Results Spreadsheet
- 15FQ+ Emotional Intelligence Results Spreadsheet
- 15FQ+ Competency Results Spreadsheet
- 15FQ+ Coaching Report (GROW Model)
- 15FQ+ Coaching Report (Competency Model)

15FQ+ Standard Report Set

- 15FQ+ Extended Report

- 15FQ+ Profiles Report
- 15FQ+ Feedback Report
- 15FQ+ Derived Dimensions Report
- 15FQ+ Question Prompts Report
- 15FQ+ Standard Report
- 15FQ+ Ideal Profiles Report
- 15FQ+ Ideal Profile Results Spreadsheet
- 15FQ+ Extended Results Spreadsheet
- 15FQ+ Extended Group Report (Word)
- 15FQ+ Coaching Report (GROW Model)
- 15FQ+ Derailers Results Spreadsheet
- 15FQ+ Emotional Intelligence Results Spreadsheet
- 15FQ+ Competency Results Spreadsheet
- 15FQ+ Coaching Report (Competency Model)

15FQ+ Advanced Report Set

- 15FQ+ Competency Development Report
- 15FQ+ Derailers Reports
- 15FQ+ Emotional Intelligence Report
- 15FQ+ Competency Selection Report

15FQ+ Coaching Report Set

- 15FQ+ Coaching Report (GROW Model)
- 15FQ+ Coaching Report (Competency Report (Competency Model))

How do the computer-generated reports work?

The reports represent an expert system, drawing on numerous built-in relationships between patterns of scores and human behaviour. It would normally take a user many years of experience to gain the knowledge and insight that are contained in this reporting system.

What are the advantages of computer-generated reports?

Computer-generated reports ensure that the complete pattern of scores is interpreted every time. No score or combination of scores is overlooked. Everyone is treated in exactly the same way, irrespective of whether the person interpreting the results is having an 'off day' or is pressed for time. This helps to ensure fairness and consistency. Moreover, computer-generated reports save a lot of time, freeing the professional up to add value in the interview, integration of results from other sources and feedback processes.

Are computer-assisted reports open to abuse?

Like any powerful tool, computer-assisted reports can be misused. They should not be used to substitute for professional expertise, but rather to supplement and support it.

One must remember that these reports are generic - the standard reports do not know anything about the requirements of the positions that the respondent may have applied for. They are also completely unaware of the respondent's background and personal circumstances. They can usually not stand on their own, but must be used as one source of information in the assessment process, and be integrated with other information. This integration and interpretation is highly skilled professional work, and it should not be left to persons who have not had the required training.

In some situations, handing out unaltered computer-generated reports to respondents or line managers without any counselling or explanation, could be considered abuse of these reports. We recommend that the technical appendix in a report, which gives a graphic summary of raw scores and profiles, not be given to untrained persons.

What about competency-based reports?

You need not be limited to the reports supplied with the GeneSys online platform. Special reports can be written for clients based on their own competency models, or based on the results of validation studies. Psytech SA undertakes to do these as consulting projects, and the cost is dependent on the length and complexity of the report that the client requires.

Administration instructions for the 15FQ+

The 15FQ+ can be administered either on the computer, via the GeneSys online platform, or with paper and pencil.

For instructions on how to operate the platform for test administration, please refer to the GeneSys Online platform, under tutorials via <https://eu.genesysonline.net/>. There are videos and downloadable PDFs. Special training in the use of the software is available, which is strongly recommend. Do not attempt to use computer software for test administration if you are not completely comfortable with how the online platform works. Familiarise yourself with the process of setting up a testing session with the software, creating the data record and entering the respondent's biographical information into the system, or assisting the respondent in doing so themselves.

Comprehensive instructions for pencil and paper administration for the 15FQ+ are included in the Technical Manual for the 15FQ+.

Norms Introduction

<i>Norms Introduction</i> _____	1
<i>South African Norms available for the 15FQ+</i> _____	2
Different types of norms available _____	2
Biographical data _____	2
SA Norms and international norms _____	2
User-developed norms _____	3
List of norm tables _____	4

South African Norms available for the Fifteen Factor Questionnaire Plus (15FQ+)

Different types of norms available

There are two kinds of norms available for Psytech tests. Many of the norm groups are based on means and standard deviations obtained through research. These means and standard deviations are used by the GeneSys online system to calculate standard scores. In the case of the 15FQ+, stens are used.

Users of the test do not need to look up raw scores to find the corresponding standard scores, because the software does it for them. For this manual, however, sten tables have been specially calculated from means and standard deviations to facilitate comparison between norm groups, so that users can more easily choose which norm group is most suitable for a given situation. This allows users to make a more informed choice rather than simply relying on automatic choices made by the online platform.

The second type of norm is the frequency norm. In this case, more information is stored internally, and it is possible to add additional cases to the norm group as more data are collected. The GeneSys online platform is able to create tables of standard scores for frequency norms. The tables of standard scores are provided for interest and information, which would assist when comparing one norm group with another. For the purpose of generating a report, the online system does the calculations internally, and doesn't refer to any tables.

Biographical data

The GeneSys online platform offers the facility to collect comprehensive biographical information on respondents. Unfortunately, test users very seldom collect these data. Having this information incomplete poses a serious concern for us as Psytech SA obtains most of its information from clients who use the assessments.

Users are advised to make an effort to capture full biographical information on the respondents. This will help to enable them to adhere to best practice and compliance with legal requirements.

SA Norms and international norms

The GeneSys online platform contains international norms on all Psytech tests, in addition to the South African norms which have been collected by Psytech South Africa.

Unless you have a very good reason to do otherwise, we recommend the use of South African norms rather than international norms. The South Africa norms are clearly marked with 'SA' in the heading. All other norms that do not include 'South Africa' or 'SA' in the heading are international norms. If you are assessing a person for placement overseas and you have a suitable international norm available, you could consider using the international norm in conjunction with a South African norm.

Outdated or unsuitable norms are subject to removal from the GeneSys online platform, but would still be reflected in the South African User Guide as it serves as a repository of all research that has been done to date.

User-developed norms

The GeneSys online platform offers users the facility to generate their own norms on the data they have collected – these are frequency norms. These norms will only appear on your online account and will not be available to other online accounts. Users must ensure that the data included in these in-house norms are “clean” – that they contain no dummy cases resulting from experimenting with the software, duplicates or other data that could interfere with the interpretation of the results. Psytech SA offers assistance in the creation of in-house norms for users who need it. If the norm group was generated on your own computer and not shared with Psytech SA, it will not appear in the documentation.

The norms we recommend and have calculated are based on standard deviations and means and are only added to the online system after they have done through an elaborate process of cleaning the data by removing duplicates, dummy and test cases and other data to make sure that users are using norms that were calculated on uncontaminated data (as far as is possible).

Choose the comparison group with care. Bear in mind factors such as race, language, level of education and level of proficiency in English.

List of norm tables

Norm group	Number
SA Asian Police Applicants	N1
SA Black Police Applicants	N2
SA Coloured Police Applicants	N3
SA White Police Applicants	N4
SA Managerial Professional	N5
SA Sales and Marketing	N6
SA Senior Managers - Insurance	N7
SA Workers in the petrochemical industry	N8
SA General Population	N9
SA General Population updated 2008	N10
SA English updated 2008	N11
SA Indigenous 2010	N12
SA English updated 2010	N13
SA Afrikaans updated 2010	N14
SA African updated 2010	N15
SA European updated 2010	N16
SA Coloured updated 2010	N17
SA Asian updated 2010	N18
SA General Population updated 2010	N19
SA Aggregate Population 2016	N20
SA Afrikaans updated 2016	N21
SA English updated 2016	N22
SA Indigenous updated 2016	N23
SA isiXhosa updated 2016	N24
SA isiZulu updated 2016	N25
SA Sepedi updated 2016	N26
SA Sesotho updated 2016	N27
SA siSwati updated 2016	N28
SA Tshivenda updated 2016	N29
SA Xitsonga updated 2016	N30
SA Setswana updated 2016	N31

The context of the new Aggregate norm:

Previously, when selecting a norm group on the GeneSys online platform, there was a 'General Population' norm available. The name of this norm has been changed from 'General Population' to the 'Aggregate Population'. Due to the nature of the data, aggregate population is more appropriate.

The technicalities:

When creating a norm, there are various ways of collecting data. In creating the updated norms, convenience sampling was done, which means that we used the data that were available to us. Specifically, the data from the GeneSys for Windows system were collated with the data from all our clients that have submitted data, for the period up to June 2015. The norm is best described as an aggregate norm when this sampling technique is utilised. This norm contains newer data, and represents a very substantial sample. To ensure the data were useful, the data were processed and 'cleaned' whereby duplicates and demonstration samples, and people who had not completed the entire assessment or subtest were removed, as well as all retests. Additionally, common names may have been removed in this process as we filtered data using Name, Surname, Sex, Age, Education, First Language and Race. In the initial process of merging data from all sources, (the GeneSys for Windows data merged with data from other GeneSys systems), duplicates were also set to be removed. This process has left us with a set of data that we are fairly confident about in terms of content and usefulness.

How to select a norm:

When selecting a norm it is important to consider who the respondent will be compared to, and choose the appropriate norm accordingly.

1. When to use the Aggregate Population norm (previously the General Population norm)

This norm consists of a large number of respondents and enables the individual's score to be compared to a representative average of this specific population. Using this norm enables the practitioner to know where the respondent lies in comparison to (in this context) the general population. Even when the norm is used in different situations, the basis for comparison stays the same. The requirements of the position should be borne in mind when interpreting the scores. It is much more defensible to use the same gauge and appropriately adjust your cut-offs as per various situations.

2. When to use an Indigenous Language or Smaller language group norm

Preferential treatment, to allow fairness for smaller language groups. This norm can be used to avoid discriminating against speakers of indigenous/smaller language groups and allow for potential educational deficits (as may be the case with the Verbal and Numerical subtests), as well as language interference.

3. Occupation Specific norms

These norms are used in specific contexts. They are useful for when the requirements of the job are unknown/assumed/ have not been examined, but the occupation group is known and there is access to a volume of data.

Additional points

Employment Equity

One of the legacies of apartheid is that South Africa is a country characterised by imbalances of distribution of opportunities and resources which permeates all spheres of society. The differences are mostly felt in educational and occupational environment and they still shape the wellbeing and future of the previously oppressed Black majority. One of the mechanisms put in place is Affirmative Action (AA) aimed at correcting the imbalances of the pasts by giving the Black majority an opportunity to advance and develop. However, the inferior quality of education and other factors that resulted from institutionalised discrimination makes it difficult for most Black candidates to meet the requirements. This extends to their ability to perform above the cut-off point on psychometric tests necessary for joining, promotions and attending high profile courses. The situation is aggravated by the bad reputation of psychometric tests in SA, making it difficult for some leaders to accept the result. Some perceive them as tools to frustrate processes such as AA, consequently suggesting the exclusion of psychometric tests in any selection processes.

If an organisation/employer wants to make a special effort to accommodate advancement of previously disadvantaged groups, one way of doing this would be to use a norm group tailored to the biographical background of the candidate. This would mean that you would be comparing English speakers with English speakers or speakers of Indigenous languages to other speakers of Indigenous language, for instance. It needs to be recognised that this may be seen as unfair by people who do not belong to the formerly disadvantaged

groups. It is, however, defensible in terms of the Employment Equity Act. When concessions of this nature are made, it would be advisable for them to be followed up with training and development.

The means and standard deviations for all the norms are available in the documentation for that norm group. In order to make an informed and fair decision, which is fair both to the candidate and to the employing organisation, practitioners are advised to compare the means for the different groups to the Aggregate Norm. To enable them to know how much of a concession they are making in the interest of Affirmative Action.

Biographical data

When creating norms, biographical data is of the utmost importance. Not only is it vital to ensure adequate validity and reliability is present in all demographic groups in South Africa, but it aids in building specific norm groups too. More than simply generating an overall norm group, additional data adds to building other useful norms based around education level, occupation level and language groups. Without this vital information, less information is available for the creation of such norms, which means that less norms are available for use. While it may appear to be time-consuming to fill in biographical data, it is of extreme importance. This also assists in making fair and proper norm selection decisions, for a specific individual.

Importance of using updated norms

Data can be obsolete if it is old enough to no longer reflect the population it is intended to represent. It is therefore in the best interest to use recently updated norms to ensure that candidates are compared to a representative group in order for results to be interpreted in a meaningful way.

Should an organisation want an in-house or specific norm, please feel free to contact us and we would be happy to help you in this regard.

Norm Group : SA Asian Police Trainee Applicants

Norm Type:

Standard Deviation Norm

Sample composition

Applicants for training to the SA Police Services. Minimum education grade 12. Pre-selected for English comprehension. Data collected during 2001.

Descriptive statistics on 15FQ+ scales

Scale	Scale description	Sample	Mean	SD
fA	Distant aloof - empathic	291	18.74	3.53
B	Intellectance	291	19.04	4.57
fC	Affected by feelings - emotionally stable	291	16.89	4.84
fE	Accommodating - Dominant	291	13.43	4.85
fF	Sober serious - Enthusiastic	291	16.52	4.83
fG	Expedient - Conscientious	291	18.66	4.08
fH	Retiring - Socially bold	291	13.54	6.31
fI	Tough Minded - Tender minded	291	10.39	5.44
fL	Trusting - Suspicious	291	11.79	5.13
fM	Concrete - Abstract	291	9.75	4.01
fN	Direct - Restrained	291	19.28	3.90
fO	Self-assured - Apprehensive	291	11.63	5.78
fQ1	Conventional - Radical	291	9.52	4.52
fQ2	Group - orientated - Self-sufficient	291	6.43	4.99
fQ3	Informal- self disciplined	291	21.75	2.39
fQ4	Composed - tense driven	291	7.43	5.52
SD	Social desirability	291	6.00	1.99
CT	Central Tendency	291	12.88	13.44
INF	Infrequency	291	1.45	1.55
EIQ	Derived score: Emotional Intelligence	291	23.93	4.14
WA	Derived score: Work attitude	291	27.03	3.99
fGOOD	Faking good	291	7.61	2.76
fBAD	Faking bad	291	3.99	2.31

Stens

	1 S10 1	2 S10 2	3 S10 3	4 S10 4	5 S10 5	6 S10 6	7 S10 7	8 S10 8	9 S10 9	10 S10 10
fA	0-11	12-13	14-15	16-16	17-18	19-20	21-22	23-24		
B	0-9	10-12	13-14	15-16	17-19	20-21	22-23	24-24		
fC	0-7	8-9	10-12	13-14	15-16	17-19	20-21	22-24		
fE	0-3	4-6	7-8	9-11	12-13	14-15	16-18	19-20	21-23	24-24
fF	0-6	7-9	10-11	12-14	15-16	17-18	19-21	22-23	24-24	
fG	0-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24		
fH	0-0	1-4	5-7	8-10	11-13	14-16	17-19	20-23	24-24	
fI	0--1	0-2	3-4	5-7	8-10	11-13	14-15	16-18	19-21	22-24
fL	0-1	2-4	5-6	7-9	10-11	12-14	15-16	17-19	20-22	23-24
fM	0-1	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-17	18-24
fN	0-11	12-13	14-15	16-17	18-19	20-21	22-23	24-24		
fO	0-0	1-2	3-5	6-8	9-11	12-14	15-17	18-20	21-23	24-24
fQ1	0-0	1-2	3-4	5-7	8-9	10-11	12-14	15-16	17-18	19-24
fQ2	0--1	0-0	1-1	2-3	4-6	7-8	9-11	12-13	14-16	17-24
fQ3	0-16	17-18	19-19	20-20	21-21	22-22	23-24			
fQ4	0--1	0-0	1-1	2-4	5-7	8-10	11-12	13-15	16-18	19-24
SD	0-2	3-3	4-4	5-5	6-6	7-7	8-8	9-9	10-10	11-16
CT	0--1	0-0	1-1	2-6	7-12	13-19	20-26	27-33	34-39	40-200
INF	0--1	0-0	1-1	2-2	3-3	4-4	5-5	6-6	7-7	8-26
EIQ	0-15	16-17	18-19	20-21	22-23	24-26	27-28	29-30		
WA	0-19	20-21	22-23	24-25	26-27	28-29	30-31	32-32		
fGOOD	0-2	3-3	4-4	5-6	7-7	8-8	9-10	11-11	12-13	14-14
fBAD	0--1	0-0	1-1	2-2	3-3	4-5	6-6	7-7	8-8	9-13

Norm Group : SA Black Police Trainee Applicants

Norm Type:

Standard Deviation Norm

Sample composition

Applicants for training to the SA Police Services. Minimum education grade 12. Pre-selected for English comprehension. Data collected during 2001.

Descriptive statistics on 15FQ+ scales

Norm: 15FQ+ SA Black Police Training Applicants

Dim	Scale description	Sample Size	Mean	SD
fA	Distant aloof - empathic	1565	18.37	3.09
B	Intellectance	1565	18.20	4.06
fC	Affected by feelings - emotionally stable	1565	16.82	4.42
fE	Accommodating - Dominant	1565	15.20	3.54
fF	Sober serious - Enthusiastic	1565	12.38	5.26
fG	Expedient - Conscientious	1565	20.73	2.95
fH	Retiring - Socially bold	1565	15.32	4.97
fI	Tough Minded - Tender minded	1565	12.72	4.20
fL	Trusting - Suspicious	1565	12.91	4.06
fM	Concrete - Abstract	1565	10.07	2.85
fN	Direct - Restrained	1565	20.68	2.81
fO	Self-assured - Apprehensive	1565	12.65	4.24
fQ1	Conventional - Radical	1565	8.41	3.47
fQ2	Group - orientated - Self-sufficient	1565	7.65	4.27
fQ3	Informal- self disciplined	1565	21.29	2.30
fQ4	Composed - tense driven	1565	8.04	3.87
SD	Social desirability	1565	5.88	2.11
CT	Central Tendency	1565	15.08	17.82
INF	Infrequency	1565	2.21	2.23
EQI	Derived score: Emotional Intelligence	1565	23.03	3.71
WA	Derived score: Work attitude	1565	27.02	3.63
fGOOD	Faking good	1565	7.72	2.36
fBAD	Faking bad	1565	4.49	2.08

Stens

	1	2	3	4	5	6	7	8	9	10
	S10_1	S10_2	S10_3	S10_4	S10_5	S10_6	S10_7	S10_8	S10_9	S10_10
fA	0-12	13-13	14-15	16-16	17-18	19-19	20-21	22-23	24-24	
B	0-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24		
fC	0-7	8-10	11-12	13-14	15-16	17-19	20-21	22-23	24-24	
fE	0-8	9-9	10-11	12-13	14-15	16-16	17-18	19-20	21-22	23-24
fF	0-1	2-4	5-7	8-9	10-12	13-15	16-17	18-20	21-22	23-24
fG	0-14	15-16	17-17	18-19	20-20	21-22	23-23	24-24		
fH	0-5	6-7	8-10	11-12	13-15	16-17	18-20	21-22	23-24	
fI	0-4	5-6	7-8	9-10	11-12	13-14	15-16	17-19	20-21	22-24
fL	0-4	5-6	7-8	9-10	11-12	13-14	15-16	17-19	20-21	22-24
fM	0-4	5-5	6-7	8-8	9-10	11-11	12-12	13-14	15-15	16-24
fN	0-15	16-16	17-17	18-19	20-20	21-22	23-23	24-24		
fO	0-4	5-6	7-8	9-10	11-12	13-14	15-16	17-19	20-21	22-24
fQ1	0-1	2-3	4-4	5-6	7-8	9-10	11-11	12-13	14-15	16-24
fQ2	0--1	0-1	2-3	4-5	6-7	8-9	10-11	12-14	15-16	17-24
fQ3	0-16	17-17	18-18	19-20	21-21	22-22	23-23	24-24		
fQ4	0-0	1-2	3-4	5-6	7-8	9-9	10-11	12-13	14-15	16-24
SD	0-1	2-2	3-3	4-4	5-5	6-6	7-7	8-9	10-10	11-16
CT	0--1	0-0	1-1	2-6	7-15	16-23	24-32	33-41	42-50	51-200
INF	0--1	0-0	1-1	2-2	3-3	4-4	5-5	6-6	7-7	8-26
EIQ	0-15	16-17	18-19	20-21	22-23	24-24	25-26	27-28	29-30	
WA	0-19	20-21	22-23	24-25	26-27	28-28	29-30	31-32		
fGOOD	0-2	3-4	5-5	6-6	7-7	8-8	9-10	11-11	12-12	13-14
fBAD	0-0	1-1	2-2	3-3	4-4	5-5	6-6	7-7	8-8	9-13

Norm Group : SA Coloured Police Trainee Applicants

Norm Type:

Standard Deviation Norm

Sample composition

Applicants for training to the SA Police Services. Minimum education grade 12. Pre-selected for English comprehension. Data collected during 2001.

Descriptive statistics on 15FQ+ scales

Dim	Scale description	Sample Size	Mean	SD
fA	Distant aloof - empathic	167	18.11	3.54
B	Intellectance	167	18.62	4.76
fC	Affected by feelings - emotionally stable	167	16.53	5.24
fE	Accommodating - Dominant	167	14.10	4.14
fF	Sober serious - Enthusiastic	167	14.45	5.40
fG	Expedient - Conscientious	167	18.72	3.96
fH	Retiring - Socially bold	167	13.53	6.01
fI	Tough Minded - Tender minded	167	11.33	5.07
fL	Trusting - Suspicious	167	11.56	5.10
fM	Concrete - Abstract	167	9.42	3.98
fN	Direct - Restrained	167	19.44	3.94
fO	Self-assured - Apprehensive	167	12.65	5.07
fQ1	Conventional - Radical	167	9.18	4.59
fQ2	Group - orientated - Self-sufficient	167	6.32	4.96
fQ3	Informal- self disciplined	167	21.81	2.40
fQ4	Composed - tense driven	167	8.24	5.67
SD	Social desirability	167	6.40	1.82
CT	Central Tendency	167	11.13	12.33
INF	Infrequency	167	1.54	1.42
EQ	Derived score: Emotional Intelligence	167	23.39	4.44
WA	Derived score: Work attitude	167	27.29	4.02
fGOOD	Faking good	167	7.41	2.88
fBAD	Faking bad	167	4.20	2.32

Stens

	1	2	3	4	5	6	7	8	9	10
	S10_1	S10_2	S10_3	S10_4	S10_5	S10_6	S10_7	S10_8	S10_9	S10_10
fA	0-11	12-12	13-14	15-16	17-18	19-19	20-21	22-23	24-24	
B	0-9	10-11	12-13	14-16	17-18	19-21	22-23	24-24		
fC	0-6	7-8	9-11	12-13	14-16	17-19	20-21	22-24		
fE	0-5	6-7	8-9	10-12	13-14	15-16	17-18	19-20	21-22	23-24
fF	0-3	4-6	7-9	10-11	12-14	15-17	18-19	20-22	23-24	
fG	0-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24		
fH	0-1	2-4	5-7	8-10	11-13	14-16	17-19	20-22	23-24	
fI	0-1	2-3	4-6	7-8	9-11	12-13	14-16	17-18	19-21	22-24
fL	0-1	2-3	4-6	7-9	10-11	12-14	15-16	17-19	20-21	22-24
fM	0-1	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-17	18-24
fN	0-11	12-13	14-15	16-17	18-19	20-21	22-23	24-24		
fO	0-2	3-5	6-7	8-10	11-12	13-15	16-17	18-20	21-22	23-24
fQ1	0--1	0-2	3-4	5-6	7-9	10-11	12-13	14-16	17-18	19-24
fQ2	0--1	0-0	1-1	2-3	4-6	7-8	9-11	12-13	14-16	17-24
fQ3	0-17	18-18	19-19	20-20	21-21	22-23	24-24			
fQ4	0--1	0-0	1-2	3-5	6-8	9-11	12-13	14-16	17-19	20-24
SD	0-2	3-3	4-4	5-5	6-6	7-7	8-8	9-9	10-10	11-16
CT	0--1	0-0	1-1	2-4	5-11	12-17	18-23	24-29	30-35	36-200
INF	0--1	0-0	1-1	2-2	3-3	4-4	5-5	6-6	7-7	8-26
EIQ	0-14	15-16	17-18	19-21	22-23	24-25	26-27	28-30		
WA	0-19	20-21	22-23	24-25	26-27	28-29	30-31	32-32		
fGOOD	0-1	2-3	4-4	5-5	6-7	8-8	9-10	11-11	12-13	14-14
fBAD	0--1	0-0	1-1	2-3	4-4	5-5	6-6	7-7	8-8	9-13

Norm Group : SA White Police Trainee Applicants

Norm Type:

Standard Deviation Norm

Sample composition

Applicants for training to the SA Police Services. Minimum education grade 12. Pre-selected for English comprehension. Data collected during 2001.

Descriptive statistics on 15FQ+ scales

Dim	Scale description	Sample Size	Mean	SD
fA	Distant aloof - empathic	223	19.08	3.96
B	Intellectance	223	19.55	4.39
fC	Affected by feelings - emotionally stable	223	17.09	4.96
fE	Accommodating - Dominant	223	13.78	4.88
fF	Sober serious - Enthusiastic	223	17.35	5.11
fG	Expedient - Conscientious	223	18.24	4.37
fH	Retiring - Socially bold	223	13.84	6.63
fI	Tough Minded - Tender minded	223	11.26	5.58
fL	Trusting - Suspicious	223	9.34	5.15
fM	Concrete - Abstract	223	9.83	3.93
fN	Direct - Restrained	223	18.97	4.44
fO	Self-assured - Apprehensive	223	12.38	5.57
fQ1	Conventional - Radical	223	8.66	4.70
fQ2	Group - orientated - Self-sufficient	223	5.89	5.45
fQ3	Informal- self disciplined	223	22.09	1.98
fQ4	Composed - tense driven	223	9.52	5.96
SD	Social desirability	223	6.24	1.92
CT	Central Tendency	223	16.31	12.87
INF	Infrequency	223	1.70	1.62
EQ	Derived score: Emotional Intelligence	223	23.43	4.38
WA	Derived score: Work attitude	223	26.43	3.92
fGOOD	Faking good	223	6.66	3.02
fBAD	Faking bad	223	3.99	2.45

Stens

	1	2	3	4	5	6	7	8	9	10
	S10_1	S10_2	S10_3	S10_4	S10_5	S10_6	S10_7	S10_8	S10_9	S10_10
fA	0-11	12-13	14-15	16-17	18-19	20-21	22-23	24-24		
B	0-10	11-12	13-15	16-17	18-19	20-21	22-23	24-24		
fC	0-7	8-9	10-12	13-14	15-17	18-19	20-22	23-24		
fE	0-4	5-6	7-8	9-11	12-13	14-16	17-18	19-21	22-23	24-24
fF	0-7	8-9	10-12	13-14	15-17	18-19	20-22	23-24		
fG	0-9	10-11	12-13	14-16	17-18	19-20	21-22	23-24		
fH	0-0	1-3	4-7	8-10	11-13	14-17	18-20	21-23	24-24	
fI	0-0	1-2	3-5	6-8	9-11	12-14	15-16	17-19	20-22	23-24
fL	0--1	0-1	2-4	5-6	7-9	10-11	12-14	15-17	18-19	20-24
fM	0-1	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-17	18-24
fN	0-10	11-12	13-14	15-16	17-18	19-21	22-23	24-24		
fO	0-1	2-4	5-6	7-9	10-12	13-15	16-17	18-20	21-23	24-24
fQ1	0--1	0-1	2-3	4-6	7-8	9-11	12-13	14-15	16-18	19-24
fQ2	0--1	0-0	1-1	2-3	4-5	6-8	9-11	12-14	15-16	17-24
fQ3	0-18	19-19	20-20	21-21	22-22	23-23	24-24			
fQ4	0--1	0-0	1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24
SD	0-2	3-3	4-4	5-5	6-6	7-7	8-8	9-9	10-10	11-16
CT	0--1	0-0	1-3	4-9	10-16	17-22	23-29	30-35	36-42	43-200
INF	0--1	0-0	1-1	2-2	3-3	4-4	5-5	6-6	7-7	8-26
EIQ	0-14	15-16	17-19	20-21	22-23	24-25	26-27	28-30		
WA	0-18	19-20	21-22	23-24	25-26	27-28	29-30	31-32		
fGOOD	0-0	1-2	3-3	4-5	6-6	7-8	9-9	10-11	12-12	13-14
fBAD	0--1	0-0	1-1	2-2	3-3	4-5	6-6	7-7	8-8	9-13

Norm Group : SA Managerial Professional candidates and incumbents

Norm Type:

Standard Deviation Norm

Sample composition

Respondents tested by Psytech SA Clients for managerial positions, mainly in the manufacturing and insurance industries.

Descriptive statistics on 15FQ+ scales

Dim	Scale description	Sample Size	Mean	SD
fA	Distant aloof - empathic	254	18.46	4.38
B	Intellectance	254	19.06	4.90
fC	Affected by feelings - emotionally stable	254	16.67	5.19
fE	Accommodating - Dominant	254	16.60	5.16
fF	Sober serious - Enthusiastic	254	15.65	5.07
fG	Expedient - Conscientious	254	16.24	6.02
fH	Retiring - Socially bold	254	15.61	6.06
fI	Tough Minded - Tender minded	254	14.53	5.18
fL	Trusting - Suspicious	254	8.00	5.22
fM	Concrete - Abstract	254	11.13	4.70
fN	Direct - Restrained	254	17.78	4.92
fO	Self-assured - Apprehensive	254	12.13	6.39
fQ1	Conventional - Radical	254	9.57	6.08
fQ2	Group - orientated - Self-sufficient	254	7.52	5.00
fQ3	Informal- self disciplined	254	18.87	4.78
fQ4	Composed - tense driven	254	10.35	5.83
SD	Social desirability	254	6.31	2.49
CT	Central Tendency	254	12.96	13.34
INF	Infrequency	254	1.27	1.38
EIQ	Derived score: Emotional Intelligence	254	21.09	7.67
WA	Derived score: Work attitude	254	23.60	8.31
fGOOD	Faking good	254	6.54	3.13
fBAD	Faking bad	254	4.26	2.79

Stens

	1	2	3	4	5	6	7	8	9	10
	S10_1	S10_2	S10_3	S10_4	S10_5	S10_6	S10_7	S10_8	S10_9	S10_10
fA	0-9	10-11	12-14	15-16	17-18	19-20	21-22	23-24		
B	0-9	10-11	12-14	15-16	17-19	20-21	22-23	24-24		
fC	0-6	7-8	9-11	12-14	15-16	17-19	20-21	22-24		
fE	0-6	7-8	9-11	12-14	15-16	17-19	20-21	22-24		
fF	0-5	6-8	9-10	11-13	14-15	16-18	19-20	21-23	24-24	
fG	0-4	5-7	8-10	11-13	14-16	17-19	20-22	23-24		
fH	0-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24		
fI	0-4	5-6	7-9	10-11	12-14	15-17	18-19	20-22	23-24	
fL	0--1	0-0	1-2	3-5	6-7	8-10	11-13	14-15	16-18	19-24
fM	0-1	2-4	5-6	7-8	9-11	12-13	14-15	16-18	19-20	21-24
fN	0-7	8-10	11-12	13-15	16-17	18-20	21-22	23-24		
fO	0--1	0-2	3-5	6-8	9-12	13-15	16-18	19-21	22-24	
fQ1	0--1	0-0	1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24
fQ2	0--1	0-0	1-2	3-5	6-7	8-10	11-12	13-15	16-17	18-24
fQ3	0-9	10-11	12-14	15-16	17-18	19-21	22-23	24-24		
fQ4	0--1	0-1	2-4	5-7	8-10	11-13	14-16	17-19	20-22	23-24
SD	0-1	2-2	3-3	4-5	6-6	7-7	8-8	9-10	11-11	12-16
CT	0--1	0-0	1-1	2-6	7-12	13-19	20-26	27-32	33-39	40-200
INF	0--1	0-0	1-1	2-2	3-3	4-4	5-5	6-6	7-7	8-26
EIQ	0-5	6-9	10-13	14-17	18-21	22-24	25-28	29-30		
WA	0-6	7-11	12-15	16-19	20-23	24-27	28-31	32-32		
fGOOD	0-0	1-1	2-3	4-4	5-6	7-8	9-9	10-11	12-12	13-14
fBAD	0--1	0-0	1-1	2-2	3-4	5-5	6-7	8-8	9-9	10-13

Norm Group : SA Managerial Professional candidates and incumbents

Norm Type:

Standard Deviation Norm

Sample composition

Candidates and incumbents assessed for a variety of sales and marketing positions by clients of Psytech SA.

Descriptive statistics on 15FQ+ scales

Dim	Scale description	Sample Size	Mean	SD
fA	Distant aloof - empathic	150	18.73	4.22
B	Intellectance	150	18.58	5.07
fC	Affected by feelings - emotionally stable	150	15.63	5.55
fE	Accommodating - Dominant	150	16.16	5.12
fF	Sober serious - Enthusiastic	150	16.27	5.07
fG	Expedient - Conscientious	150	15.69	5.87
fH	Retiring - Socially bold	150	16.34	5.86
fI	Tough Minded - Tender minded	150	13.95	5.43
fL	Trusting - Suspicious	150	9.37	5.16
fM	Concrete - Abstract	150	11.21	4.34
fN	Direct - Restrained	150	17.89	4.99
fO	Self-assured - Apprehensive	150	12.11	6.84
fQ1	Conventional - Radical	150	9.31	5.53
fQ2	Group - orientated - Self-sufficient	150	7.27	5.01
fQ3	Informal- self disciplined	150	20.02	3.60
fQ4	Composed - tense driven	150	10.82	6.19
SD	Social desirability	150	1.67	2.95
CT	Central Tendency	150	2.91	7.86
INF	Infrequency	150	0.35	1.04
EIQ	Derived score: Emotional Intelligence	150	6.89	11.44
WA	Derived score: Work attitude	150	7.14	11.88
fGOOD	Faking good	150	6.71	2.95
fBAD	Faking bad	150	5.17	3.09

Stens

	1	2	3	4	5	6	7	8	9	10
	S10_1	S10_2	S10_3	S10_4	S10_5	S10_6	S10_7	S10_8	S10_9	S10_10
fA	0-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24		
B	0-8	9-10	11-13	14-16	17-18	19-21	22-23	24-24		
fC	0-4	5-7	8-10	11-12	13-15	16-18	19-21	22-23	24-24	
fE	0-5	6-8	9-11	12-13	14-16	17-18	19-21	22-23	24-24	
fF	0-6	7-8	9-11	12-13	14-16	17-18	19-21	22-23	24-24	
fG	0-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24		
fH	0-4	5-7	8-10	11-13	14-16	17-19	20-22	23-24		
fI	0-3	4-5	6-8	9-11	12-13	14-16	17-19	20-22	23-24	
fL	0--1	0-1	2-4	5-6	7-9	10-11	12-14	15-17	18-19	20-24
fM	0-2	3-4	5-6	7-9	10-11	12-13	14-15	16-17	18-19	20-24
fN	0-7	8-10	11-12	13-15	16-17	18-20	21-22	23-24		
fO	0--1	0-1	2-5	6-8	9-12	13-15	16-18	19-22	23-24	
fQ1	0--1	0-1	2-3	4-6	7-9	10-12	13-14	15-17	18-20	21-24
fQ2	0--1	0-0	1-2	3-4	5-7	8-9	10-12	13-14	15-17	18-24
fQ3	0-12	13-14	15-16	17-18	19-20	21-21	22-23	24-24		
fQ4	0--1	0-1	2-4	5-7	8-10	11-13	14-17	18-20	21-23	24-24
SD	0--1	0-0	1-1	2-2	3-3	4-4	5-5	6-6	7-7	8-16
CT	0--1	0-0	1-1	2-2	3-3	4-6	7-10	11-14	15-18	19-200
INF	0--1	0-0	1-1	2-2	3-3	4-4	5-5	6-6	7-7	8-26
EIQ	0--1	0-0	1-1	2-2	3-6	7-12	13-18	19-24	25-29	30-30
WA	0--1	0-0	1-1	2-2	3-7	8-13	14-19	20-24	25-30	31-32
fGOOD	0-0	1-2	3-3	4-5	6-6	7-8	9-9	10-11	12-12	13-14
fBAD	0--1	0-0	1-2	3-3	4-5	6-6	7-8	9-9	10-11	12-13

Norm Group : SA Senior Managers - Insurance

Norm Type:

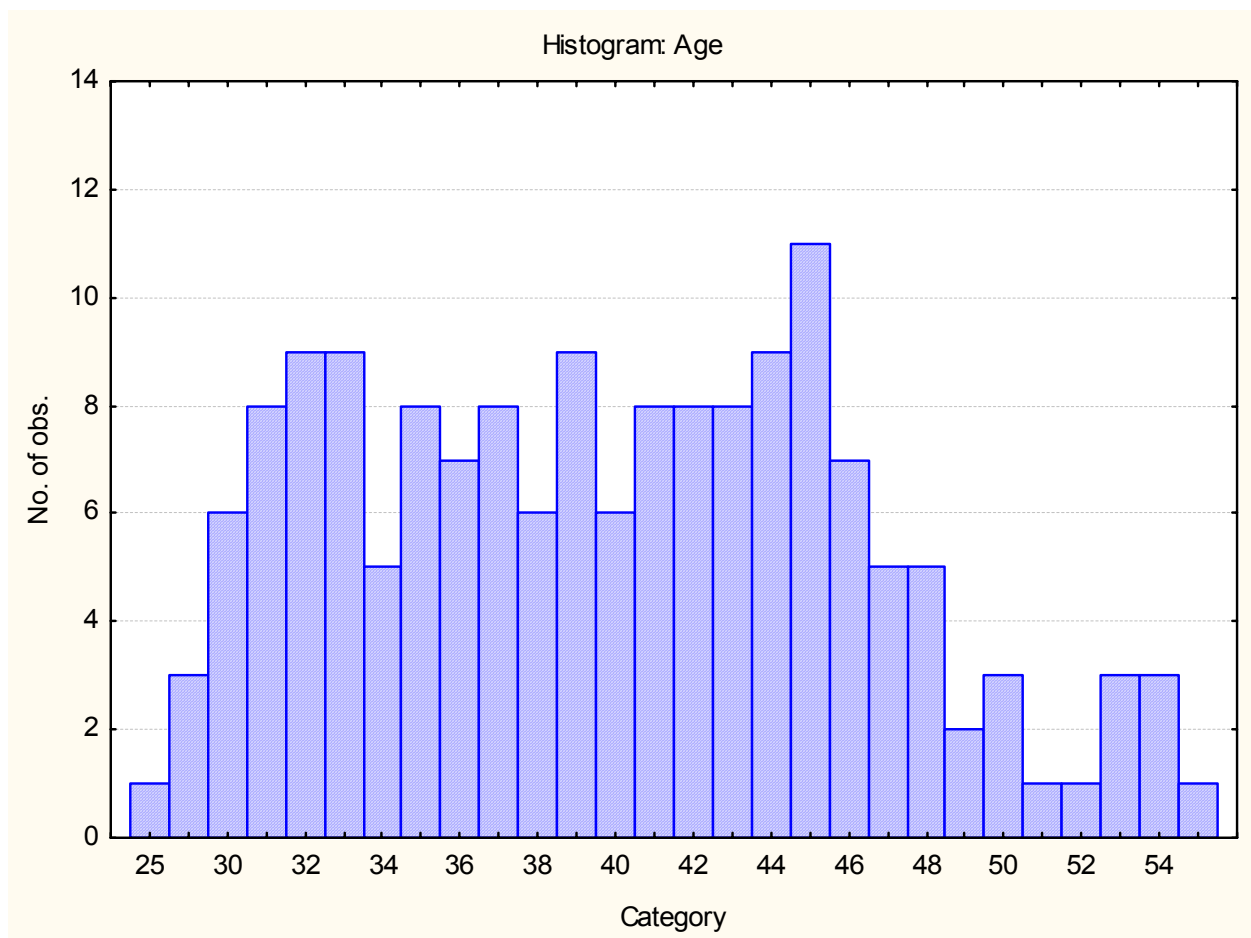
Standard Deviation Norm

Sample composition

Senior managers with a large South African insurance company assessed as part of a validation study. Data collected between 2000 and 2003.

Frequency table: Sex				
Category	Count	Cumulative Count	Percent	Cumulative Percent
F	24	24	15.00000	15.0000
M	136	160	85.00000	100.0000
Missing	0	160	0.00000	100.0000

Descriptive Statistics						
Variable	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	39.78750	6.572659	25.00000	56.00000	160	0



Descriptive statistics on 15FQ+ scales

Dim	Scale description	Sample Size	Mean	SD
fA	Distant aloof - empathic	113	17.61	4.72
B	Intellectance	113	21.12	2.88
fC	Affected by feelings - emotionally stable	113	18.54	4.80
fE	Accommodating - Dominant	113	19.08	3.59
fF	Sober serious - Enthusiastic	113	13.75	5.53
fG	Expedient - Conscientious	113	16.58	5.31
fH	Retiring - Socially bold	113	15.56	6.08
fI	Tough Minded - Tender minded	113	15.29	4.92
fL	Trusting - Suspicious	113	4.56	4.19
fM	Concrete - Abstract	113	11.85	4.90
fN	Direct - Restrained	113	17.33	5.04
fO	Self-assured - Apprehensive	113	11.01	5.70
fQ1	Conventional - Radical	113	11.23	5.97
fQ2	Group - orientated - Self-sufficient	113	7.29	6.07
fQ3	Informal- self disciplined	113	16.41	4.49
fQ4	Composed - tense driven	113	10.34	5.64
SD	Social desirability	113	11.23	3.53
CT	Central Tendency	113	13.04	13.55
INF	Infrequency	113	1.56	1.45
EIQ	Derived score: Emotional Intelligence	113	23.41	4.24
WA	Derived score: Work attitude	113	24.17	5.26
fGOOD	Faking good	113	7.50	2.44
fBAD	Faking bad	113	4.31	2.60

Stens

	1	2	3	4	5	6	7	8	9	10
	S10_1	S10_2	S10_3	S10_4	S10_5	S10_6	S10_7	S10_8	S10_9	S10_10
fA	0-8	9-10	11-12	13-15	16-17	18-19	20-22	23-24		
B	0-15	16-16	17-18	19-19	20-21	22-22	23-24			
fC	0-8	9-11	12-13	14-16	17-18	19-20	21-23	24-24		
fE	0-11	12-13	14-15	16-17	18-19	20-20	21-22	23-24		
fF	0-2	3-5	6-8	9-10	11-13	14-16	17-19	20-22	23-24	
fG	0-5	6-8	9-11	12-13	14-16	17-19	20-21	22-24		
fH	0-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24		
fI	0-5	6-7	8-10	11-12	13-15	16-17	18-20	21-22	23-24	
fL	0-1	0-0	1-1	2-2	3-4	5-6	7-8	9-10	11-12	13-24
fM	0-2	3-4	5-6	7-9	10-11	12-14	15-16	17-19	20-21	22-24
fN	0-7	8-9	10-12	13-14	15-17	18-19	20-22	23-24		
fO	0-1	0-2	3-5	6-8	9-11	12-13	14-16	17-19	20-22	23-24
fQ1	0-1	0-2	3-5	6-8	9-11	12-14	15-17	18-20	21-23	24-24
fQ2	0-1	0-0	1-1	2-4	5-7	8-10	11-13	14-16	17-19	20-24
fQ3	0-7	8-9	10-11	12-14	15-16	17-18	19-20	21-23	24-24	
fQ4	0-1	0-1	2-4	5-7	8-10	11-13	14-15	16-18	19-21	22-24
SD	0-4	5-5	6-7	8-9	10-11	12-12	13-14	15-16		
CT	0-1	0-0	1-1	2-6	7-13	14-19	20-26	27-33	34-40	41-200
INF	0-1	0-0	1-1	2-2	3-3	4-4	5-5	6-6	7-7	8-26
EIQ	0-14	15-17	18-19	20-21	22-23	24-25	26-27	28-29	30-30	
WA	0-13	14-16	17-18	19-21	22-24	25-26	27-29	30-32		
fGOOD	0-2	3-3	4-5	6-6	7-7	8-8	9-9	10-11	12-12	13-14
fBAD	0-1	0-0	1-1	2-3	4-4	5-5	6-6	7-8	9-9	10-13

Norm Group : SA Workers in the petrochemical industry

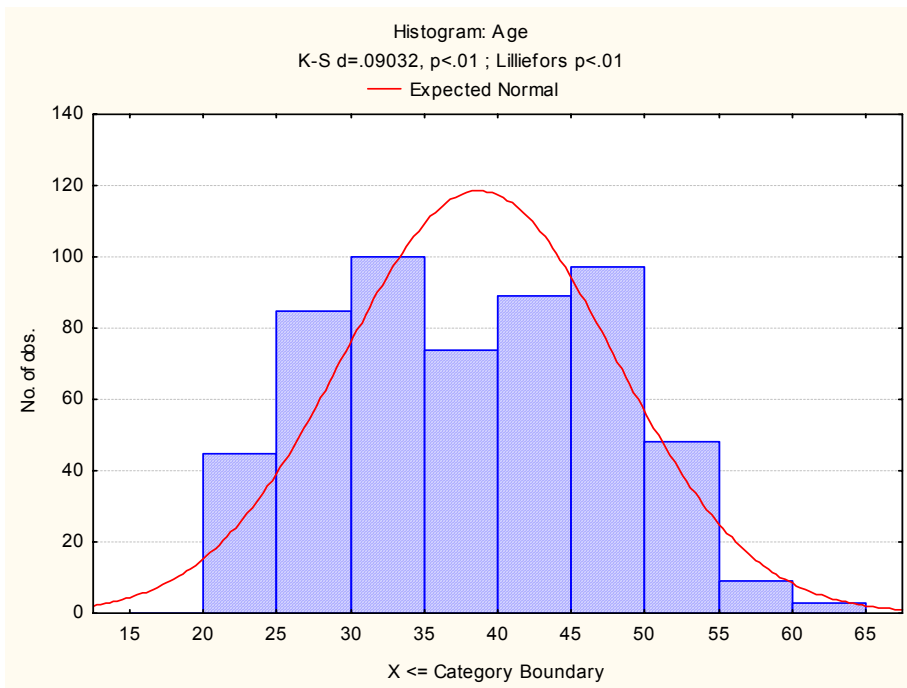
Norm Type:

Standard Deviation Norm

Sample composition

No information on gender, race, home language, level or job was supplied. Names were not supplied, and thus no deduction could be made from names with regard to race.

Descriptive Statistics AGE					
Variable	Valid N	Mean	Minimum	Maximum	Std.Dev.
Age	550	38.73091	22.00000	63.00000	9.254170



Descriptive statistics on 15FQ+ scales

Dim	Scale description	Sample Size	Mean	SD
fA	Distant aloof - empathic	550	17.41	4.55
B	Intellectance	550	20.13	3.83
fC	Affected by feelings - emotionally stable	550	18.63	4.30
fE	Accommodating - Dominant	550	17.46	4.21
fF	Sober serious - Enthusiastic	550	12.51	5.62
fG	Expedient - Conscientious	550	17.92	5.13
fH	Retiring - Socially bold	550	13.94	6.57
fI	Tough Minded - Tender minded	550	13.42	4.78
fL	Trusting - Suspicious	550	6.86	4.64
fM	Concrete - Abstract	550	10.84	4.46
fN	Direct - Restrained	550	17.78	4.65
fO	Self-assured - Apprehensive	550	11.75	5.60
fQ1	Conventional - Radical	550	9.54	5.43
fQ2	Group - orientated - Self-sufficient	550	8.39	5.46
fQ3	Informal- self disciplined	550	19.25	3.63
fQ4	Composed - tense driven	550	9.36	5.46
SD	Social desirability	550	11.61	2.98
CT	Central Tendency	550	17.09	15.48
INF	Infrequency	550	1.87	1.82
EIQ	Derived score: Emotional Intelligence	550	23.72	4.37
WA	Derived score: Work attitude	550	26.50	4.77
fGOOD	Faking good	550	7.09	2.65
fBAD	Faking bad	550	3.91	2.22

Stens

	1	2	3	4	5	6	7	8	9	10
	S10 1	S10 2	S10 3	S10 4	S10 5	S10 6	S10 7	S10 8	S10 9	S10 10
fA	0-8	9-10	11-12	13-15	16-17	18-19	20-21	22-24		
B	0-12	13-14	15-16	17-18	19-20	21-22	23-23	24-24		
fC	0-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24		
fE	0-9	10-11	12-13	14-15	16-17	18-19	20-21	22-23	24-24	
fF	0-1	2-4	5-6	7-9	10-12	13-15	16-18	19-20	21-23	24-24
fG	0-7	8-10	11-12	13-15	16-17	18-20	21-23	24-24		
fH	0-0	1-4	5-7	8-10	11-13	14-17	18-20	21-23	24-24	
fI	0-3	4-6	7-8	9-11	12-13	14-15	16-18	19-20	21-22	23-24
fL	0--1	0-0	1-2	3-4	5-6	7-9	10-11	12-13	14-16	17-24
fM	0-1	2-4	5-6	7-8	9-10	11-13	14-15	16-17	18-19	20-24
fN	0-8	9-10	11-13	14-15	16-17	18-20	21-22	23-24		
fO	0-0	1-3	4-6	7-8	9-11	12-14	15-17	18-20	21-22	23-24
fQ1	0--1	0-1	2-4	5-6	7-9	10-12	13-14	15-17	18-20	21-24
fQ2	0--1	0-0	1-2	3-5	6-8	9-11	12-13	14-16	17-19	20-24
fQ3	0-11	12-13	14-15	16-17	18-19	20-21	22-22	23-24		
fQ4	0--1	0-1	2-3	4-6	7-9	10-12	13-14	15-17	18-20	21-24
SD	0-5	6-7	8-8	9-10	11-11	12-13	14-14	15-16		
CT	0--1	0-0	1-1	2-9	10-17	18-24	25-32	33-40	41-48	49-200
INF	0--1	0-0	1-1	2-2	3-3	4-4	5-5	6-6	7-7	8-26
EIQ	0-14	15-17	18-19	20-21	22-23	24-25	26-28	29-30		
WA	0-16	17-19	20-21	22-24	25-26	27-28	29-31	32-32		
fGOOD	0-1	2-3	4-4	5-5	6-7	8-8	9-9	10-11	12-12	13-14
fBAD	0--1	0-0	1-1	2-2	3-3	4-5	6-6	7-7	8-8	9-13

Norm Group : SA General Population

Norm Type:

Standard Deviation Norm

Sample composition

Age			
Mean	Min	Max	Missing
34.99	2	72	147

Sex		
Male	Female	Missing
1017	458	19

Education		
Grade 10 or 11	6	
Grade 12	80	
University entrance matric	0	
Vocational Training	1	
Technikon	0	
University diploma	0	
Degree	36	
Post Graduate	16	
Missing	1239	

Educated In English		
Yes	37	
No	0	
Missing	1457	

First Language		
isiZulu	17	
isiXhosa	3	
Afrikaans	66	
Sepedi	1	
English	130	
Setswana	12	
Sesotho	10	
Xitsonga	1	
siSwati	0	
isiNdebele	0	
Tshivenda	0	
Other	0	
Missing	1250	

Race		
Asian	25	
African	49	
Coloured	17	
European	160	
Other	0	
Missing	1239	

Compiled from raw data submitted by various clients of Psytech SA

Descriptive statistics on 15FQ+ scales

Dim	Scale description	Sample Size	Mean	SD
fA	Distant aloof - empathic	1494	18.46	4.24
B	Intellectance	1494	19.82	4.08
fC	Affected by feelings - emotionally stable	1494	17.60	4.58
fE	Accommodating - Dominant	1494	17.21	4.65
fF	Sober serious - Enthusiastic	1494	14.61	5.53
fG	Expedient - Conscientious	1494	18.11	5.30
fH	Retiring - Socially bold	1494	15.25	6.07
fI	Tough Minded - Tender minded	1494	14.73	5.17
fL	Trusting - Suspicious	1494	8.05	5.00
fM	Concrete - Abstract	1494	10.81	4.49
fN	Direct - Restrained	1494	18.01	4.89
fO	Self-assured - Apprehensive	1494	11.72	5.81
fQ1	Conventional - Radical	1494	9.89	5.59
fQ2	Group - orientated - Self-sufficient	1494	7.85	5.10
fQ3	Informal- self disciplined	1494	19.04	4.18
fQ4	Composed - tense driven	1494	9.71	5.89
SD	Social desirability	1494	7.44	3.58
CT	Central Tendency	1494	13.62	13.64
INF	Infrequency	1494	1.39	1.54
EIQ	Derived score: Emotional Intelligence	1494	23.09	5.35
WA	Derived score: Work attitude	1494	25.57	5.81
fGOOD	Faking good	1494	7.08	2.79
fBAD	Faking bad	1494	4.24	2.48

Stens

Dim	1	2	3	4	5	6	7	8	9	10
fA	0-7	8-10	11-14	15-17	18-19	20-21	22	23	24	
B	0-8	9-12	13-15	16-18	19-20	21-22	23	24		
fC	0-6	7-9	10-12	13-15	16-18	19-20	21-22	23	24	
fE	0-6	7-9	10-12	13-15	16-17	18-20	21	22-23	24	
fF	0-3	4-5	6-8	9-11	12-14	15-17	18-20	21-22	23	24
fG	0-4	5-8	9-12	13-16	17-19	20-21	22	23	24	
fH	0-2	3-5	6-8	9-12	13-16	17-19	20-21	22-23	24	
fI	0-4	5-6	7-9	10-12	13-15	16-17	18-20	21-22	23	24
fL		0	1-2	3-4	5-7	8-10	11-13	14-16	17-18	19-24
fM	0-2	3-4	5-6	7-8	9-10	11-12	13-15	16-17	18-20	21-24
fN	0-5	6-9	10-13	14-16	17-19	20-21	22	23	24	
fO	0-1	2	3-5	6-8	9-11	12-15	16-18	19-20	21-22	23-24
fQ1	0	1	2-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24
fQ2	0	1	2	3-4	5-6	7-9	10-13	14-16	17-19	20-24
fQ3	0-7	8-11	12-15	16-18	19-20	21	22	23	24	
fQ4	0	1	2-3	4-6	7-9	10-12	13-16	17-19	20-22	23-24
SD	0-2	3	4	5	6	7-8	9-11	12-14	15	16
CT		0	1-2	3-4	5-8	9-16	17-25	26-38	39-52	53- 200
INF			0		1		2	3	4-5	6-27
EIQ	0-9	10-14	15-18	19-21	22-23	24-26	27-28	29	30	
WA	0-10	11-16	17-20	21-24	25-26	27-29	30	31	32	
fGOOD	0	1-2	3-4	5	6-7	8	9	10	11	12
fBAD		0	1	2	3-4	5	6	7-8	9	10-13

Norm Group : SA General Population updated 2008

Norm Type:

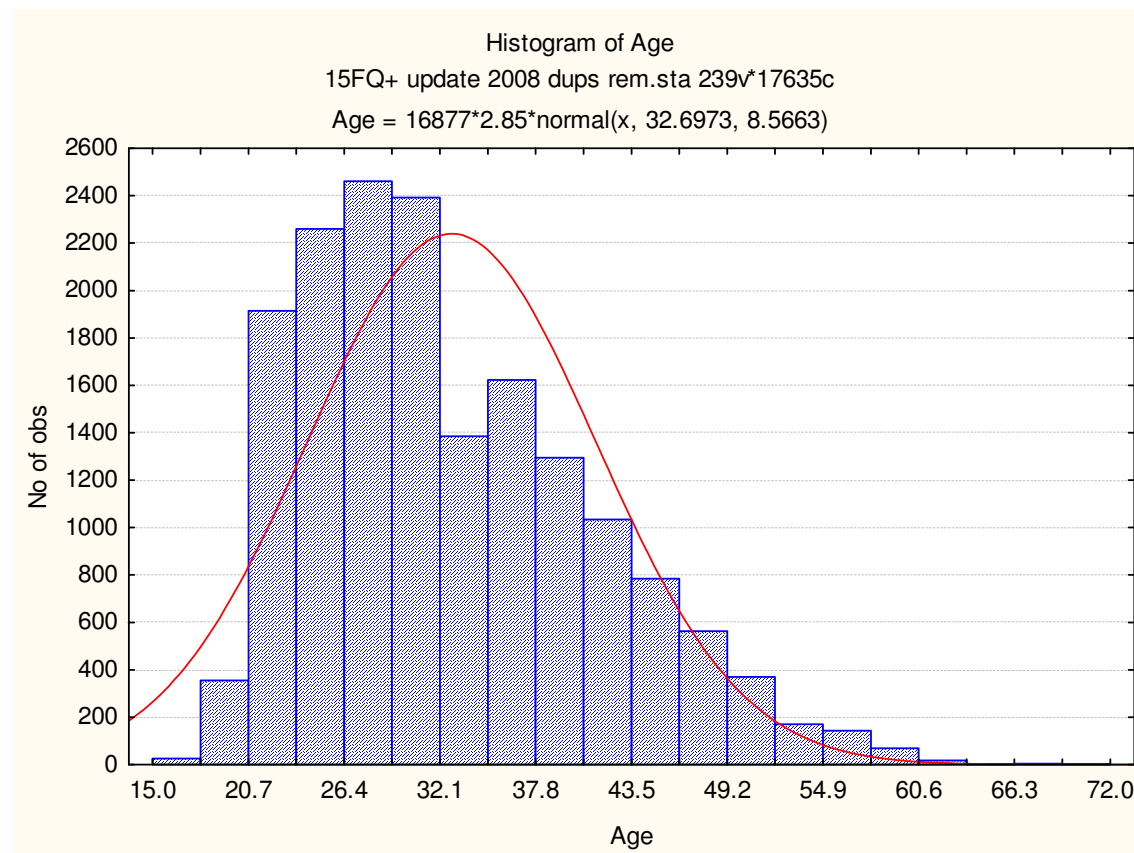
Standard Deviation Norm

Sample composition

Compiled from raw data on 17635 respondents submitted by various clients as well as collected by Psytech South Africa.

Descriptive statistics and frequency distribution for age

Variable	Descriptive Statistics				
	Valid N	Mean	Minimum	Maximum	Std.Dev.
Age	16877	32.69734	15.00000	72.00000	8.566300



It is clear from the frequency distribution that most of the respondents were in their twenties and early thirties.

Frequency table for sex

Category	Frequency table: Sex			
	Count	Cumulative Count	Percentage	Cumulative Percentage
Female	6633	6633	37.61270	37.6127
Male	10796	17429	61.21917	98.8319
Undisclosed	206	17635	1.16813	100.0000
Missing	0	17635	0.00000	100.0000

Frequency table for educational level

Category	Frequency table: Education			
	Count	Cumulative	Percent	Cumulative
Grade 12	3504	3504	19.86958	19.8696
Degree	2072	5576	11.74936	31.6189
Post Graduate	1825	7401	10.34874	41.9677
Technikon	1136	8537	6.44174	48.4094
University diploma	1035	9572	5.86901	54.2784
Grade 10 or 11	322	9894	1.82591	56.1043
Vocational Training	949	10843	5.38134	61.4857
Missing	6792	17635	38.51432	100.0000

It should be noted that a large number of respondents did not give their educational level. Of the remainder, the majority had a grade 12 level of education.

Racial composition of the sample

Category	Frequency table:			
	Count	Cumulative	Percent	Cumulative
Coloured	893	893	5.06379	5.0638
African	4502	5395	25.52878	30.5926
European	4612	10007	26.15254	56.7451
Asian	1620	11627	9.18628	65.9314
Other	85	11712	0.48200	66.4134
Missing	5923	17635	33.58662	100.0000

It should be noted that for a large number of persons no race information was available.

Language composition of the sample

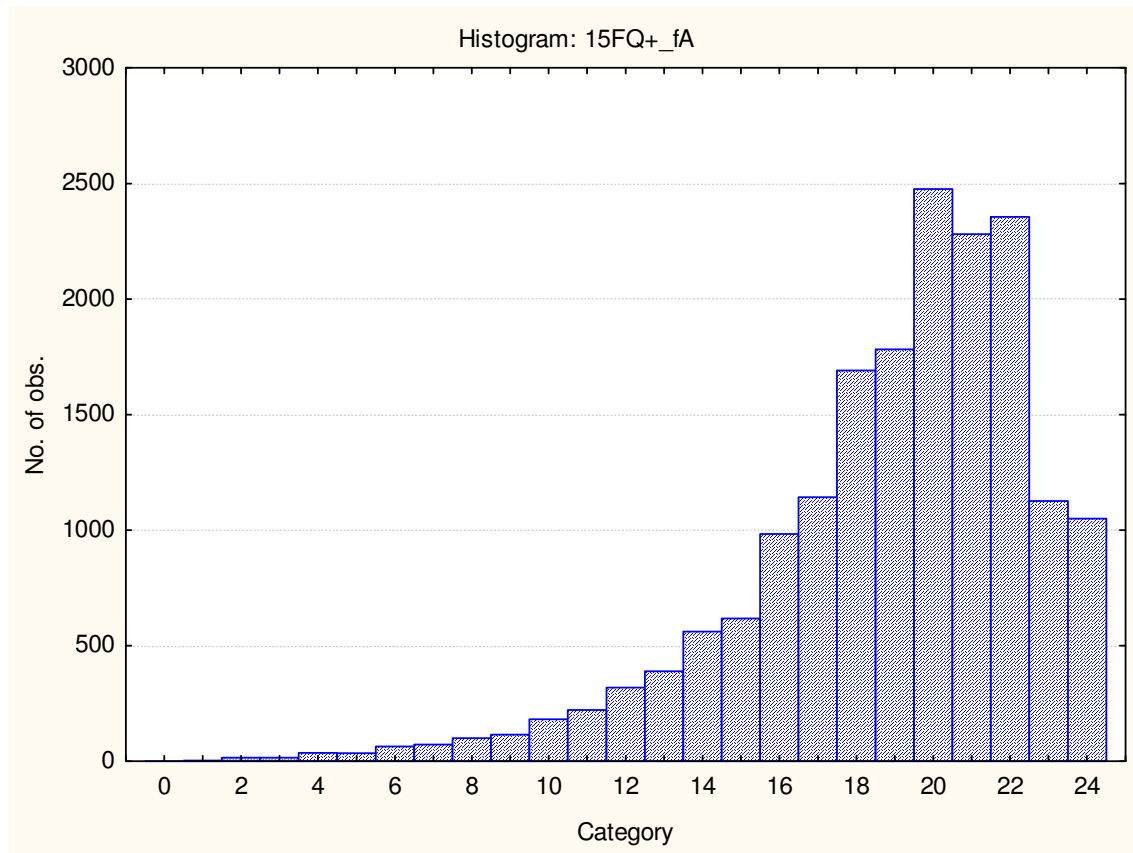
Category	Frequency table: First Language			
	Count	Cumulative	Percent	Cumulative
English	4712	4712	26.71959	26.7196
isiZulu	1212	5924	6.87270	33.5923
Afrikaans	2467	8391	13.98923	47.5815
Other	230	8621	1.30422	48.8857
Sepedi	258	8879	1.46300	50.3487
Sesotho	569	9448	3.22654	53.5753
isiXhosa	730	10178	4.13950	57.7148
Setswana	542	10720	3.07343	60.7882
Xitsonga	157	10877	0.89028	61.6785
siSwati	87	10964	0.49334	62.1718
Tshivenda	127	11091	0.72016	62.8920
isiNdebele	68	11159	0.38560	63.2776
Missing	6476	17635	36.72243	100.0000

Descriptive statistics on 15FQ+ scales

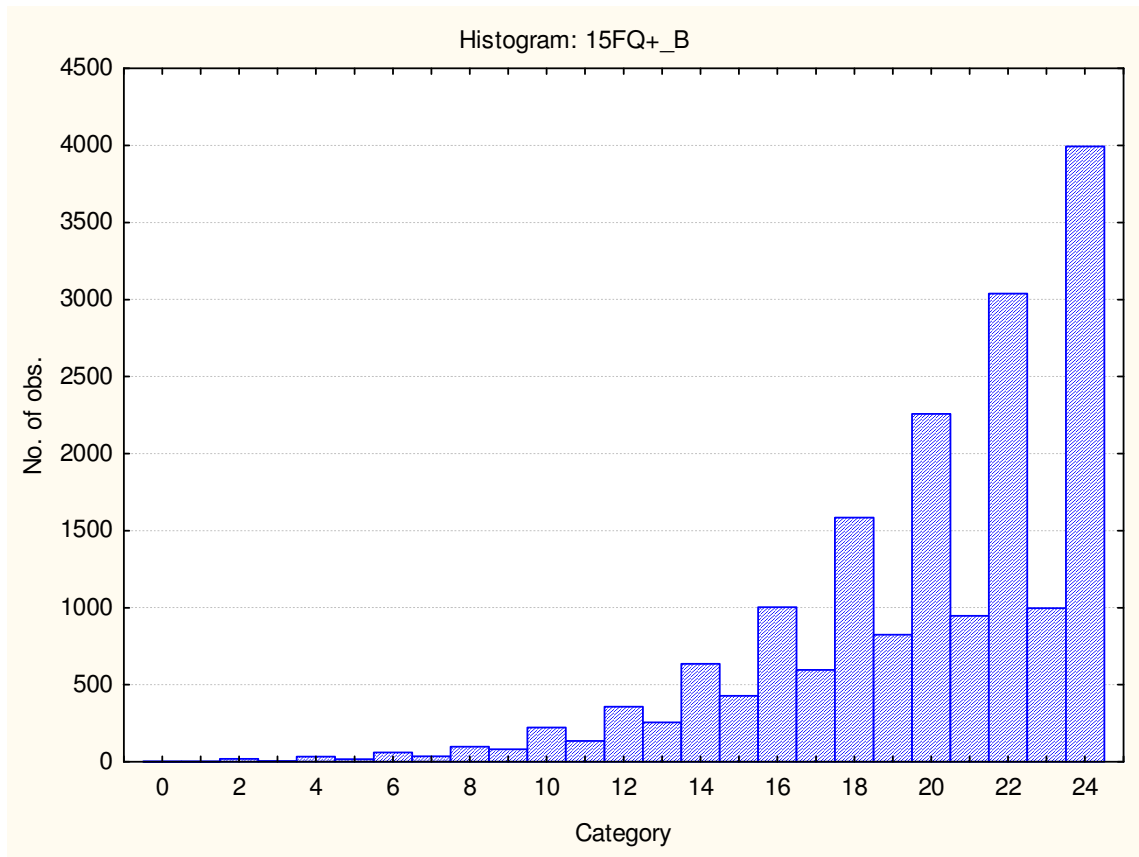
Scale	Scale description	Sample size	Mean	Std.Dev.
fA	Distant aloof - empathic	17635	18.89288	3.71973
B	Intellectance	17635	19.85705	3.98196
fC	Affected by feelings - emotionally stable	17635	17.46243	4.63377
fE	Accommodating - Dominant	17635	16.79705	4.33944
fF	Sober serious - Enthusiastic	17635	14.84848	5.45372
fG	Expedient - Conscientious	17635	19.34341	4.54671
fH	Retiring - Socially bold	17635	15.74159	5.90448
fI	Tough Minded - Tender minded	17635	14.58565	5.10859
fL	Trusting - Suspicious	17635	9.17987	5.00501
fM	Concrete - Abstract	17635	10.50196	4.08803
fN	Direct - Restrained	17635	19.07916	4.36079
fO	Self-assured - Apprehensive	17635	12.03771	5.49544
fQ1	Conventional - Radical	17635	9.19104	4.92609
fQ2	Group - orientated - Self-sufficient	17635	7.50593	4.90520
fQ3	Informal- self disciplined	17635	20.13116	3.31686
fQ4	Composed - tense driven	17635	9.09067	5.60051
SD	Social desirability	17635	10.51766	3.77880
CT	Central Tendency	17635	12.19955	13.75776
INF	Infrequency	17635	1.39337	1.63352
EIQ	Derived score: Emotional Intelligence	17635	23.70961	4.51205
WA	Derived score: Work attitude	17635	27.04474	4.40216
fGOOD	Faking good	17635	7.40488	2.64684
fBAD	Faking bad	17635	4.40714	2.42181

Frequency distributions for 15FQ+ scales

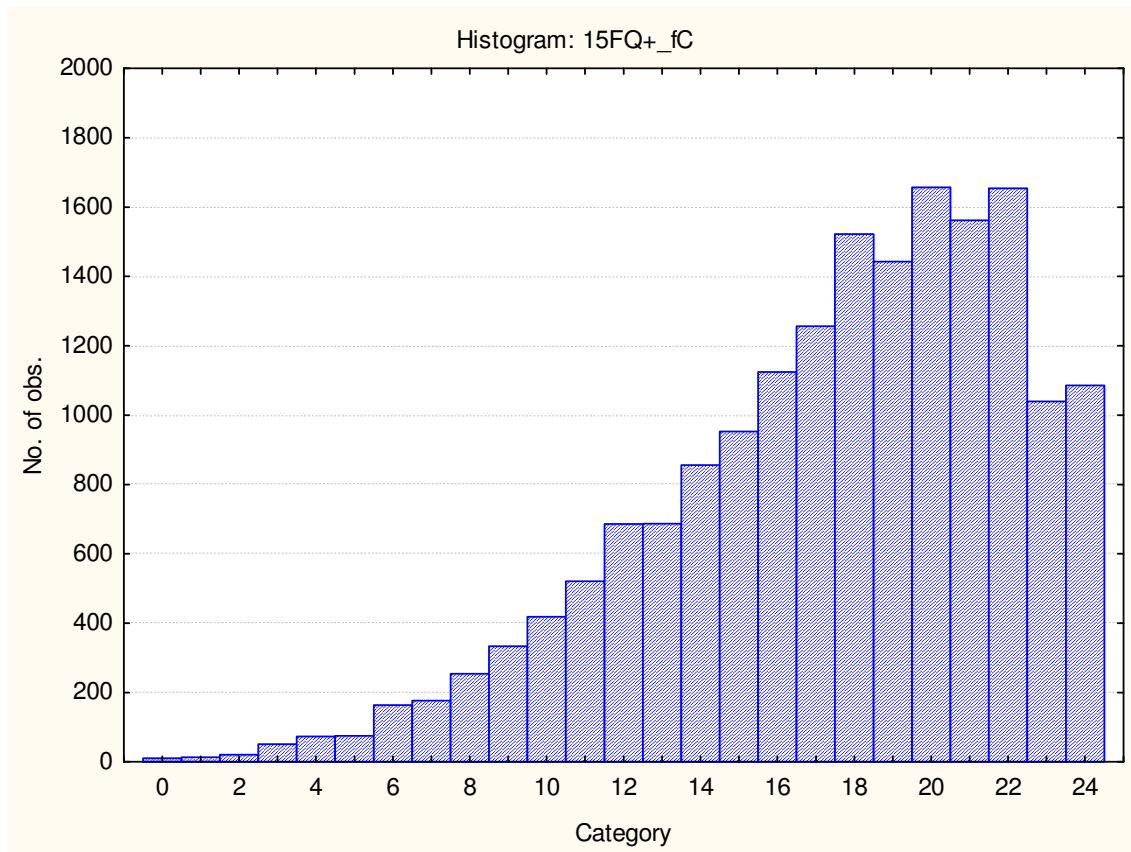
Distant aloof - empathic



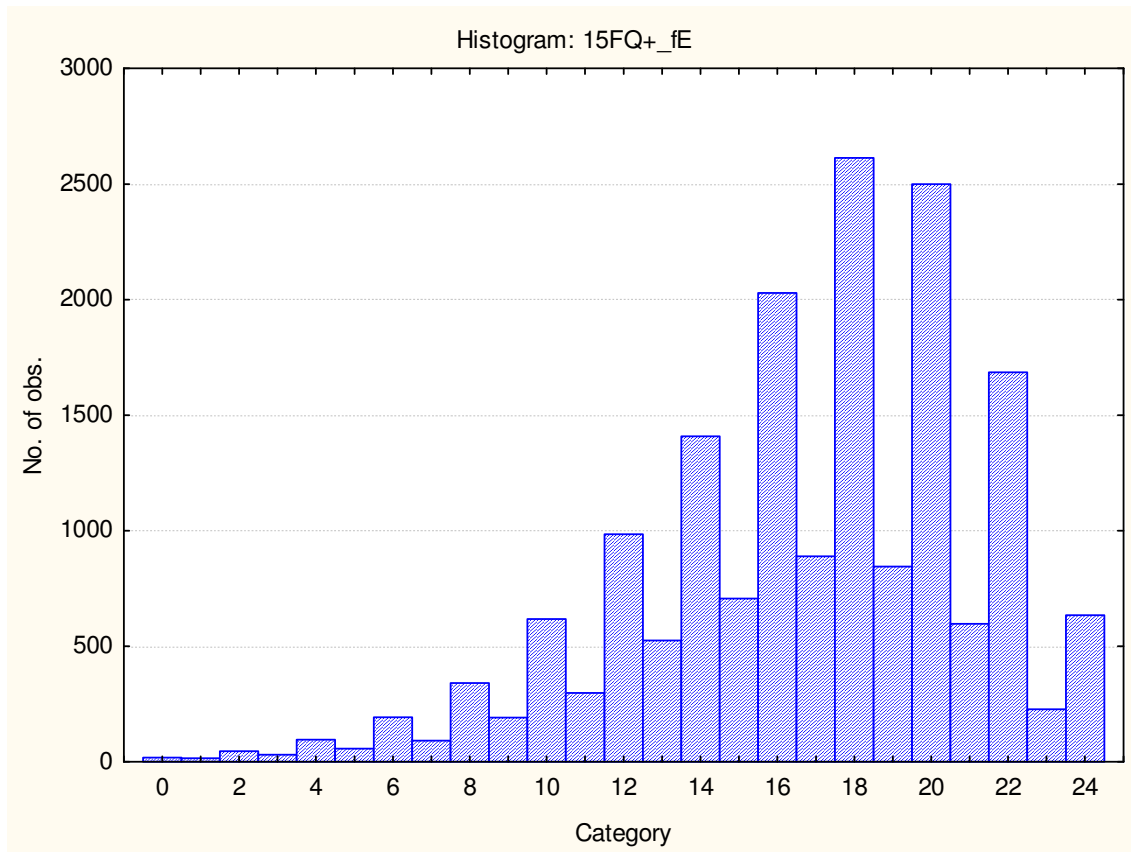
Intellectance



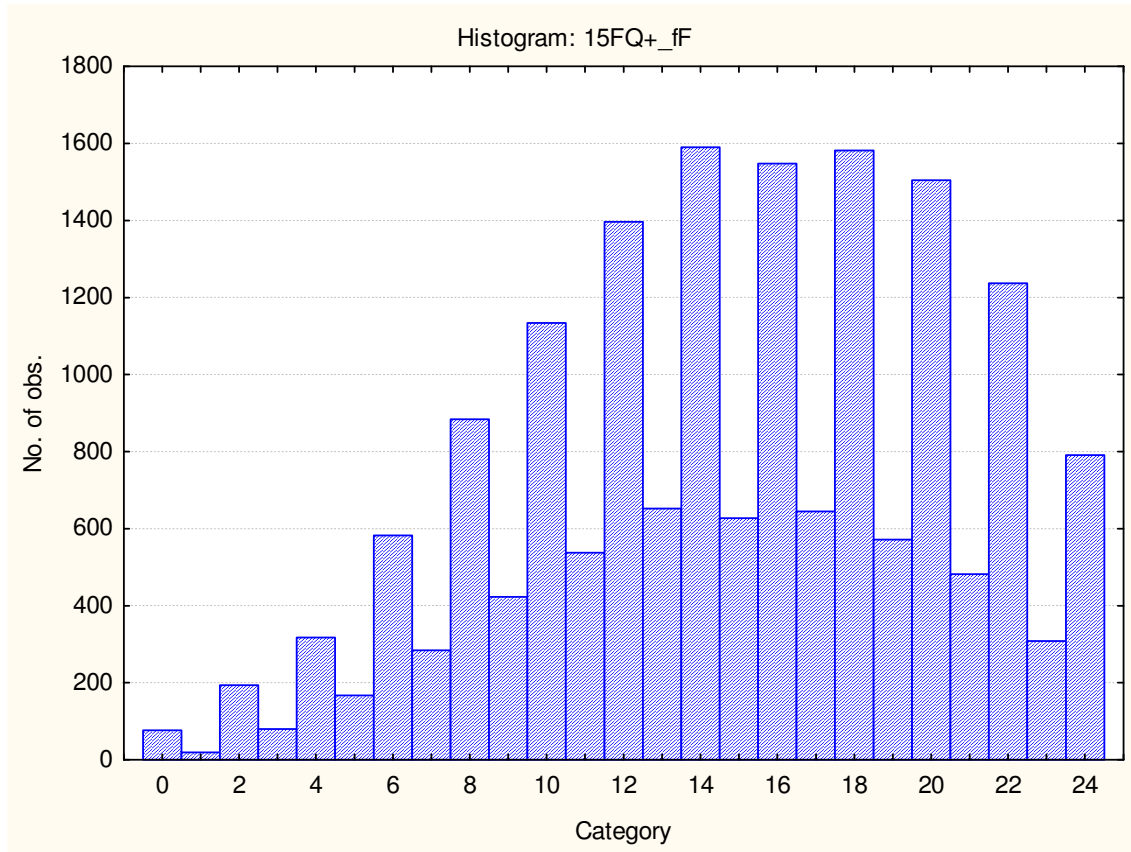
Affected by feelings - emotionally stable



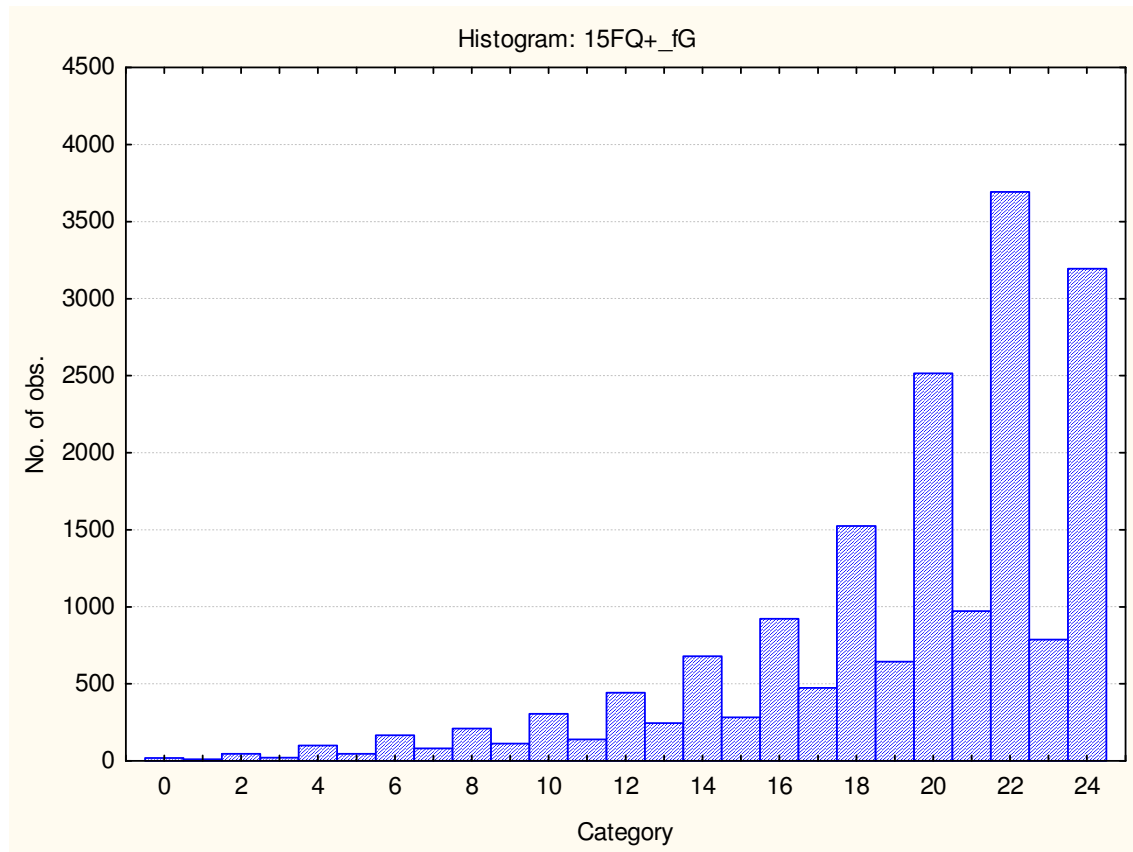
Accommodating - Dominant



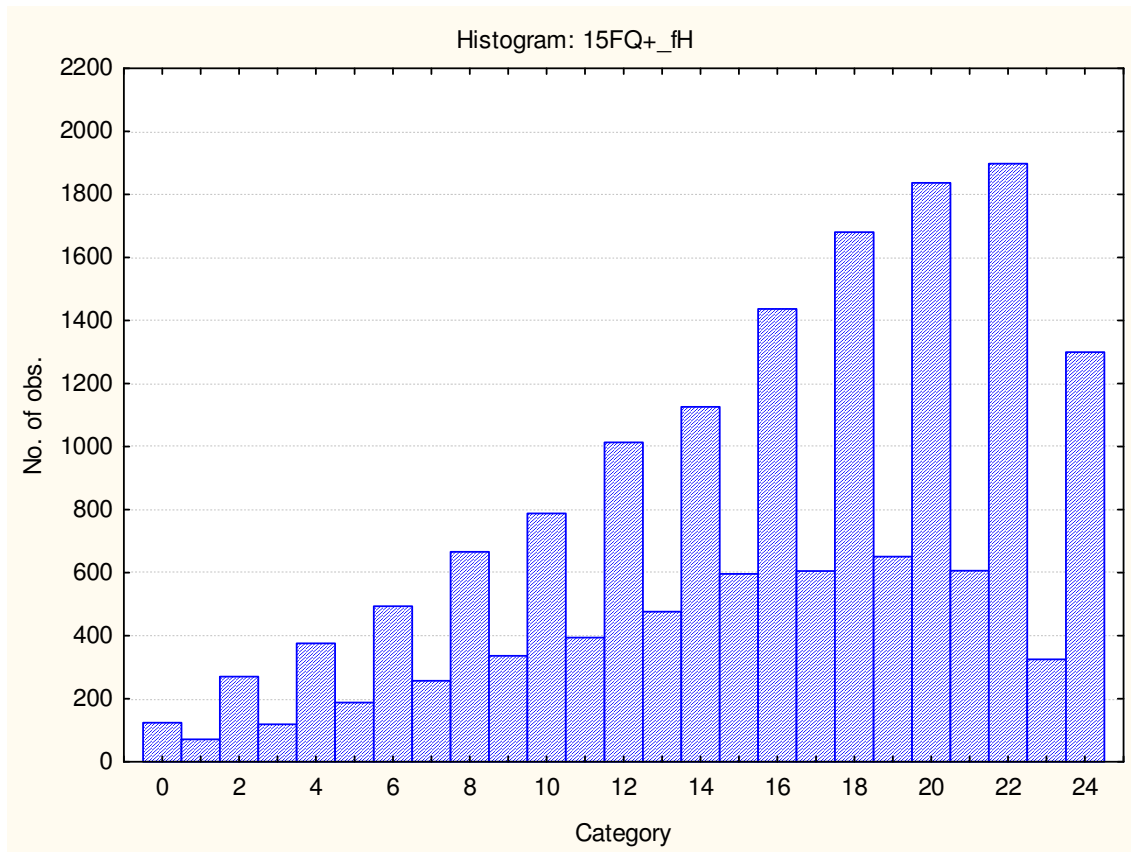
Sober serious - Enthusiastic



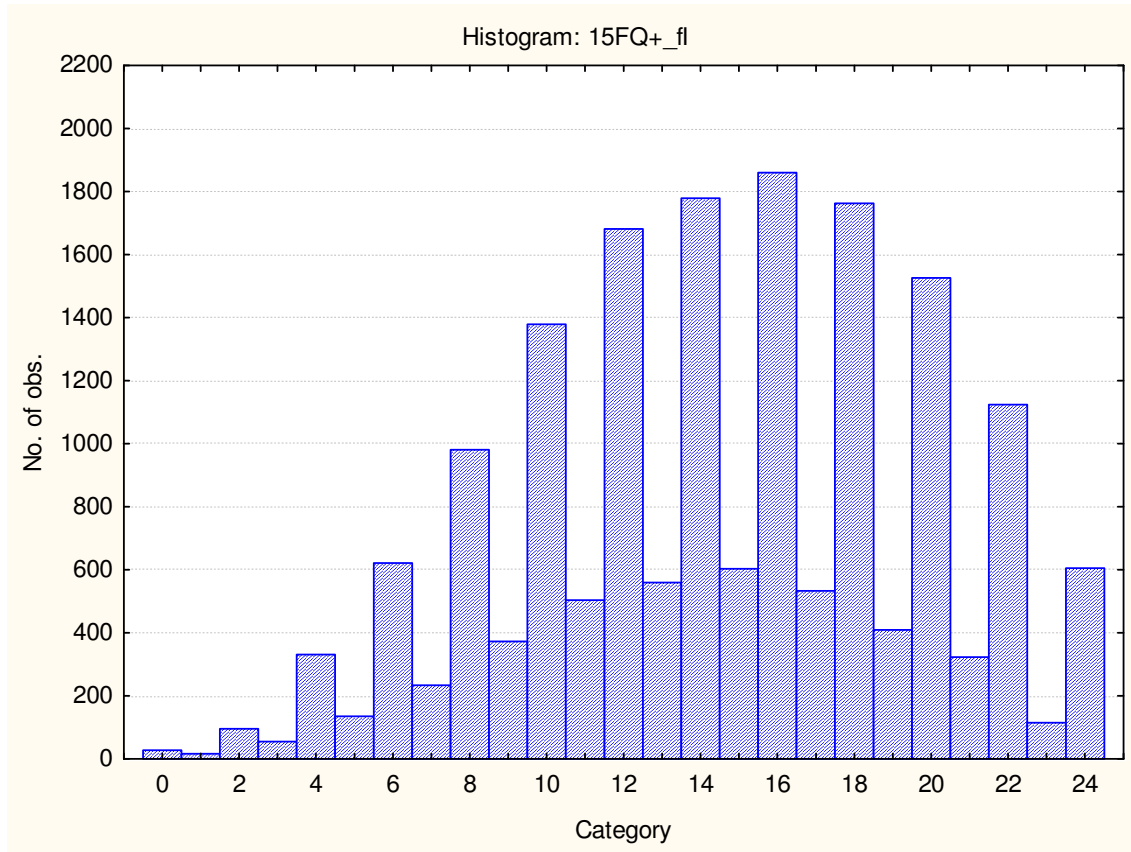
Expedient - Conscientious



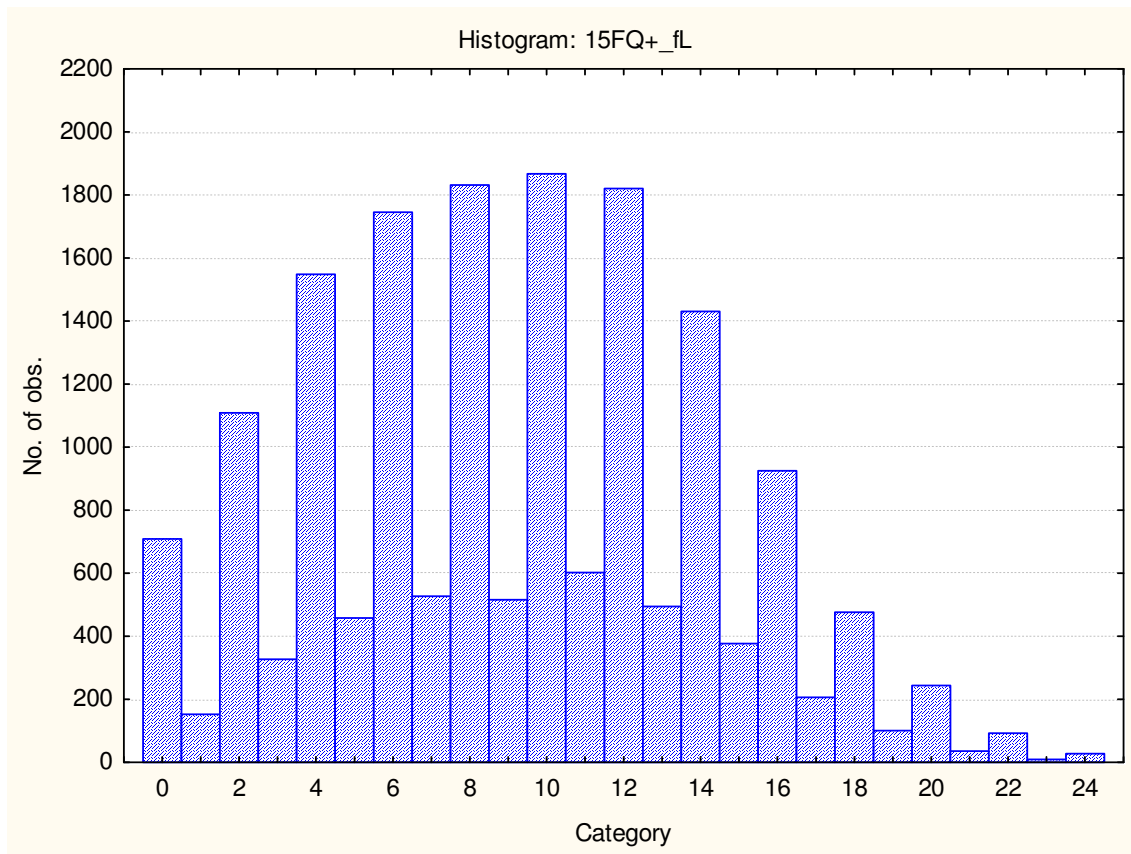
Retiring - Socially bold



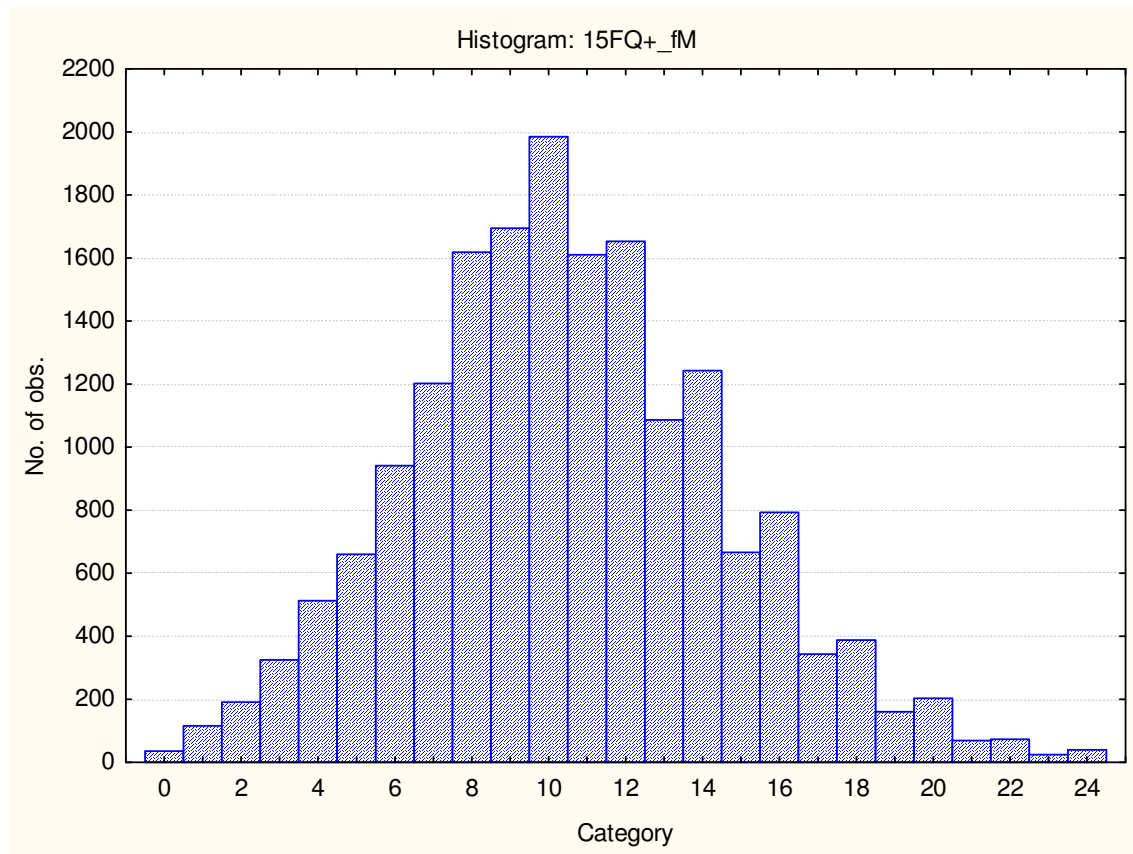
Tough Minded - Tender minded



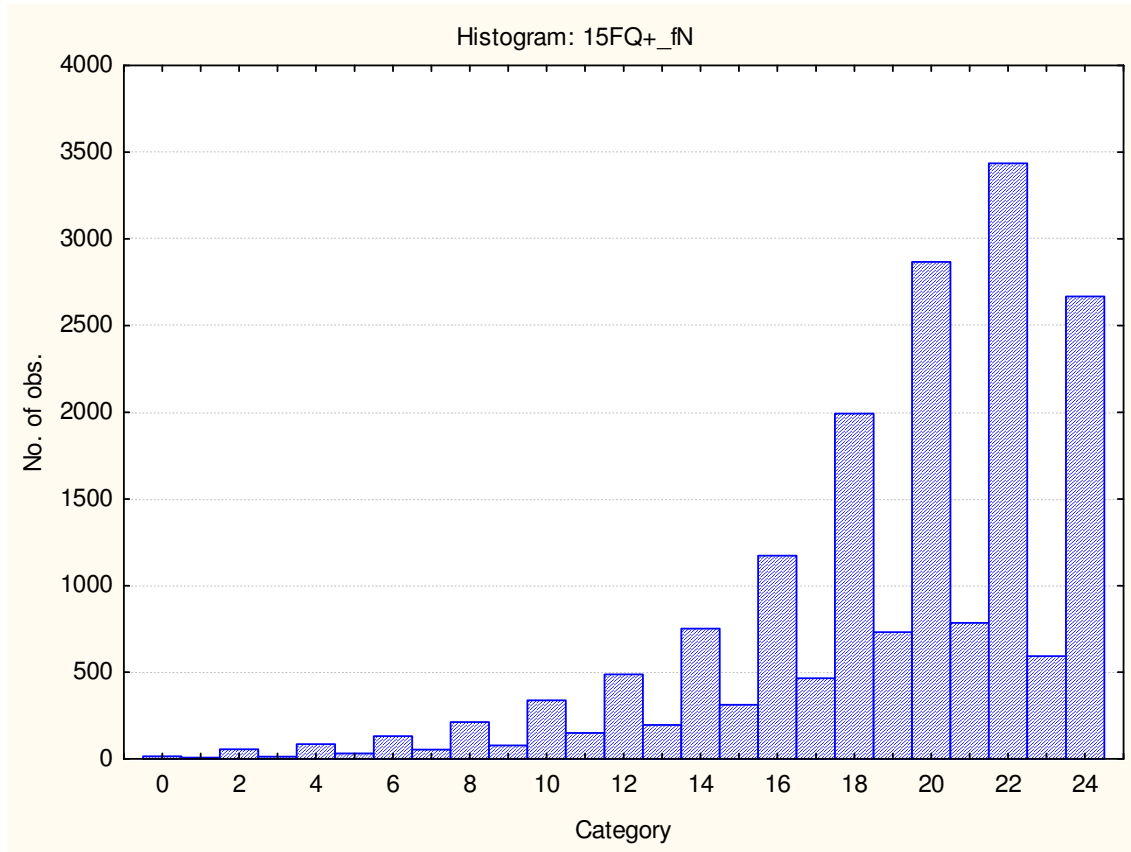
Trusting - Suspicious



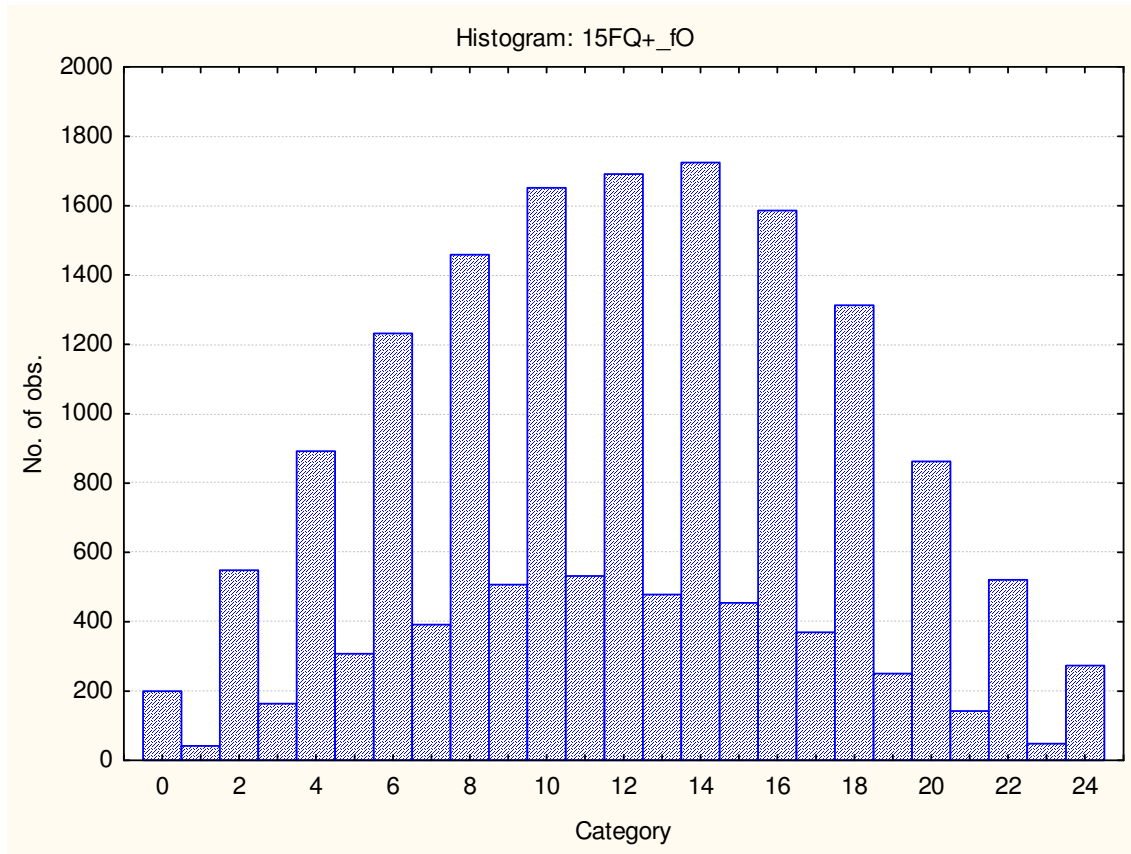
Concrete - Abstract



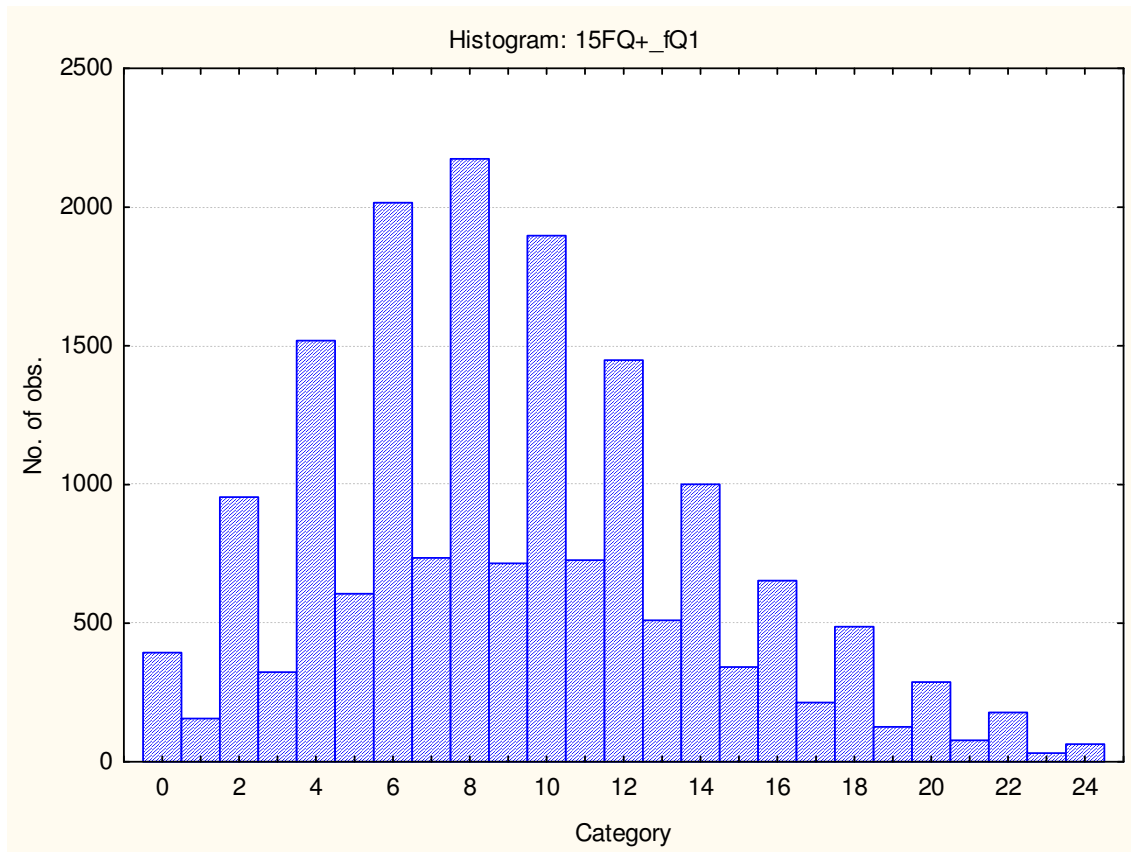
Direct - Restrained



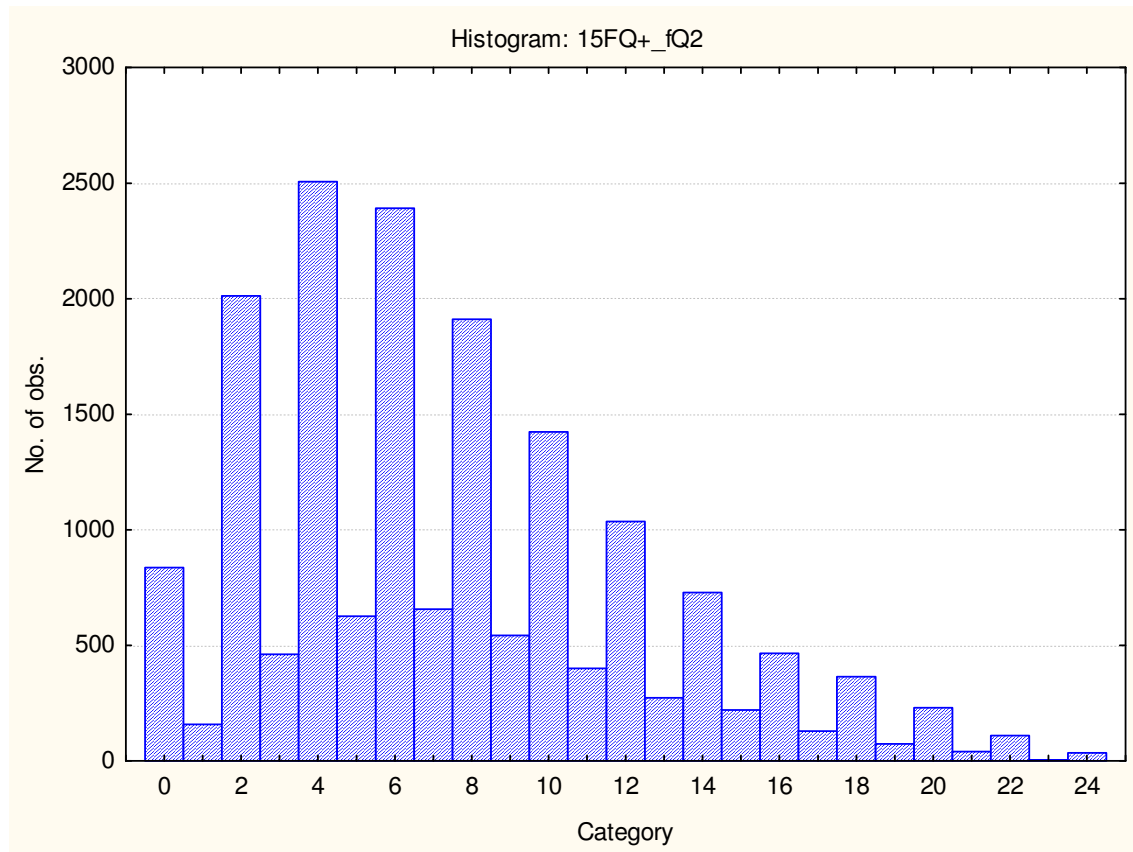
Self-assured - Apprehensive



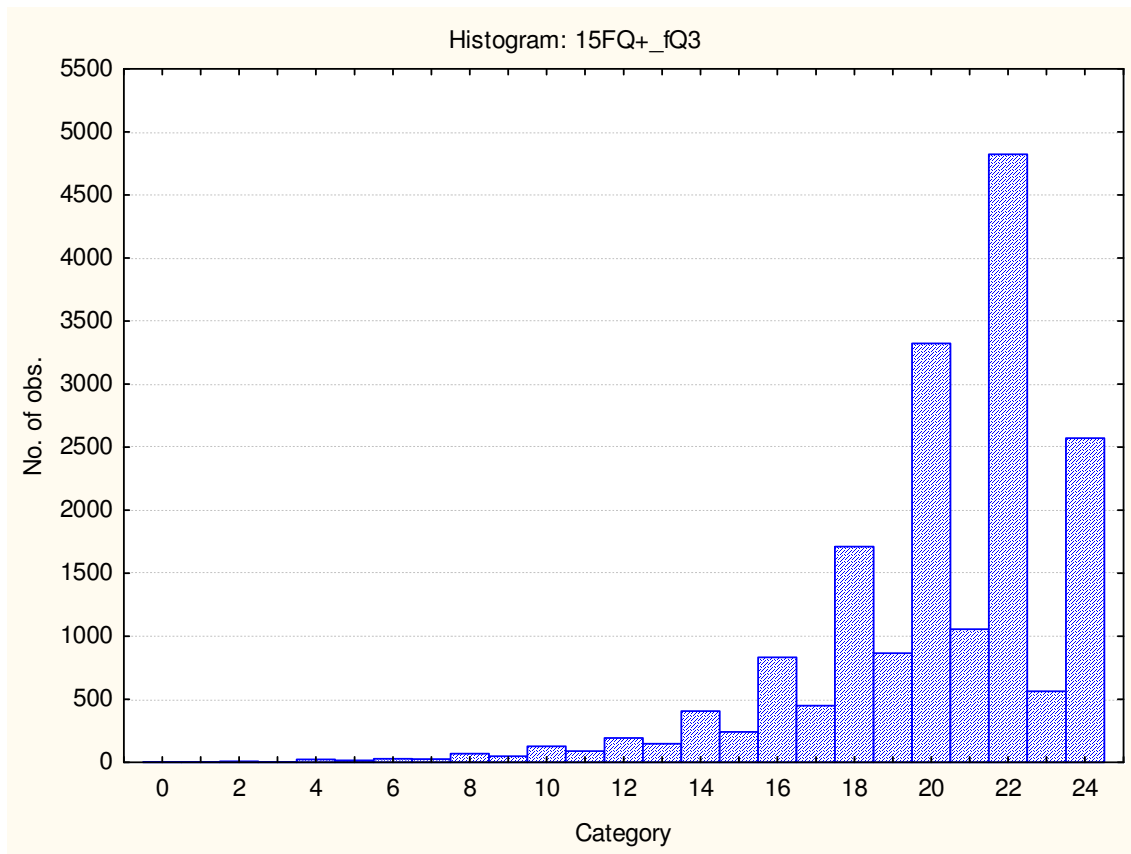
Conventional - Radical



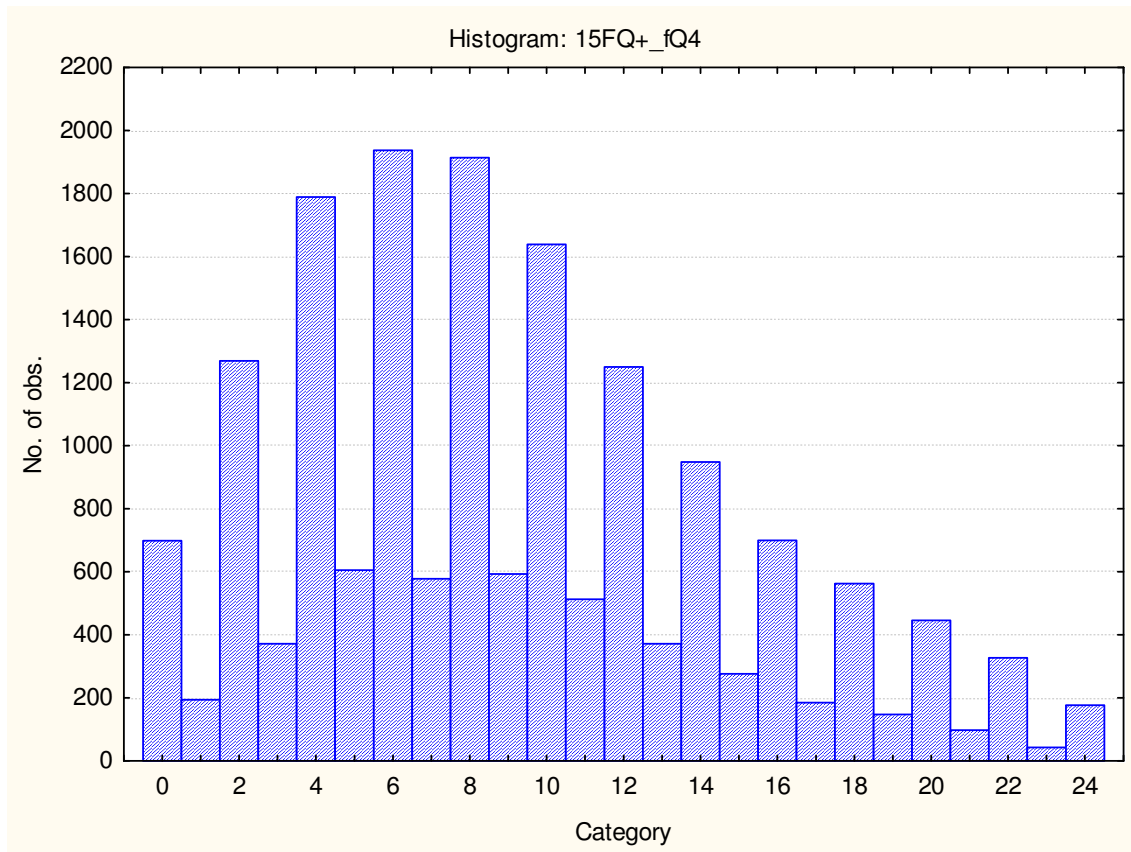
Group - orientated - Self-sufficient



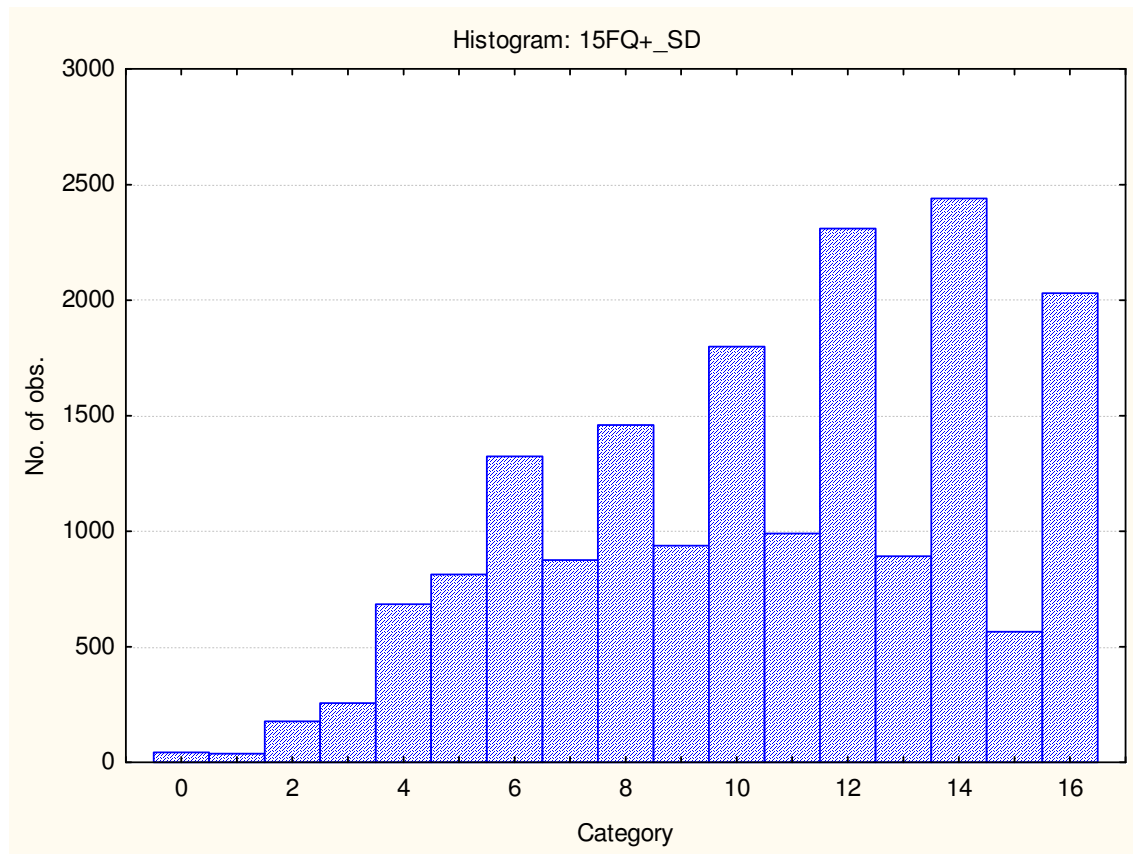
Informal- self disciplined



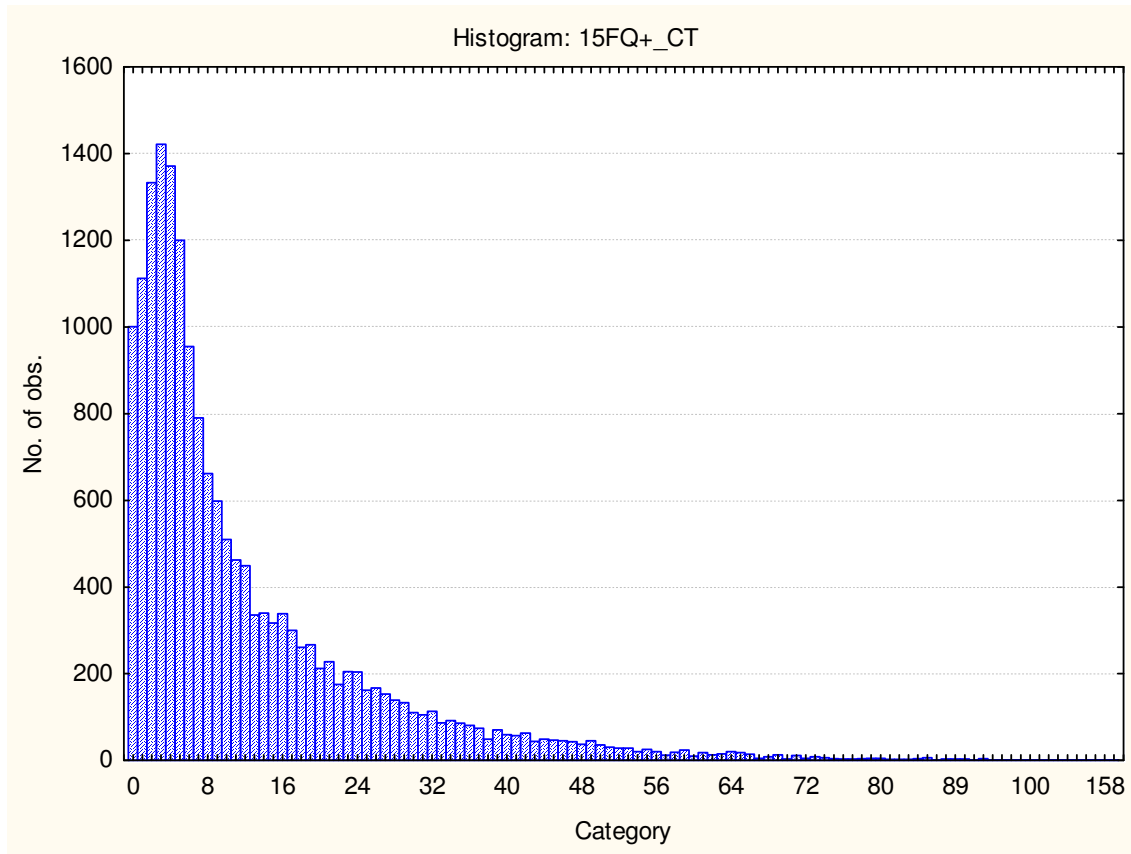
Composed - tense driven



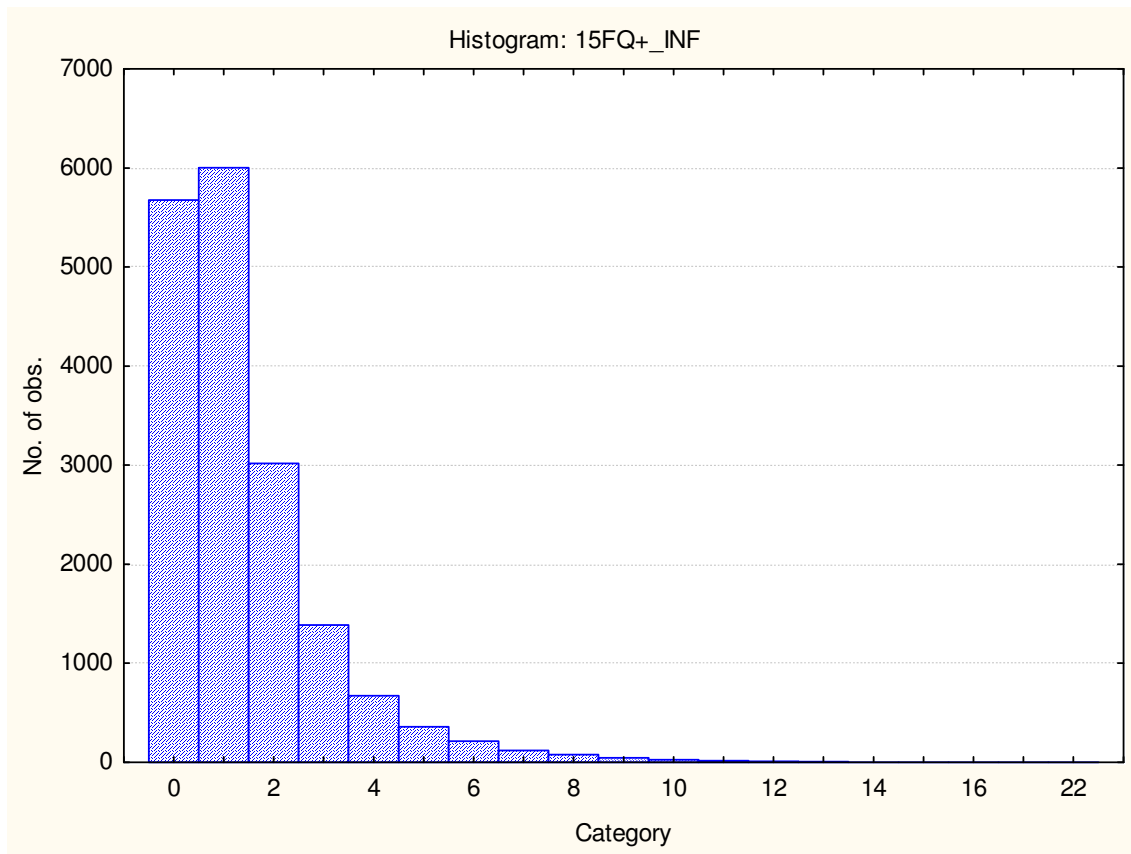
Social desirability



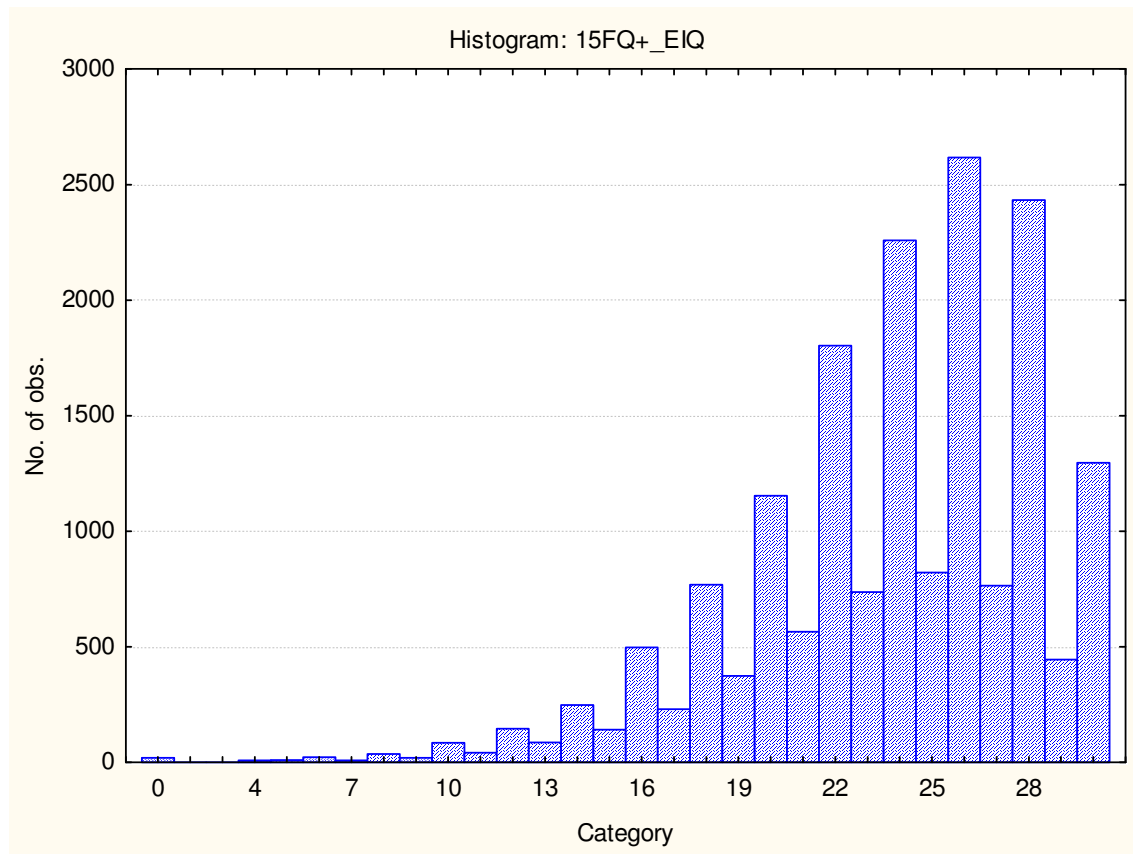
Central Tendency

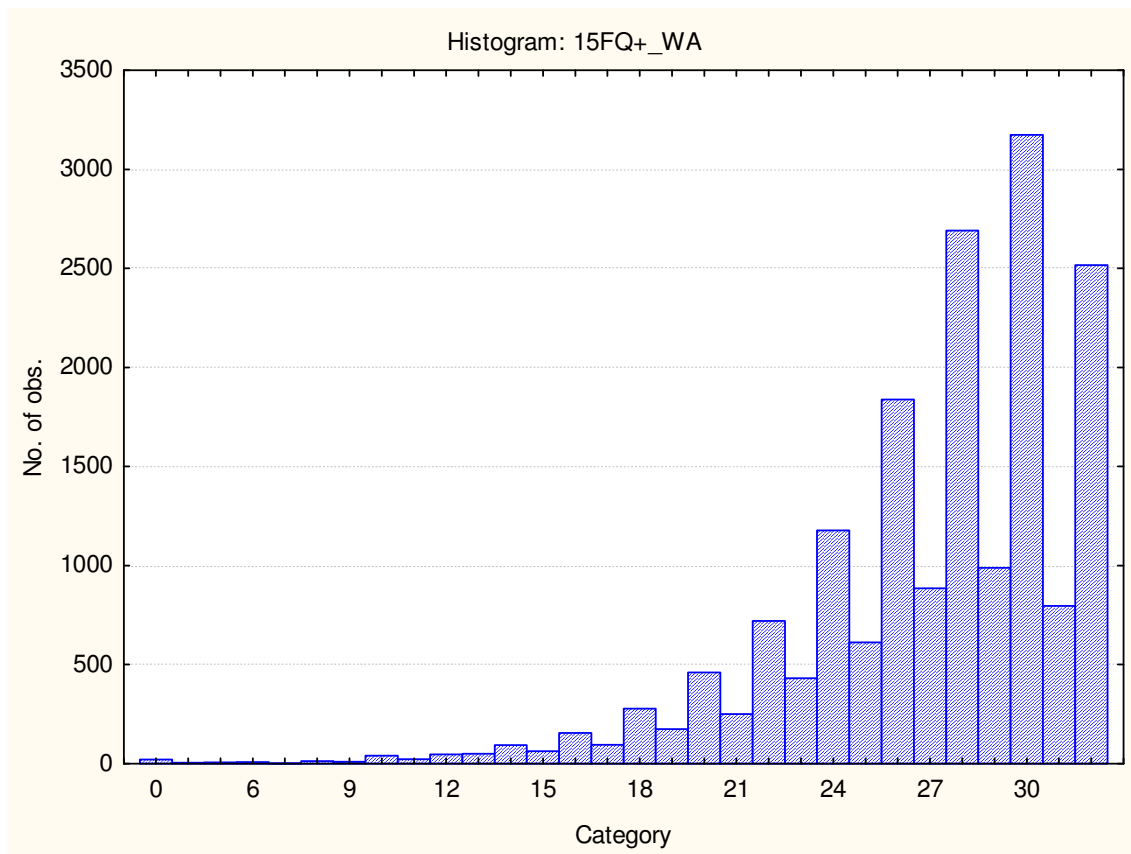


Infrequency

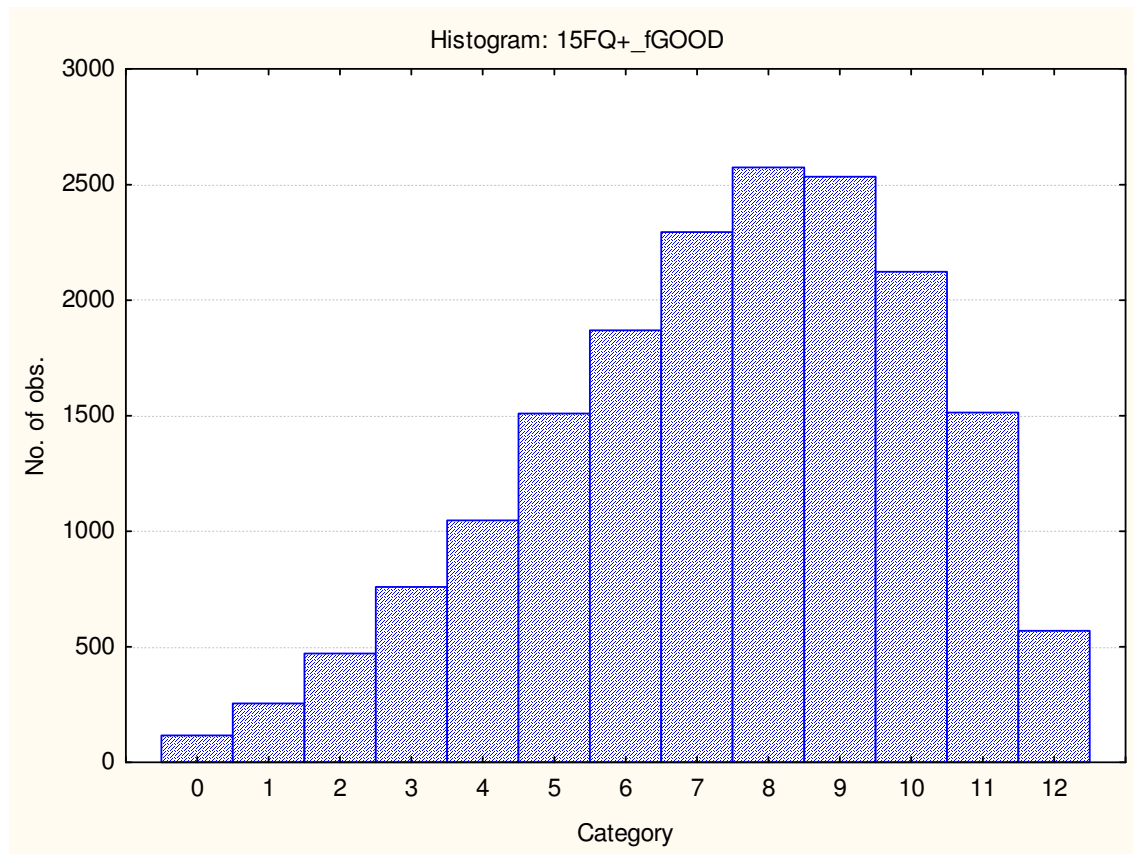


Derived score: Emotional Intelligence

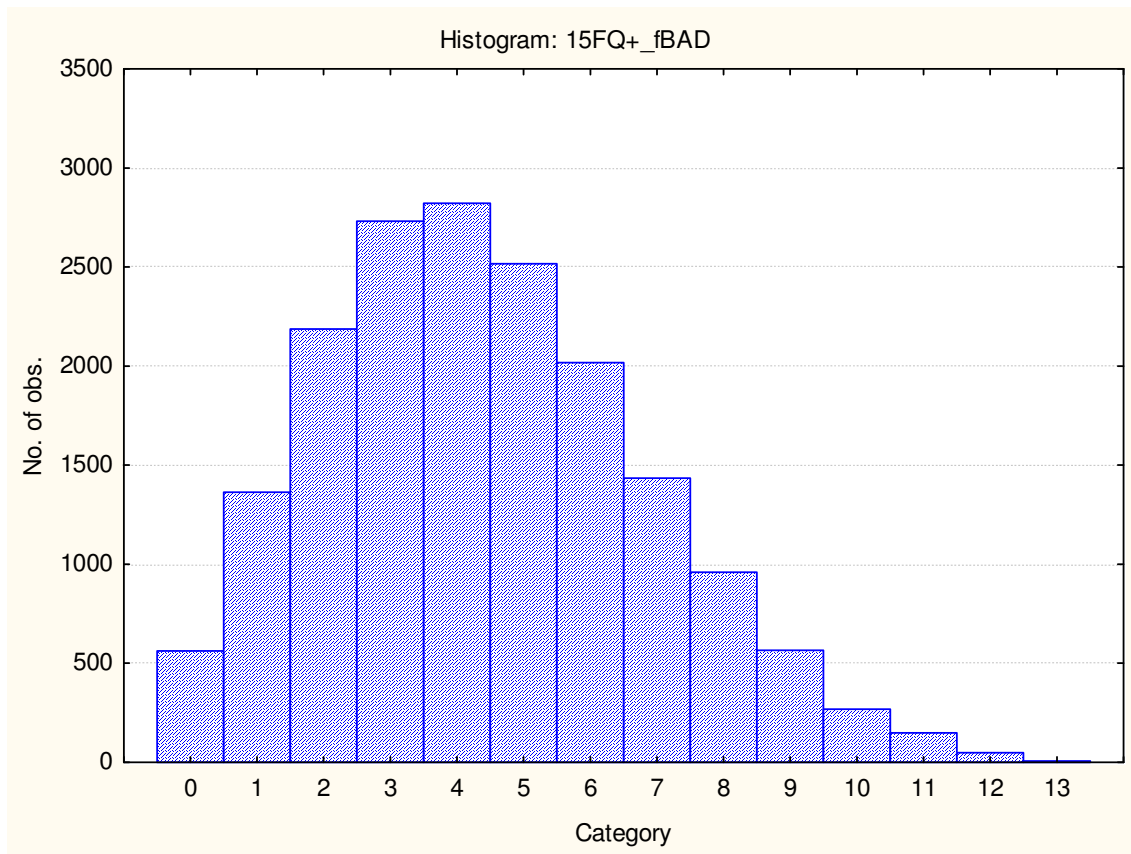




Faking good



Faking bad



Sten table

(Sten categories are in column headings)

Scale		1	2	3	4	5	6	7	8	9	10
fA	Distant aloof - empathic	0-11	12-13	14-15	16-17	18-18	19-20	21-22	23-24		
B	Intellectance	0-11	12-13	14-15	16-17	18-19	20-21	22-23	24-24		
fC	Affected by feelings - emotionally stable	0-8	9-10	11-12	13-15	16-17	18-19	20-22	23-24		
fE	Accommodating – Dominant	0-8	9-10	11-12	13-14	15-16	17-18	19-21	22-23	24-24	
fF	Sober serious - Enthusiastic	0-3	4-6	7-9	10-12	13-14	15-17	18-20	21-23	24-24	
fG	Expedient – Conscientious	0-10	11-12	13-14	15-17	18-19	20-21	22-23	24-24		
fH	Retiring - Socially bold	0-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24		
fi	Tough Minded - Tender minded	0-4	5-6	7-9	10-12	13-14	15-17	18-19	20-22	23-24	
fL	Trusting - Suspicious	0--1	0-1	2-4	5-6	7-9	10-11	12-14	15-16	17-19	20-24
fM	Concrete - Abstract	0-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-24
fN	Direct - Restrained	0-10	11-12	13-14	15-16	17-19	20-21	22-23	24-24		
fO	Self-assured - Apprehensive	0-1	2-3	4-6	7-9	10-12	13-14	15-17	18-20	21-23	24-24
fQ1	Conventional - Radical	0--1	0-1	2-4	5-6	7-9	10-11	12-14	15-16	17-19	20-24
fQ2	Group - orientated - Self-sufficient	0--1	0-0	1-2	3-5	6-7	8-9	10-12	13-14	15-17	18-24
fQ3	Informal- self disciplined	0-13	14-15	16-16	17-18	19-20	21-21	22-23	24-24		
fQ4	Composed - tense driven	0--1	0-0	1-3	4-6	7-9	10-11	12-14	15-17	18-20	21-24
SD	Social desirability	0-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16		
CT	Central Tendency	0--1	0-0	1-1	2-5	6-12	13-19	20-25	26-32	33-39	40-200
INF	Infrequency	0--1	0-0	1-1	2-2	3-3	4-4	5-5	6-6	7-7	8-26
EQ	Derived score: Emotional Intelligence	0-14	15-16	17-19	20-21	22-23	24-25	26-28	29-30		
WA	Derived score: Work attitude	0-18	19-20	21-22	23-24	25-27	28-29	30-31	32-32		
fGOOD	Faking good	0-2	3-3	4-4	5-6	7-7	8-8	9-10	11-11	12-12	13-14
fBAD	Faking bad	0--1	0-0	1-1	2-3	4-4	5-5	6-6	7-8	9-9	10-13

Norm Group : SA General Population updated 2008

Norm Type:

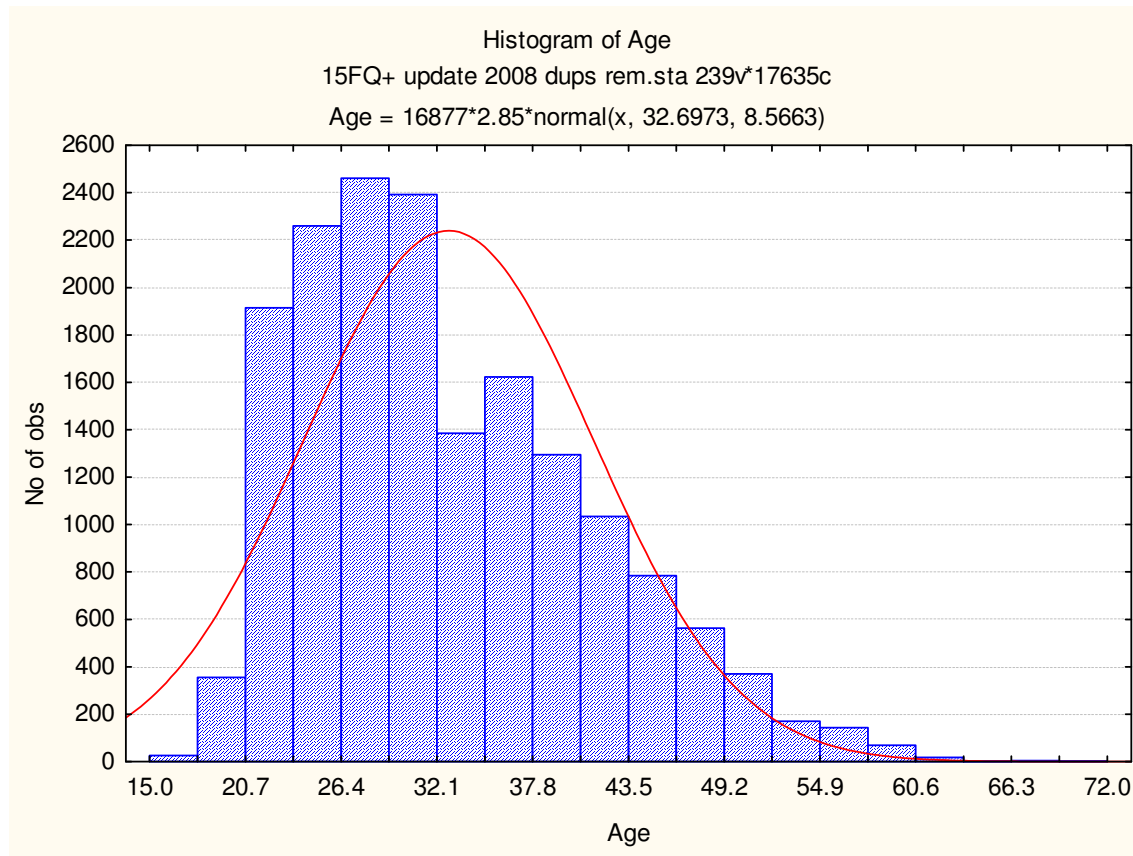
Standard Deviation Norm

Sample composition

Compiled from raw data on 17635 respondents submitted by various clients as well as collected by Psytech South Africa.

Descriptive statistics and frequency distribution for age

Variable	Descriptive Statistics				
	Valid N	Mean	Minimum	Maximum	Std.Dev.
Age	16877	32.69734	15.00000	72.00000	8.566300



It is clear from the frequency distribution that most of the respondents were in their twenties and early thirties.

Frequency table for sex

Category	Frequency table: Sex			
	Count	Cumulative Count	Percentage	Cumulative Percentage
Female	6633	6633	37.61270	37.6127
Male	10796	17429	61.21917	98.8319
Undisclosed	206	17635	1.16813	100.0000
Missing	0	17635	0.00000	100.0000

Frequency table for educational level

Category	Frequency table: Education			
	Count	Cumulative	Percent	Cumulative
Grade 12	3504	3504	19.86958	19.8696
Degree	2072	5576	11.74936	31.6189
Post Graduate	1825	7401	10.34874	41.9677
Technikon	1136	8537	6.44174	48.4094
University diploma	1035	9572	5.86901	54.2784
Grade 10 or 11	322	9894	1.82591	56.1043
Vocational Training	949	10843	5.38134	61.4857
Missing	6792	17635	38.51432	100.0000

It should be noted that a large number of respondents did not give their educational level. Of the remainder, the majority had a grade 12 level of education.

Racial composition of the sample

Category	Frequency table:			
	Count	Cumulative	Percent	Cumulative
Coloured	893	893	5.06379	5.0638
African	4502	5395	25.52878	30.5926
European	4612	10007	26.15254	56.7451
Asian	1620	11627	9.18628	65.9314
Other	85	11712	0.48200	66.4134
Missing	5923	17635	33.58662	100.0000

It should be noted that for a large number of persons no race information was available.

Language composition of the sample

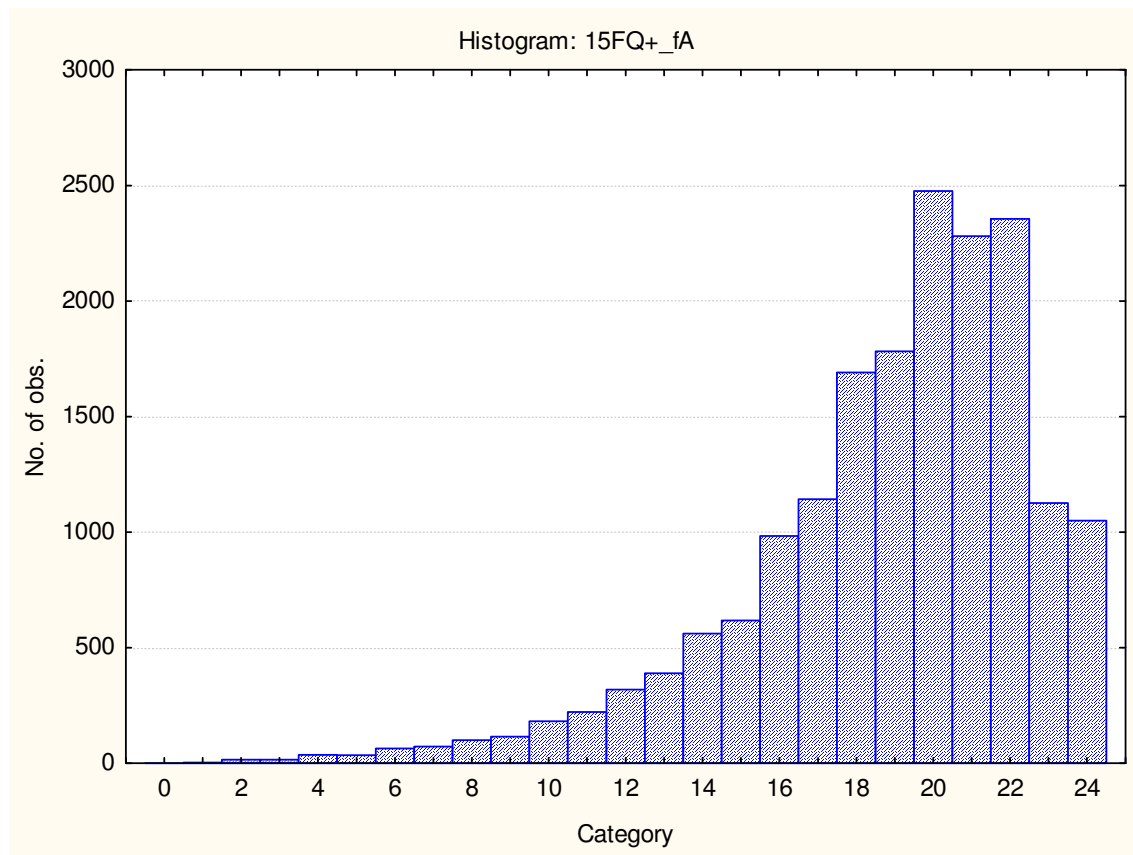
Category	Frequency table: First Language			
	Count	Cumulative	Percent	Cumulative
English	4712	4712	26.71959	26.7196
isiZulu	1212	5924	6.87270	33.5923
Afrikaans	2467	8391	13.98923	47.5815
Other	230	8621	1.30422	48.8857
Sepedi	258	8879	1.46300	50.3487
Sesotho	569	9448	3.22654	53.5753
isiXhosa	730	10178	4.13950	57.7148
Setswana	542	10720	3.07343	60.7882
Xitsonga	157	10877	0.89028	61.6785
siSwati	87	10964	0.49334	62.1718
Tshivenda	127	11091	0.72016	62.8920
isiNdebele	68	11159	0.38560	63.2776
Missing	6476	17635	36.72243	100.0000

Descriptive statistics on 15FQ+ scales

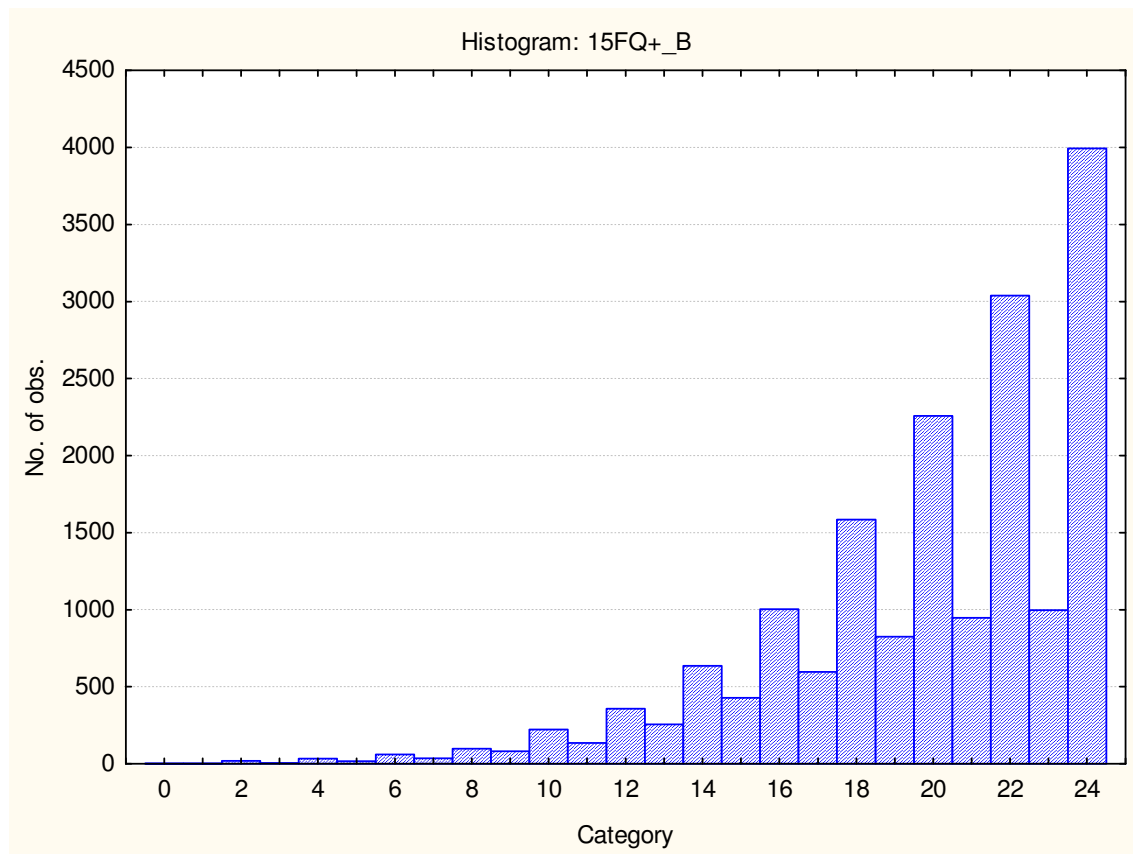
Scale	Scale description	Sample size	Mean	Std.Dev.
fA	Distant aloof - empathic	17635	18.89288	3.71973
B	Intellectance	17635	19.85705	3.98196
fC	Affected by feelings - emotionally stable	17635	17.46243	4.63377
fE	Accommodating - Dominant	17635	16.79705	4.33944
fF	Sober serious - Enthusiastic	17635	14.84848	5.45372
fG	Expedient - Conscientious	17635	19.34341	4.54671
fH	Retiring - Socially bold	17635	15.74159	5.90448
fI	Tough Minded - Tender minded	17635	14.58565	5.10859
fL	Trusting - Suspicious	17635	9.17987	5.00501
fM	Concrete - Abstract	17635	10.50196	4.08803
fN	Direct - Restrained	17635	19.07916	4.36079
fO	Self-assured - Apprehensive	17635	12.03771	5.49544
fQ1	Conventional - Radical	17635	9.19104	4.92609
fQ2	Group - orientated - Self-sufficient	17635	7.50593	4.90520
fQ3	Informal- self disciplined	17635	20.13116	3.31686
fQ4	Composed - tense driven	17635	9.09067	5.60051
SD	Social desirability	17635	10.51766	3.77880
CT	Central Tendency	17635	12.19955	13.75776
INF	Infrequency	17635	1.39337	1.63352
EIQ	Derived score: Emotional Intelligence	17635	23.70961	4.51205
WA	Derived score: Work attitude	17635	27.04474	4.40216
fGOOD	Faking good	17635	7.40488	2.64684
fBAD	Faking bad	17635	4.40714	2.42181

Frequency distributions for 15FQ+ scales

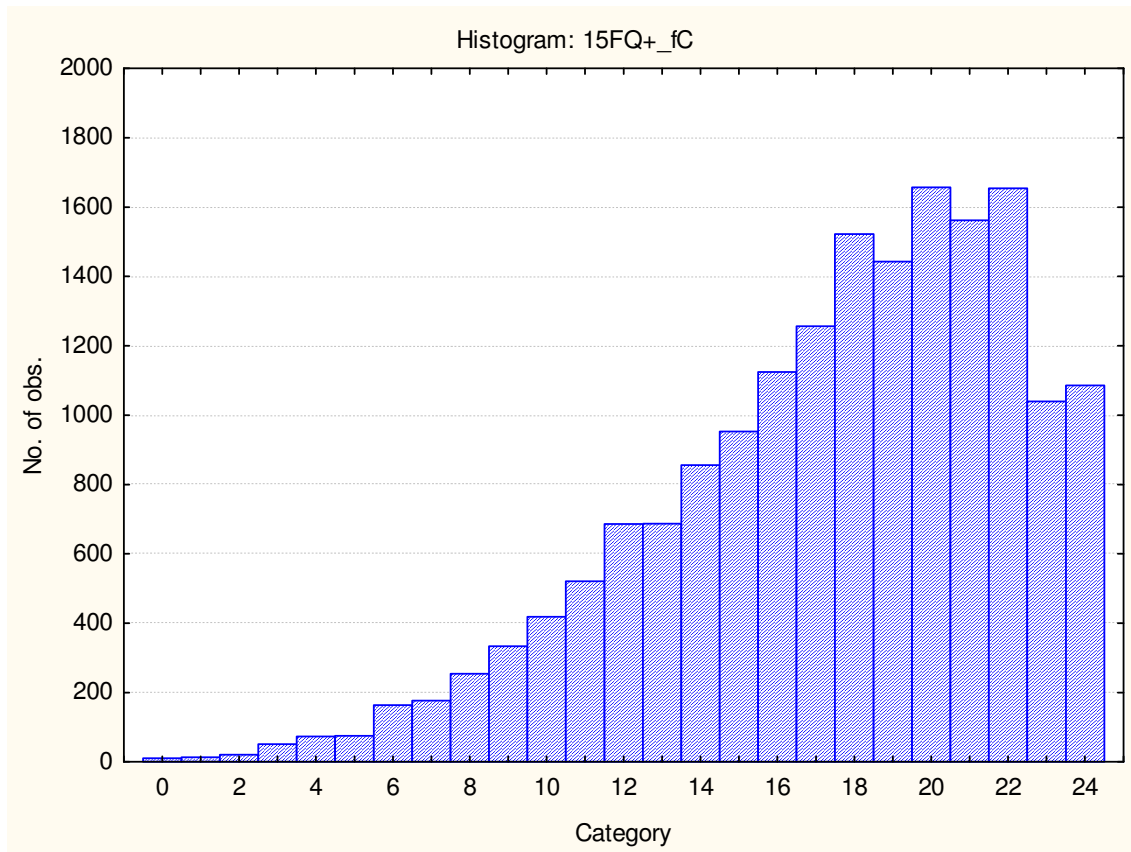
Distant aloof - empathic



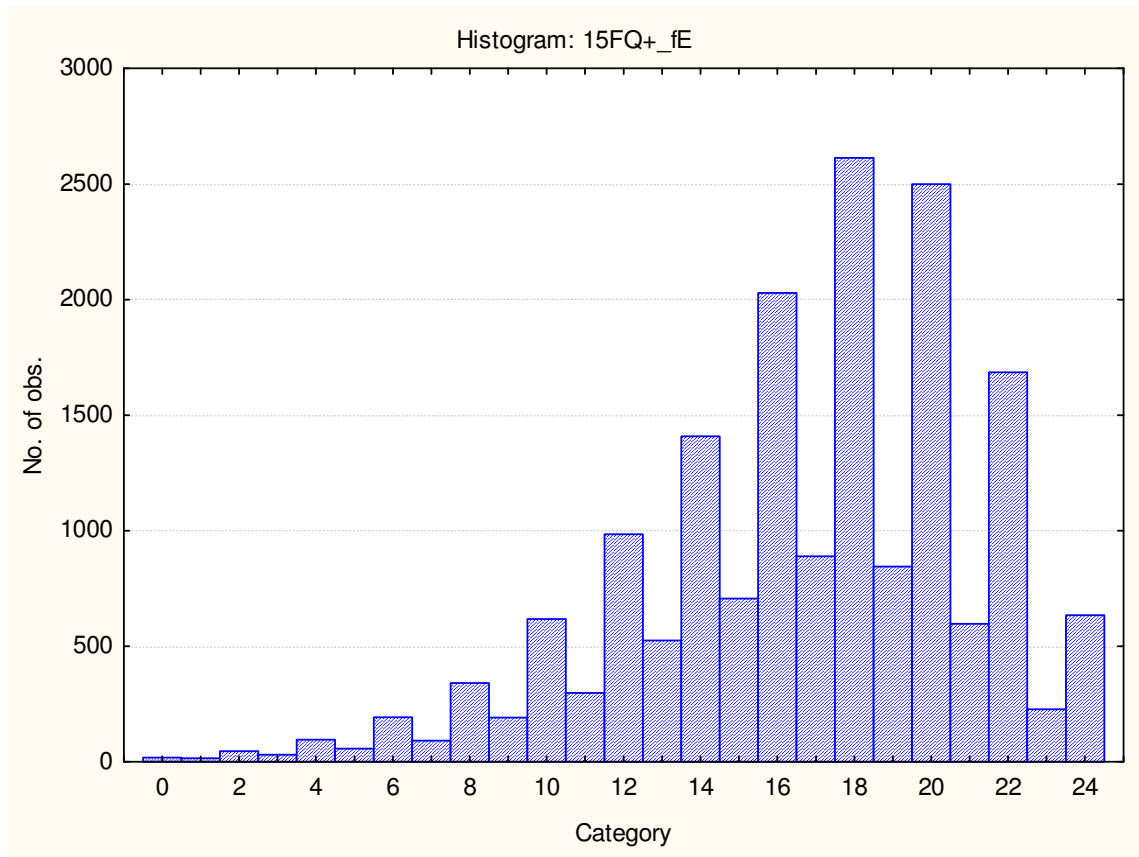
Intellectance



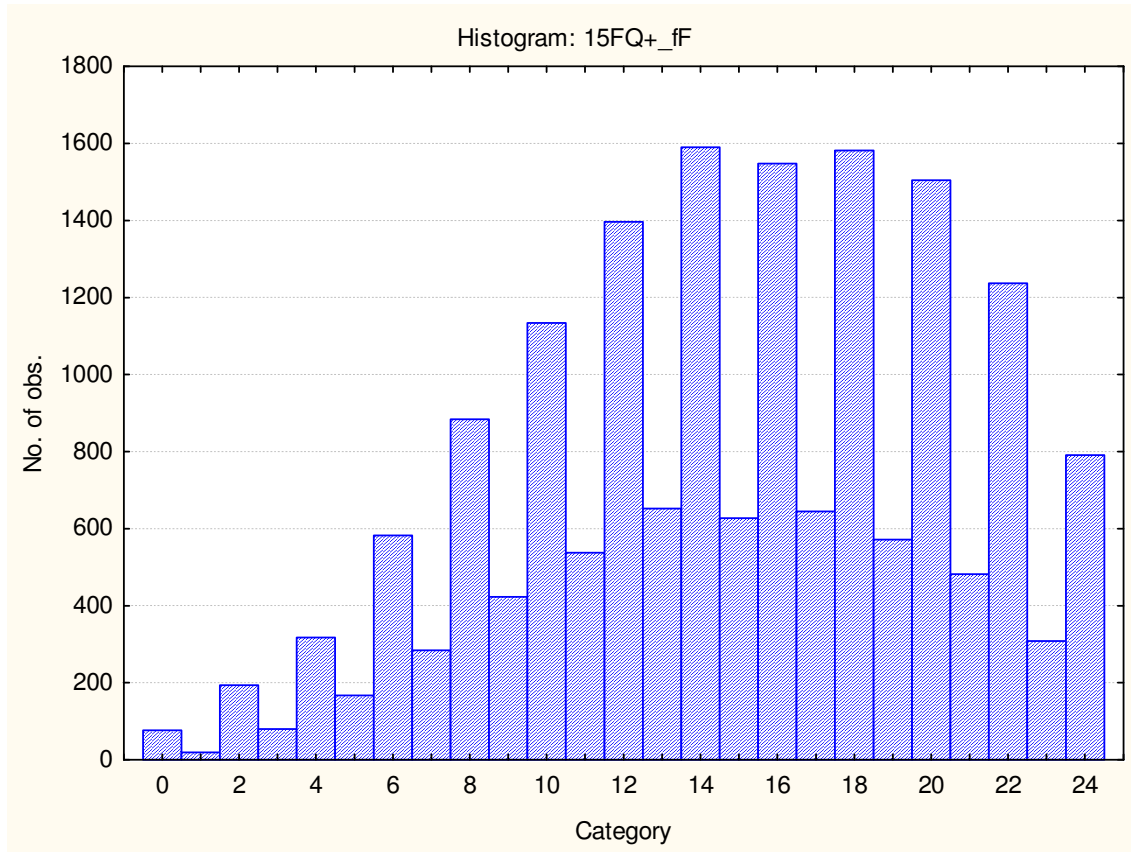
Affected by feelings - emotionally stable



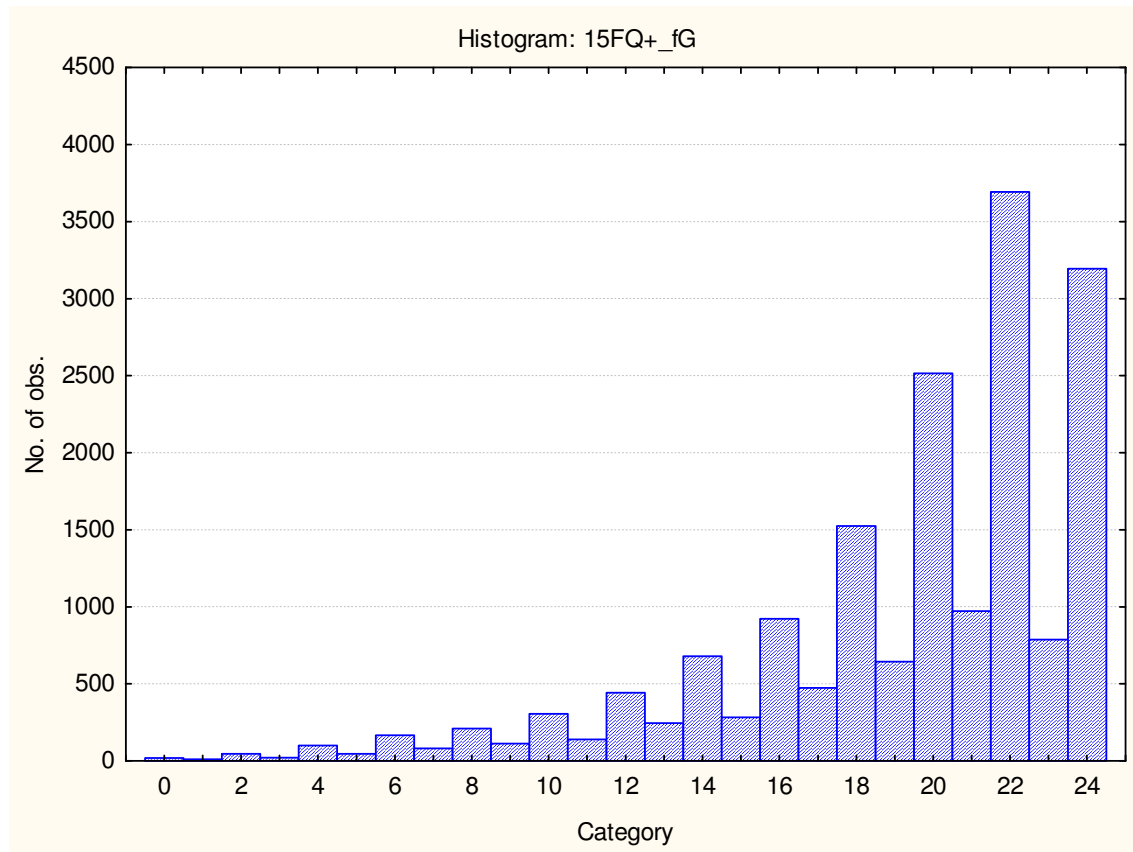
Accommodating - Dominant



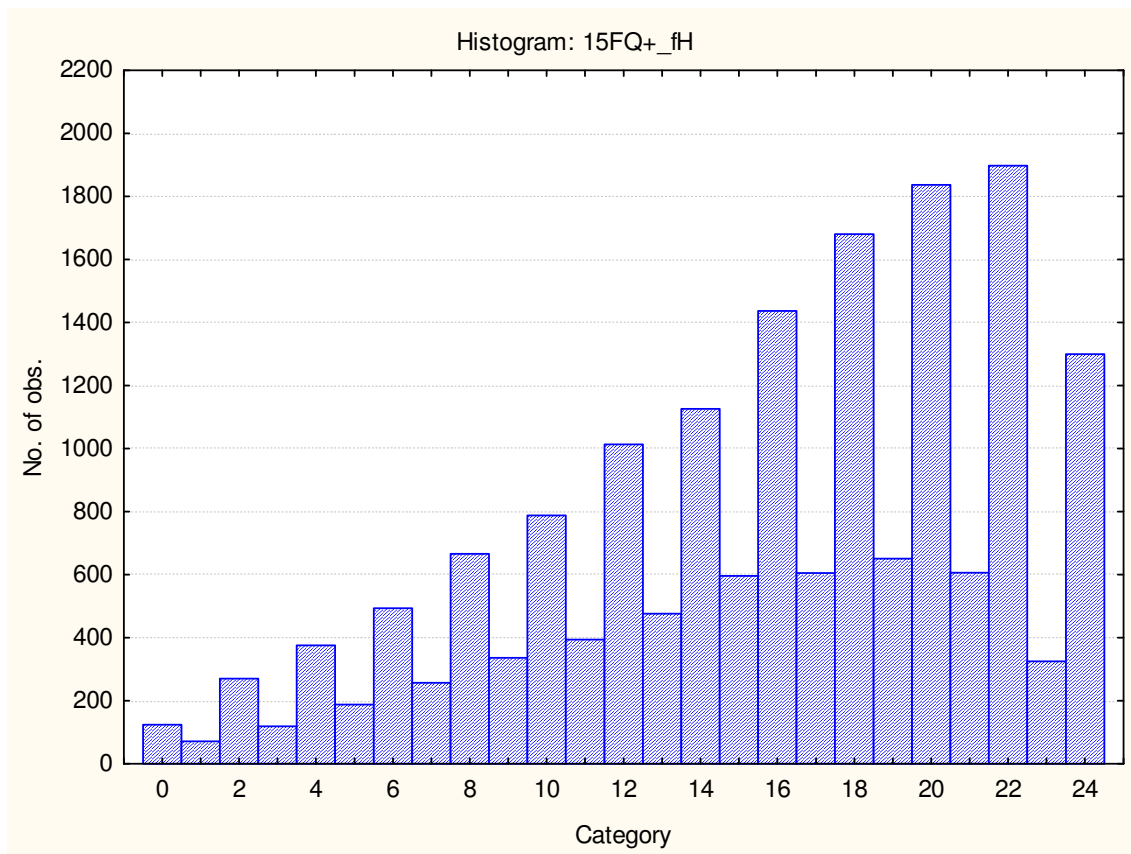
Sober serious - Enthusiastic



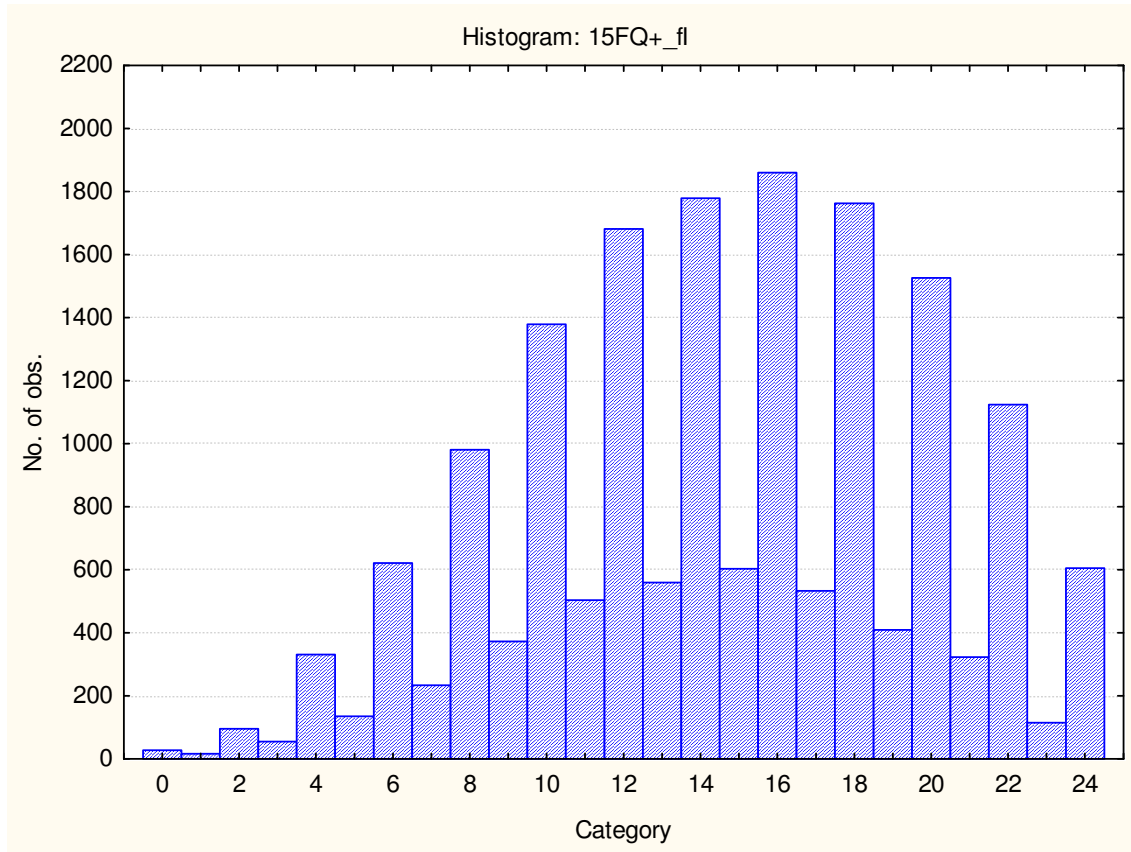
Expedient - Conscientious



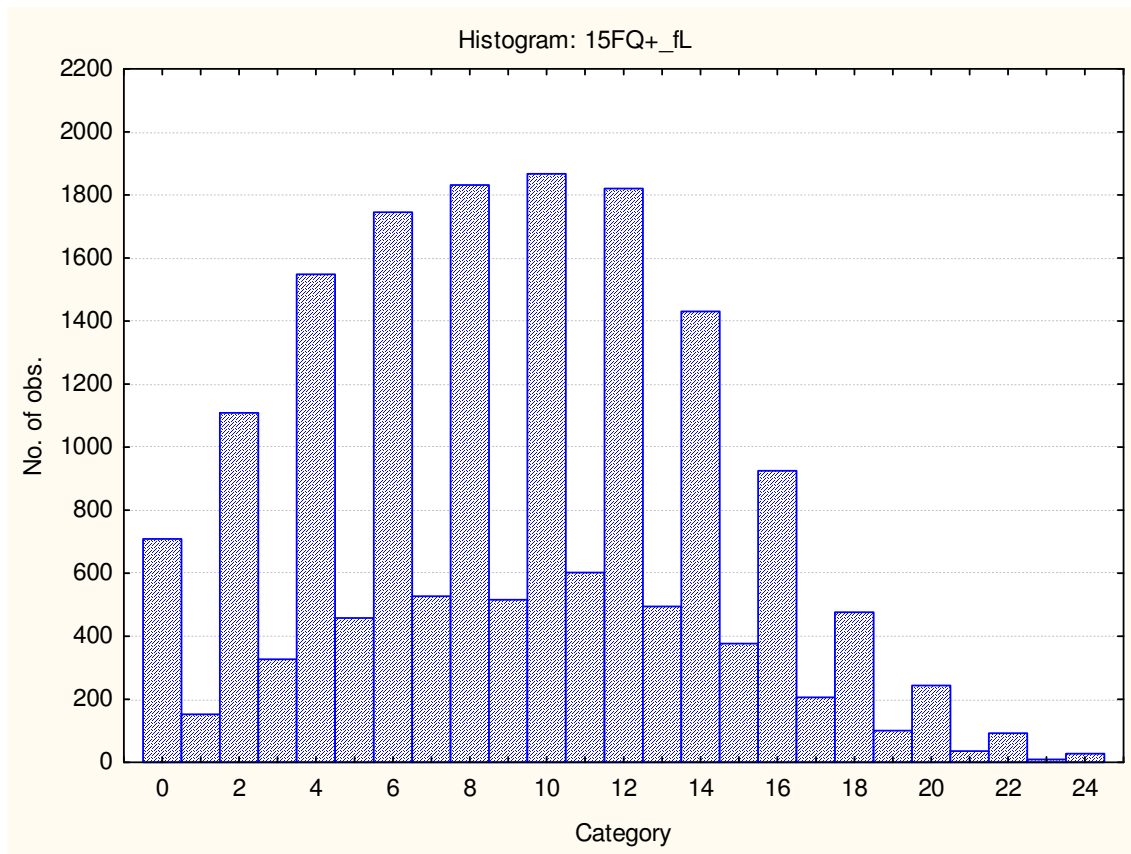
Retiring - Socially bold



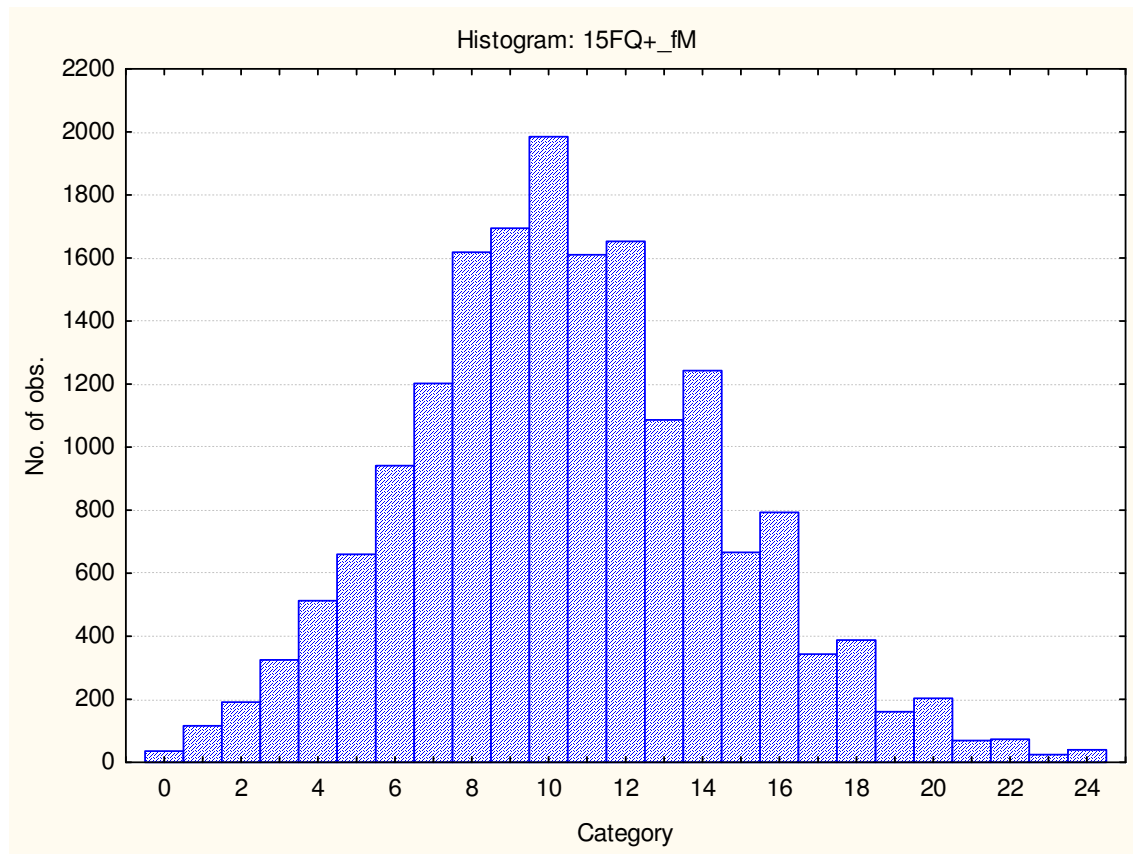
Tough Minded - Tender minded



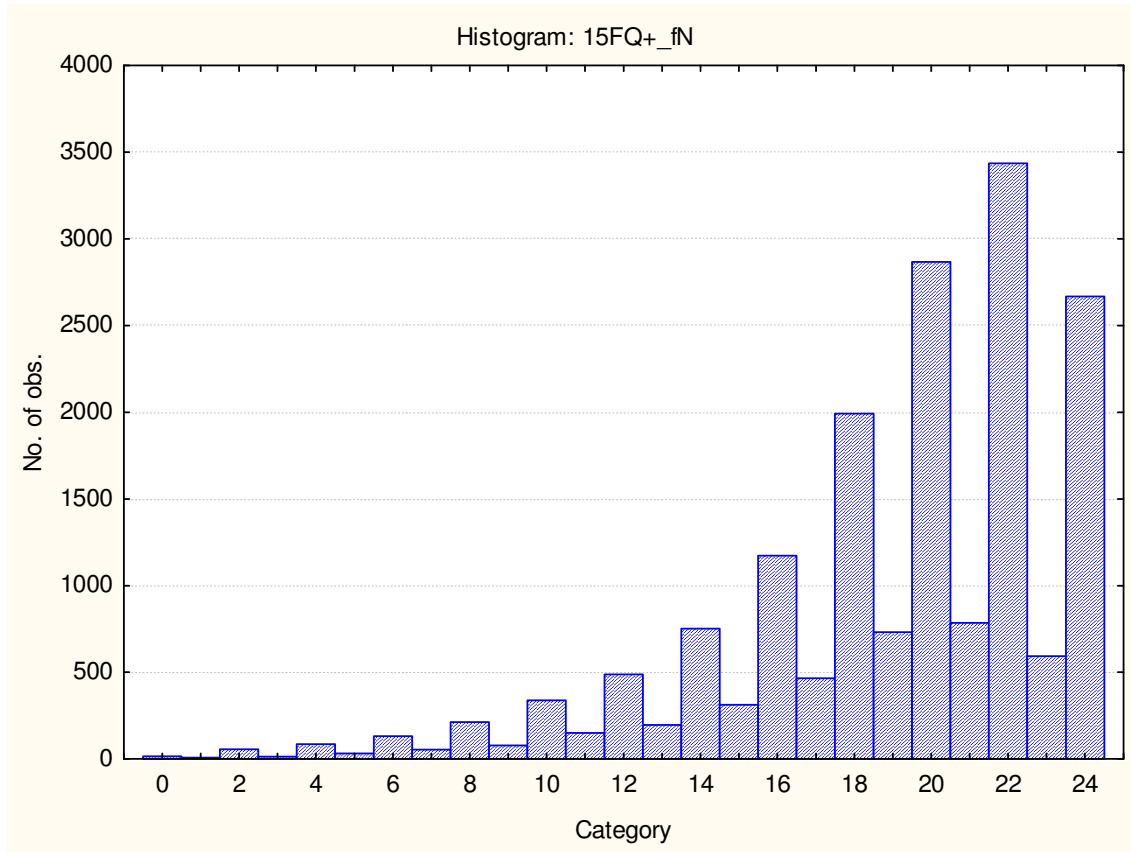
Trusting - Suspicious



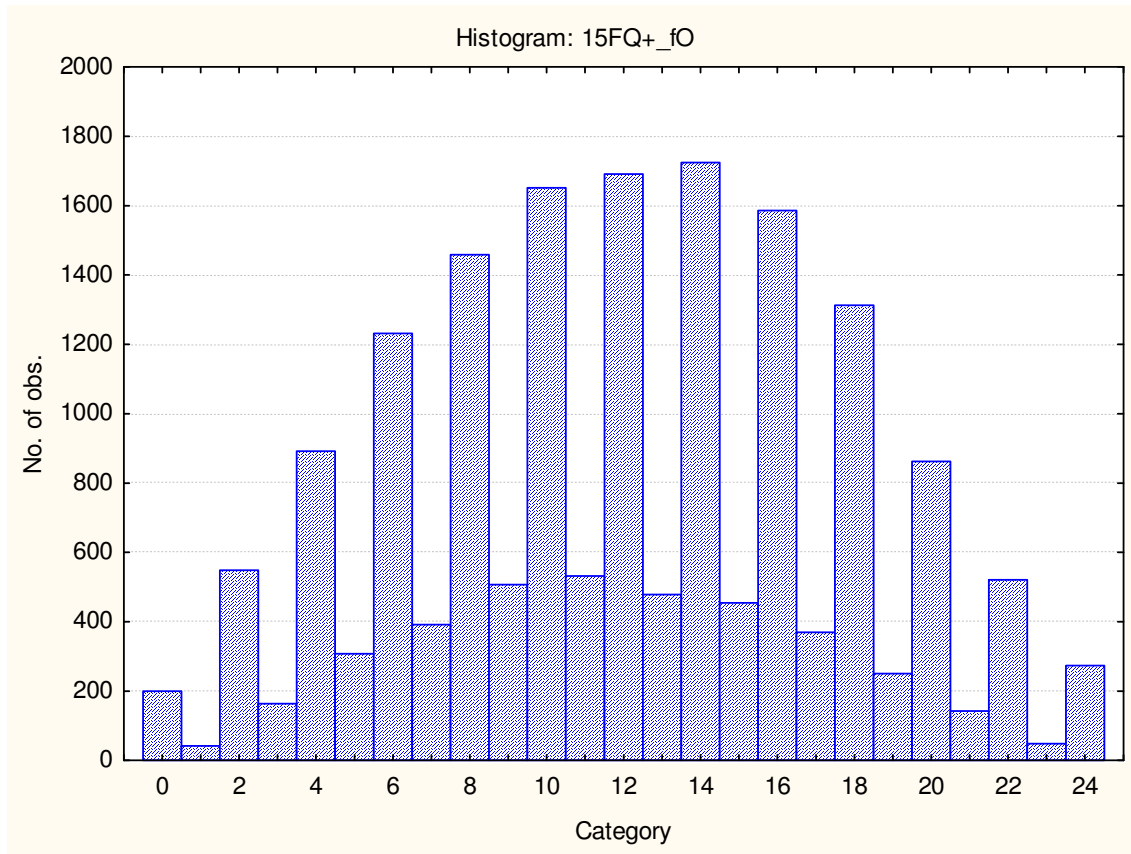
Concrete - Abstract



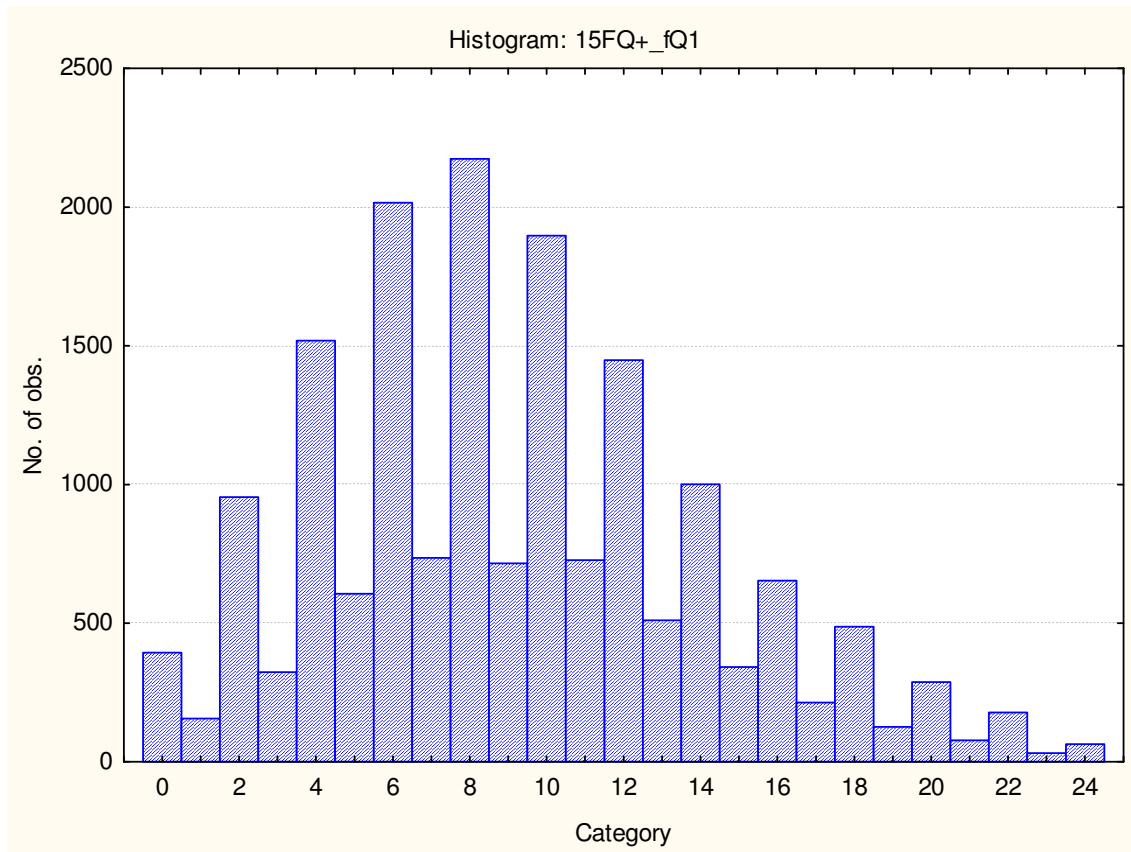
Direct - Restrained



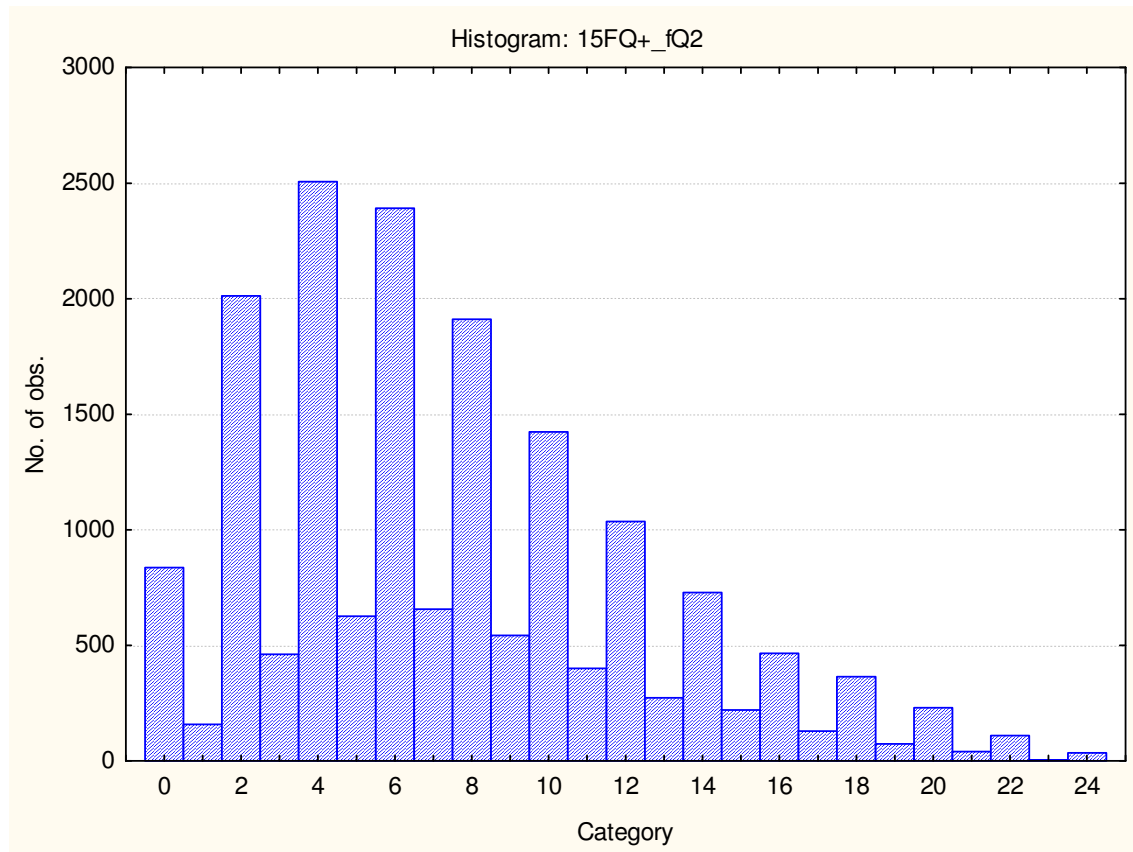
Self-assured - Apprehensive



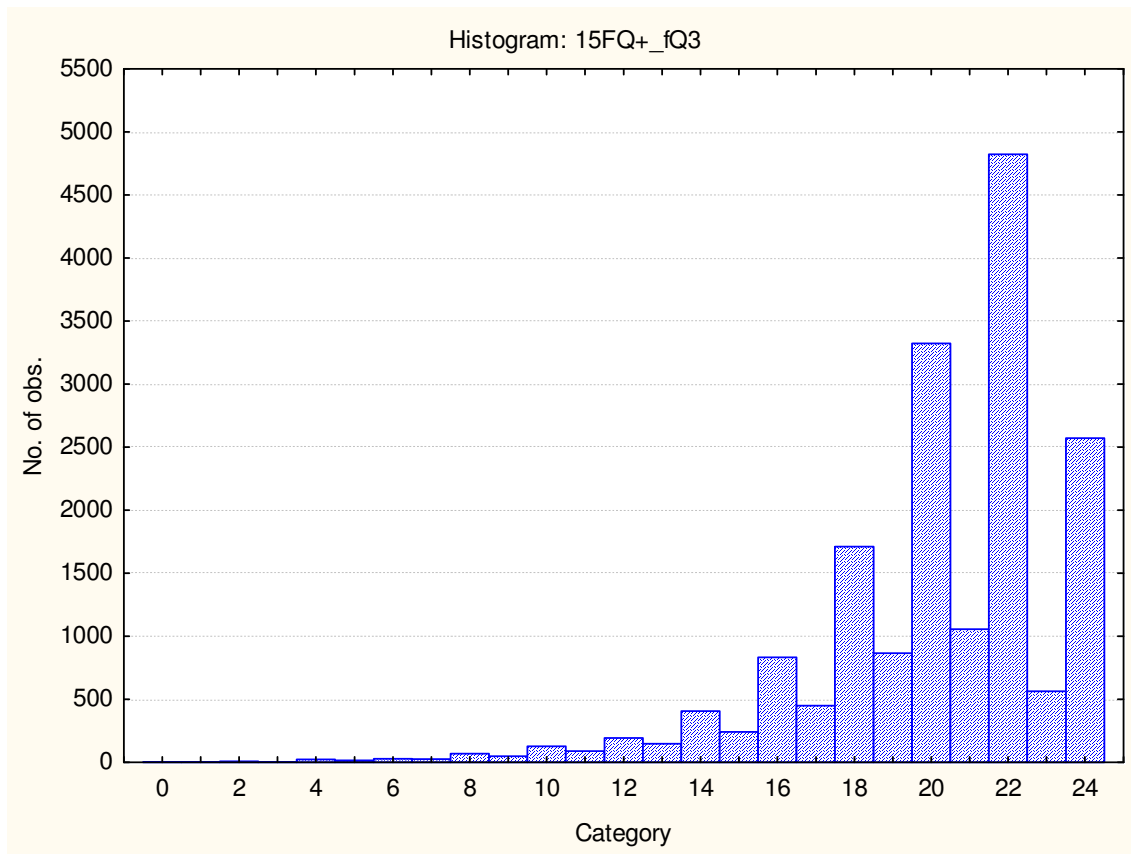
Conventional - Radical



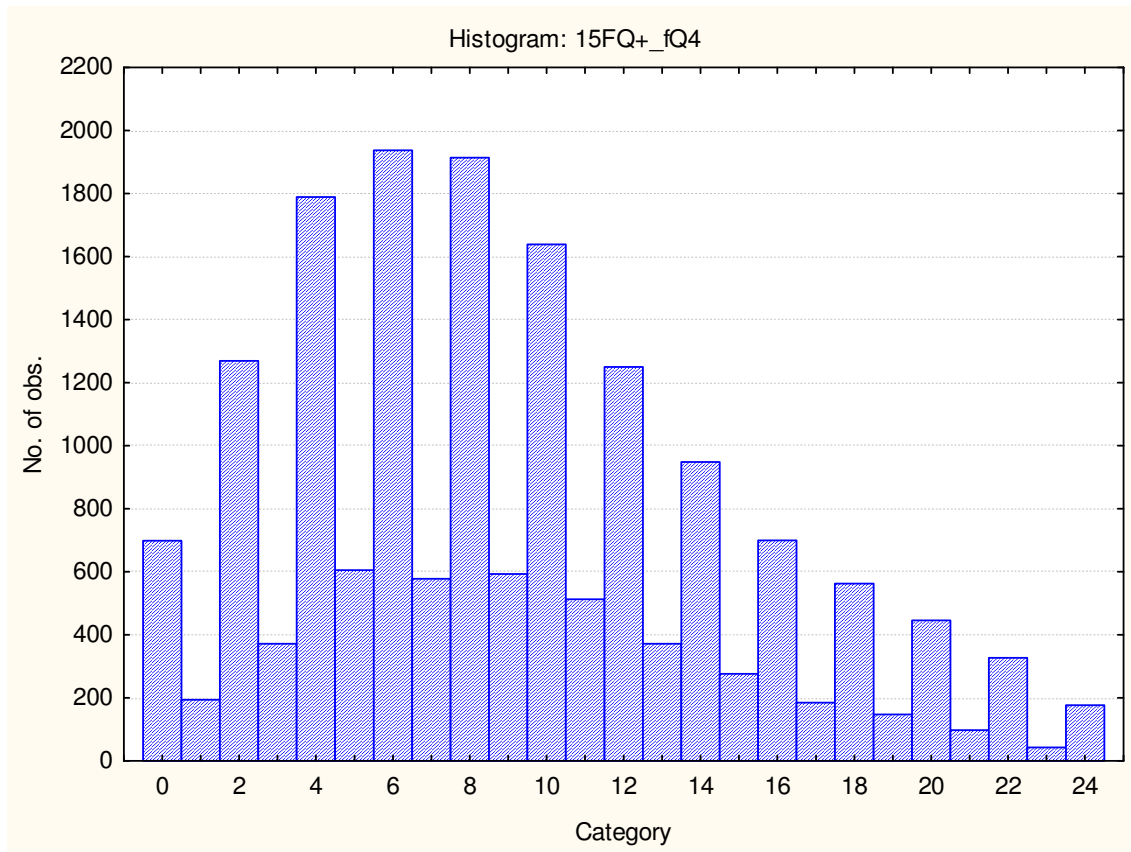
Group - orientated - Self-sufficient



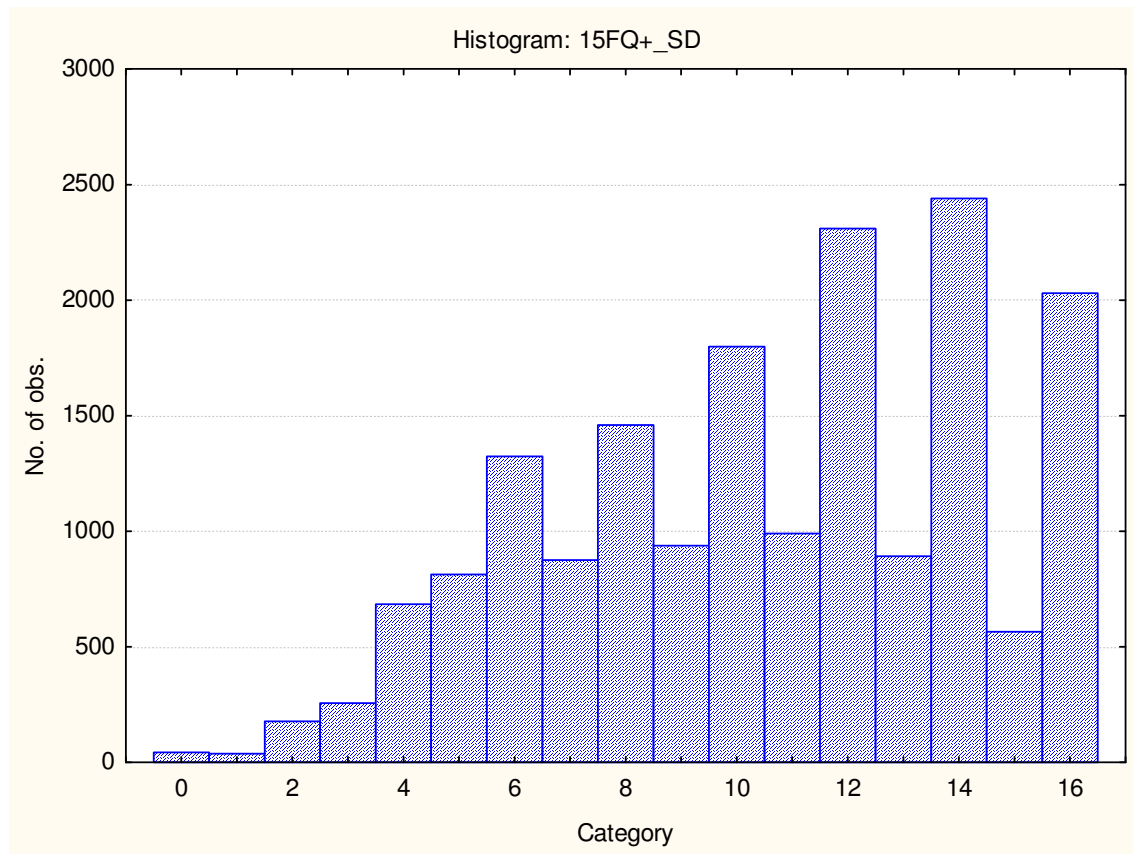
Informal- self disciplined



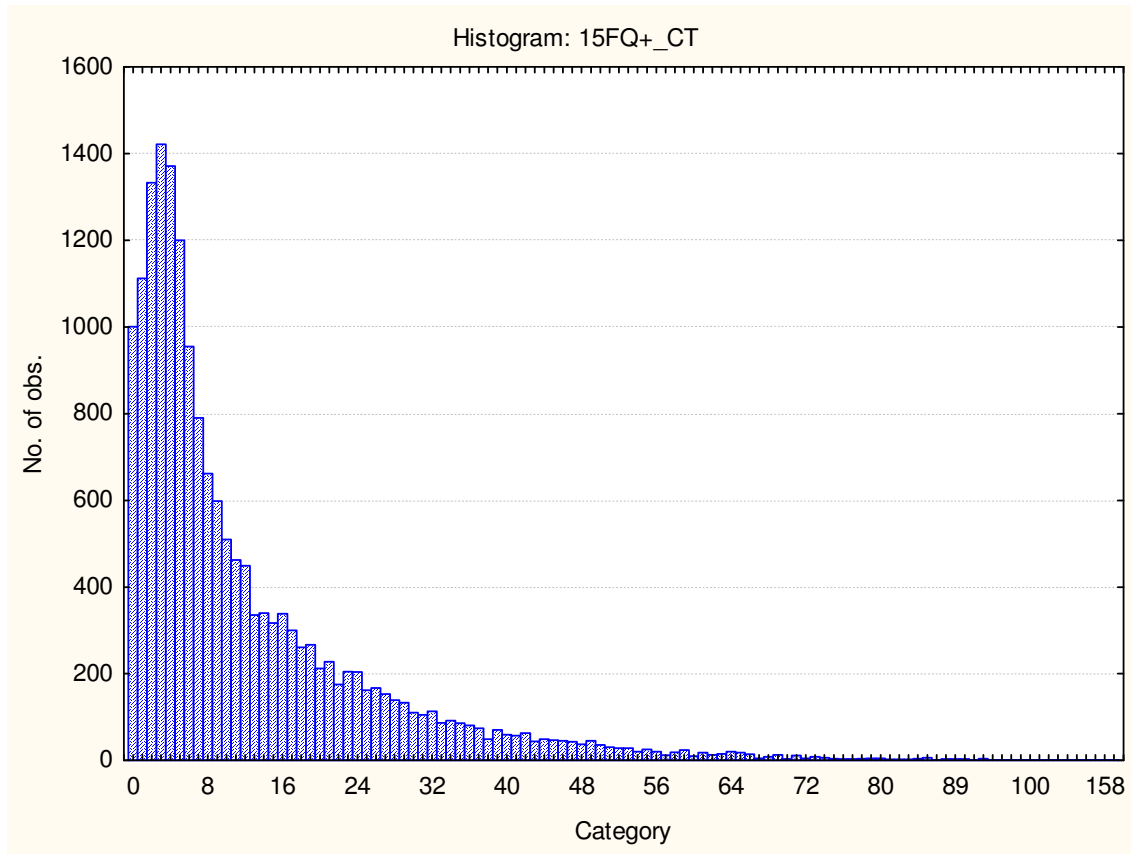
Composed - tense driven



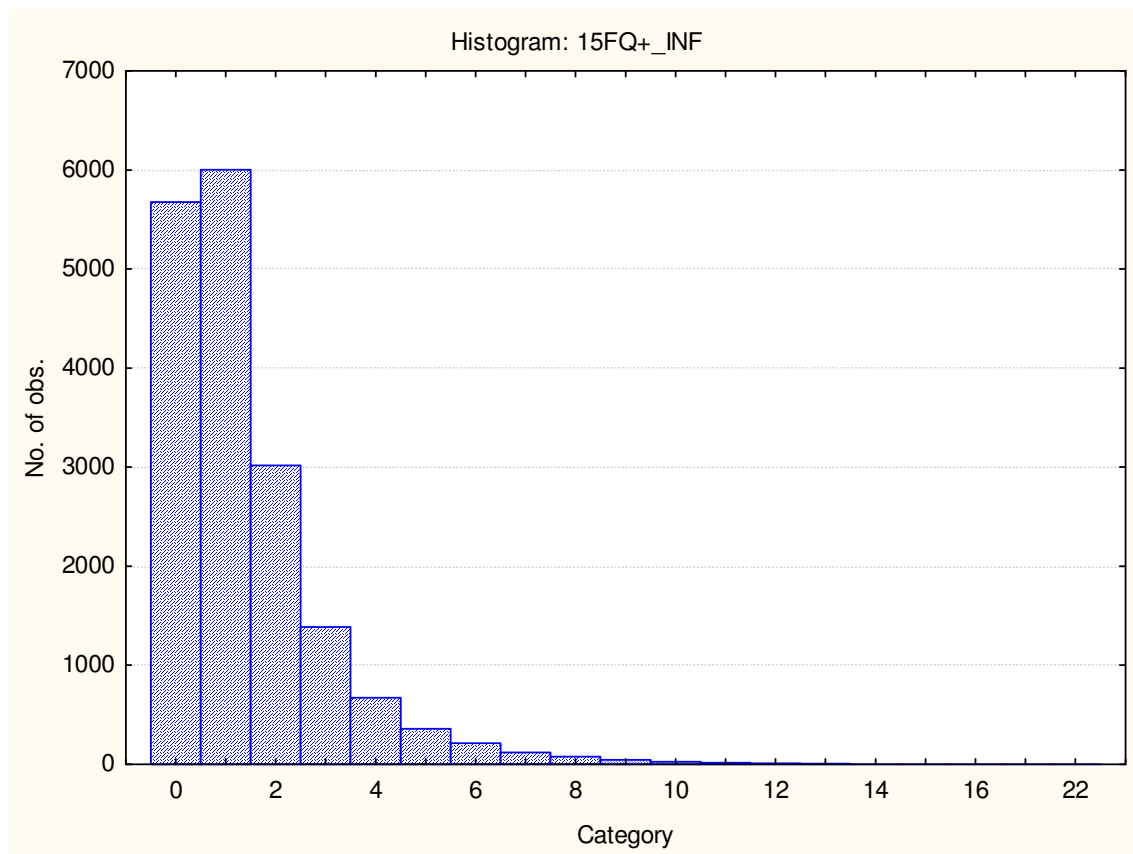
Social desirability



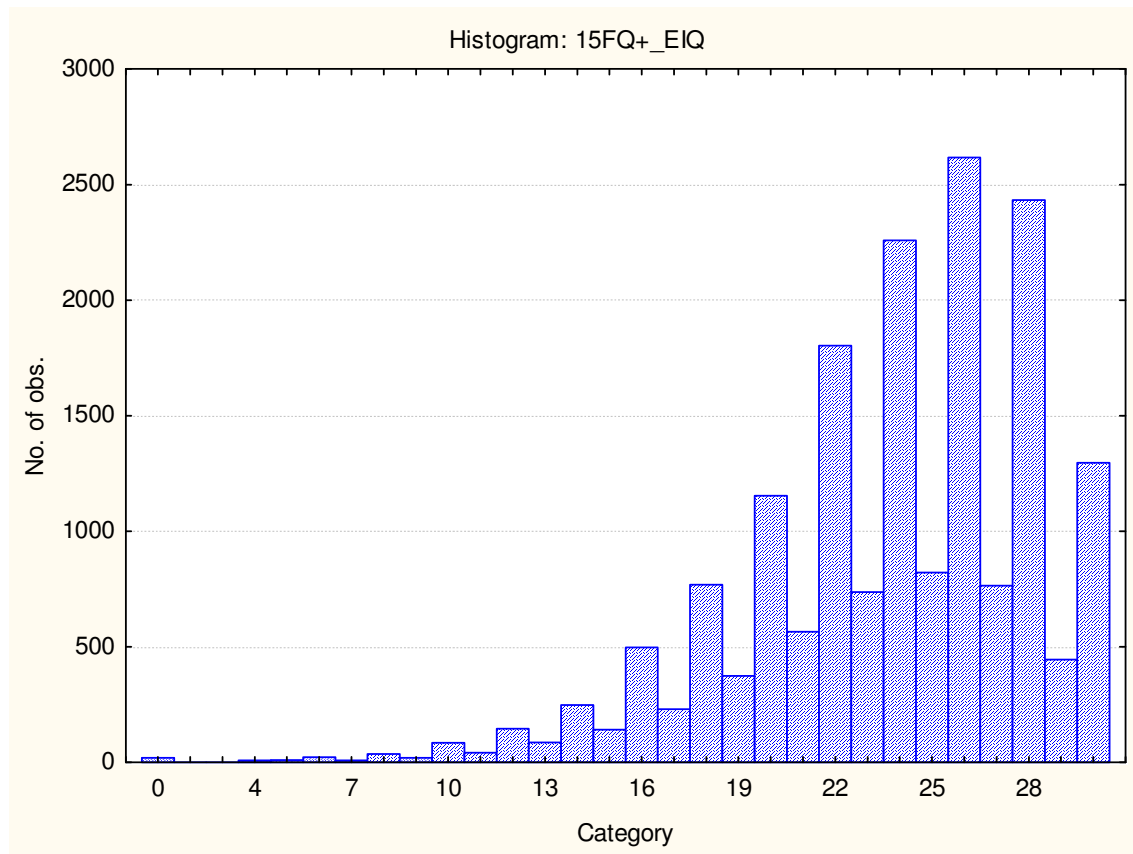
Central Tendency

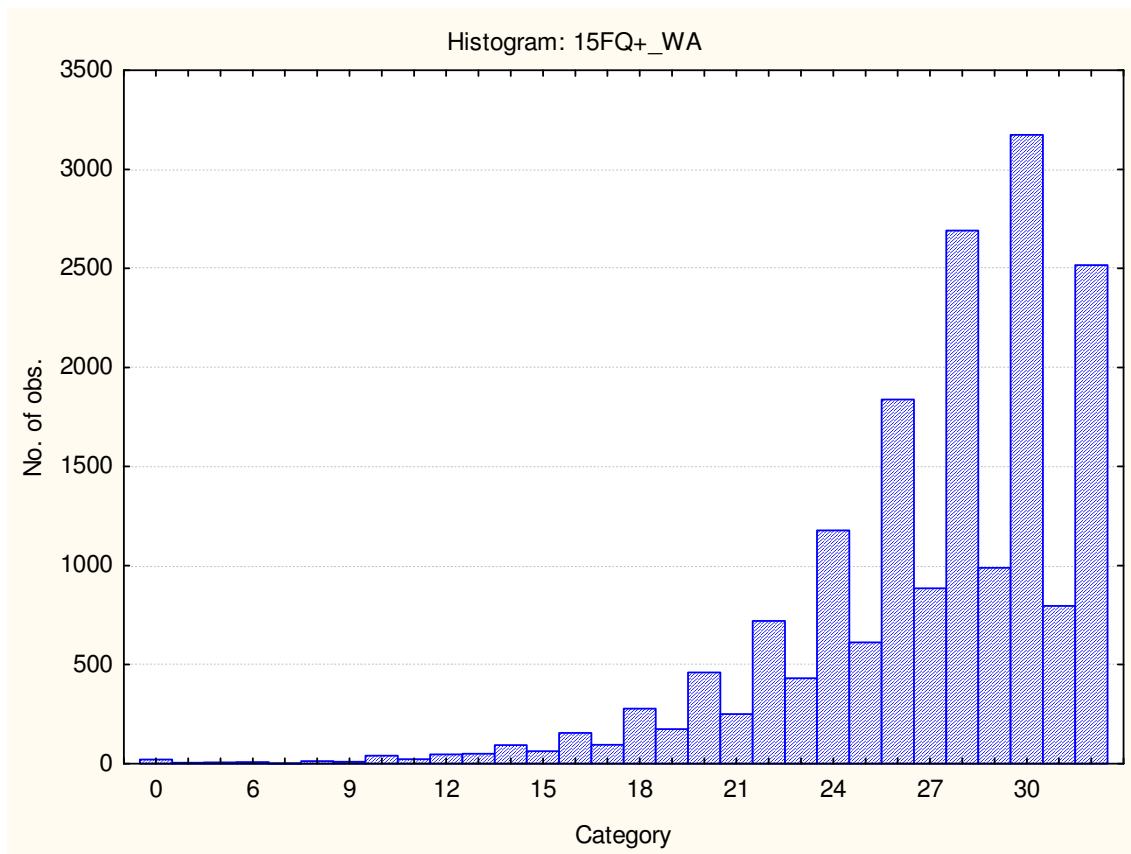


Infrequency

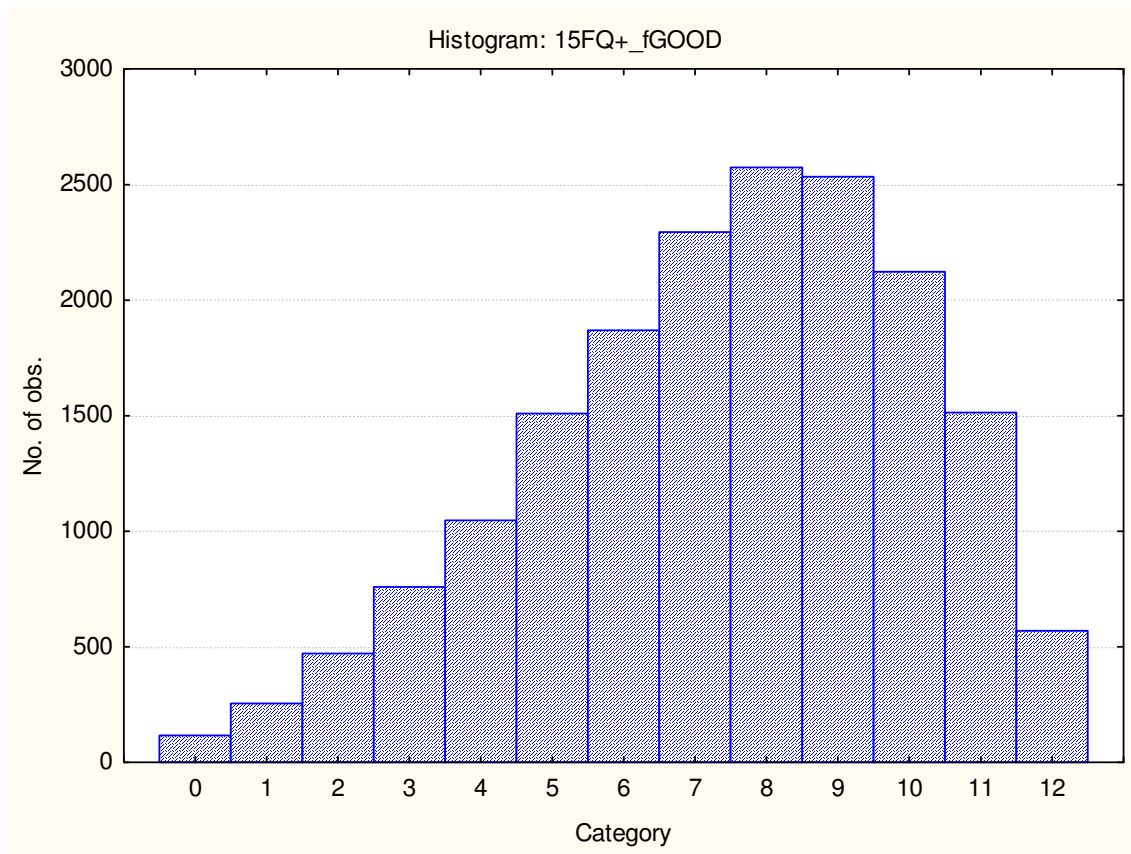


Derived score: Emotional Intelligence

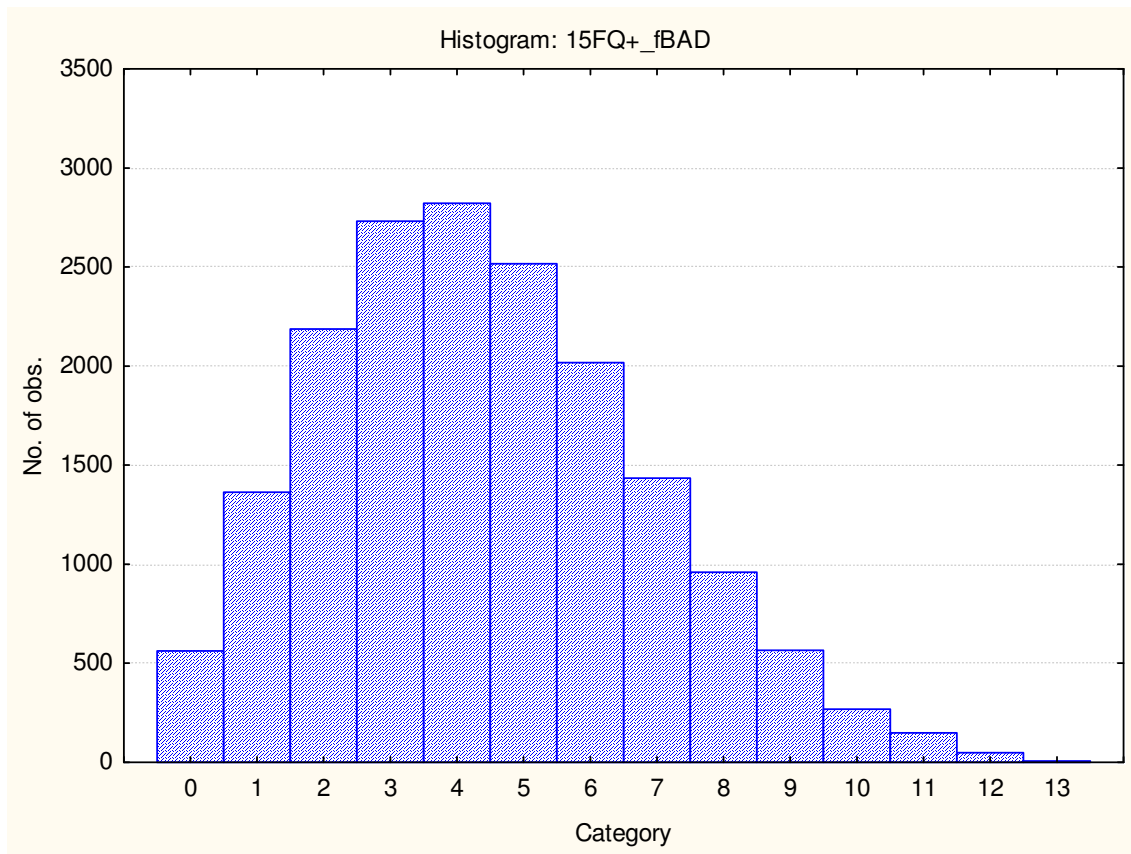




Faking good



Faking bad



Sten table

(Sten categories are in column headings)

Scale		1	2	3	4	5	6	7	8	9	10
fA	Distant aloof - empathic	0-11	12-13	14-15	16-17	18-18	19-20	21-22	23-24		
B	Intellectance	0-11	12-13	14-15	16-17	18-19	20-21	22-23	24-24		
fC	Affected by feelings - emotionally stable	0-8	9-10	11-12	13-15	16-17	18-19	20-22	23-24		
fE	Accommodating – Dominant	0-8	9-10	11-12	13-14	15-16	17-18	19-21	22-23	24-24	
fF	Sober serious - Enthusiastic	0-3	4-6	7-9	10-12	13-14	15-17	18-20	21-23	24-24	
fG	Expedient – Conscientious	0-10	11-12	13-14	15-17	18-19	20-21	22-23	24-24		
fH	Retiring - Socially bold	0-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24		
fi	Tough Minded - Tender minded	0-4	5-6	7-9	10-12	13-14	15-17	18-19	20-22	23-24	
fL	Trusting - Suspicious	0--1	0-1	2-4	5-6	7-9	10-11	12-14	15-16	17-19	20-24
fM	Concrete - Abstract	0-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-24
fN	Direct - Restrained	0-10	11-12	13-14	15-16	17-19	20-21	22-23	24-24		
fO	Self-assured - Apprehensive	0-1	2-3	4-6	7-9	10-12	13-14	15-17	18-20	21-23	24-24
fQ1	Conventional - Radical	0--1	0-1	2-4	5-6	7-9	10-11	12-14	15-16	17-19	20-24
fQ2	Group - orientated - Self-sufficient	0--1	0-0	1-2	3-5	6-7	8-9	10-12	13-14	15-17	18-24
fQ3	Informal- self disciplined	0-13	14-15	16-16	17-18	19-20	21-21	22-23	24-24		
fQ4	Composed - tense driven	0--1	0-0	1-3	4-6	7-9	10-11	12-14	15-17	18-20	21-24
SD	Social desirability	0-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16		
CT	Central Tendency	0--1	0-0	1-1	2-5	6-12	13-19	20-25	26-32	33-39	40-200
INF	Infrequency	0--1	0-0	1-1	2-2	3-3	4-4	5-5	6-6	7-7	8-26
EQ	Derived score: Emotional Intelligence	0-14	15-16	17-19	20-21	22-23	24-25	26-28	29-30		
WA	Derived score: Work attitude	0-18	19-20	21-22	23-24	25-27	28-29	30-31	32-32		
fGOOD	Faking good	0-2	3-3	4-4	5-6	7-7	8-8	9-10	11-11	12-12	13-14
fBAD	Faking bad	0--1	0-0	1-1	2-3	4-4	5-5	6-6	7-8	9-9	10-13

Norm Group : SA General English Speakers updated 2008

Norm Type:

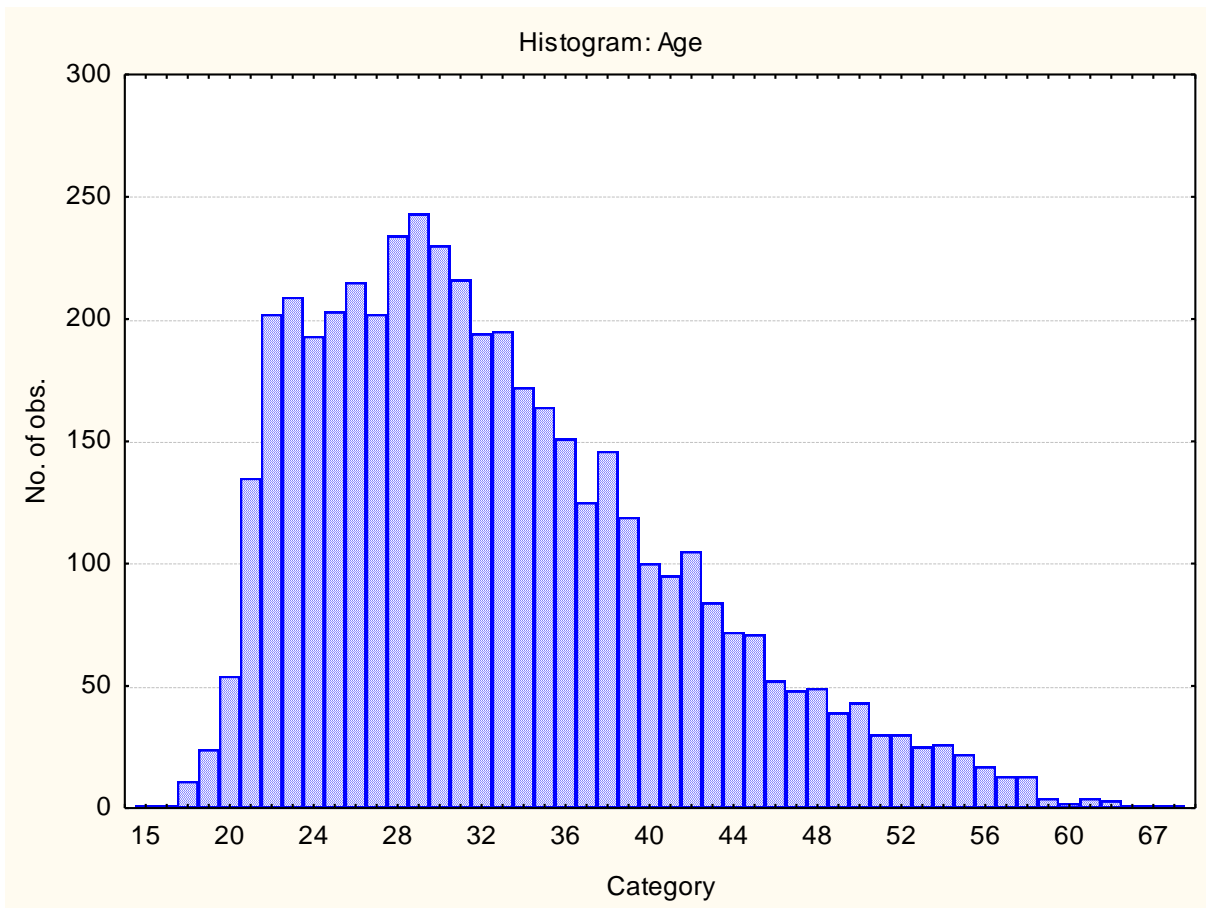
Standard Deviation Norm

Sample composition

The sample consisted of 4712 English speaking South Africans who completed the 15FQ+ in the period up to June 2008.

Descriptive statistics and frequency distribution for age

Variable	Descriptive Statistics					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases missing
Age	32.70429	8.62757	15.00000	68.00000	4589	123



Frequency table for sex

Category	Frequency table: Sex			
	Count	Cumulative	Percent	Cumulative
F	1866	1866	39.6010 2	39.6010
M	2828	4694	60.0169 8	99.6180
U	18	4712	0.38200	100.0000
Missing	0	4712	0.00000	100.0000

Frequency table for educational level

Category	Frequency table: Education			
	Count	Cumulative	Percent	Cumulative
Grade 12	1590	1590	33.7436 3	33.7436
Degree	805	2395	17.0840 4	50.8277
Post Graduate	759	3154	16.1078 1	66.9355
Technikon	443	3597	9.40153	76.3370
University diploma	423	4020	8.97708	85.3141
Grade 10 or 11	129	4149	2.73769	88.0518
Vocational Training	367	4516	7.78862	95.8404
Missing	196	4712	4.15959	100.0000

Racial composition of the sample

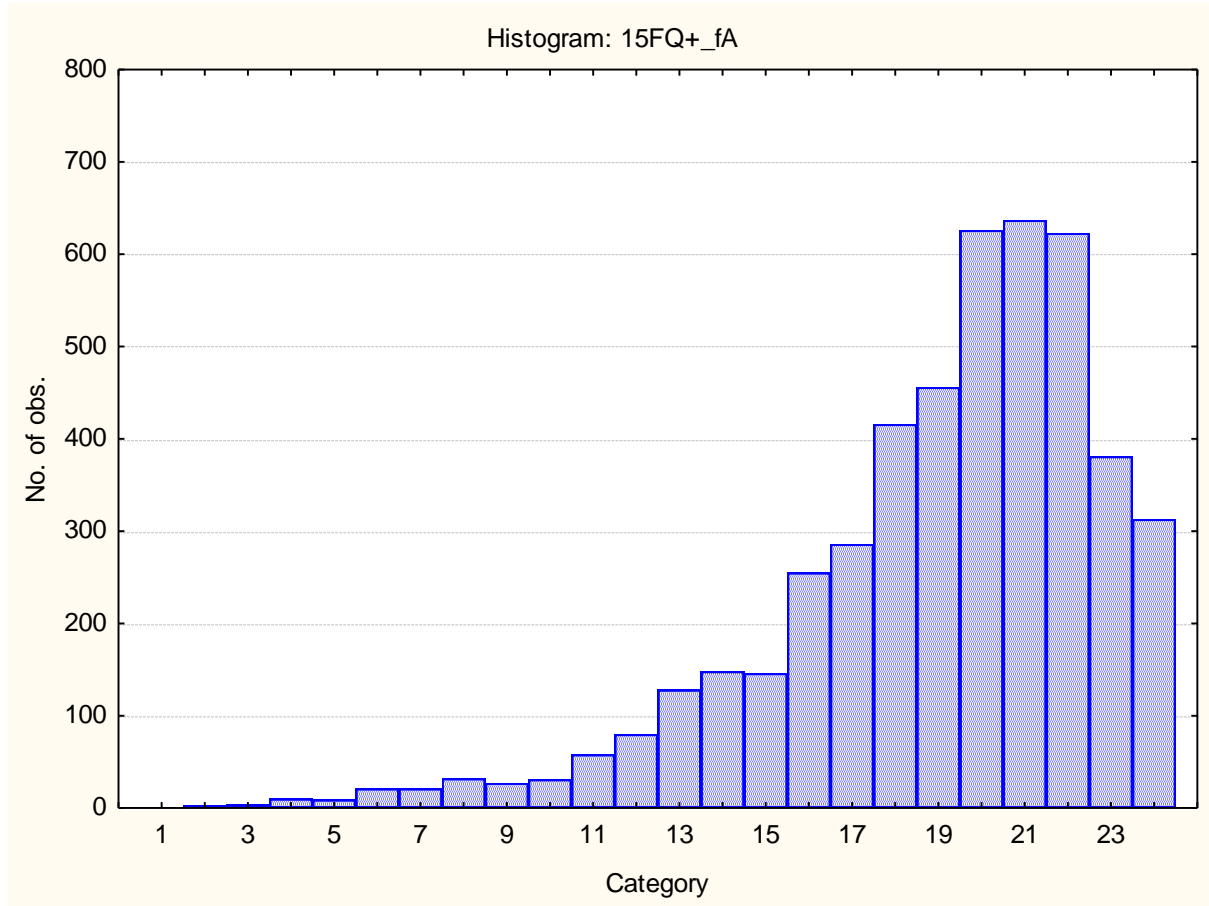
Category	Frequency table: Race			
	Count	Cumulative	Percent	Cumulative
Coloured	638	638	13.53990	13.5399
African	312	950	6.62139	20.1613
European	2162	3112	45.88285	66.0441
Asian	1487	4599	31.55772	97.6019
Other	57	4656	1.20968	98.8115
Missing	56	4712	1.18846	100.0000

Descriptive statistics on 15FQ+ scales

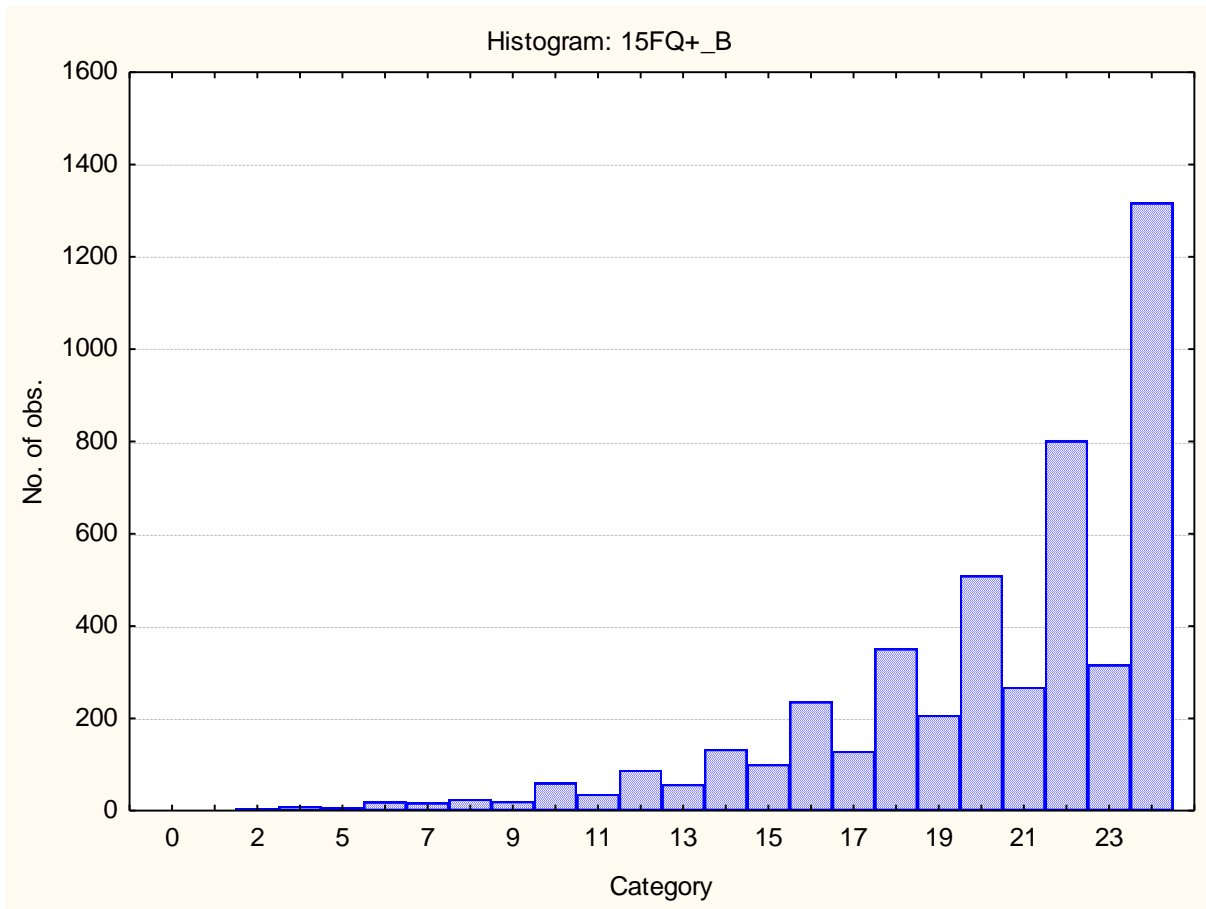
Variable	Scale description	Valid N	Mean	Std.Dev.
15FQ+_fA	Distant aloof - empathic	4712	19.03268	3.76312
15FQ+_B	Intellectance	4712	20.24151	4.04546
15FQ+_fC	Affected by feelings - emotionally stable	4712	17.44206	4.71322
15FQ+_fE	Accommodating - Dominant	4712	16.67890	4.50927
15FQ+_fF	Sober serious - Enthusiastic	4712	15.75785	5.32814
15FQ+_fG	Expedient - Conscientious	4712	19.29626	4.64385
15FQ+_fH	Retiring - Socially bold	4712	15.49363	6.13317
15FQ+_fI	Tough Minded - Tender minded	4712	14.63731	5.25473
15FQ+_fL	Trusting - Suspicious	4712	8.27143	5.01248
15FQ+_fM	Concrete - Abstract	4712	10.51592	4.31317
15FQ+_fN	Direct - Restrained	4712	18.68336	4.61062
15FQ+_fO	Self-assured - Apprehensive	4712	11.90832	5.73767
15FQ+_fQ1	Conventional - Radical	4712	9.05497	5.18531
15FQ+_fQ2	Group - orientated - Self-sufficient	4712	7.51337	4.91177
15FQ+_fQ3	Informal- self disciplined	4712	19.96031	3.43752
15FQ+_fQ4	Composed - tense driven	4712	9.21668	5.92588
15FQ+_SD	Social desirability	4712	10.96647	3.61994
15FQ+_CT	Central Tendency	4712	11.68145	12.85305
15FQ+_INF	Infrequency	4712	1.19970	1.43160
15FQ+_EIQ	Derived score: Emotional Intelligence	4712	23.76146	4.65211
15FQ+_WA	Derived score: Work attitude	4712	27.15662	4.45950
15FQ+_fGOOD	Faking good	4712	7.37330	2.69178
15FQ+_fBAD	Faking bad	4712	4.42381	2.50241

Frequency distributions for 15FQ+ scales

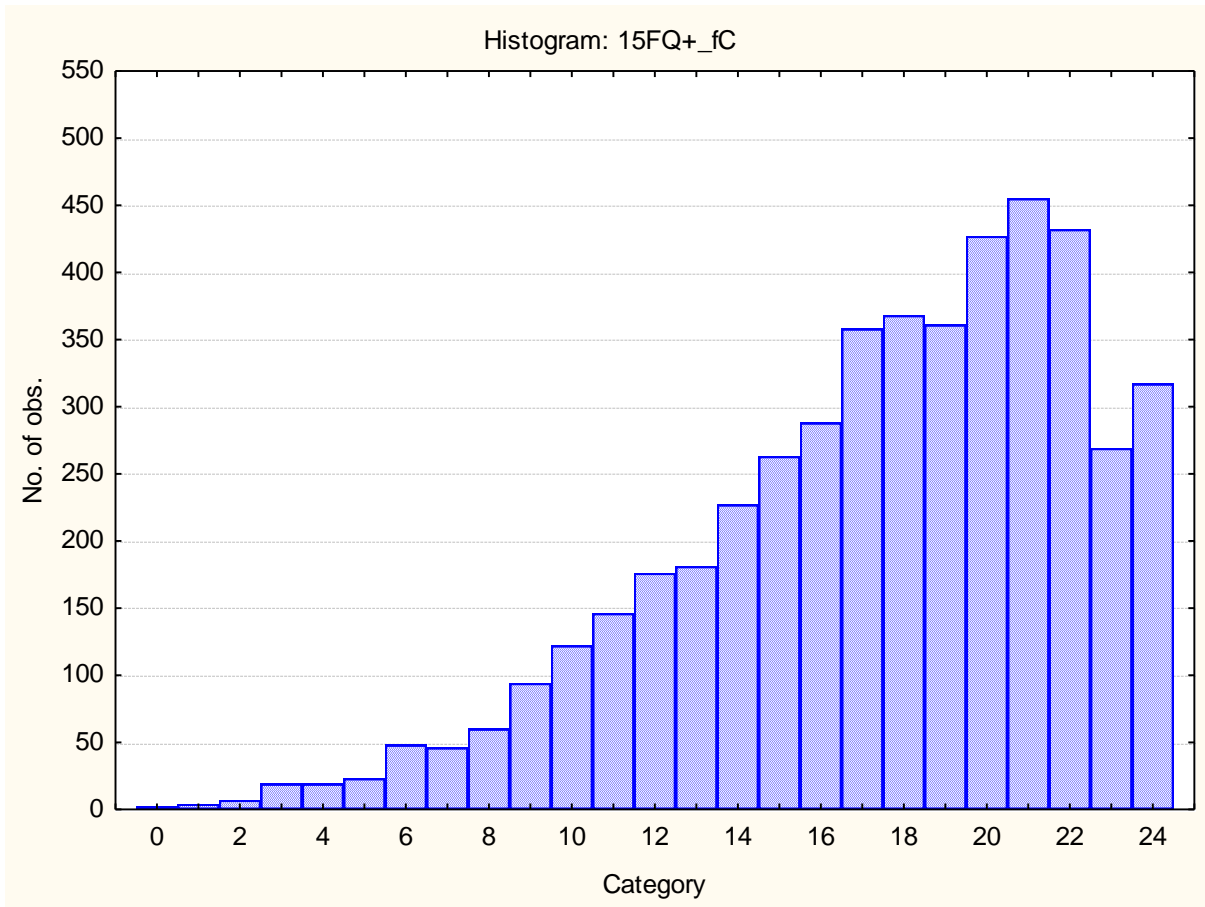
Distant aloof - empathic



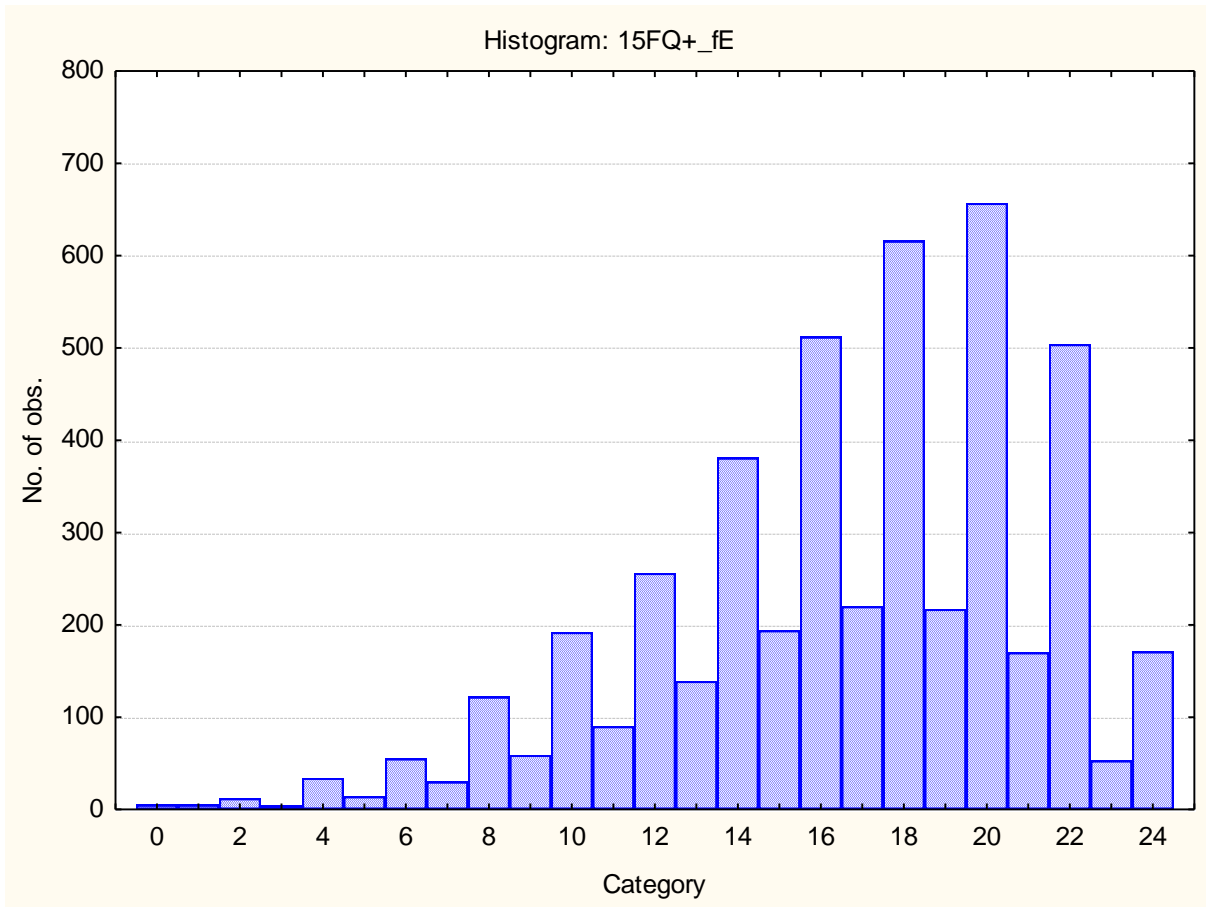
Intellectance



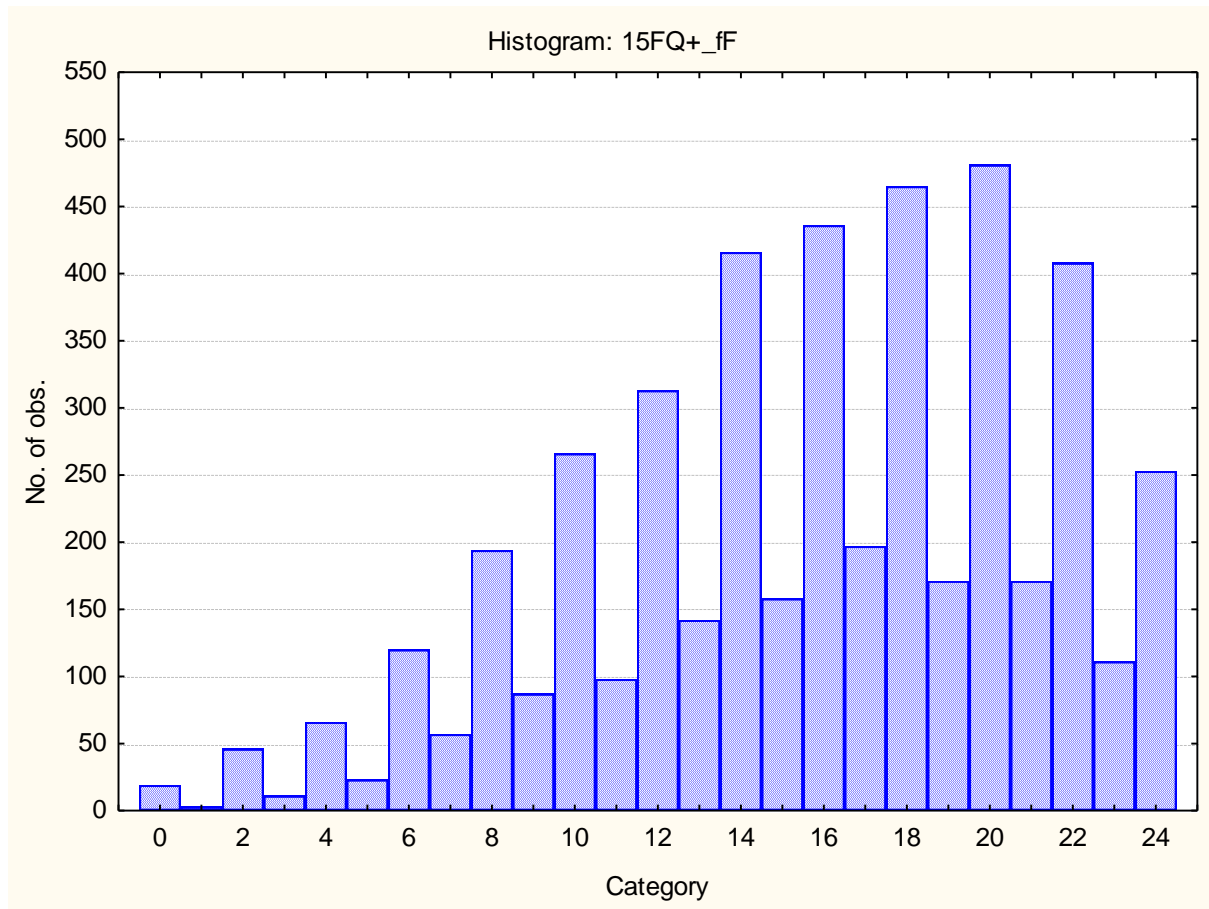
Affected by feelings - emotionally stable



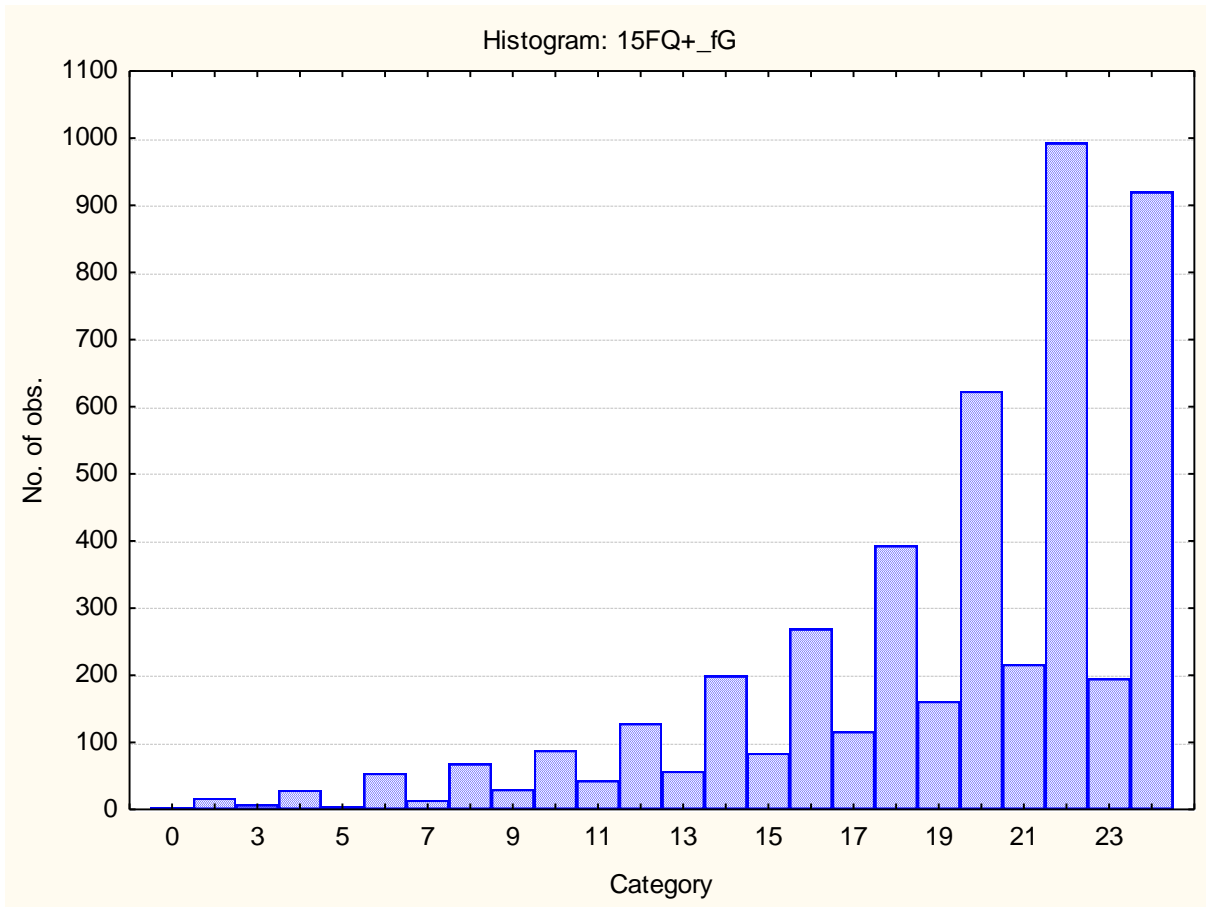
Accommodating - Dominant



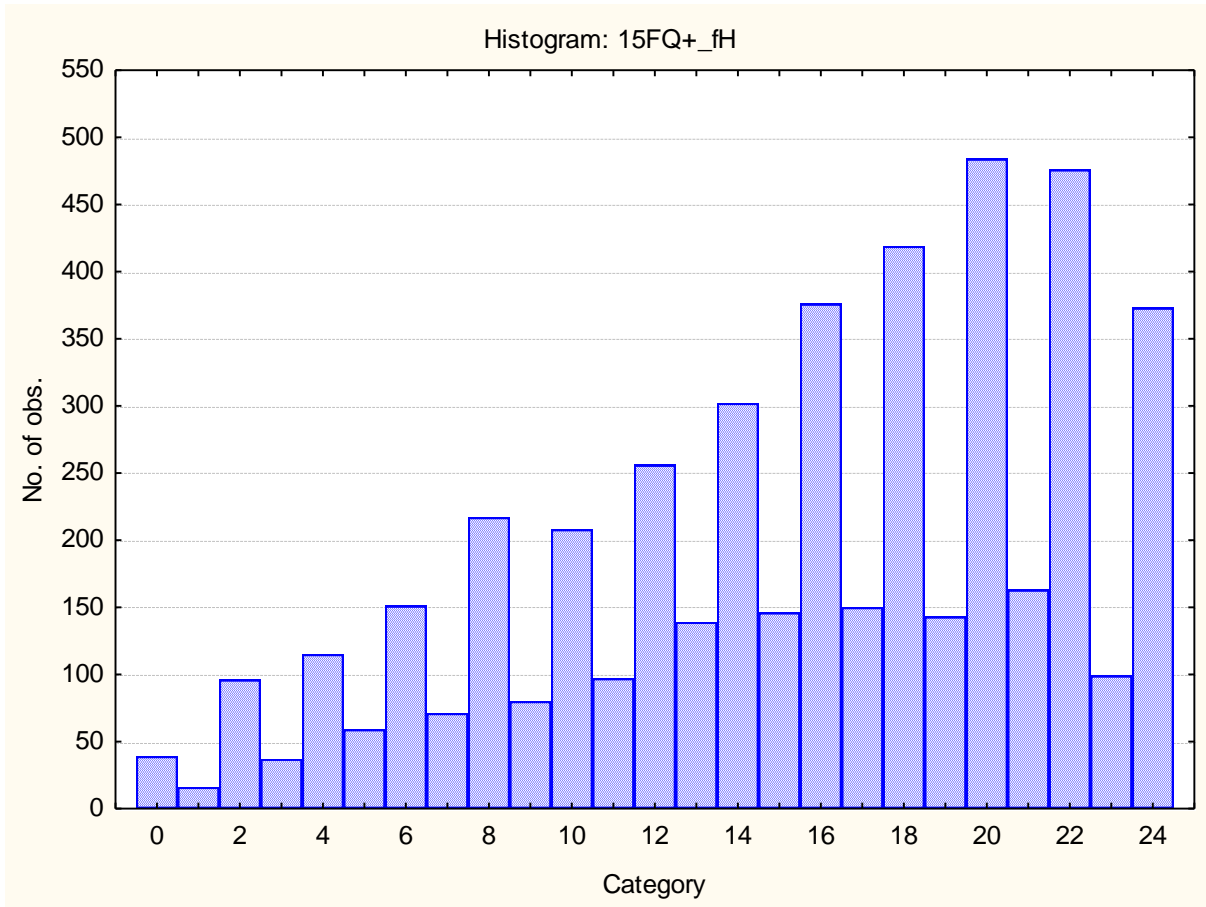
Sober serious - Enthusiastic



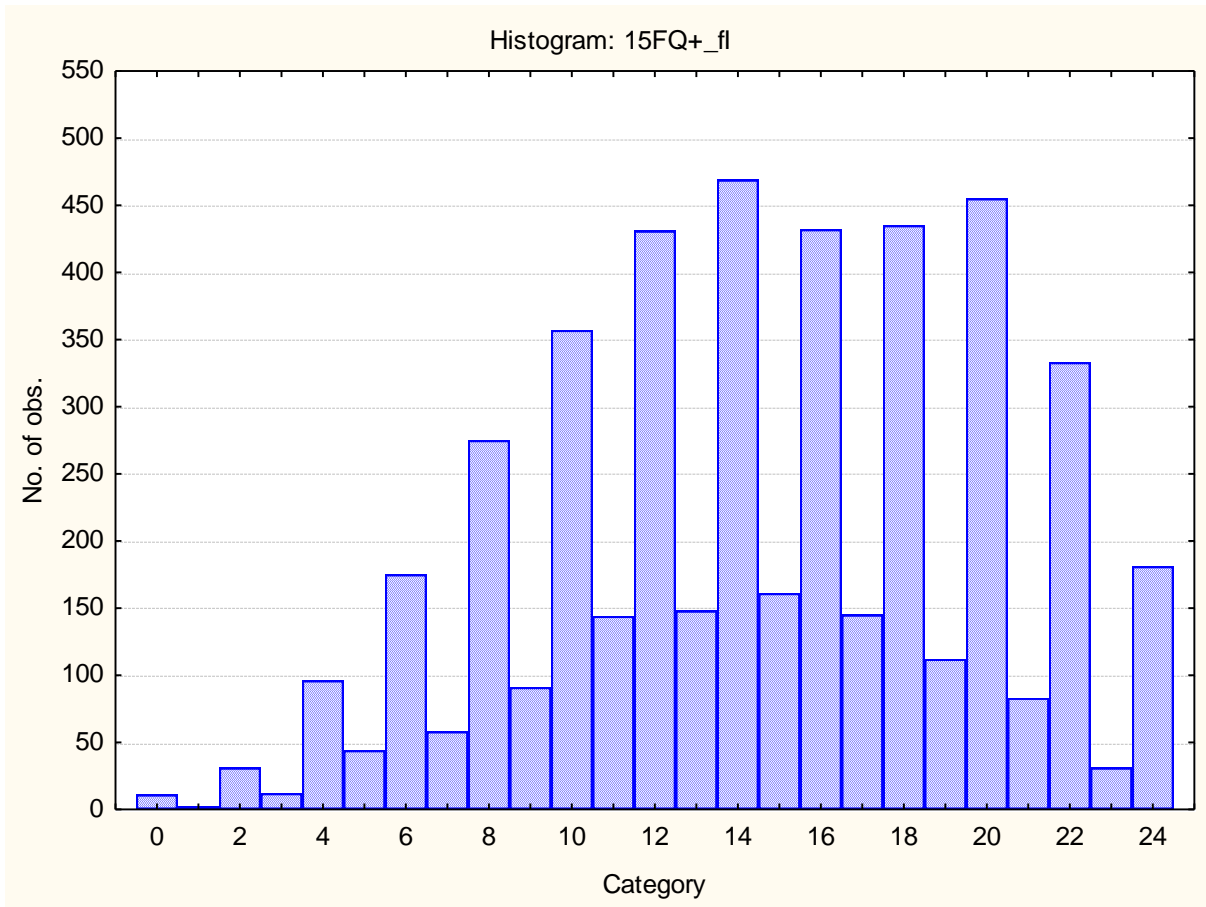
Expedient - Conscientious



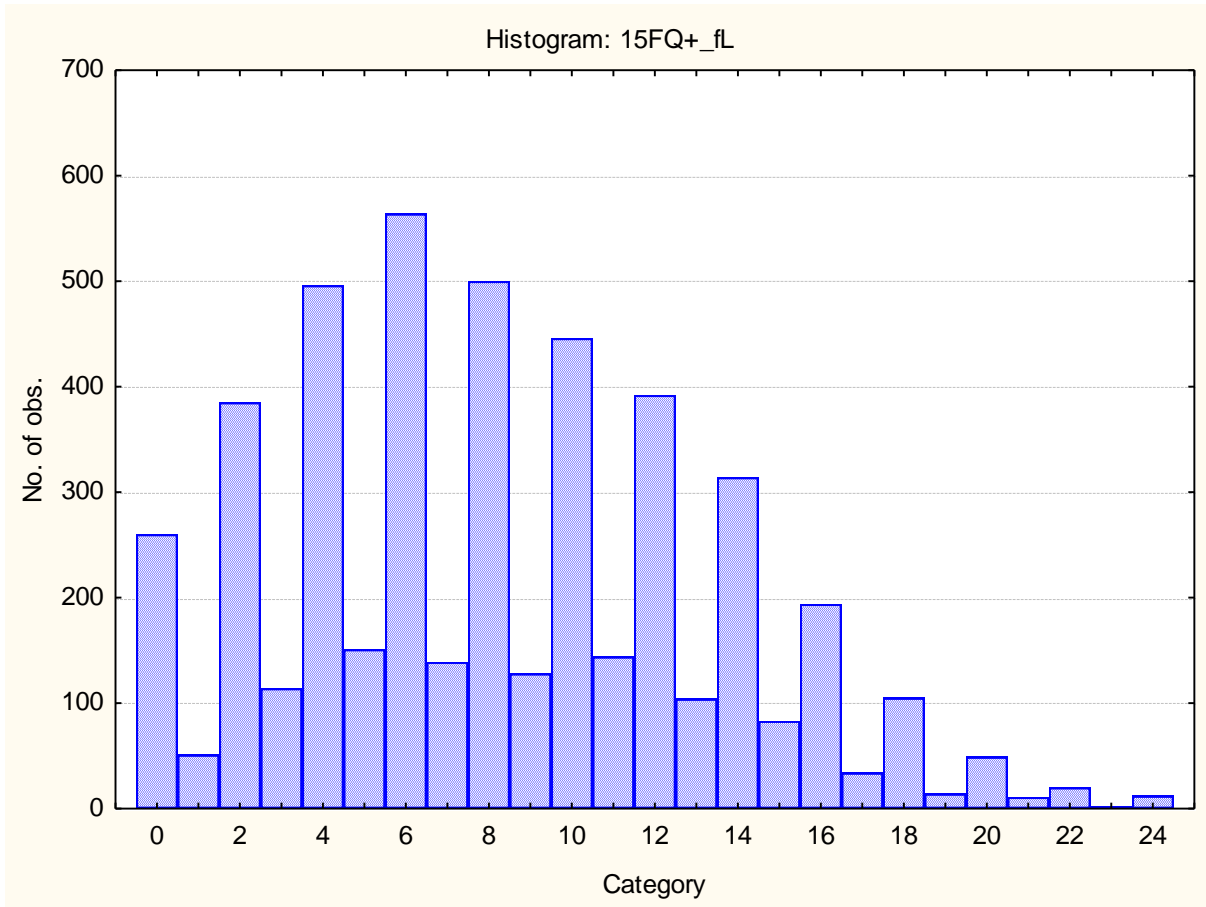
Retiring - Socially bold



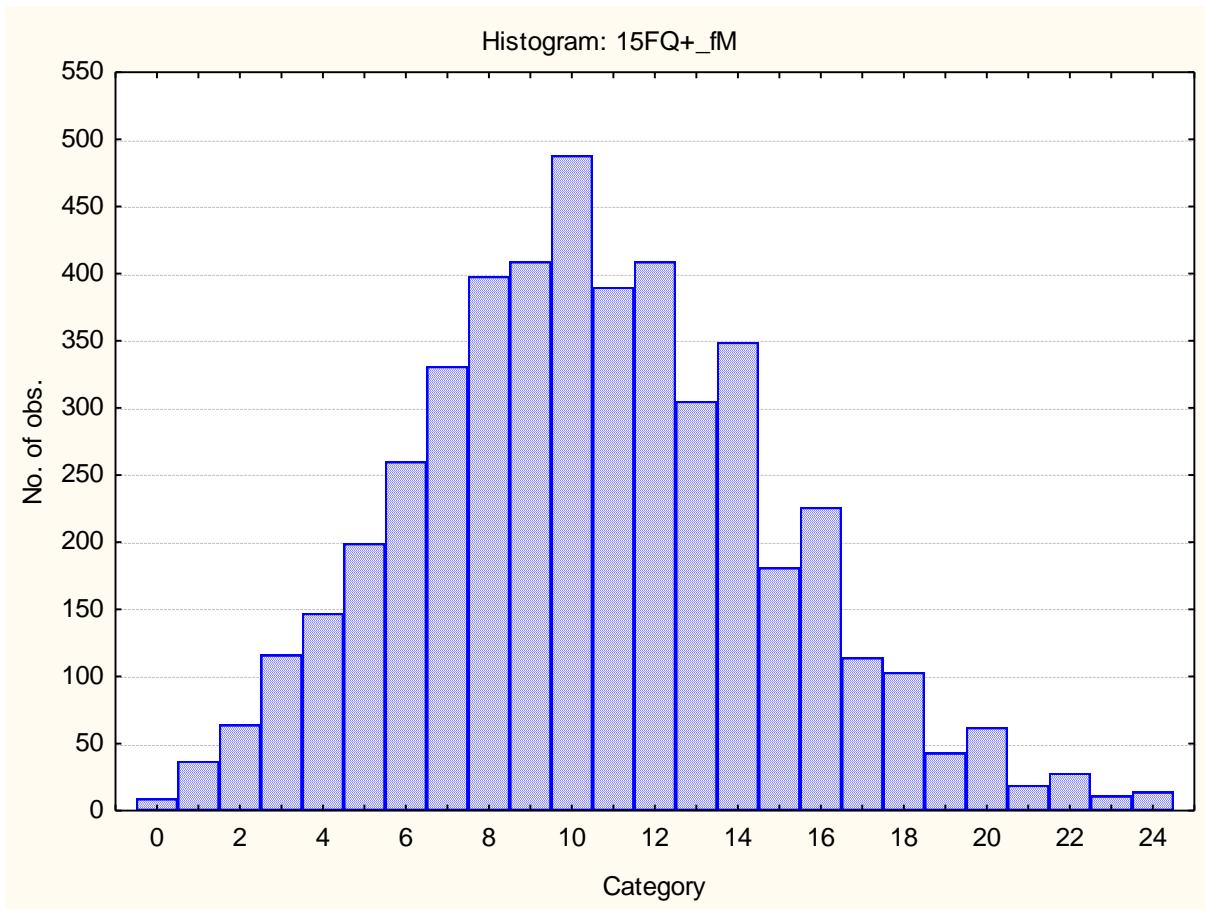
Tough Minded - Tender minded



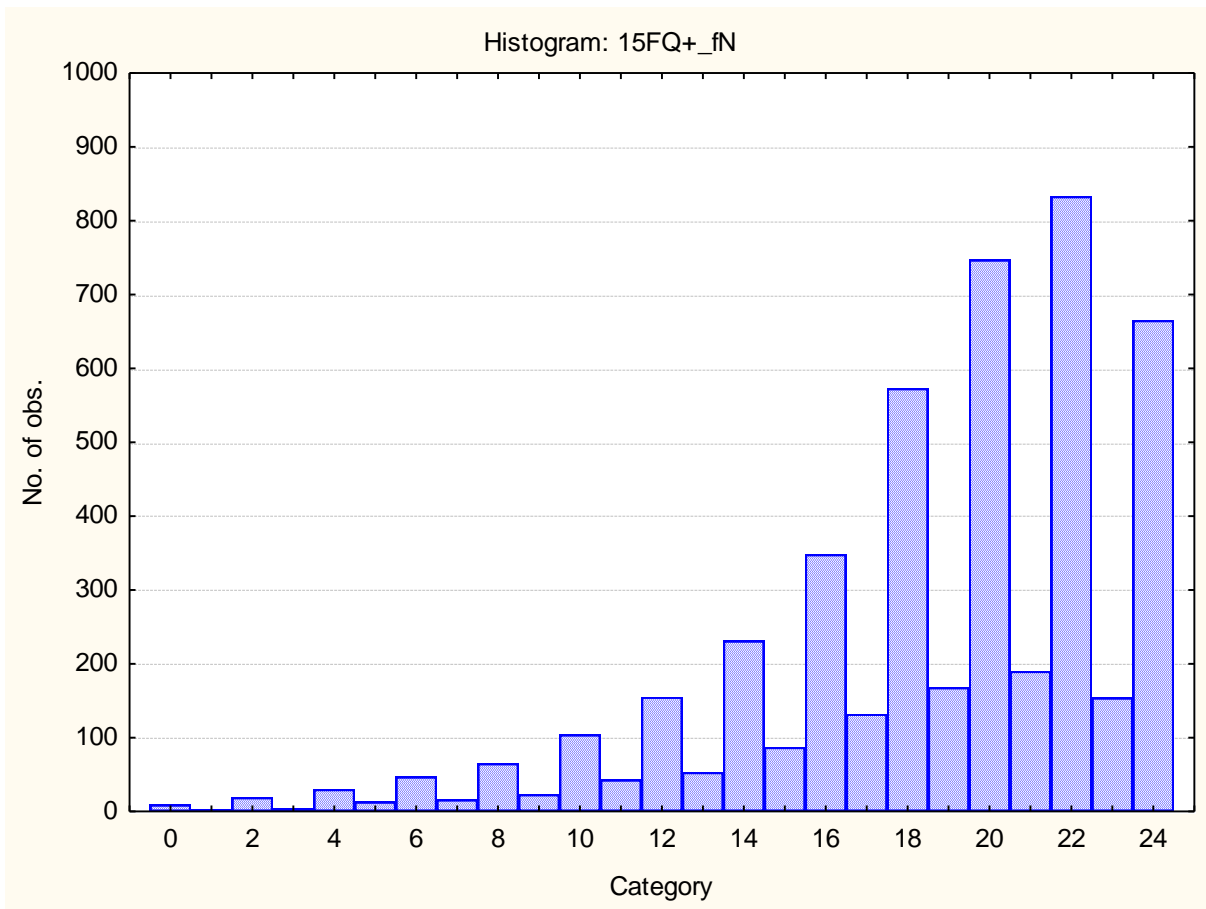
Trusting - Suspicious



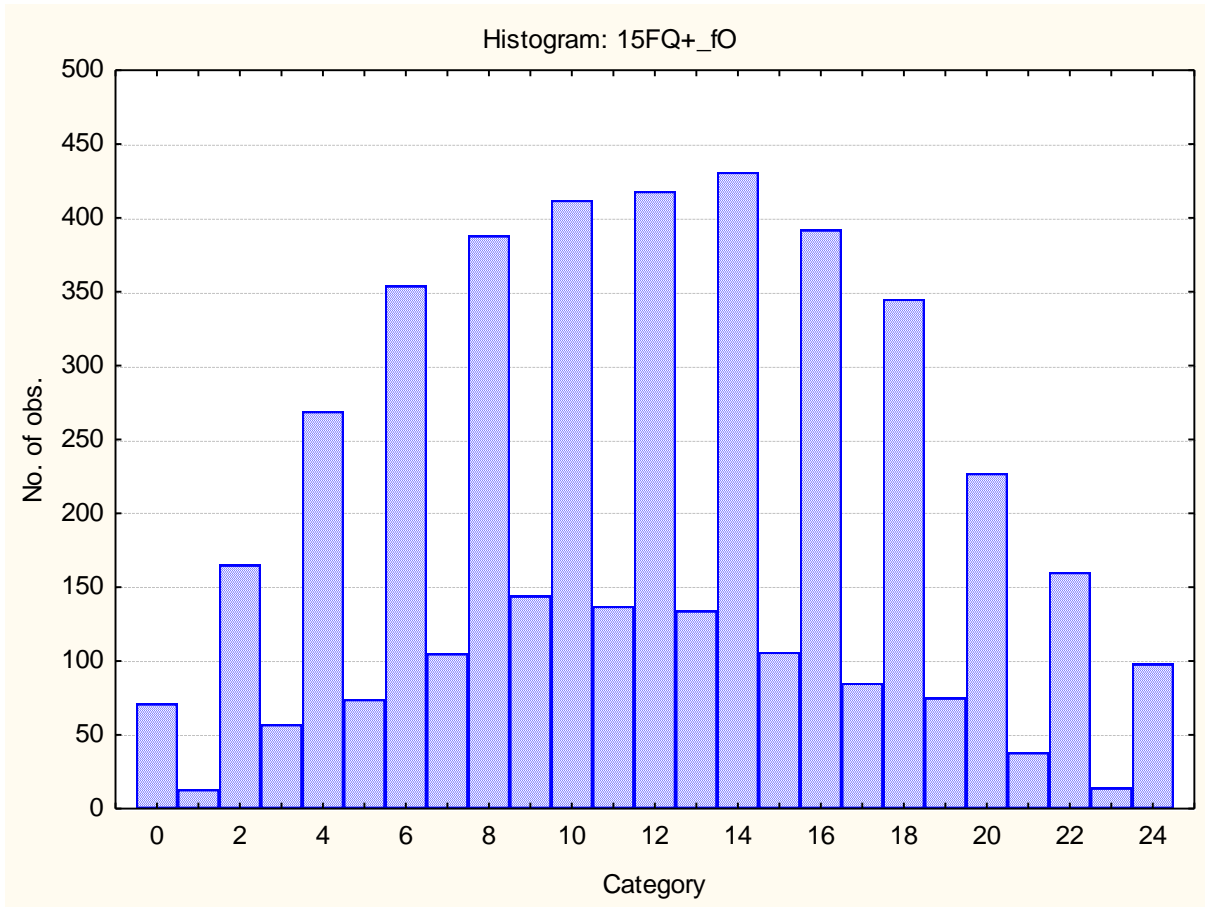
Concrete - Abstract



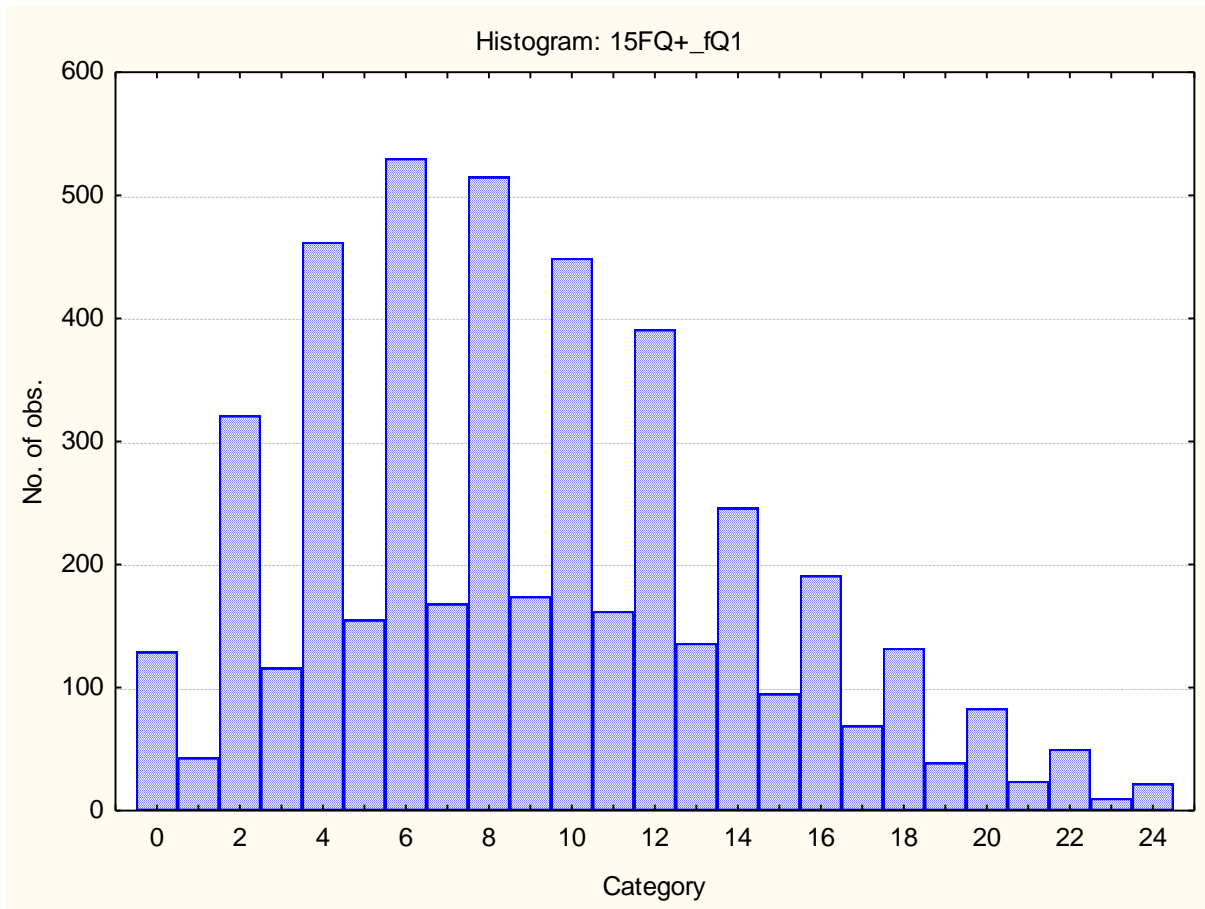
Direct - Restrained



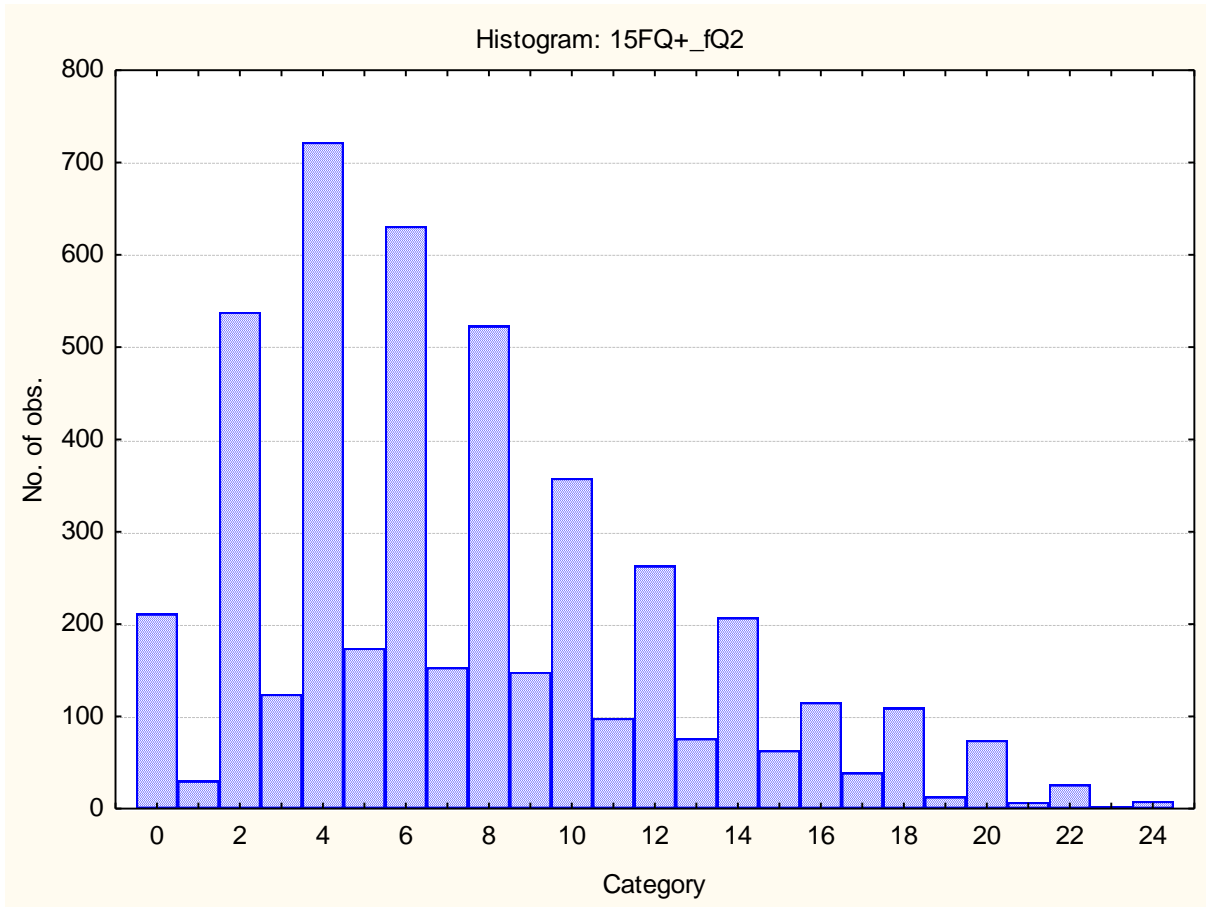
Self-assured - Apprehensive



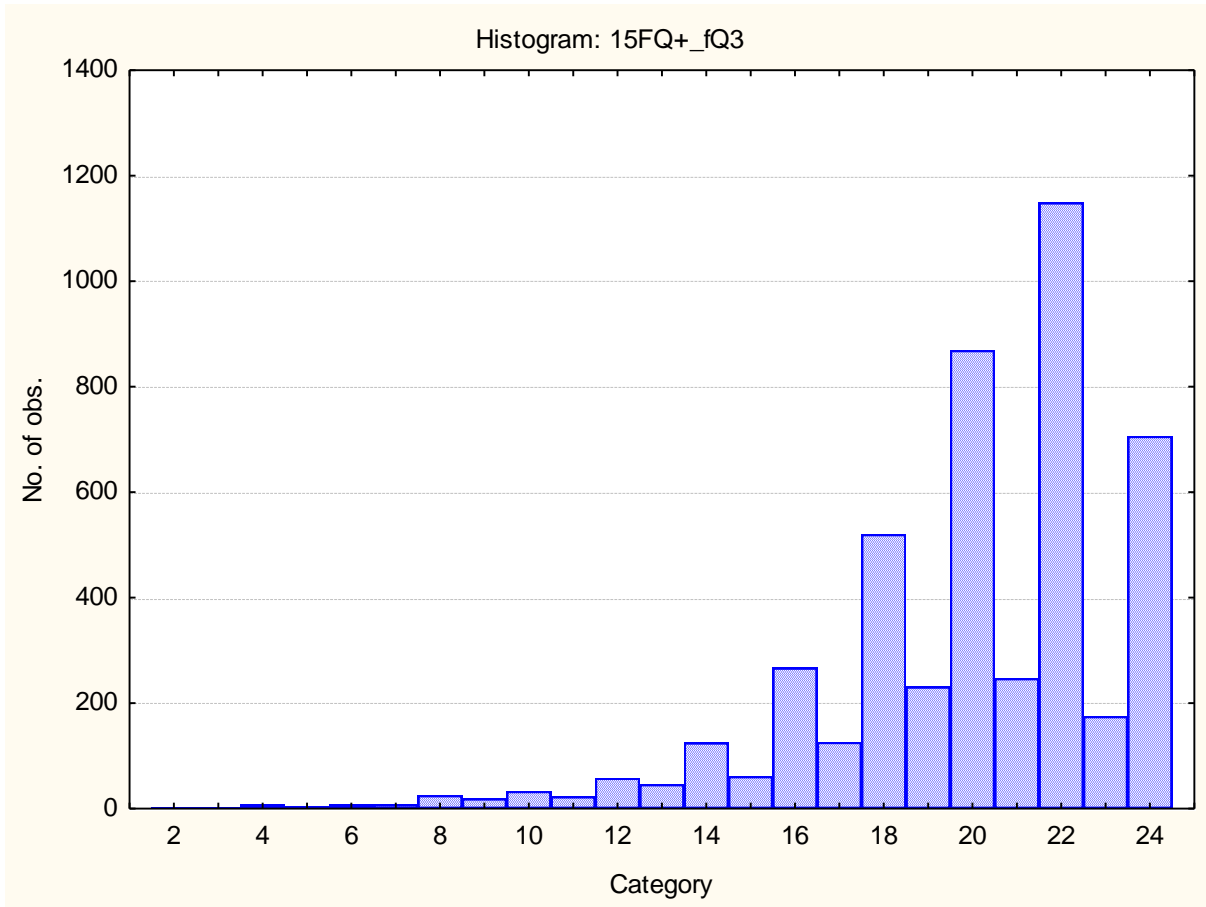
Conventional - Radical



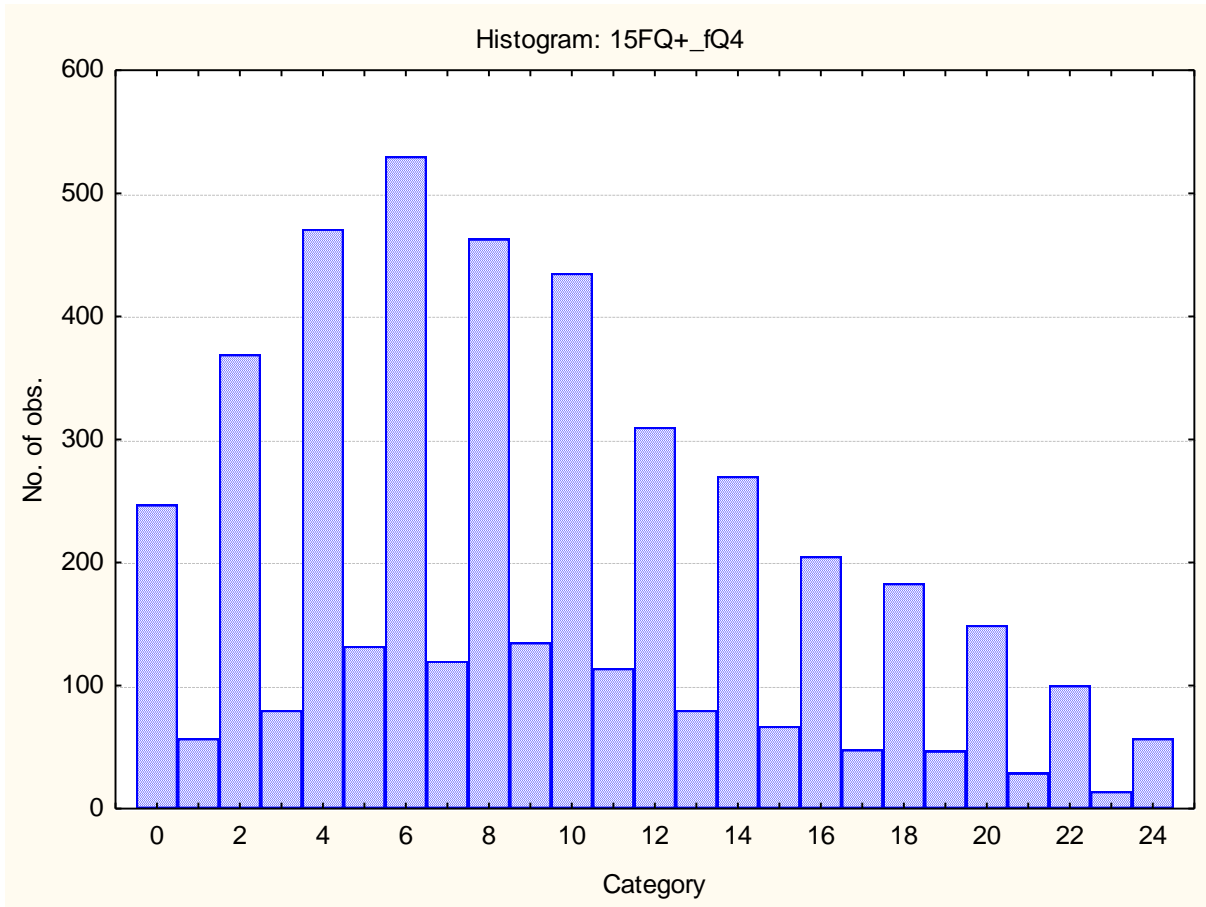
Group - orientated - Self-sufficient



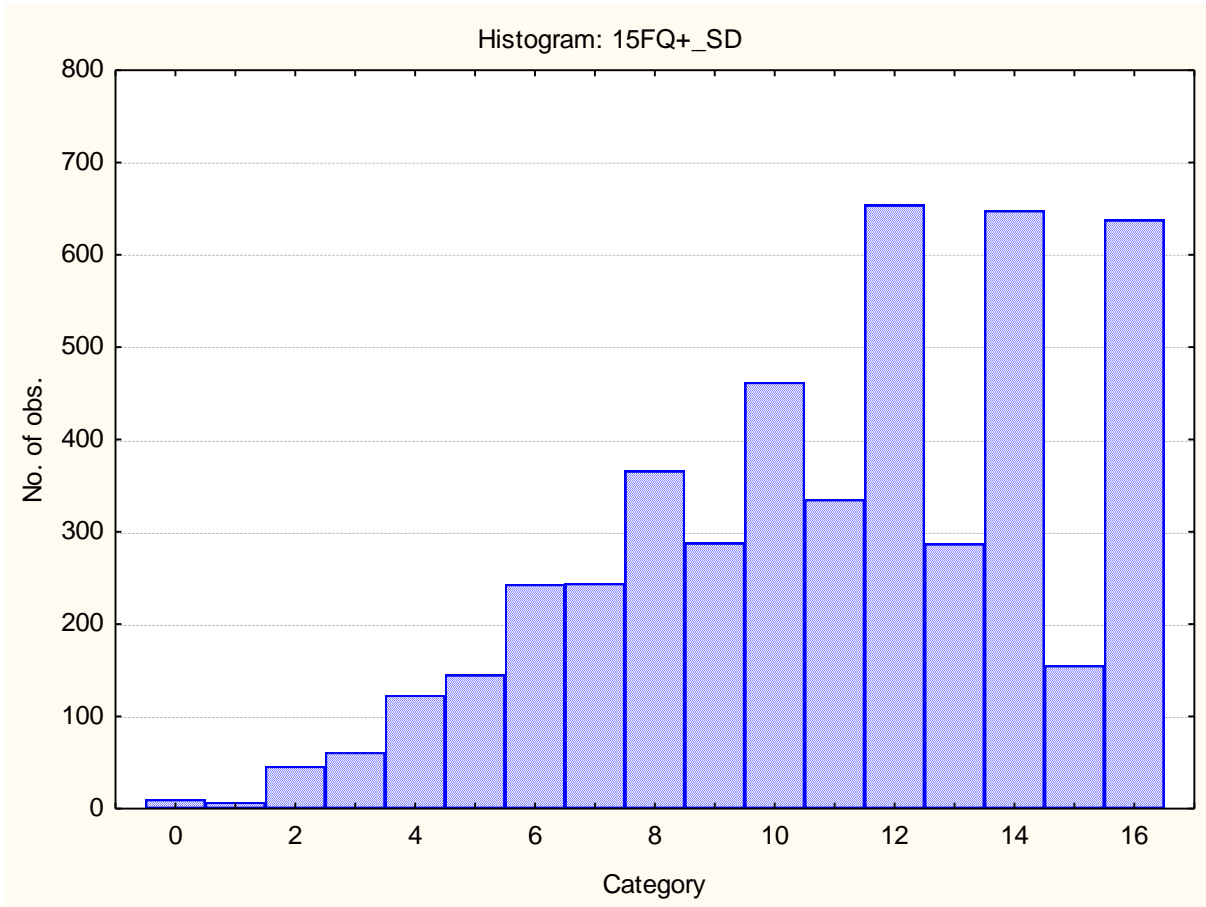
Informal- self disciplined



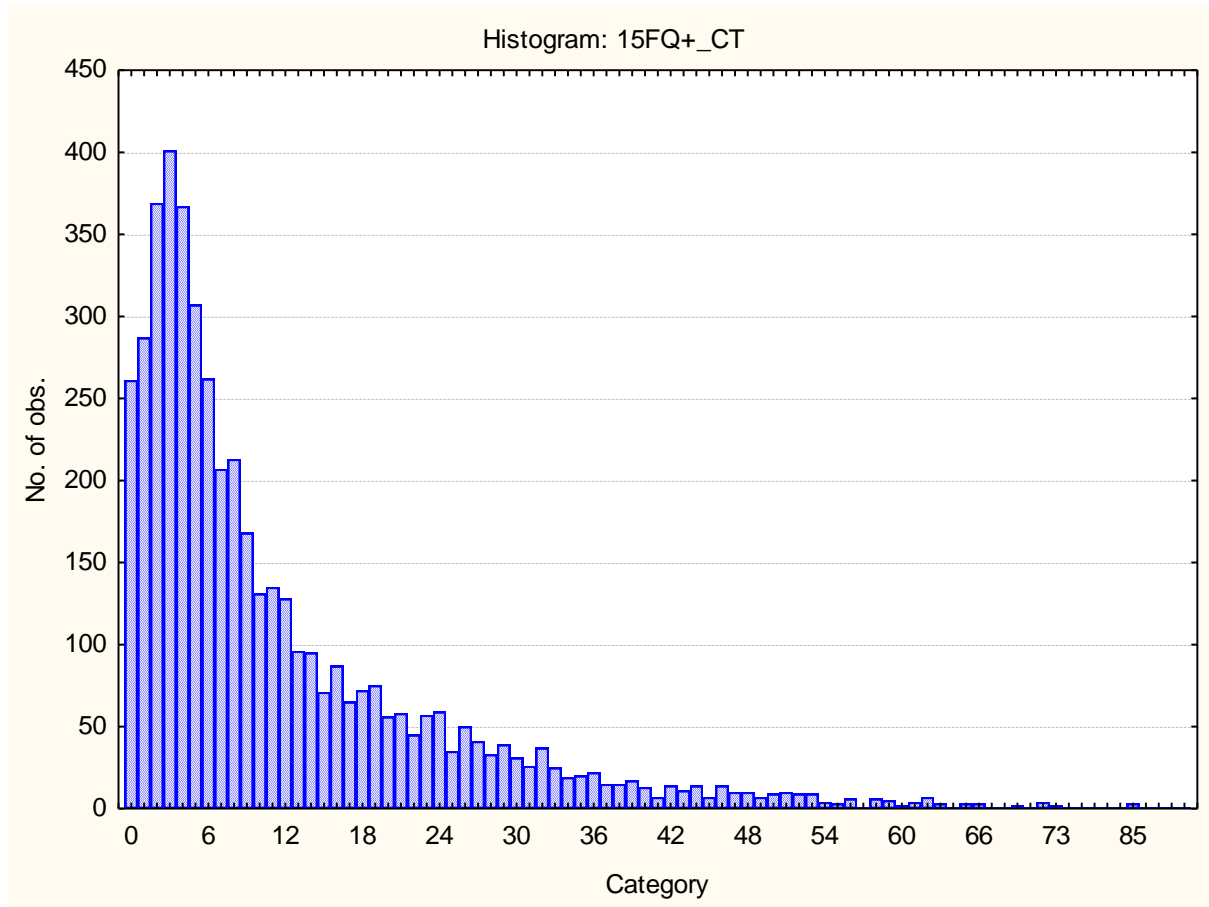
Composed - tense driven



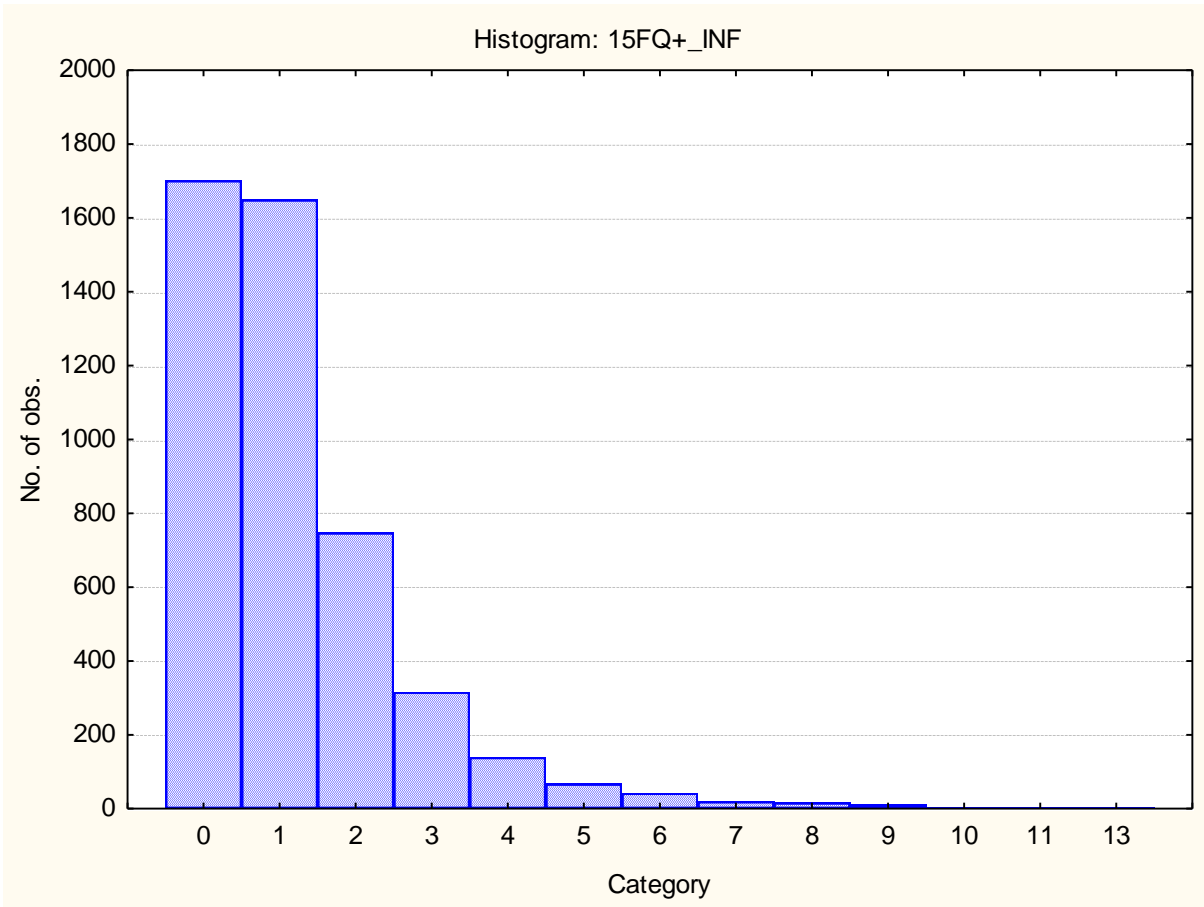
Social desirability



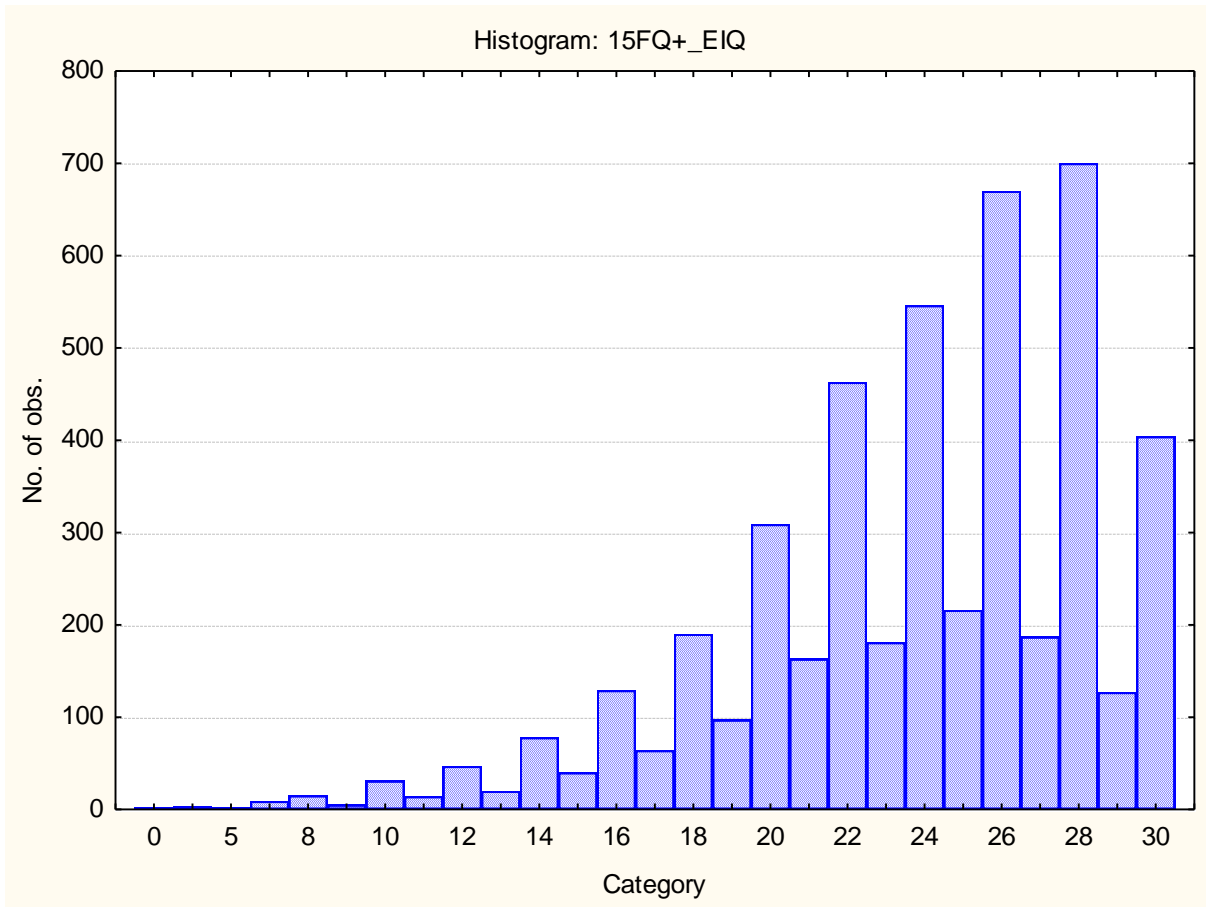
Central Tendency



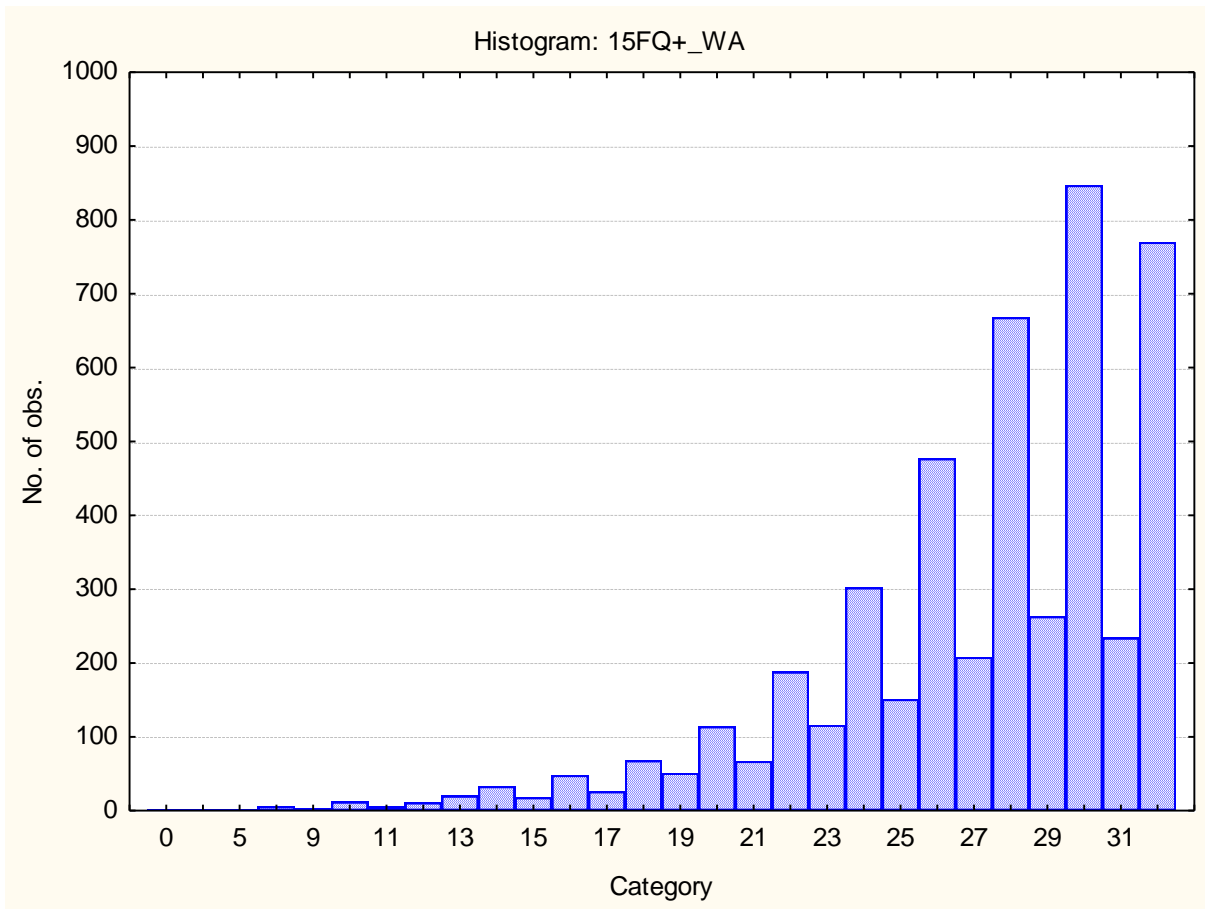
Infrequency



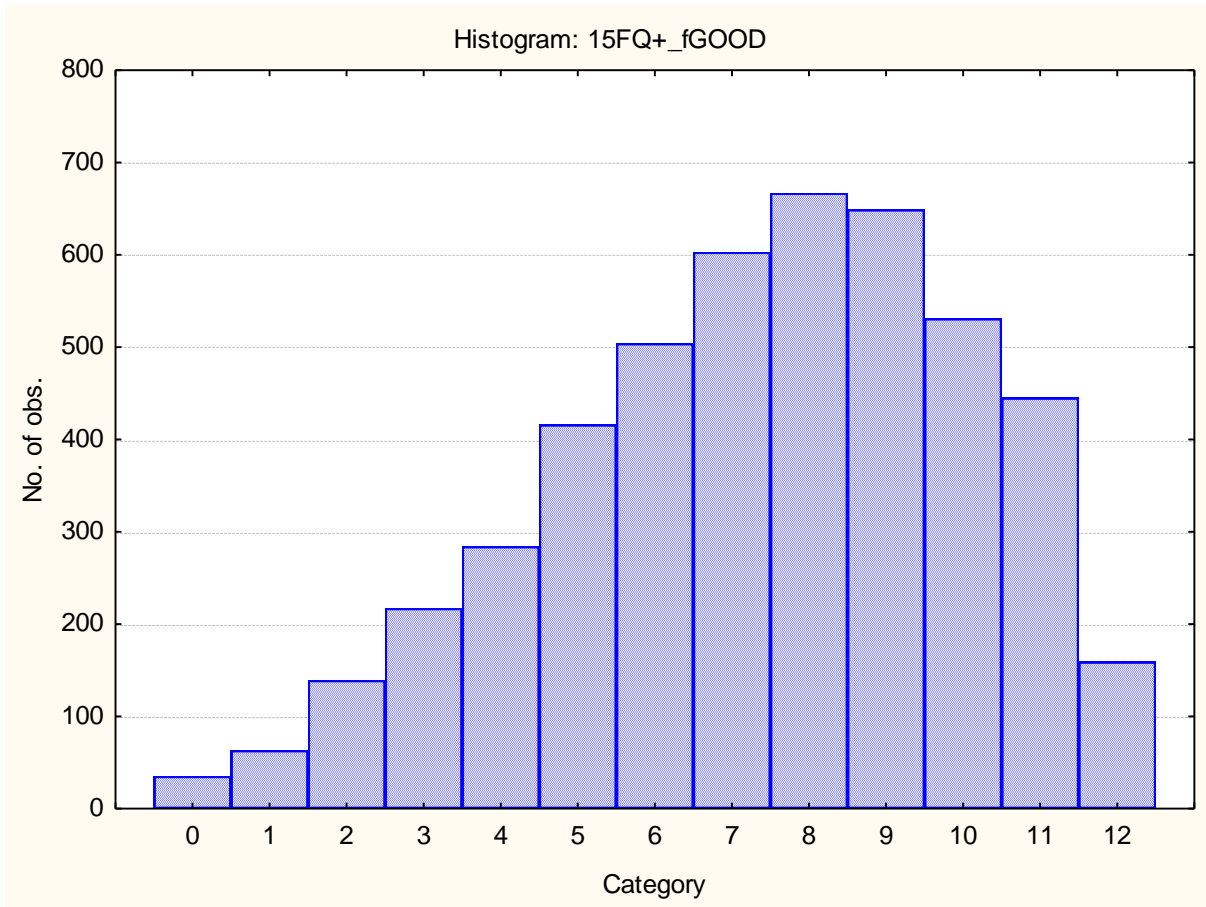
Derived score: Emotional Intelligence



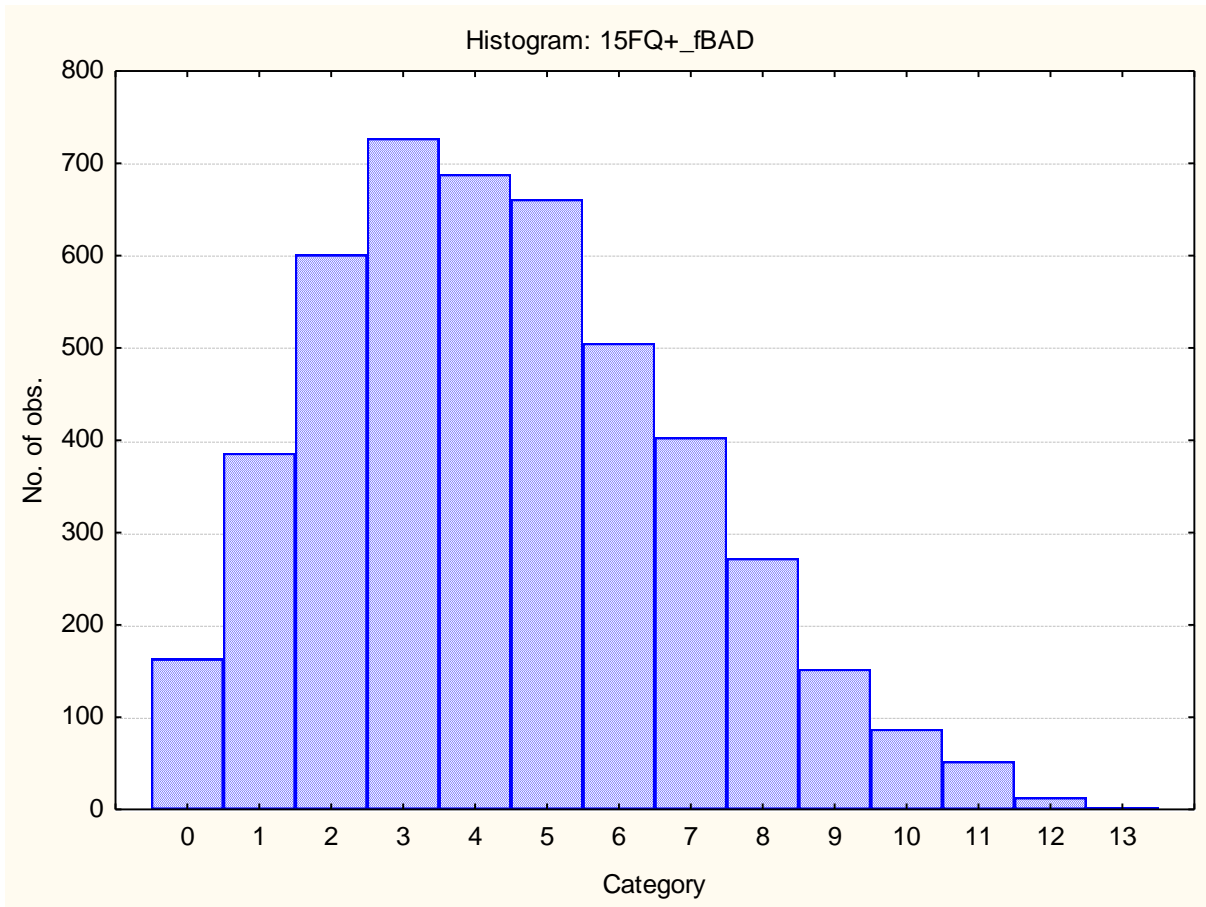
Derived score: Work attitude



Faking good



Faking bad



Sten table

Norm Group : SA Indigenous language speakers updated 2010

Norm Type:

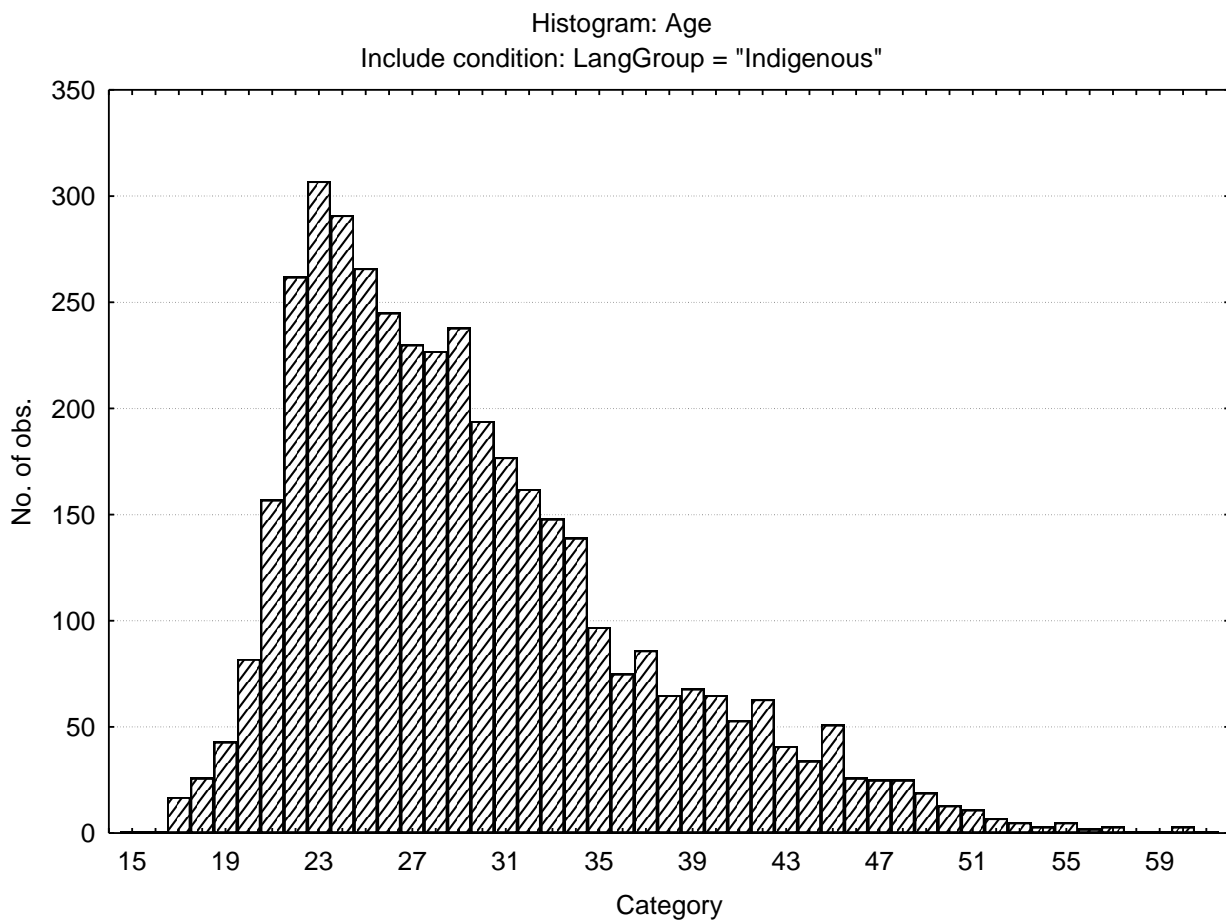
Standard deviation norm.

Sample composition

The sample consisted of 4061 speakers of indigenous African languages tested in the period up to February 2010 by Psytech SA and collaborators.

Descriptive statistics and frequency distribution for age

Variable	Descriptive Statistics (15fqplus raws and resps dups rem.sta) Include condition: LangGroup = "Indigenous"					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	29.48362	7.315113	15.00000	62.00000	4061	84



Frequency table for sex

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	1643	1643	39.63812	39.6381
M	2494	4137	60.16888	99.8070
Missing	8	4145	0.19300	100.0000

Frequency table for educational level

Category	Frequency table: Education (15fqplus raws and resp dup s rem.sta)Include condition: LangGroup = "Indigenous"			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	923	923	22.26779	22.2678
Degree	697	1620	16.81544	39.0832
Post Graduate	577	2197	13.92039	53.0036
Technikon	726	2923	17.51508	70.5187
University diploma	441	3364	10.63932	81.1580
Grade 10 or 11	86	3450	2.07479	83.2328
Vocational Training	169	3619	4.07720	87.3100
Diploma	103	3722	2.48492	89.7949
Certificate	95	3817	2.29192	92.0869
Missing	328	4145	7.91315	100.0000

Racial composition of the sample

Category	Frequency table: RaceGroup			
	Count	Cumulative Count	Percent	Cumulative Percent
African	4077	4077	98.35947	98.3595
European	18	4095	0.43426	98.7937
Coloured	7	4102	0.16888	98.9626
Asian	13	4115	0.31363	99.2762
Missing	30	4145	0.72376	100.0000

Language composition of the sample

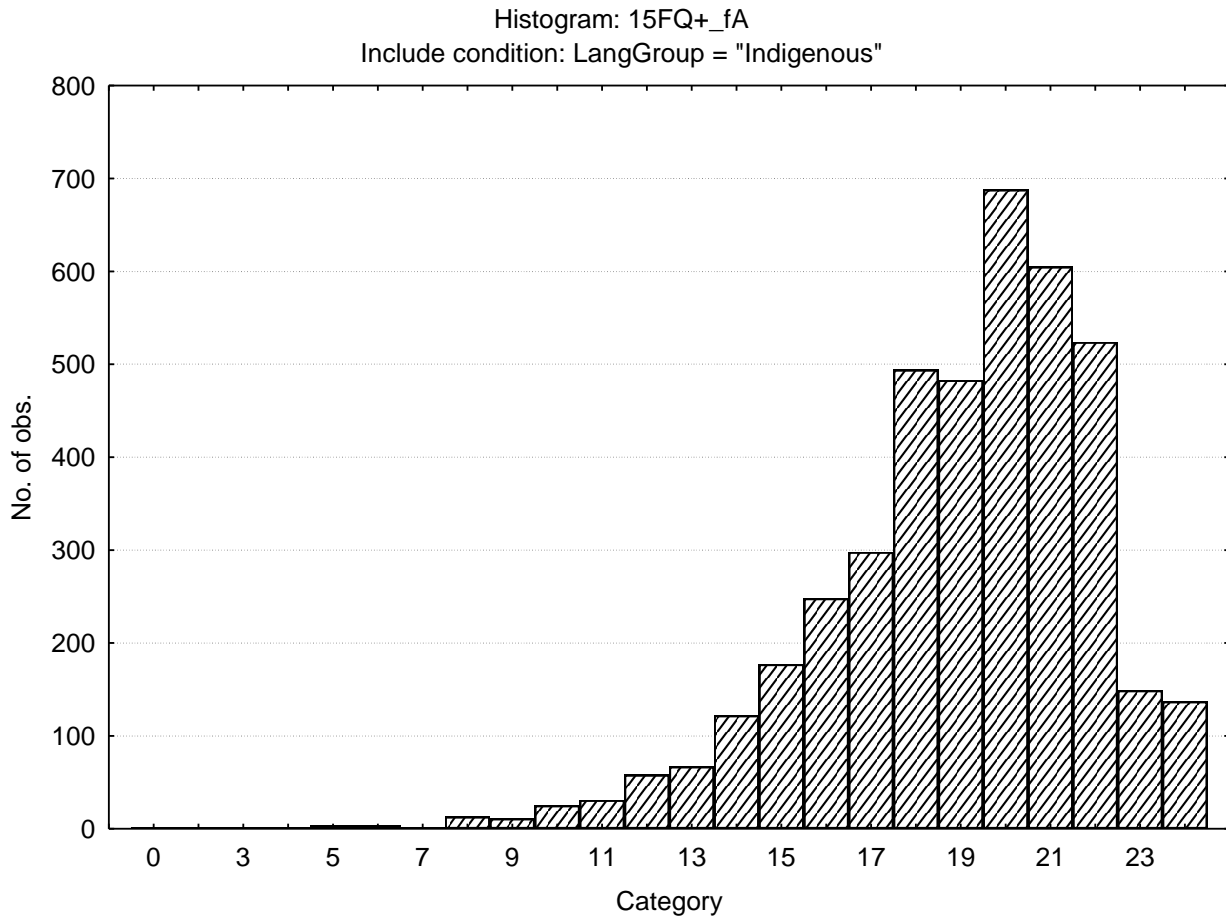
Category	Frequency table: Language			
	Count	Cumulative Count	Percent	Cumulative Percent
isiZulu	1589	1589	38.33534	38.3353
isiXhosa	1048	2637	25.28347	63.6188
Sesotho	741	3378	17.87696	81.4958
Sepedi	288	3666	6.94813	88.4439
Xitsonga	184	3850	4.43908	92.8830
Tshivenda	137	3987	3.30519	96.1882
siSwati	102	4089	2.46080	98.6490
isiNdebele	56	4145	1.35103	100.0000
Missing	0	4145	0.00000	100.0000

Descriptive statistics on 15FQ+ scales

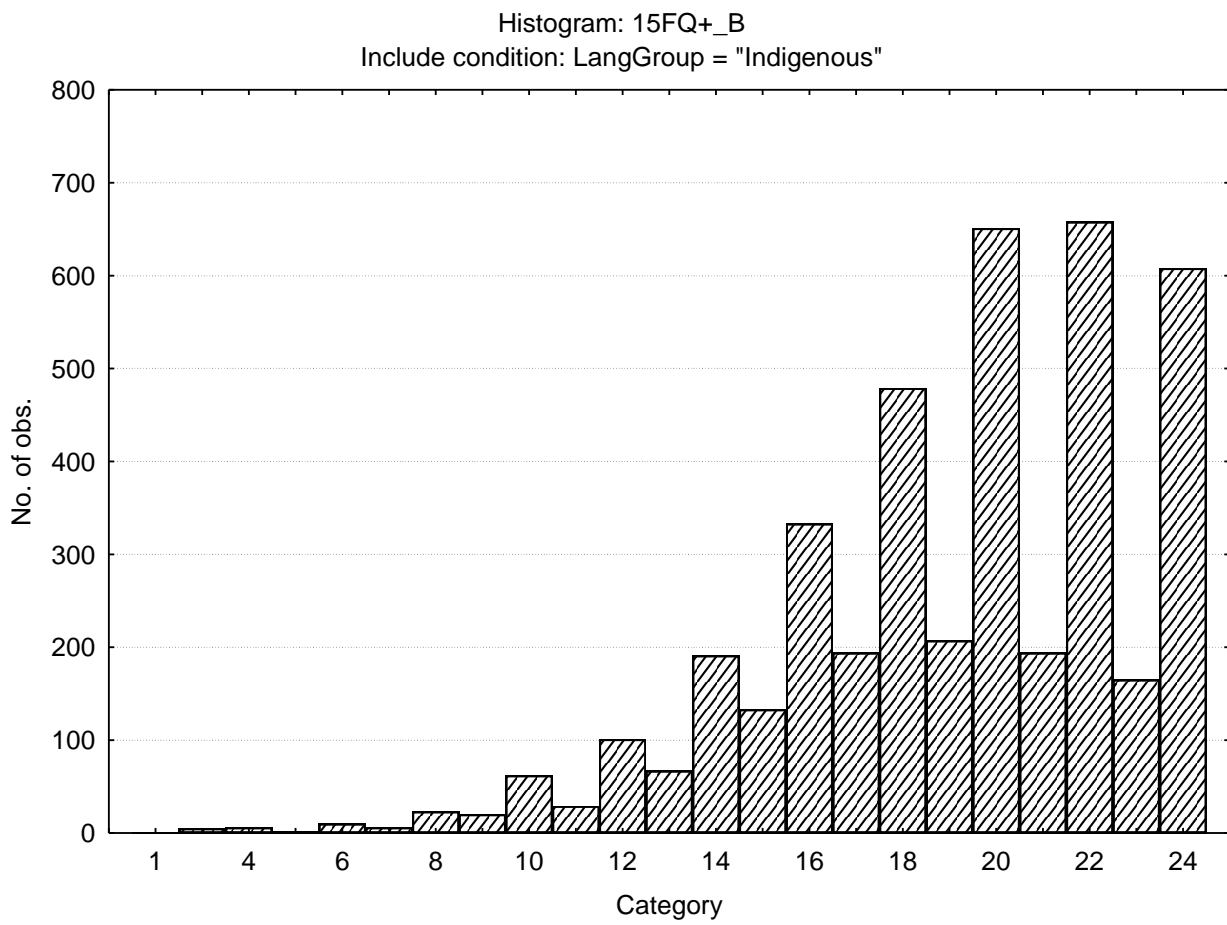
Variable		Descriptive Statistics (15fqplus raws and resps dups rem.sta)Include condition: LangGroup = "Indigenous"					
		Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
15FQ+_fA	Distant aloof - empathic	18.96381	3.04814	0.000000	24.0000	4145	0
15FQ+_B	Intellectance	19.14113	3.84762	1.000000	24.0000	4145	0
15FQ+_fC	Affected by feelings - emotionally stable	17.50302	4.33932	1.000000	24.0000	4145	0
15FQ+_fE	Accommodating - Dominant	16.38022	3.81355	1.000000	24.0000	4145	0
15FQ+_fF	Sober serious - Enthusiastic	14.26924	5.22167	0.000000	24.0000	4145	0
15FQ+_fG	Expedient - Conscientious	20.04005	3.81793	0.000000	24.0000	4145	0
15FQ+_fH	Retiring - Socially bold	16.57057	5.20783	0.000000	24.0000	4145	0
15FQ+_fI	Tough Minded - Tender minded	14.65718	4.67015	0.000000	24.0000	4145	0
15FQ+_fL	Trusting - Suspicious	10.71484	4.49986	0.000000	24.0000	4145	0
15FQ+_fM	Concrete - Abstract	10.32883	3.31745	0.000000	24.0000	4145	0
15FQ+_fN	Direct - Restrained	20.33800	3.12950	1.000000	24.0000	4145	0
15FQ+_fO	Self-assured - Apprehensive	11.85308	4.82846	0.000000	24.0000	4145	0
15FQ+_fQ1	Conventional - Radical	9.08613	4.27139	0.000000	24.0000	4145	0
15FQ+_fQ2	Group - orientated - Self-sufficient	6.96357	4.26090	0.000000	24.0000	4145	0
15FQ+_fQ3	Informal- self disciplined	20.36212	2.75799	0.000000	24.0000	4145	0
15FQ+_fQ4	Composed - tense driven	7.65404	4.36625	0.000000	24.0000	4145	0
15FQ+_SD	Social desirability	11.77756	3.29937	0.000000	16.0000	4145	0
15FQ+_CT	Central Tendency	11.62726	13.56108	0.000000	128.0000	4145	0
15FQ+_INF	Infrequency	1.53486	1.74061	0.000000	16.0000	4145	0
15FQ+_EIQ	Derived score: Emotional Intelligence	24.19421	3.72682	0.000000	30.0000	4145	0
15FQ+_WA	Derived score: Work attitude	27.20917	3.84571	0.000000	32.0000	4145	0
15FQ+_fGOOD	Faking good	7.95199	2.33187	0.000000	12.0000	4145	0
15FQ+_fBAD	Faking bad	4.31870	2.19358	0.000000	12.0000	4145	0

Frequency distributions for 15FQ+ scales

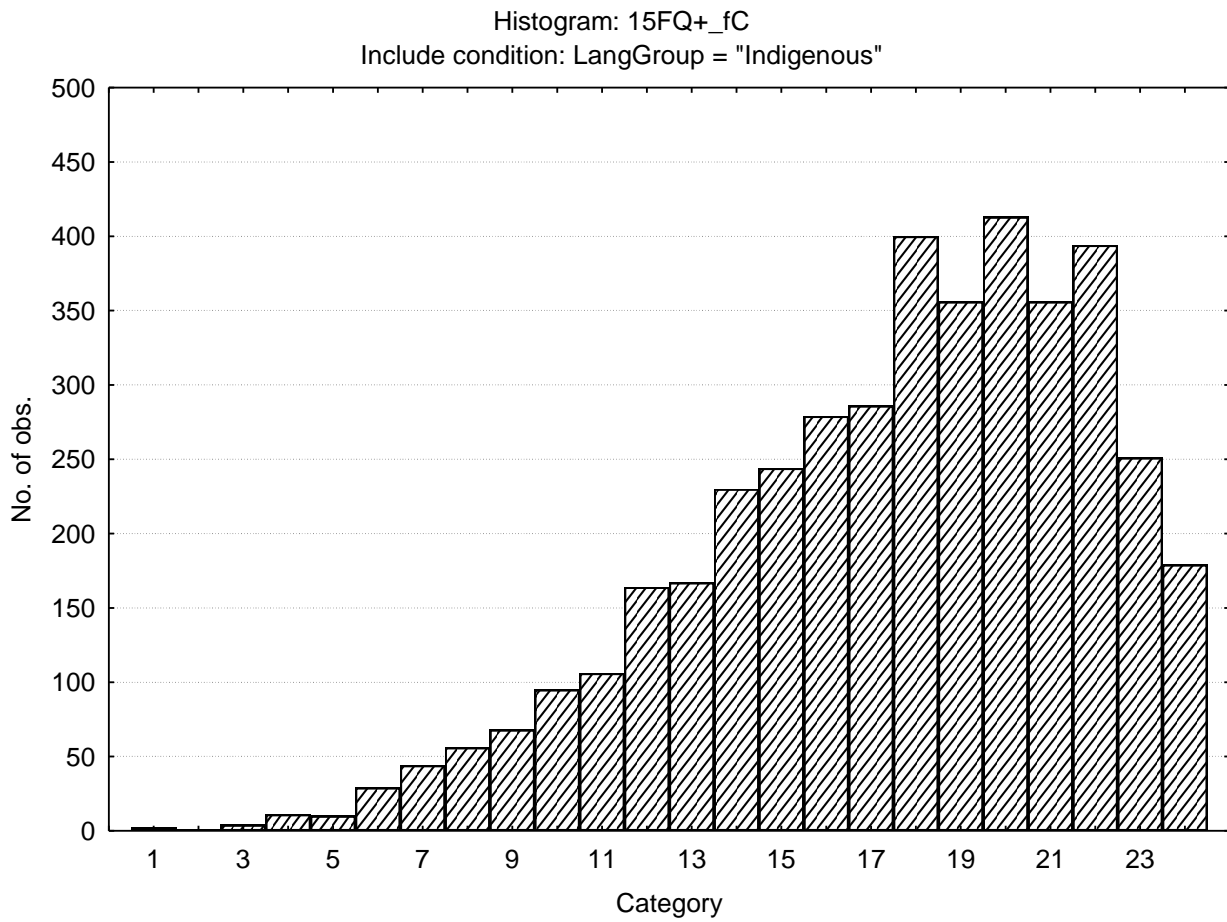
Distant aloof - empathic



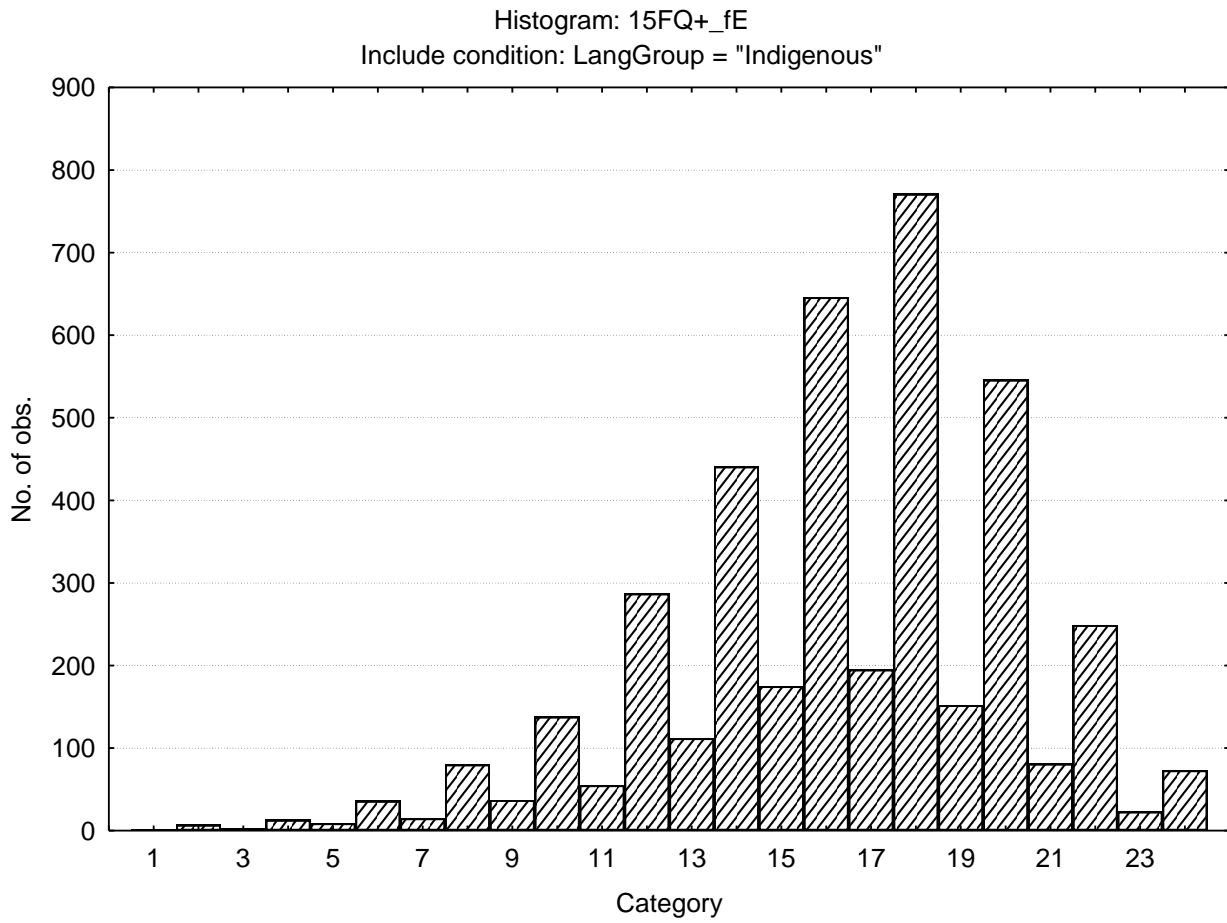
Intellectance



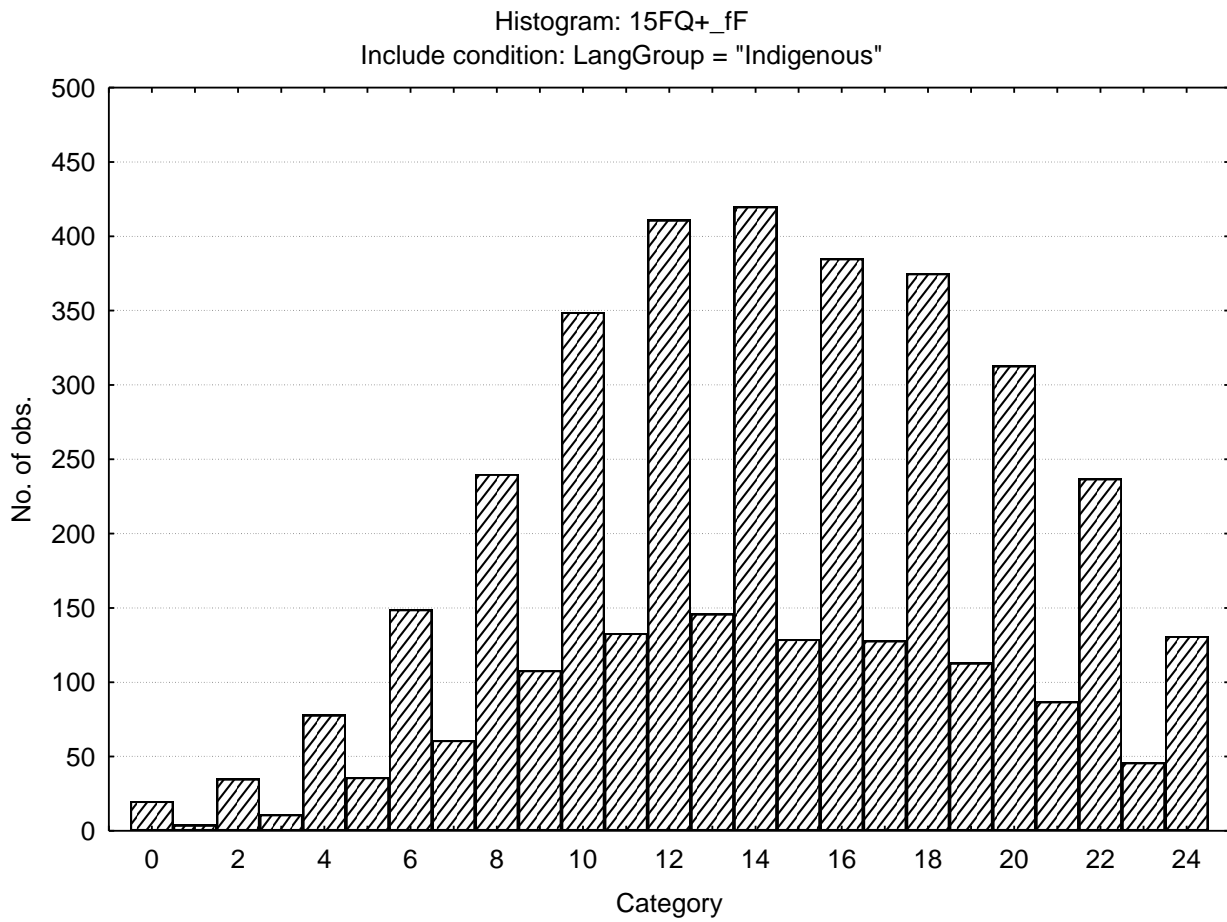
Affected by feelings - emotionally stable



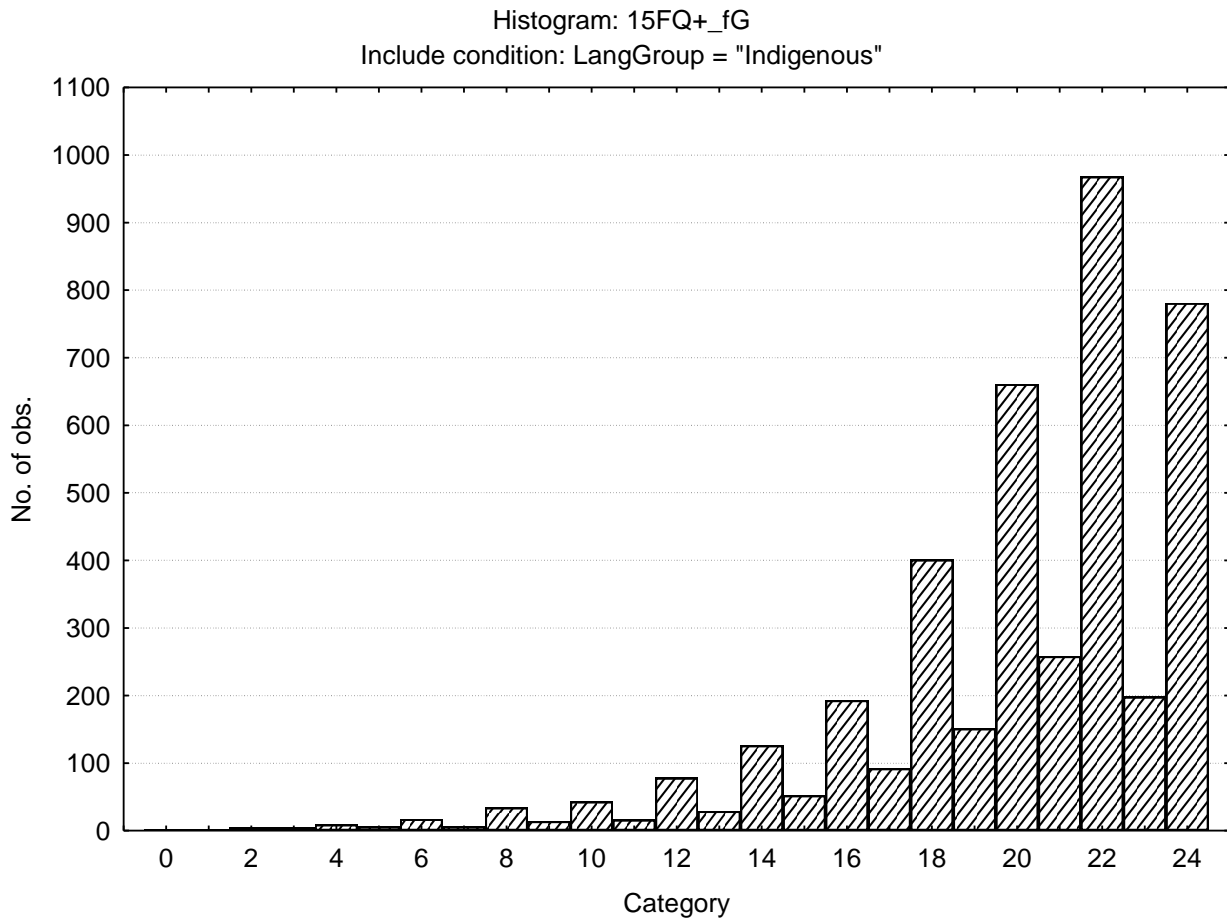
Accommodating - Dominant



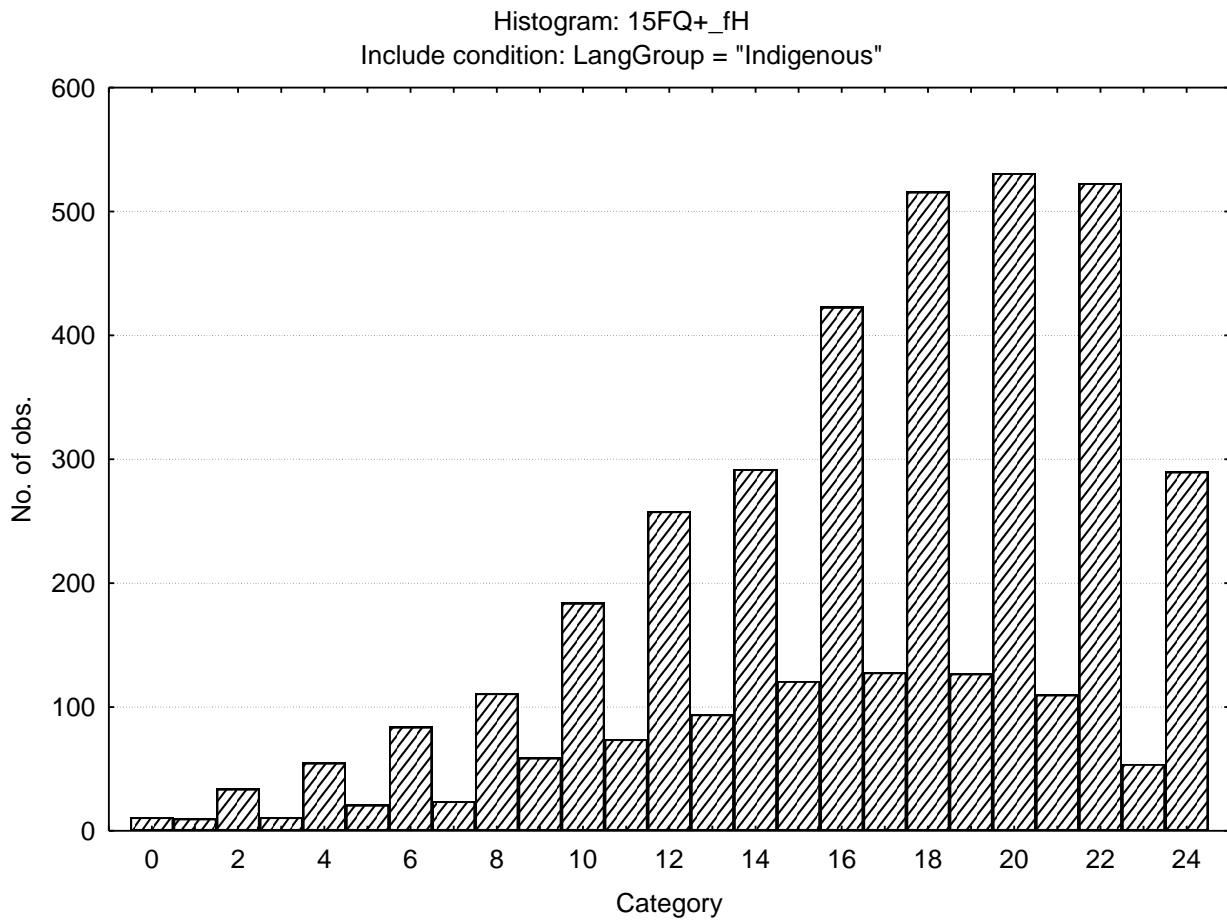
Sober serious - Enthusiastic



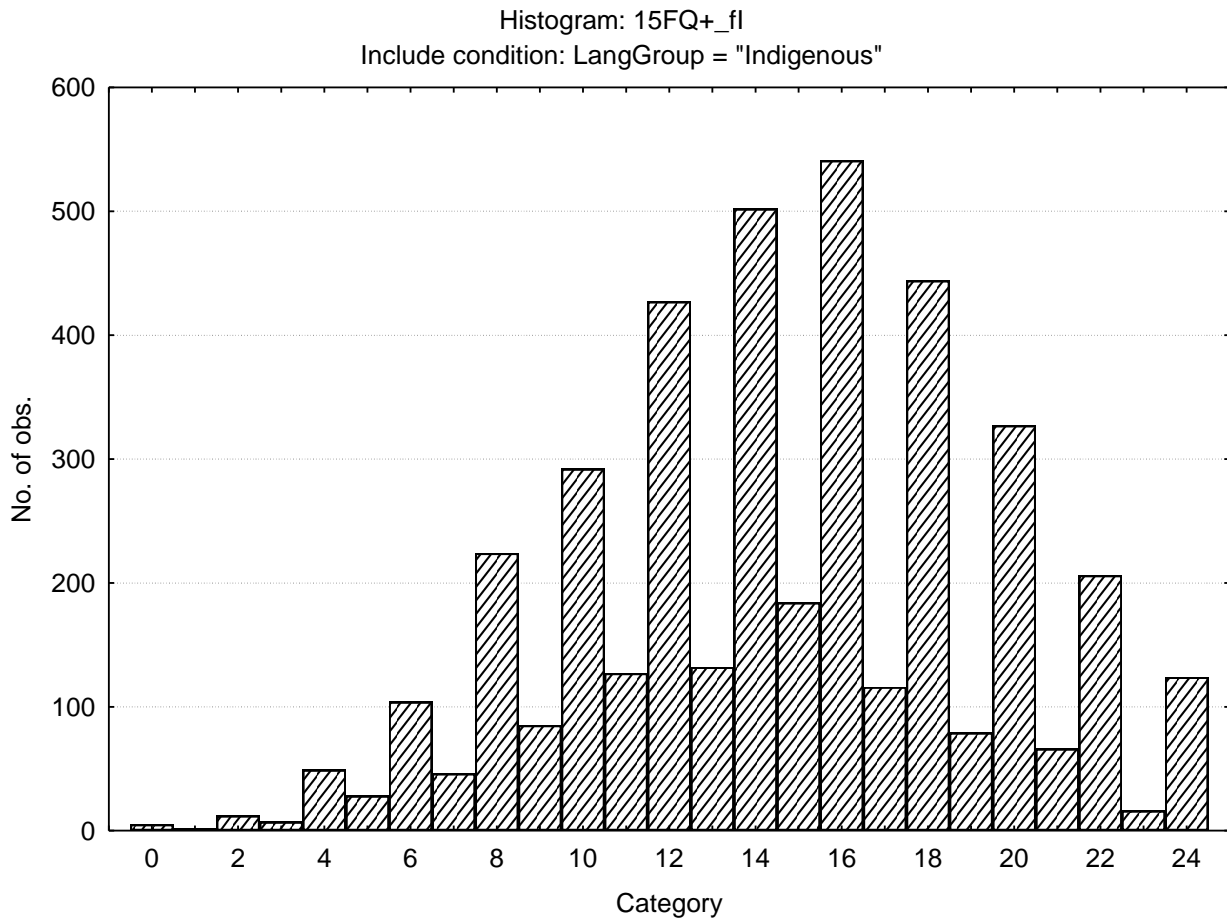
Expedient - Conscientious



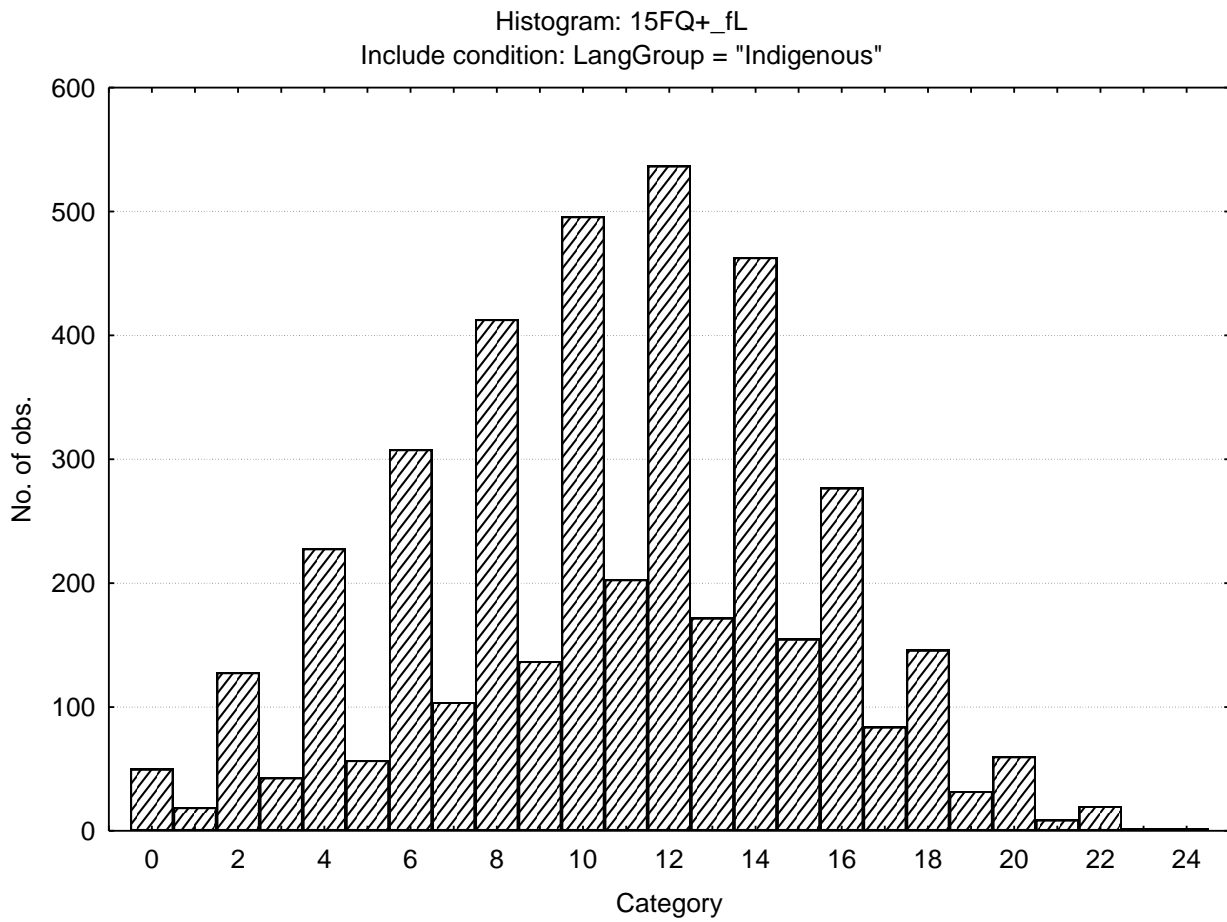
Retiring - Socially bold



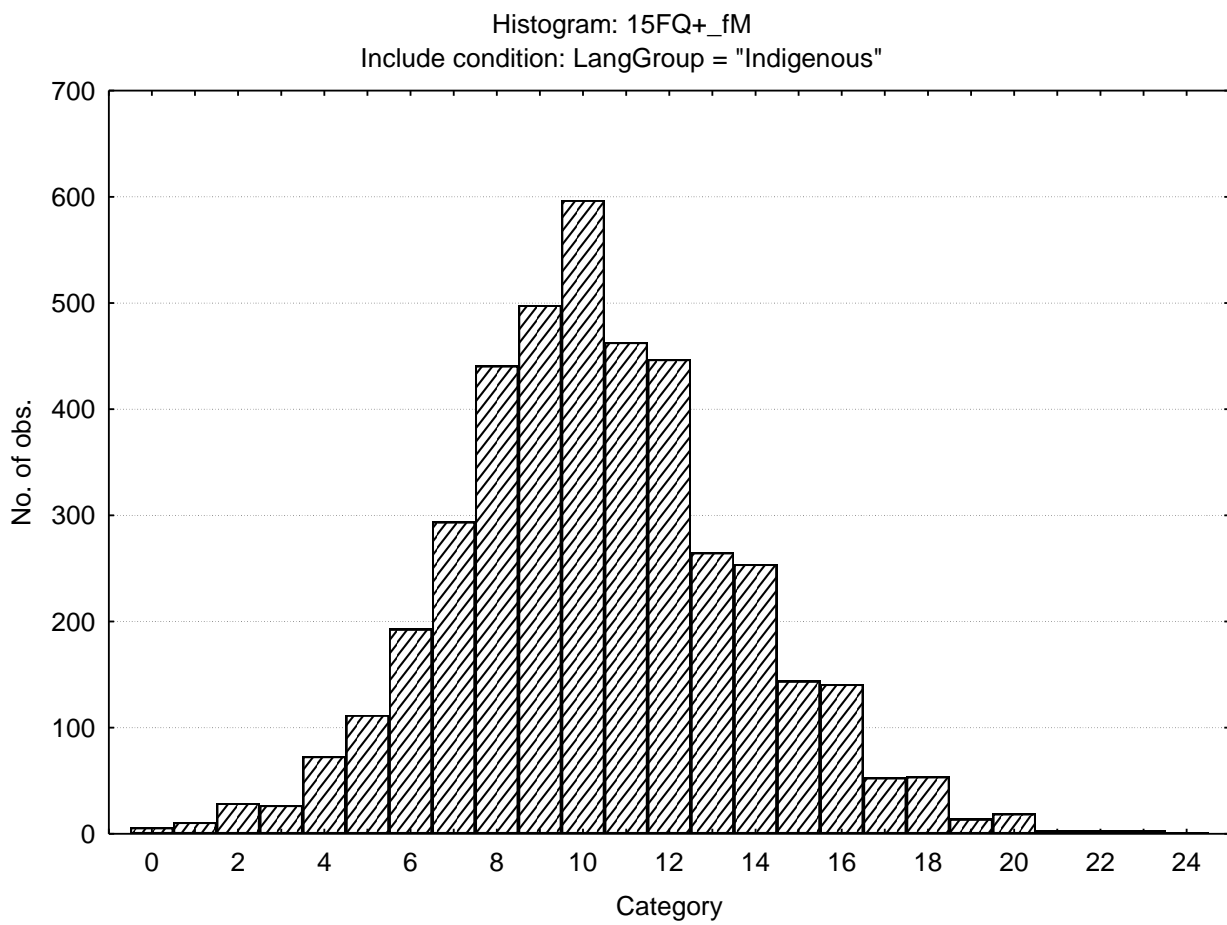
Tough Minded - Tender minded



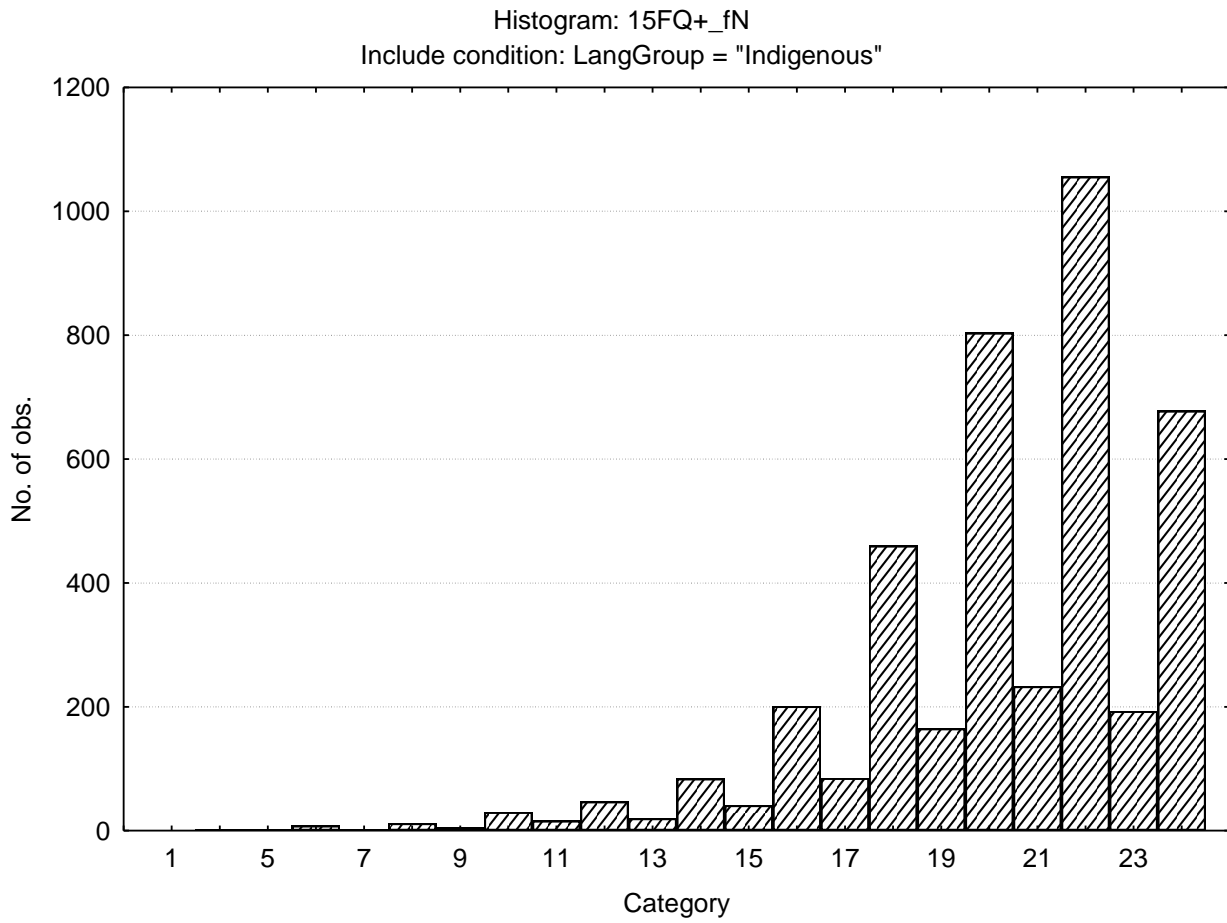
Trusting - Suspicious



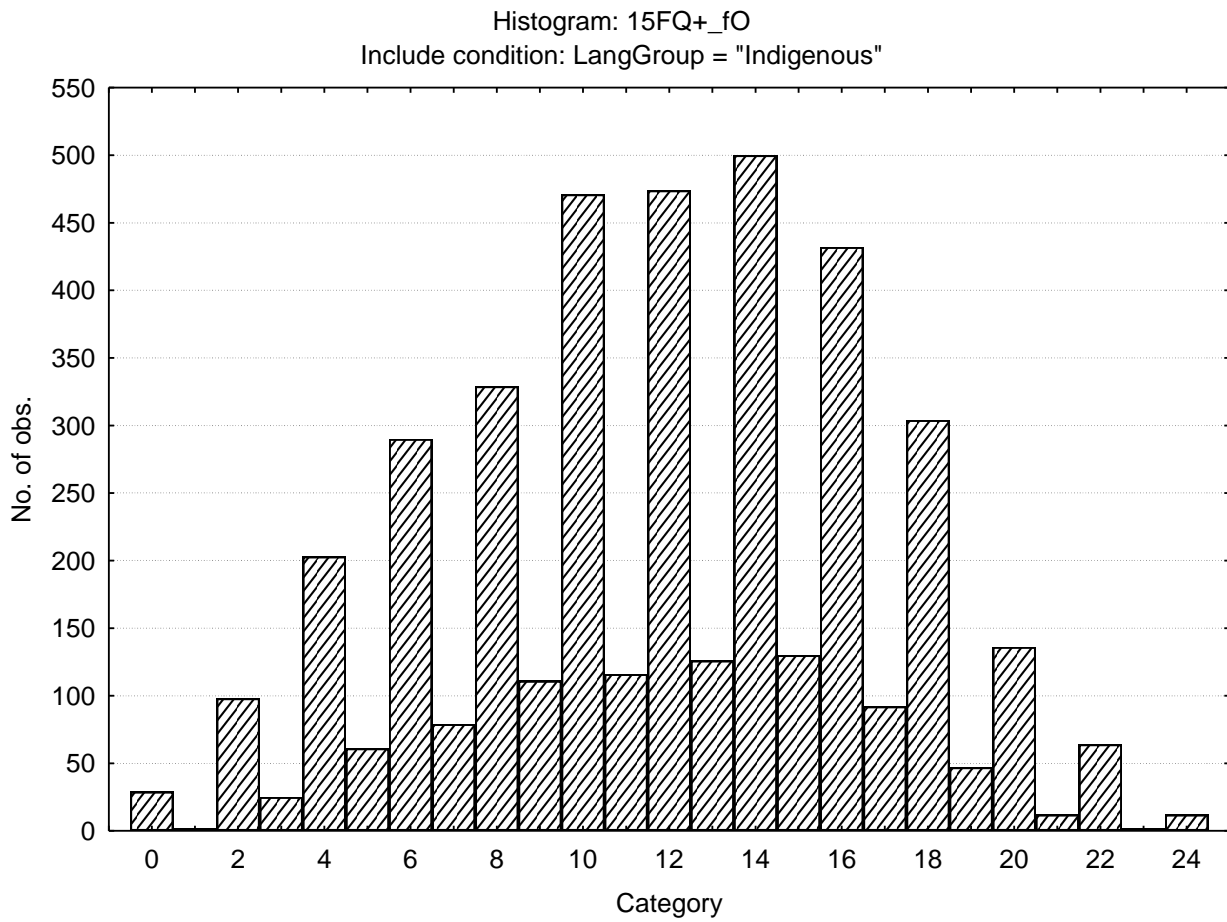
Concrete - Abstract



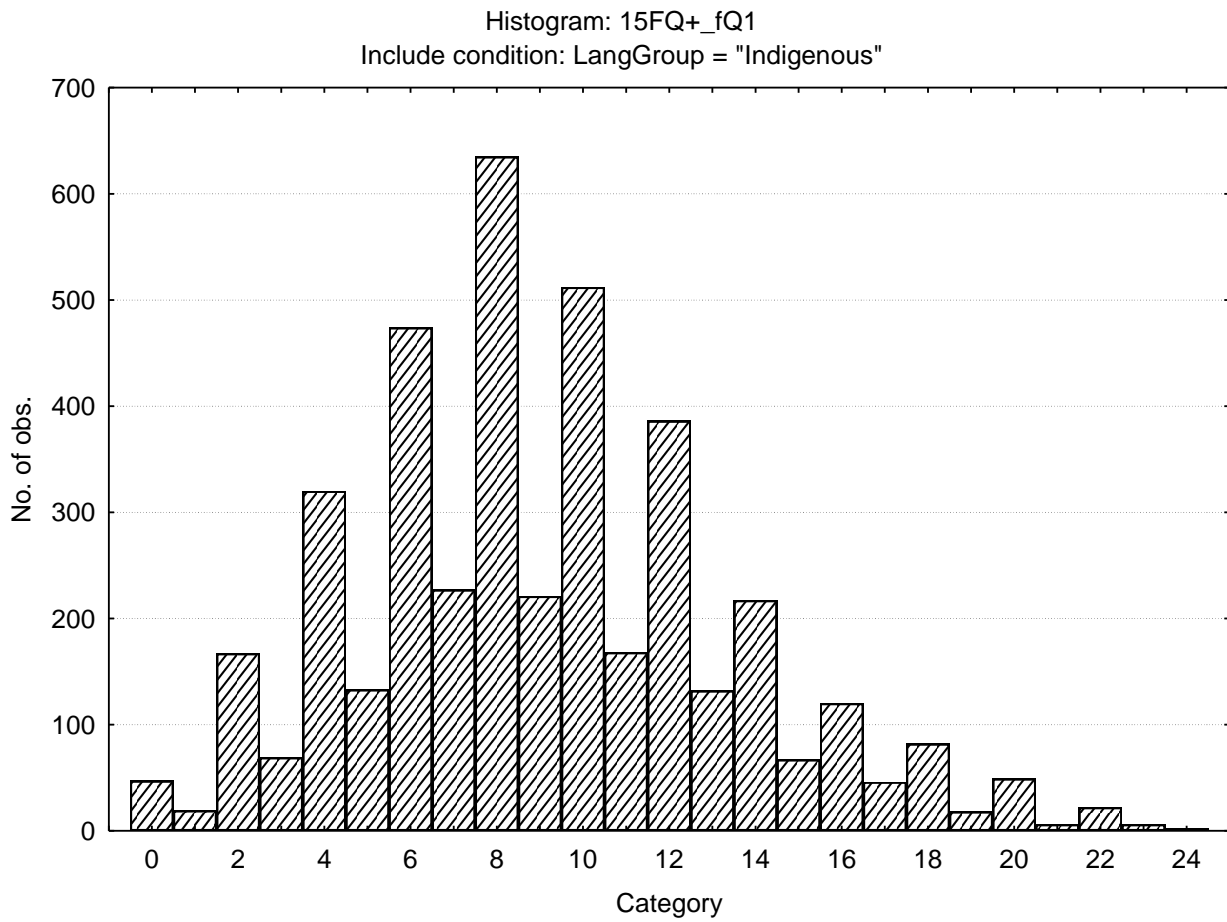
Direct - Restrained



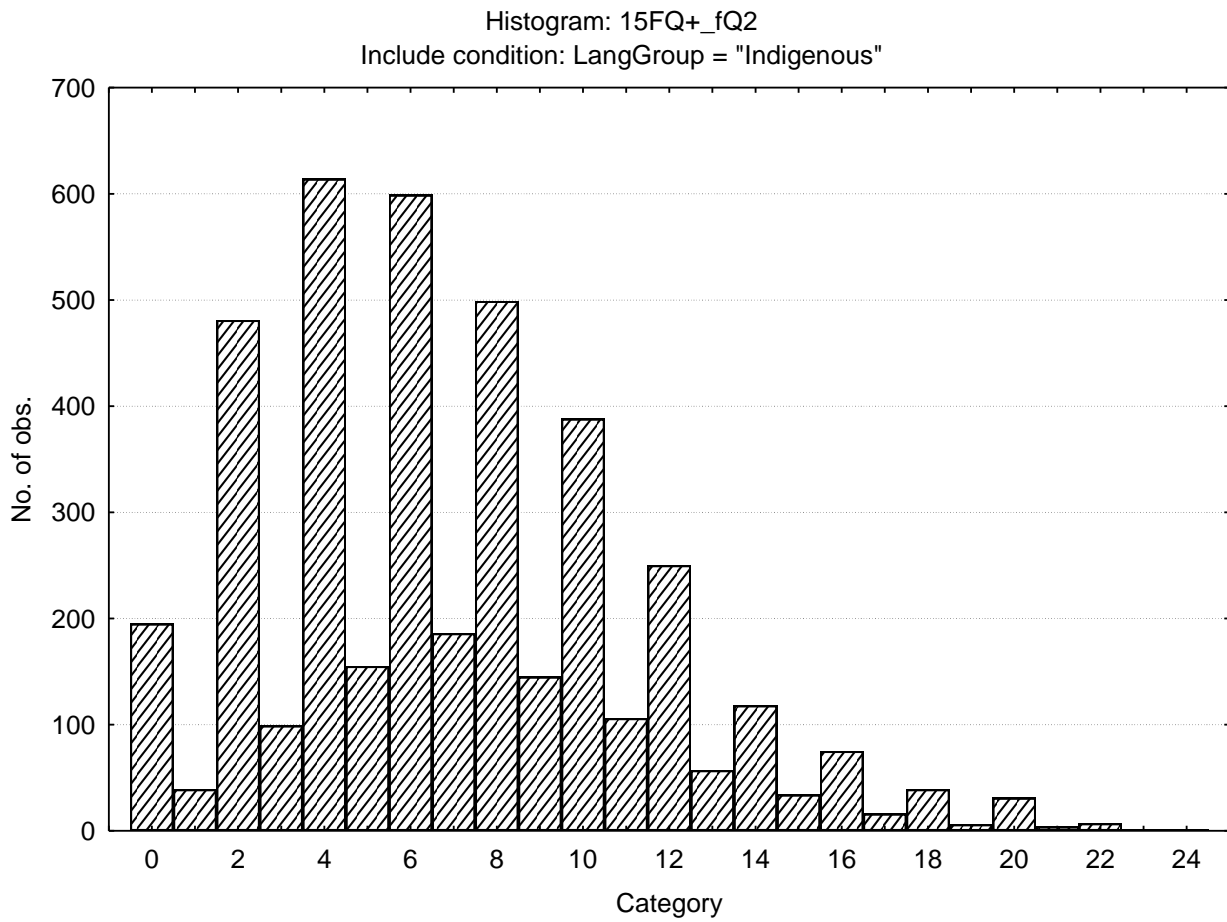
Self-assured - Apprehensive



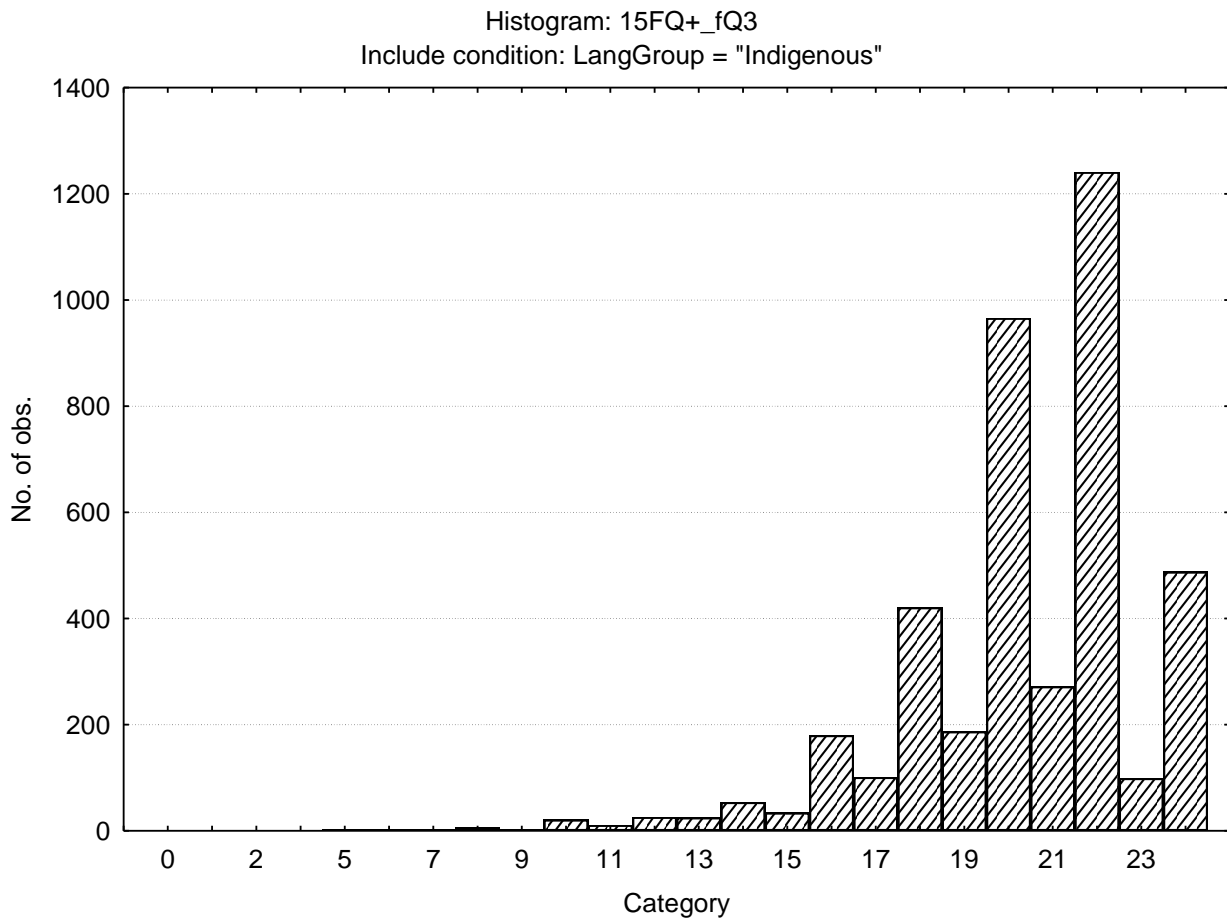
Conventional - Radical



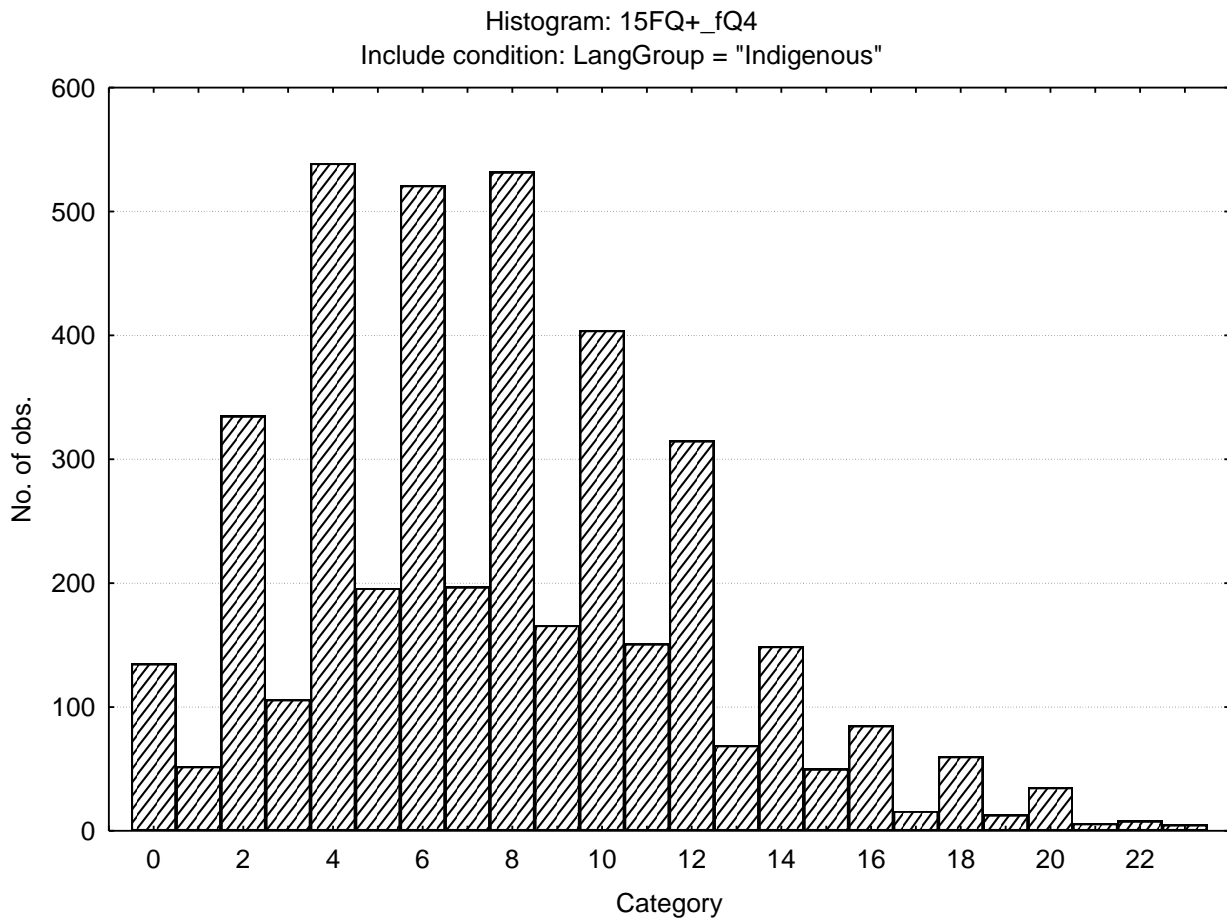
Group - orientated - Self-sufficient



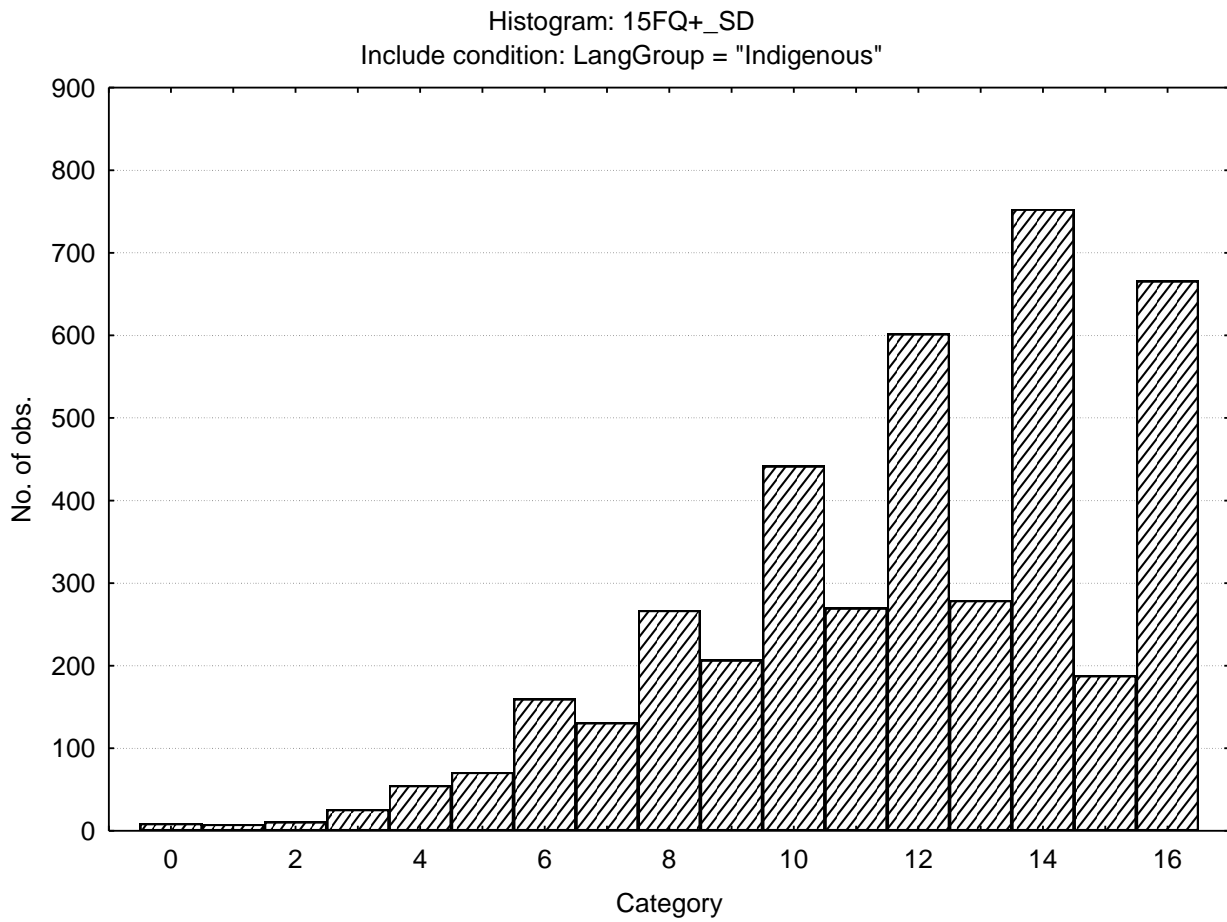
Informal- self disciplined



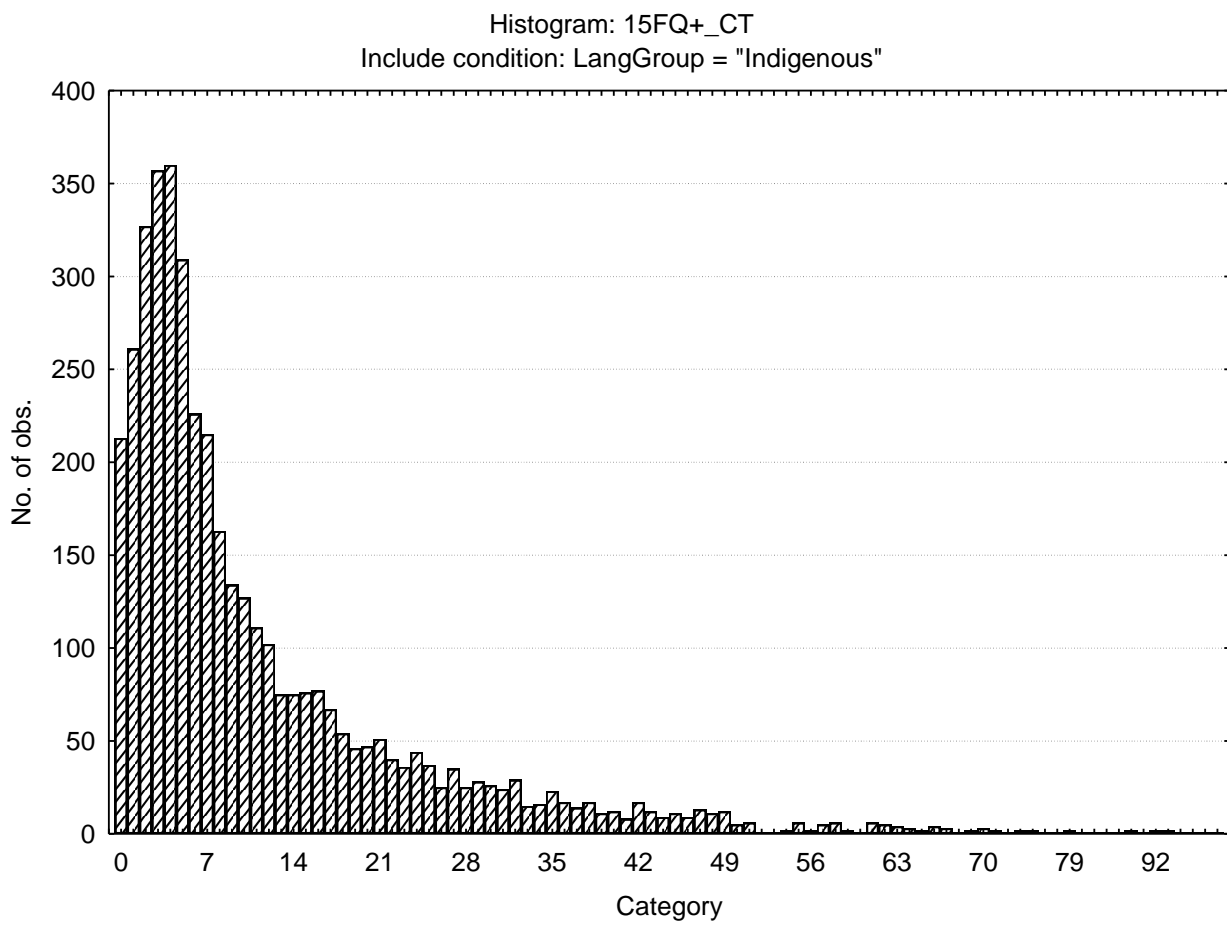
Composed - tense driven



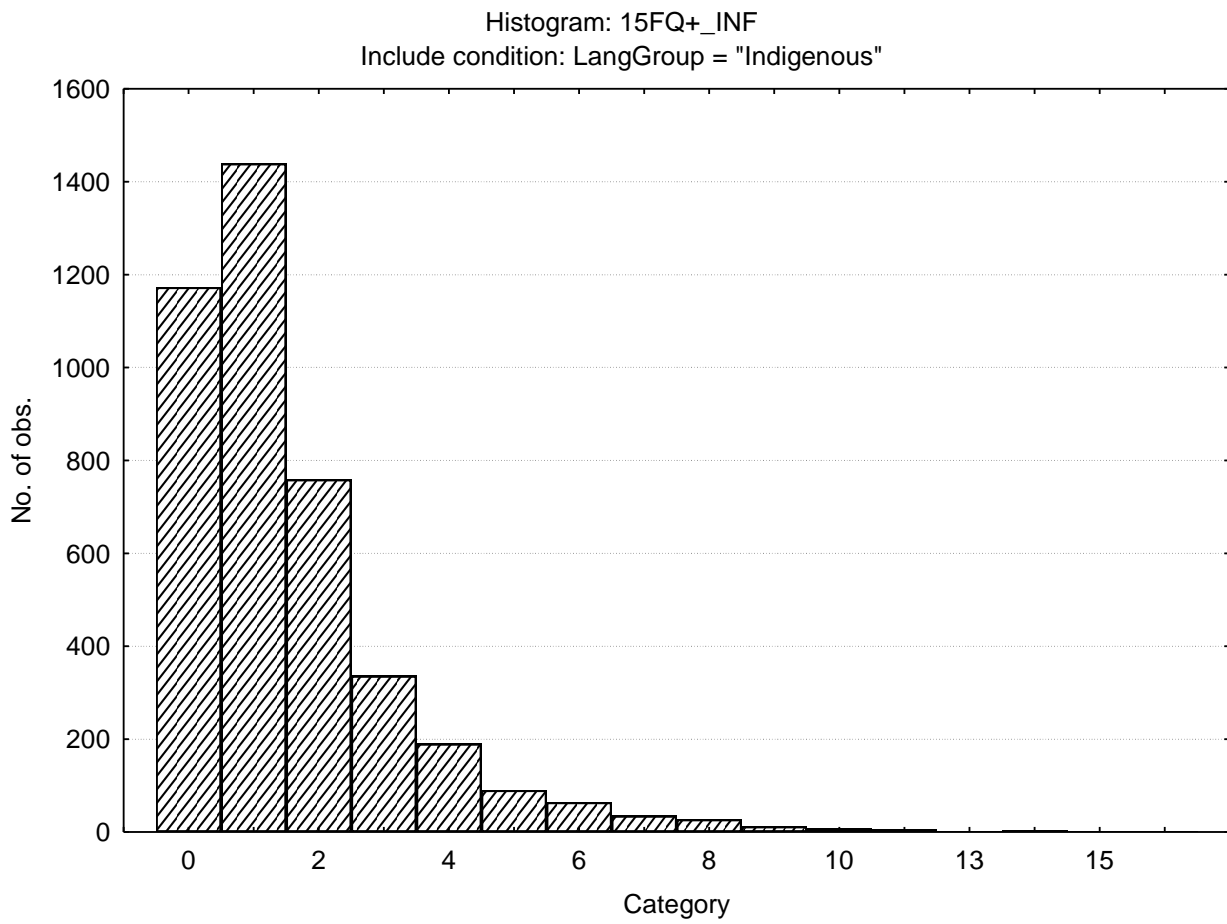
Social desirability



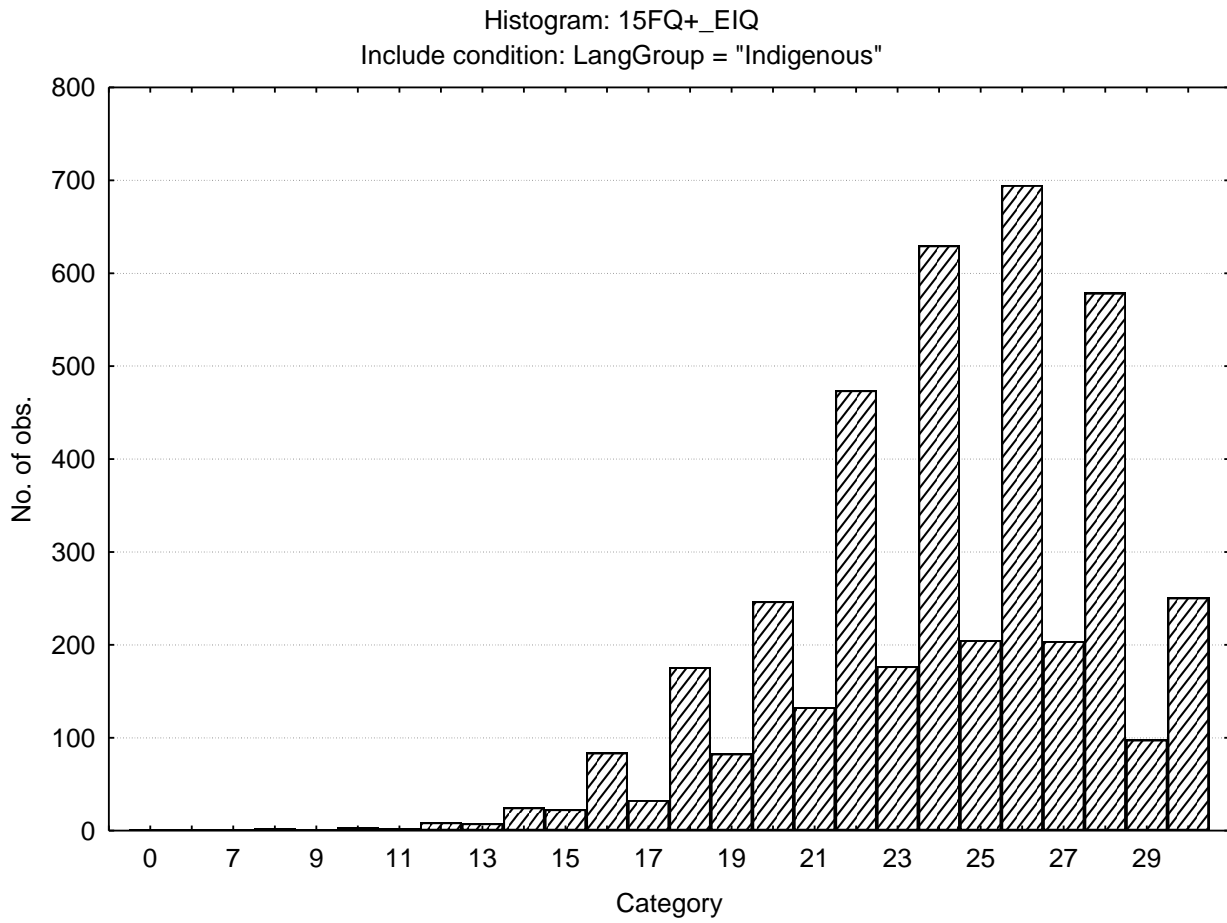
Central Tendency



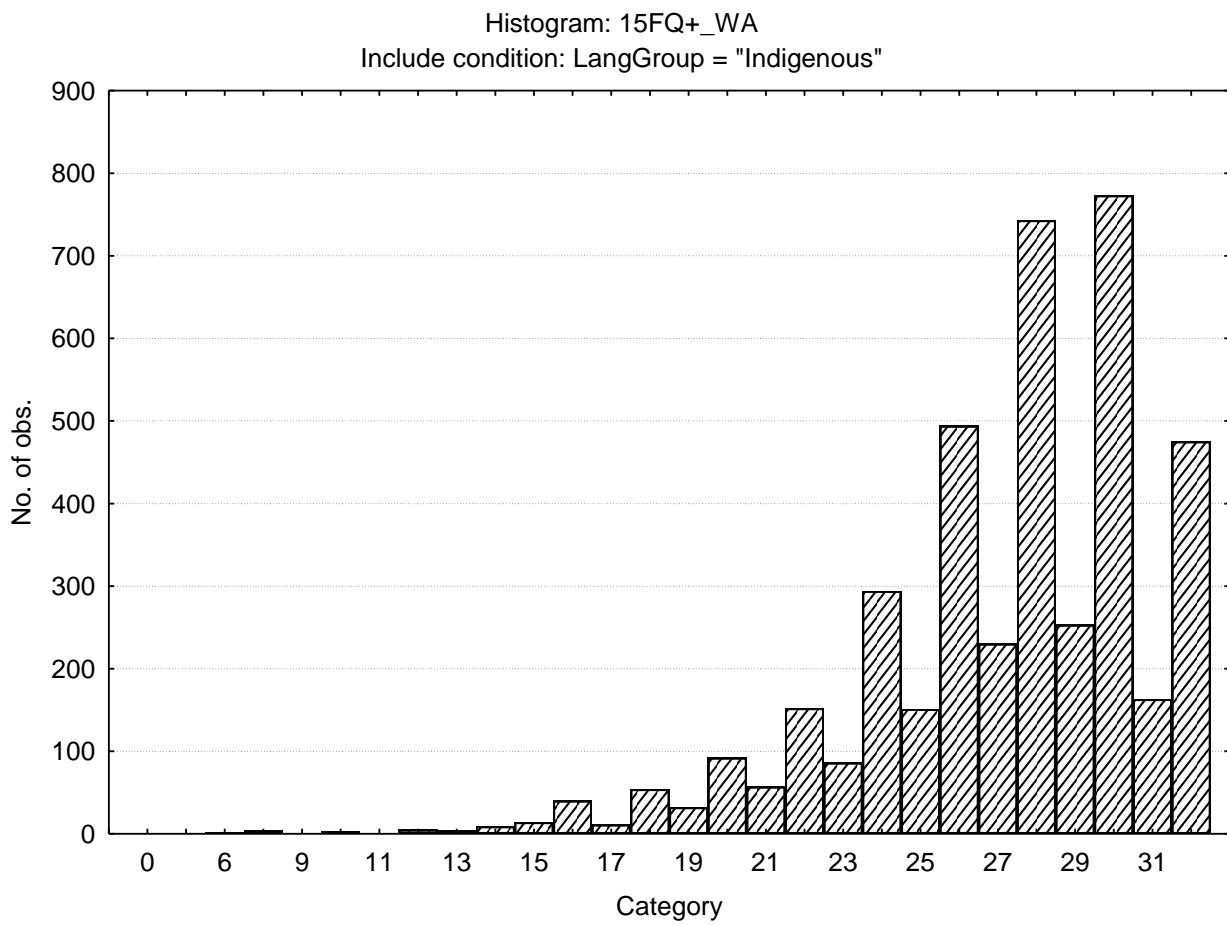
Infrequency



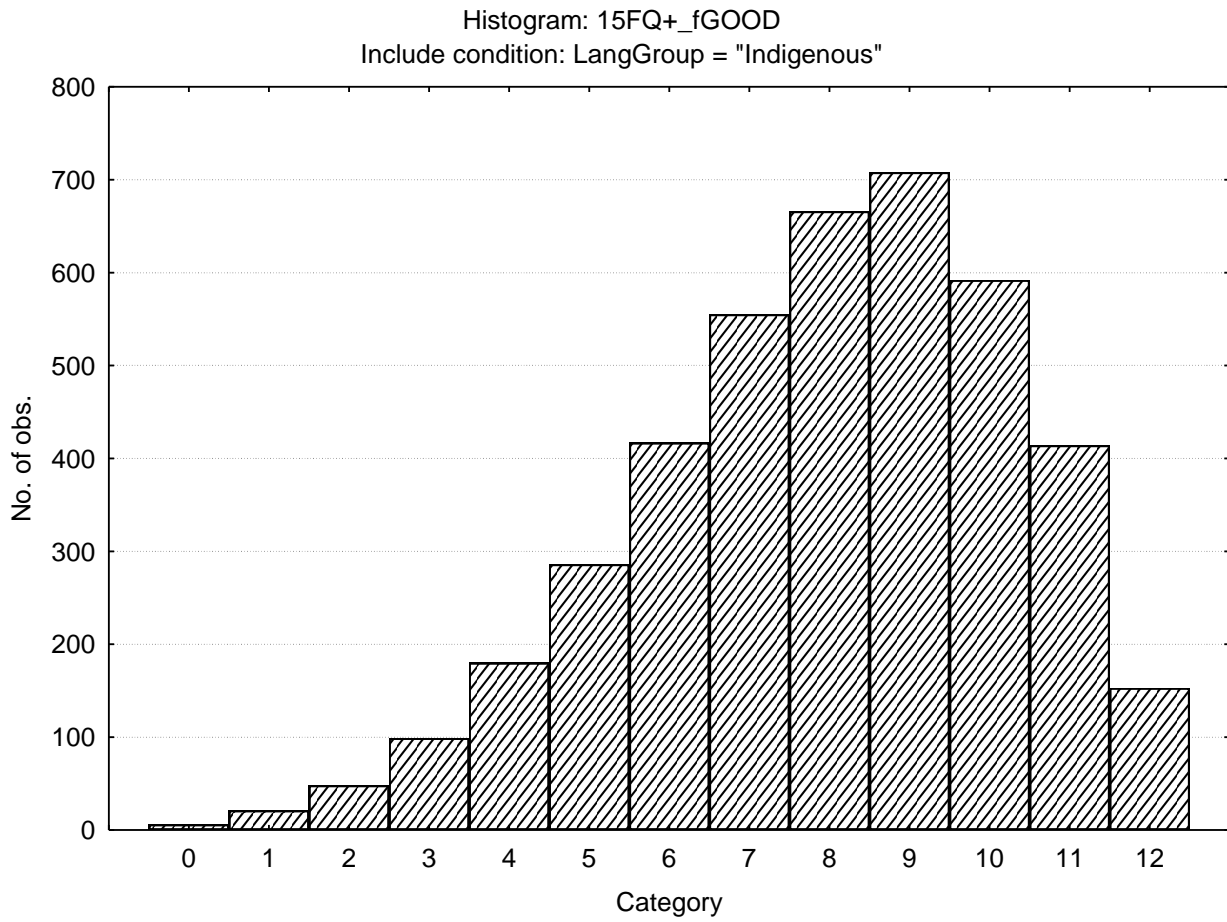
Derived score: Emotional Intelligence



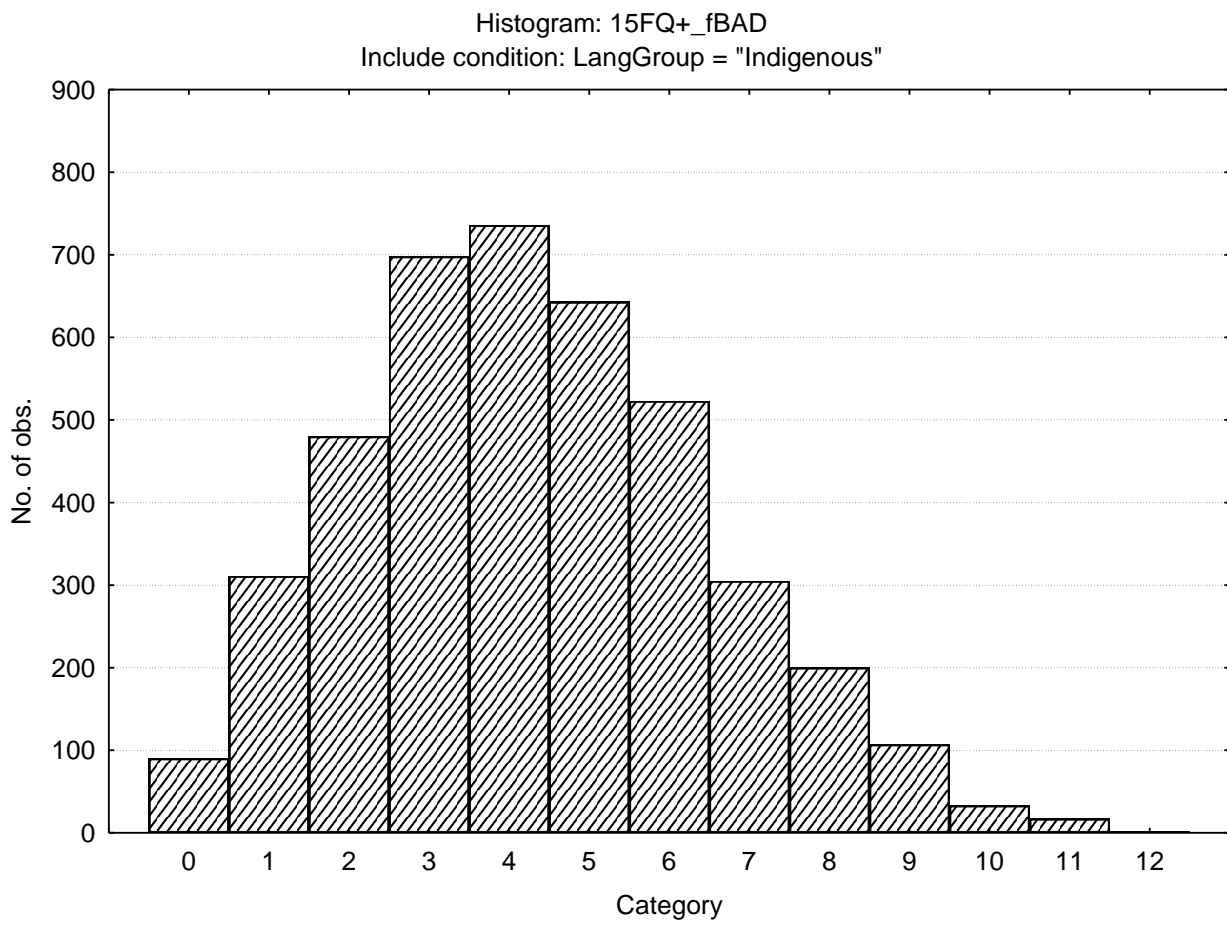
Derived score: Work attitude



Faking good



Faking bad



Sten table

	S10_1	S10_2	S10_3	S10_4	S10_5	S10_6	S10_7	S10_8	S10_9	S10_10
15FQ+_fA	0-12	13-14	15-15	16-17	18-18	19-20	21-22	23-23	24-24	
15FQ+_B	1-11	12-13	14-15	16-17	18-19	20-21	22-22	23-24		
15FQ+_fC	1-8	9-10	11-13	14-15	16-17	18-19	20-21	22-24		
15FQ+_fE	1-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	
15FQ+_fF	0-3	4-6	7-9	10-11	12-14	15-16	17-19	20-22	23-24	
15FQ+_fG	0-12	13-14	15-16	17-18	19-20	21-21	22-23	24-24		
15FQ+_fH	0-6	7-8	9-11	12-13	14-16	17-19	20-21	22-24		
15FQ+_fI	0-5	6-7	8-9	10-12	13-14	15-16	17-19	20-21	22-23	24-24
15FQ+_fL	0-1	2-3	4-6	7-8	9-10	11-12	13-15	16-17	18-19	20-24
15FQ+_fM	0-3	4-5	6-7	8-8	9-10	11-11	12-13	14-15	16-16	17-24
15FQ+_fN	1-14	15-15	16-17	18-18	19-20	21-21	22-23	24-24		
15FQ+_fO	0-2	3-4	5-7	8-9	10-11	12-14	15-16	17-19	20-21	22-24
15FQ+_fQ1	0-0	1-2	3-4	5-6	7-9	10-11	12-13	14-15	16-17	18-24
15FQ+_fQ2	0--1	0-0	1-2	3-4	5-6	7-9	10-11	12-13	14-15	16-24
15FQ+_fQ3	0-14	15-16	17-17	18-18	19-20	21-21	22-23	24-24		
15FQ+_fQ4	0--1	0-1	2-3	4-5	6-7	8-9	10-12	13-14	15-16	17-24
15FQ+_SD	0-5	6-6	7-8	9-10	11-11	12-13	14-15	16-16		
15FQ+_CT	0--1	0-0	1-1	2-4	5-11	12-18	19-25	26-31	32-38	39-128
15FQ+_INF	0--1	0-0	1-1	2-2	3-3	4-4	5-5	6-6	7-7	8-16
15FQ+_EIQ	0-16	17-18	19-20	21-22	23-24	25-26	27-27	28-29	30-30	
15FQ+_WA	0-19	20-21	22-23	24-25	26-27	28-29	30-31	32-32		
15FQ+_fGOOD	0-3	4-4	5-5	6-6	7-7	8-9	10-10	11-11	12-12	
15FQ+_fBAD	0--1	0-1	2-2	3-3	4-4	5-5	6-6	7-7	8-8	9-12

Norm group: SA English updated 2010

Norm type

Standard deviation norm

Composition of the sample

The sample consisted of English speaking South Africans tested by Psytech SA and collaborators in the period up to February 2010.

Gender composition of the sample

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	2007	2007	39.33751	39.3375
M	3077	5084	60.30968	99.6472
Missing	18	5102	0.35280	100.0000

Educational composition of the sample

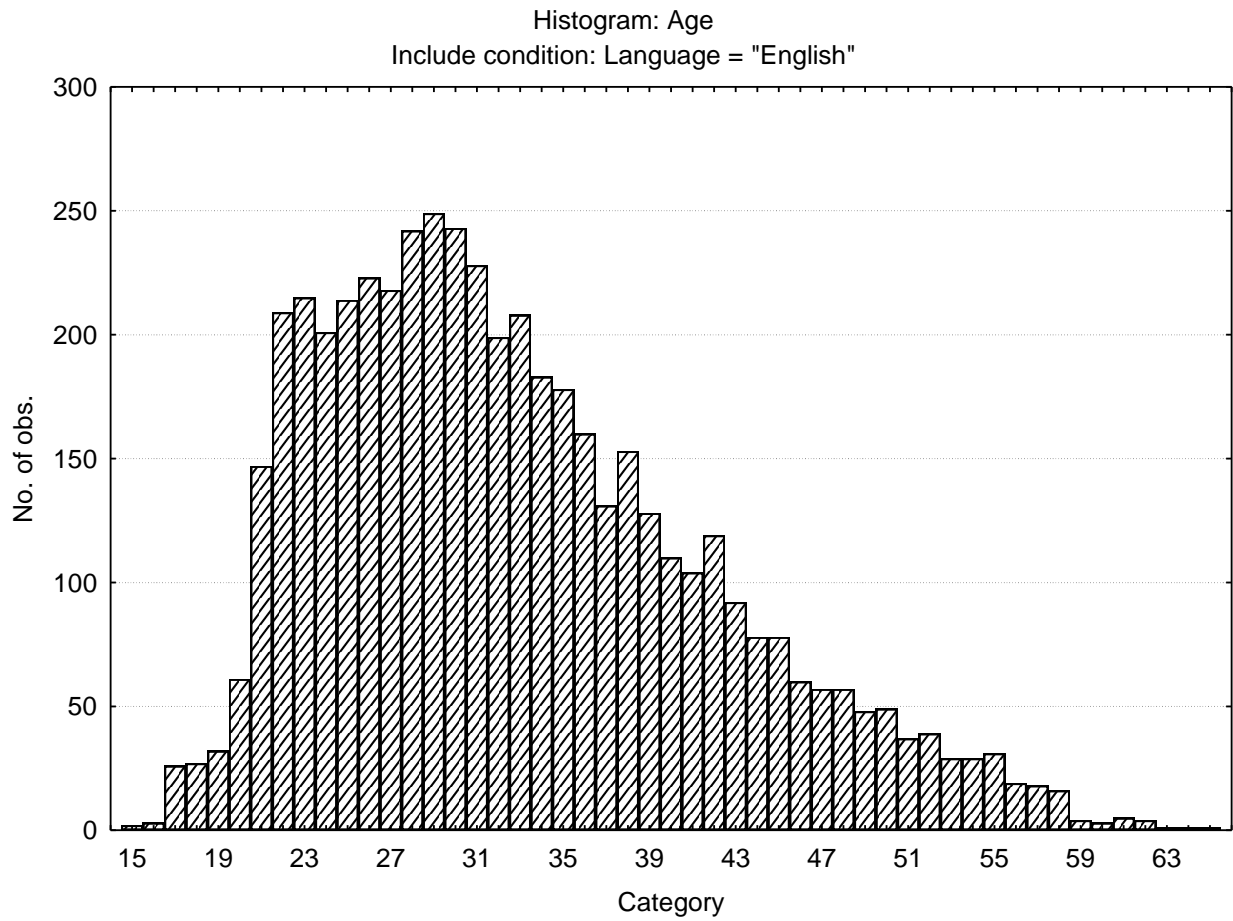
Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	1651	1651	32.35986	32.3599
Degree	830	2481	16.26813	48.6280
Post Graduate	768	3249	15.05292	63.6809
Technikon	517	3766	10.13328	73.8142
University diploma	456	4222	8.93767	82.7519
Grade 10 or 11	146	4368	2.86162	85.6135
Vocational Training	162	4530	3.17523	88.7887
Diploma	85	4615	1.66601	90.4547
Certificate	19	4634	0.37240	90.8271
Missing	468	5102	9.17287	100.0000

Race composition of the sample

Category	Frequency table: RaceGroup			
	Count	Cumulative Count	Percent	Cumulative Percent
African	342	342	6.70325	6.7033
European	2300	2642	45.08036	51.7836
Coloured	745	3387	14.60212	66.3857
Asian	1587	4974	31.10545	97.4912
Missing	128	5102	2.50882	100.0000

Age composition of the sample

Variable	Descriptive Statistics : Age					No.cases Missing
	Mean	Std.Dev	Minimum	Maximum	N	
Age	32.84745	8.940359	15.00000	68.00000	4969	133

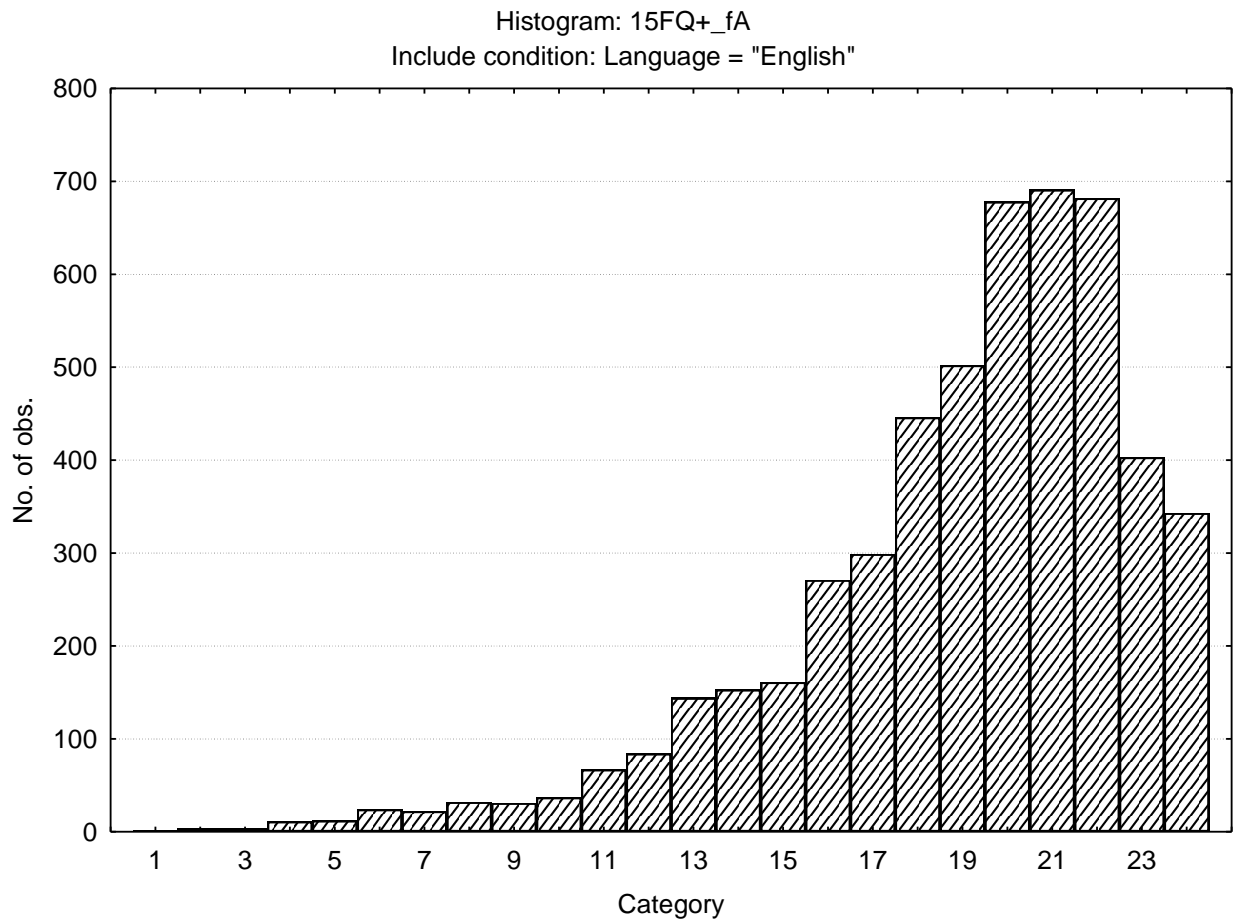


Descriptive statistics on 15FQPlus scale raw scores

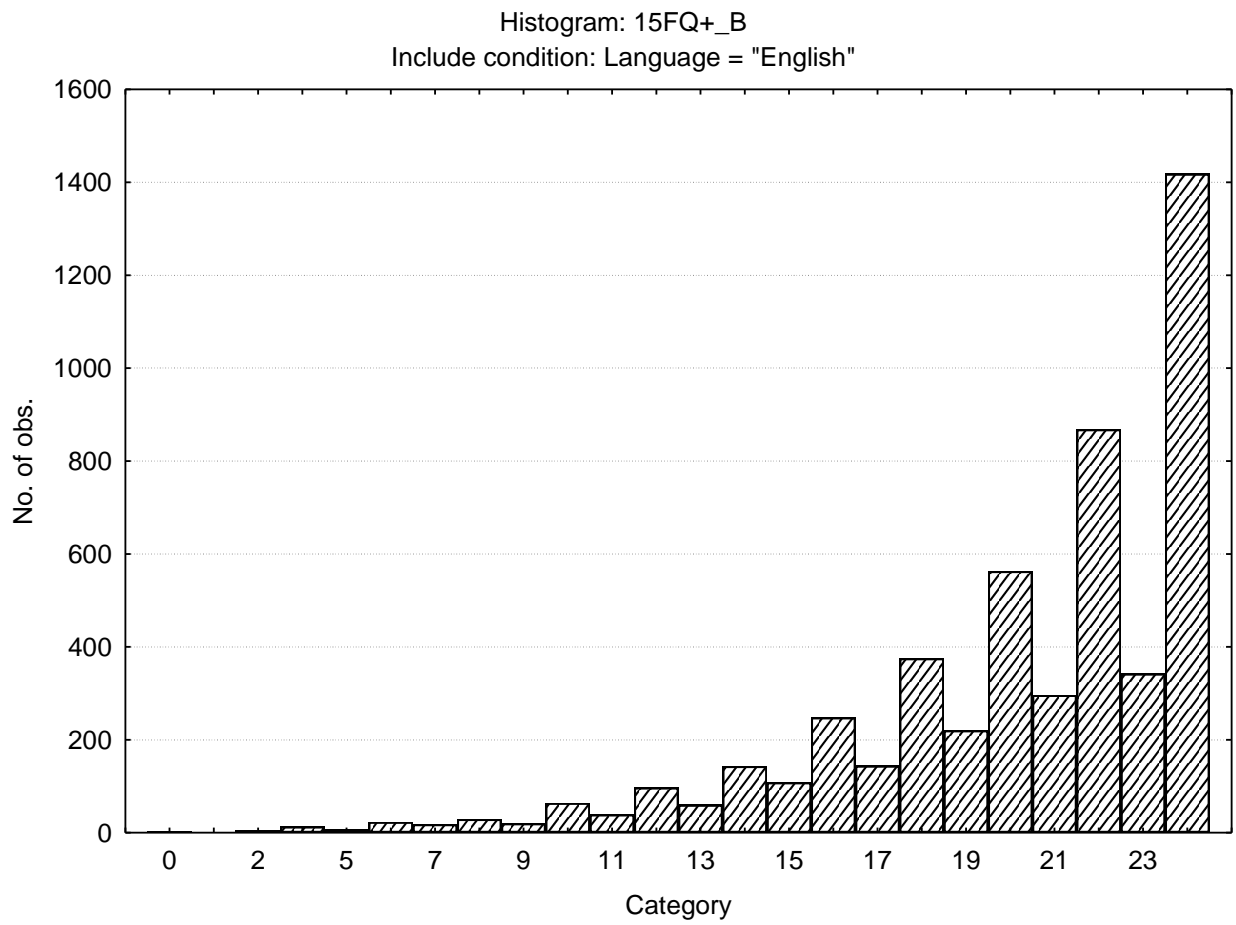
Variable		Descriptive Statistics					
		Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
15FQ+_fA	Distant aloof - empathic	19.02450	3.78800	1.000000	24.0000	5102	0
15FQ+_B	Intellectance	20.23187	4.06535	0.000000	24.0000	5102	0
15FQ+_fC	Affected by feelings - emotionally stable	17.40768	4.75117	0.000000	24.0000	5102	0
15FQ+_fE	Accommodating - Dominant	16.59624	4.54316	0.000000	24.0000	5102	0
15FQ+_fF	Sober serious - Enthusiastic	15.64406	5.35656	0.000000	24.0000	5102	0
15FQ+_fG	Expedient - Conscientious	19.27323	4.68864	0.000000	24.0000	5102	0
15FQ+_fH	Retiring - Socially bold	15.41690	6.15130	0.000000	24.0000	5102	0
15FQ+_fI	Tough Minded - Tender minded	14.61662	5.24054	0.000000	24.0000	5102	0
15FQ+_fL	Trusting - Suspicious	8.31439	5.01078	0.000000	24.0000	5102	0
15FQ+_fM	Concrete - Abstract	10.48256	4.32692	0.000000	24.0000	5102	0
15FQ+_fN	Direct - Restrained	18.75049	4.58652	0.000000	24.0000	5102	0
15FQ+_fO	Self-assured - Apprehensive	11.91709	5.76090	0.000000	24.0000	5102	0
15FQ+_fQ1	Conventional - Radical	9.00392	5.19145	0.000000	24.0000	5102	0
15FQ+_fQ2	Group - orientated - Self-sufficient	7.58996	4.93435	0.000000	24.0000	5102	0
15FQ+_fQ3	Informal- self disciplined	20.00804	3.43257	2.000000	24.0000	5102	0
15FQ+_fQ4	Composed - tense driven	9.15582	5.95710	0.000000	24.0000	5102	0
15FQ+_SD	Social desirability	11.01627	3.61518	0.000000	16.0000	5102	0
15FQ+_CT	Central Tendency	11.70423	12.88476	0.000000	112.0000	5102	0
15FQ+_INF	Infrequency	1.20835	1.43113	0.000000	13.0000	5102	0
15FQ+_EIQ	Derived score: Emotional Intelligence	23.77068	4.69267	0.000000	30.0000	5102	0
15FQ+_WA	Derived score: Work attitude	27.18679	4.47474	0.000000	32.0000	5102	0
15FQ+_fGOOD	Faking good	7.38201	2.70979	0.000000	12.0000	5102	0
15FQ+_fBAD	Faking bad	4.40749	2.51511	0.000000	13.0000	5102	0

Frequency distributions on 15FQPlus scale raw scores

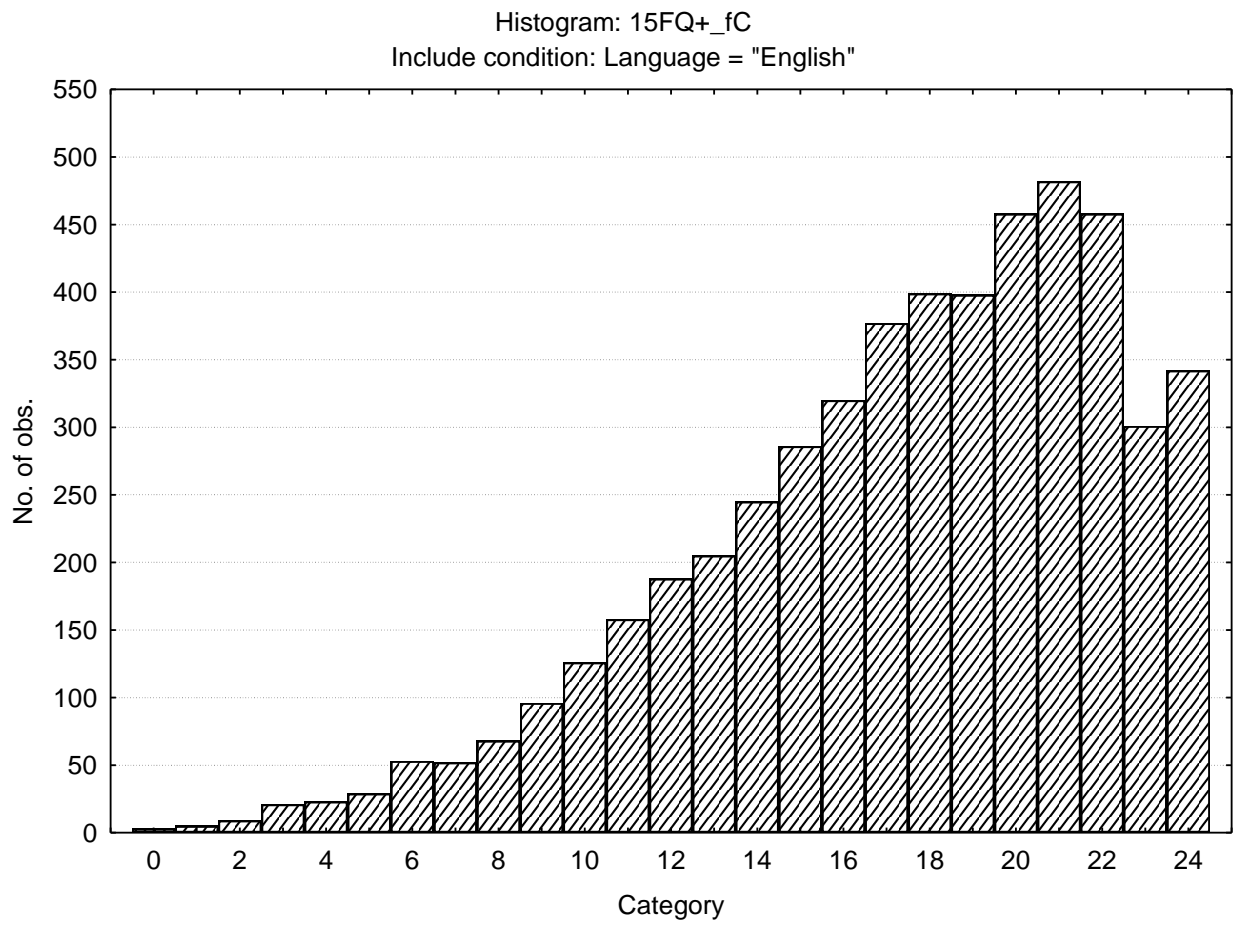
Distant aloof-empathic



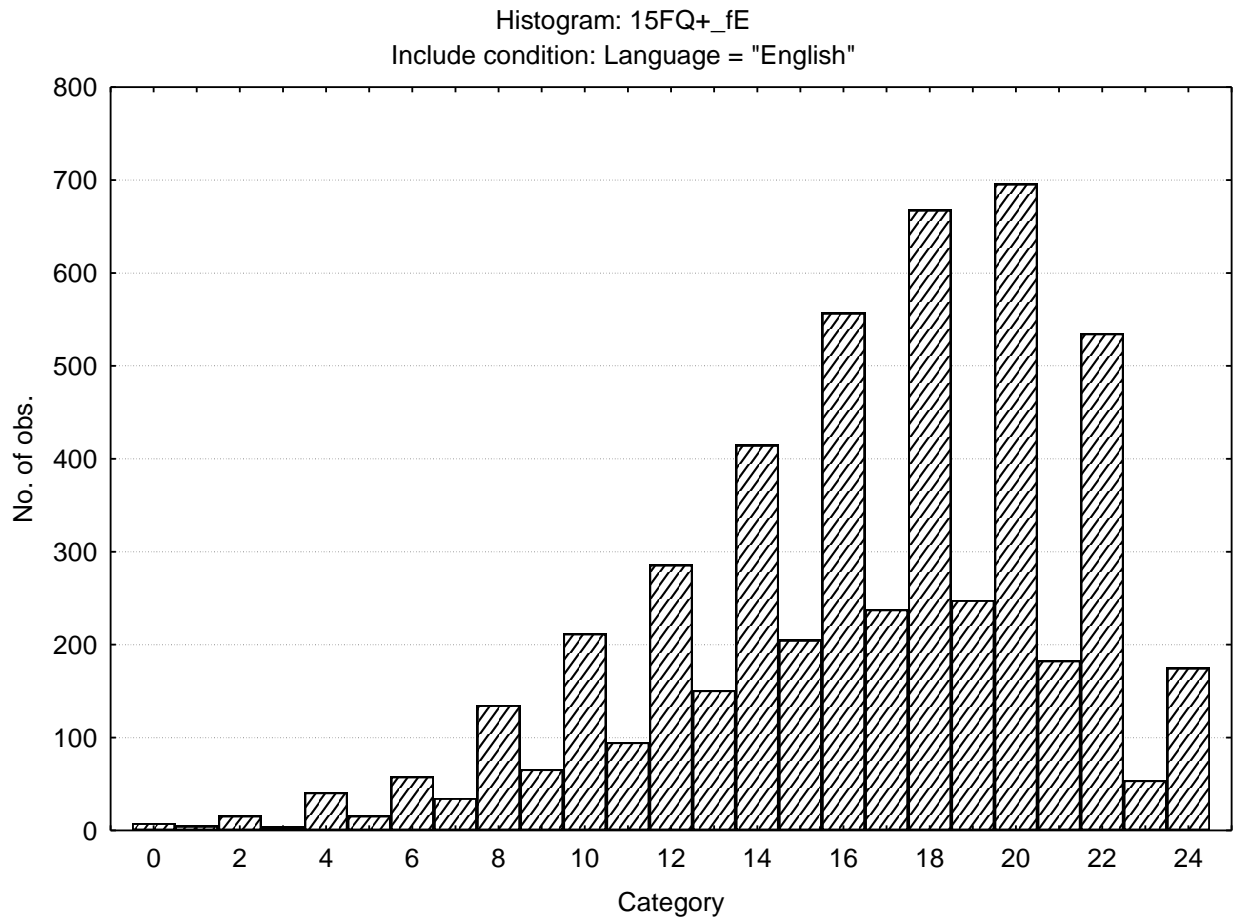
Intellectance



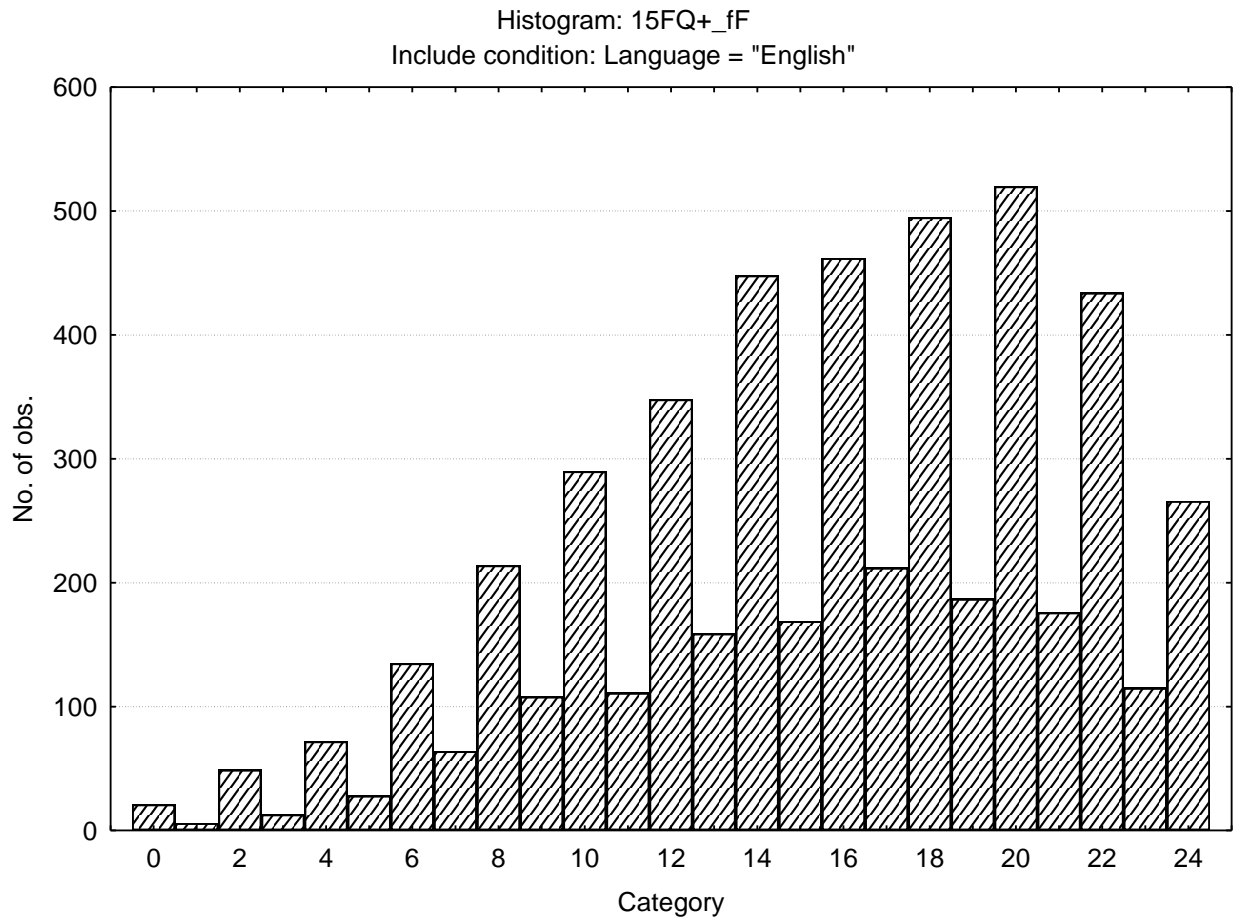
Affected by feelings - Emotionally stable



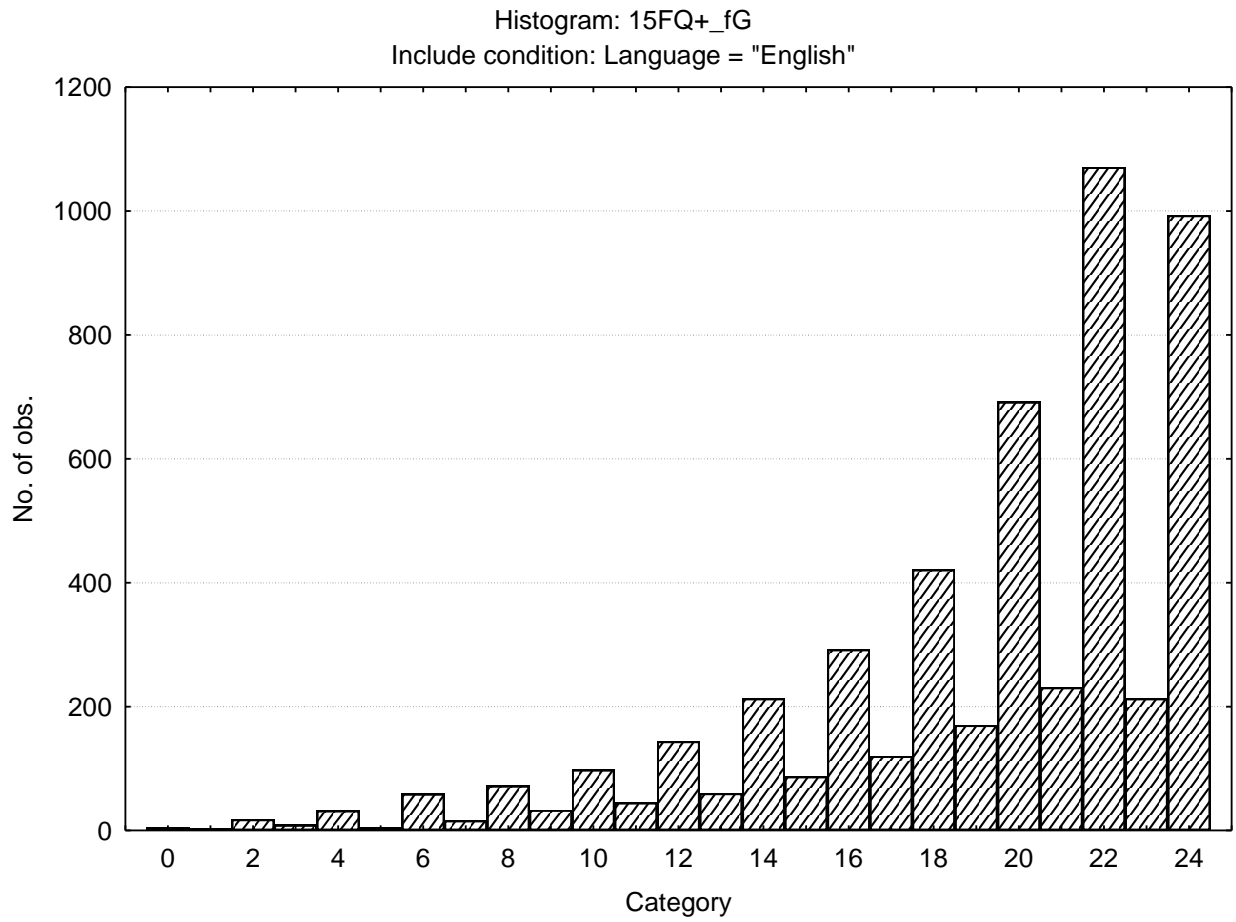
Accommodating - dominant



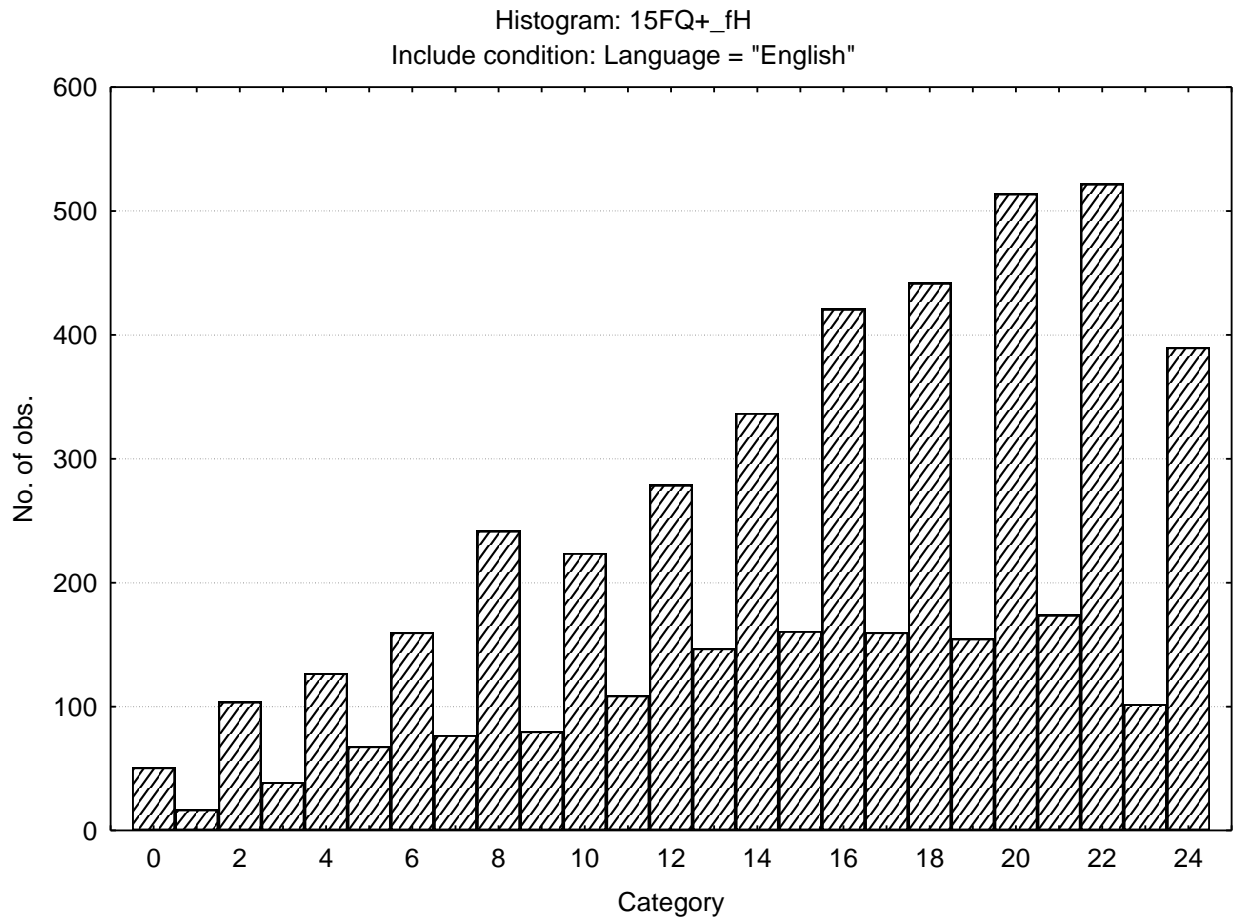
Sober serious - enthusiastic



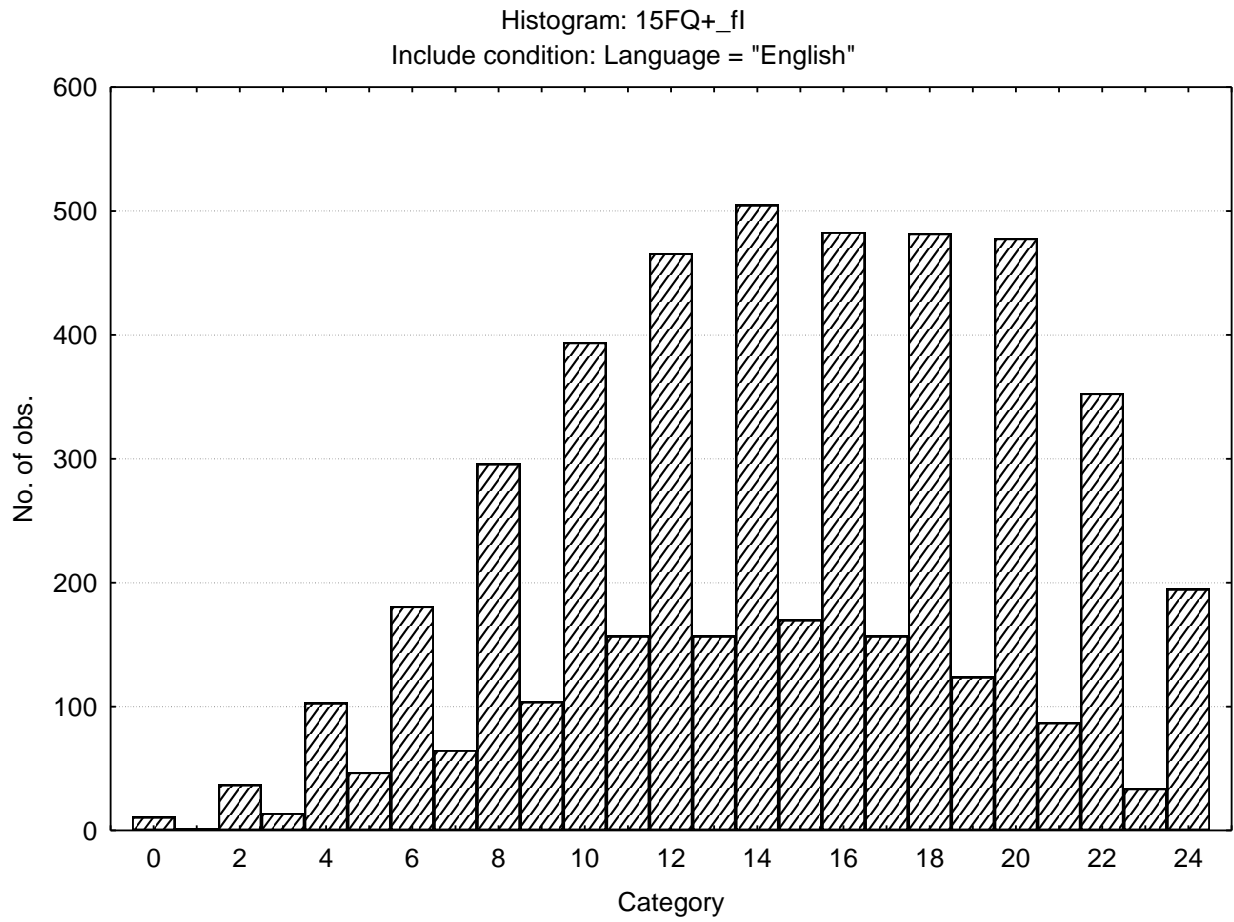
Expedient-conscientious



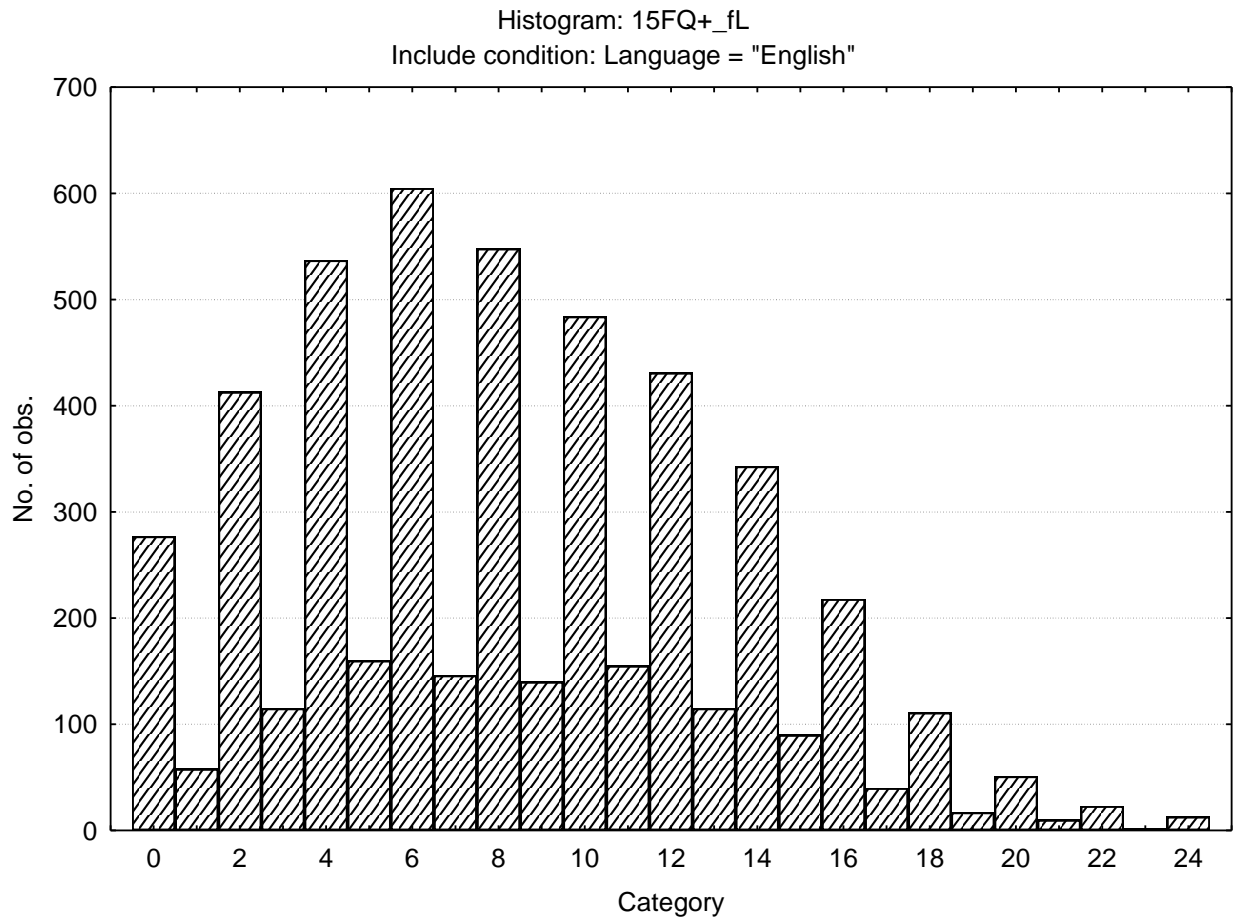
Retiring –socially bold



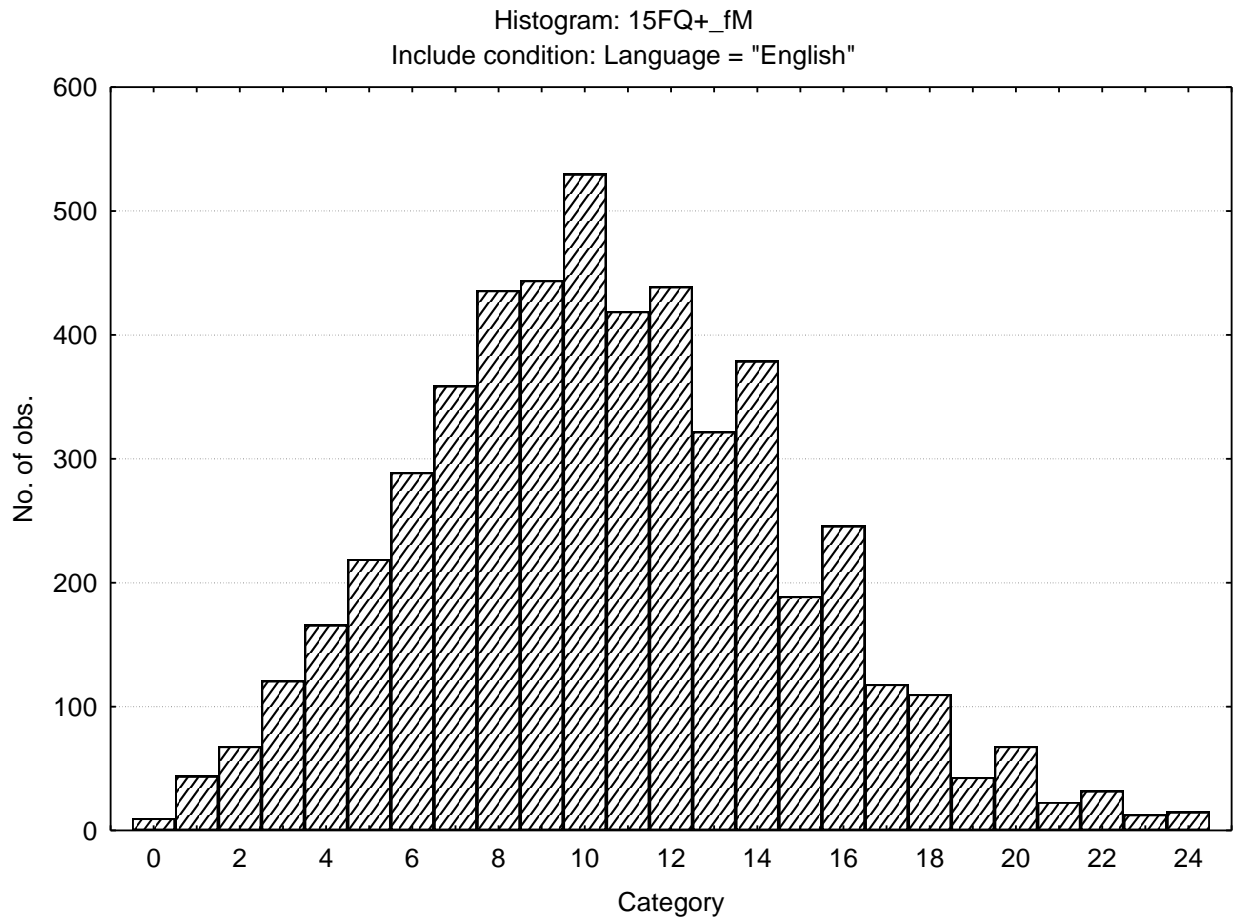
Tough Minded - Tender Minded



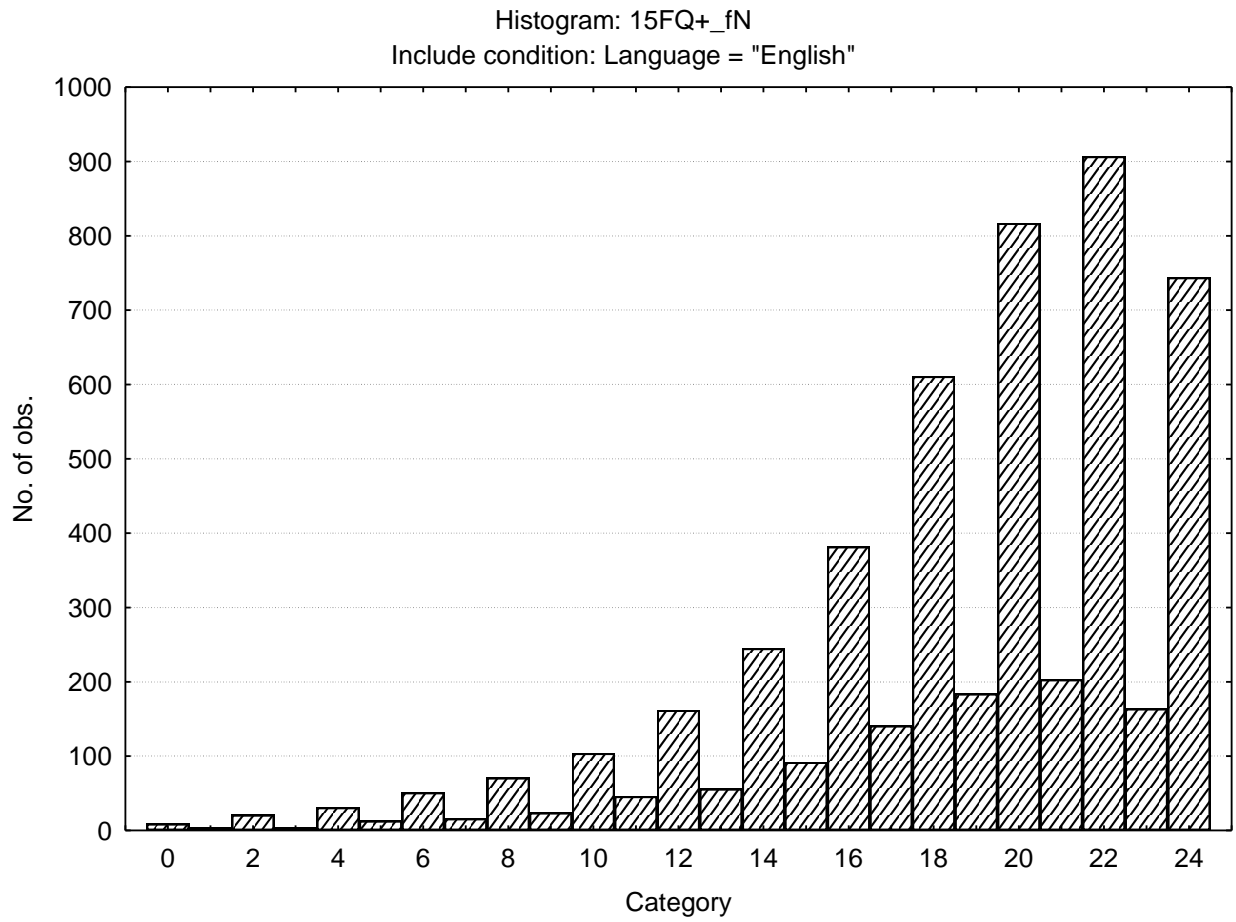
Trusting - Suspicious



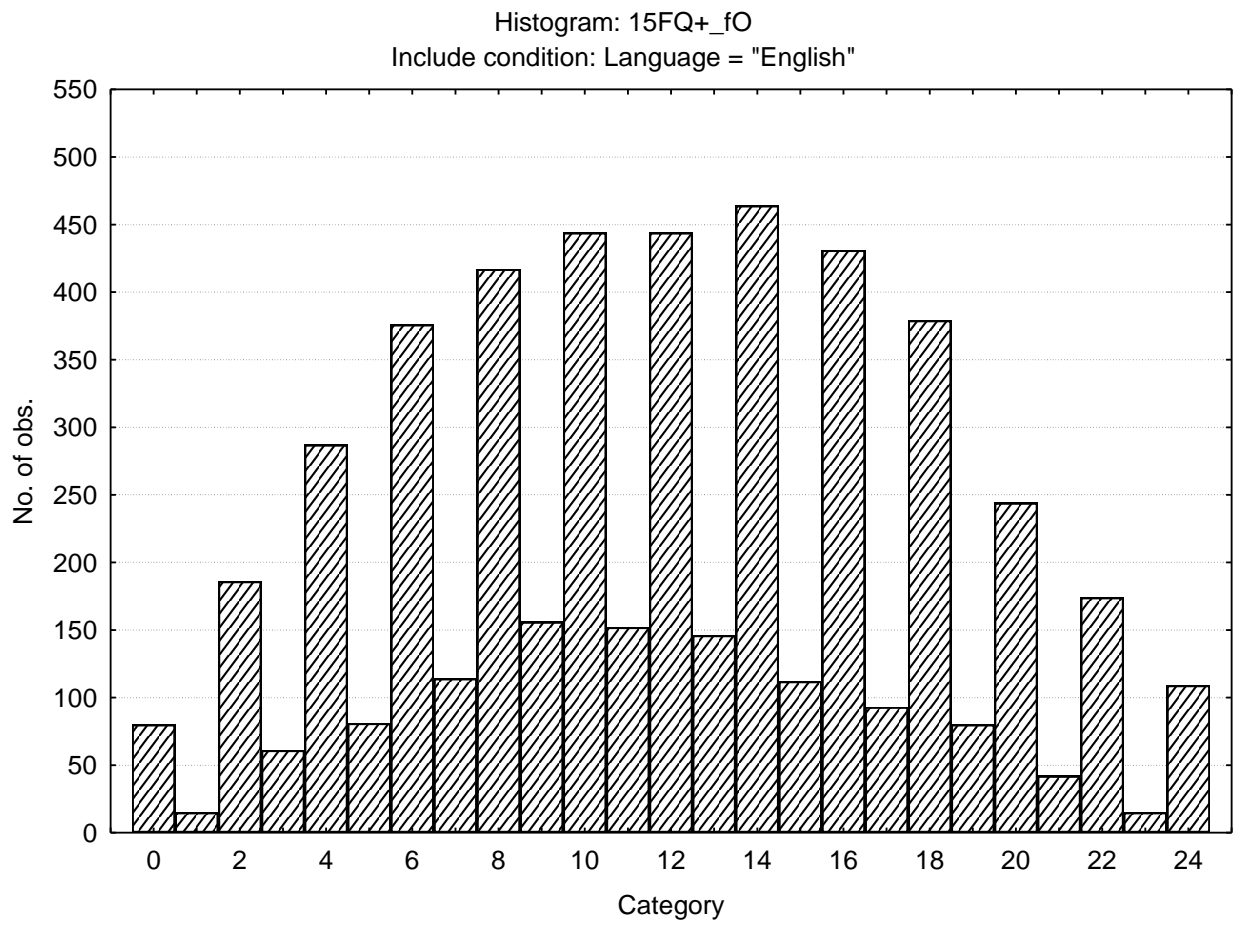
Concrete - Abstract



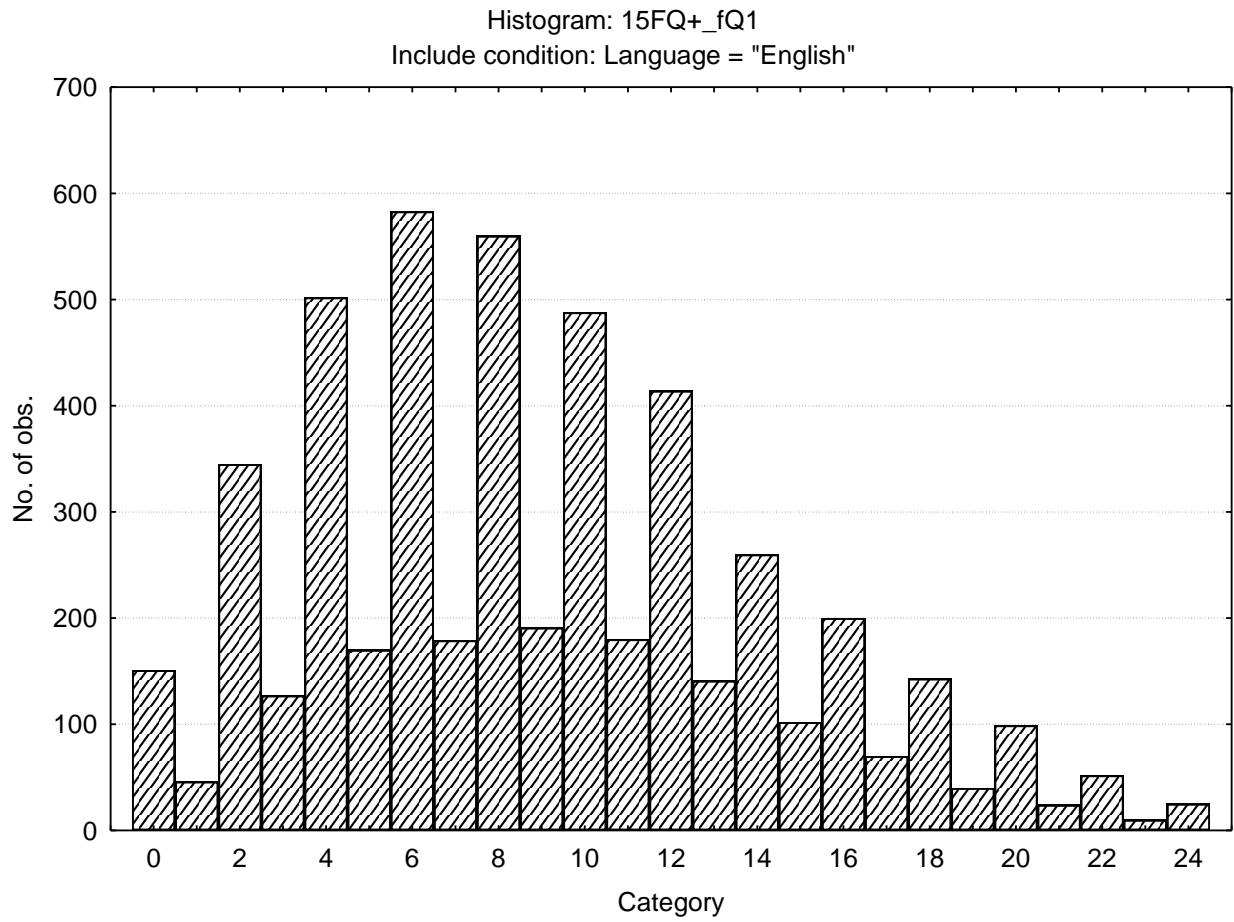
Direct-restrained



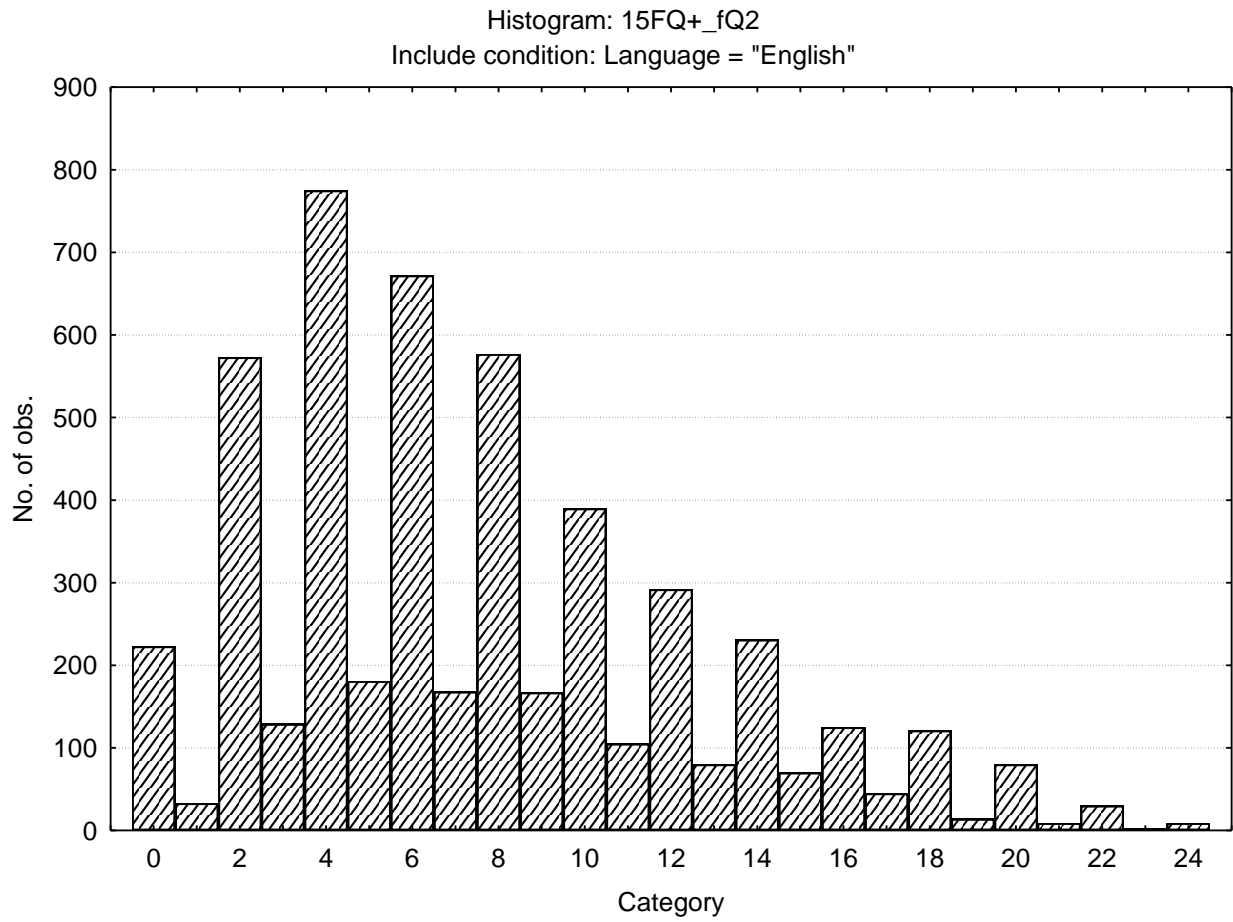
Self assured - Apprehensive



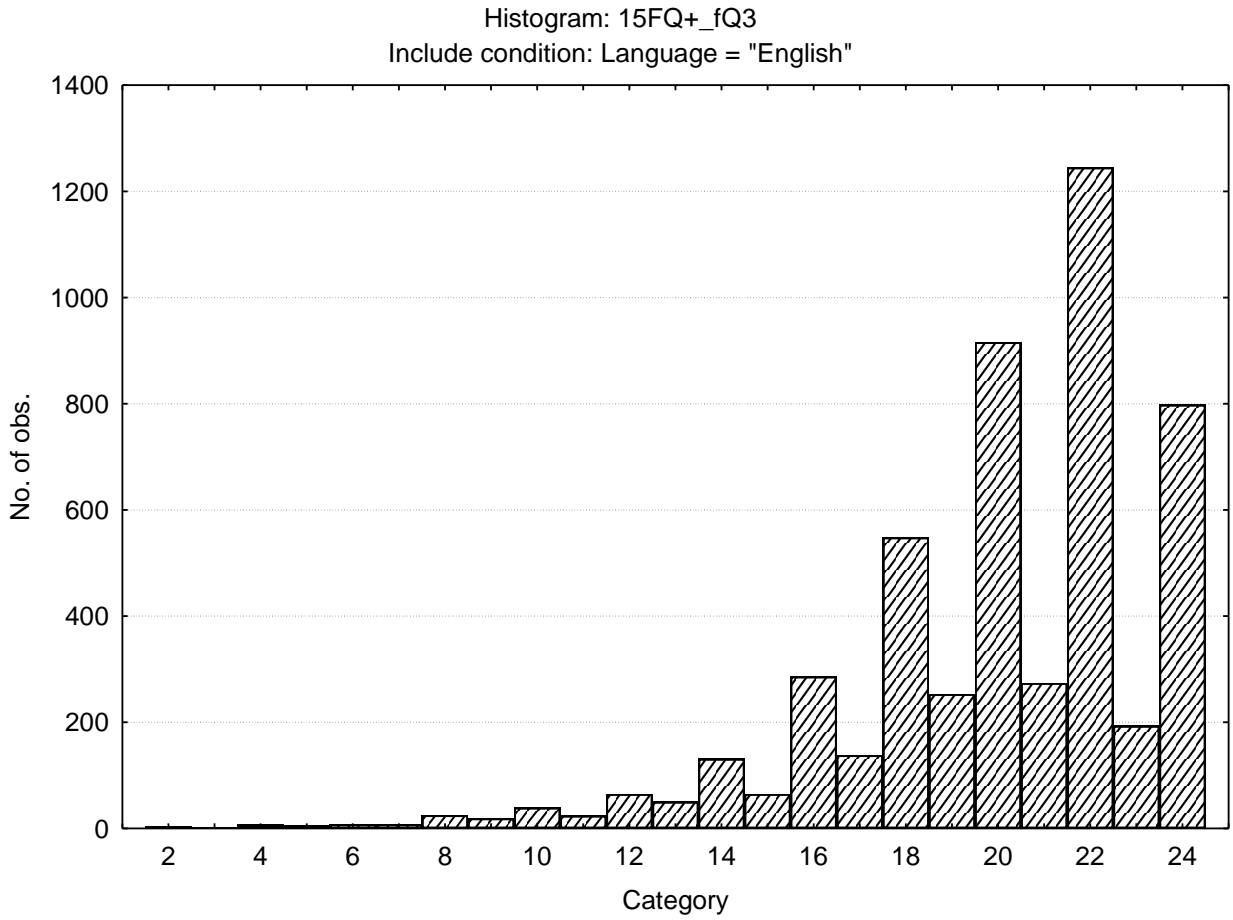
Conventional - Radical



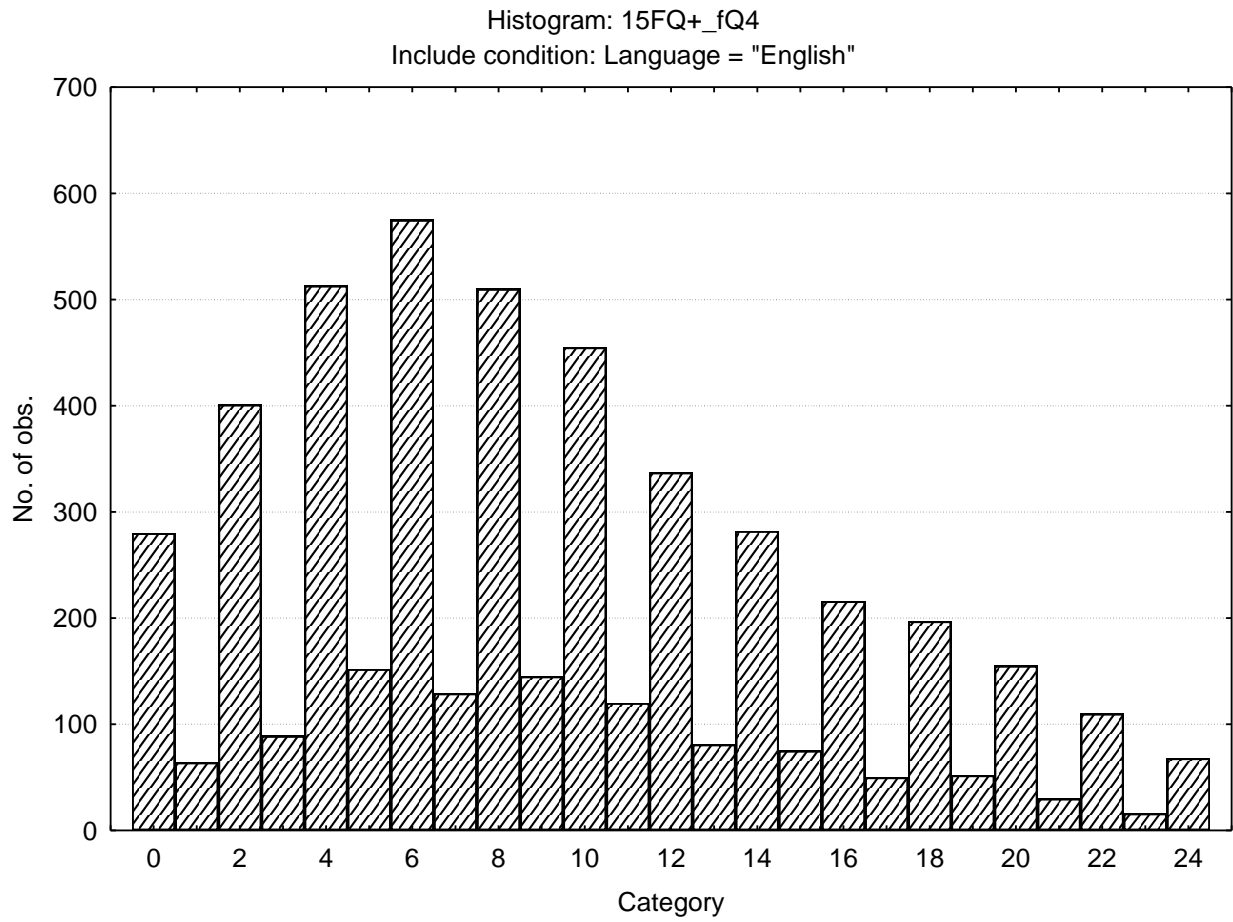
Group Orientated - Self Sufficient



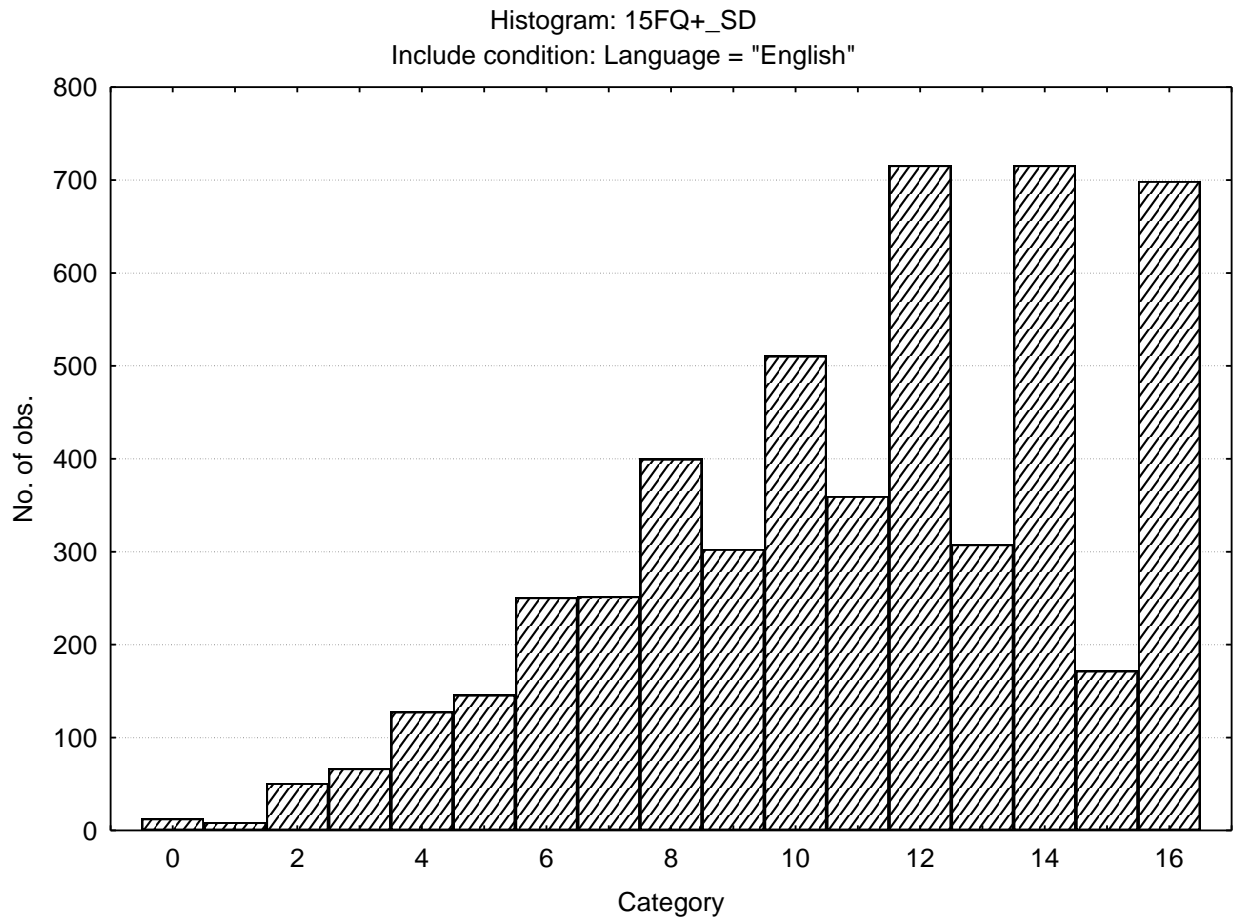
Informal – Self Disciplined



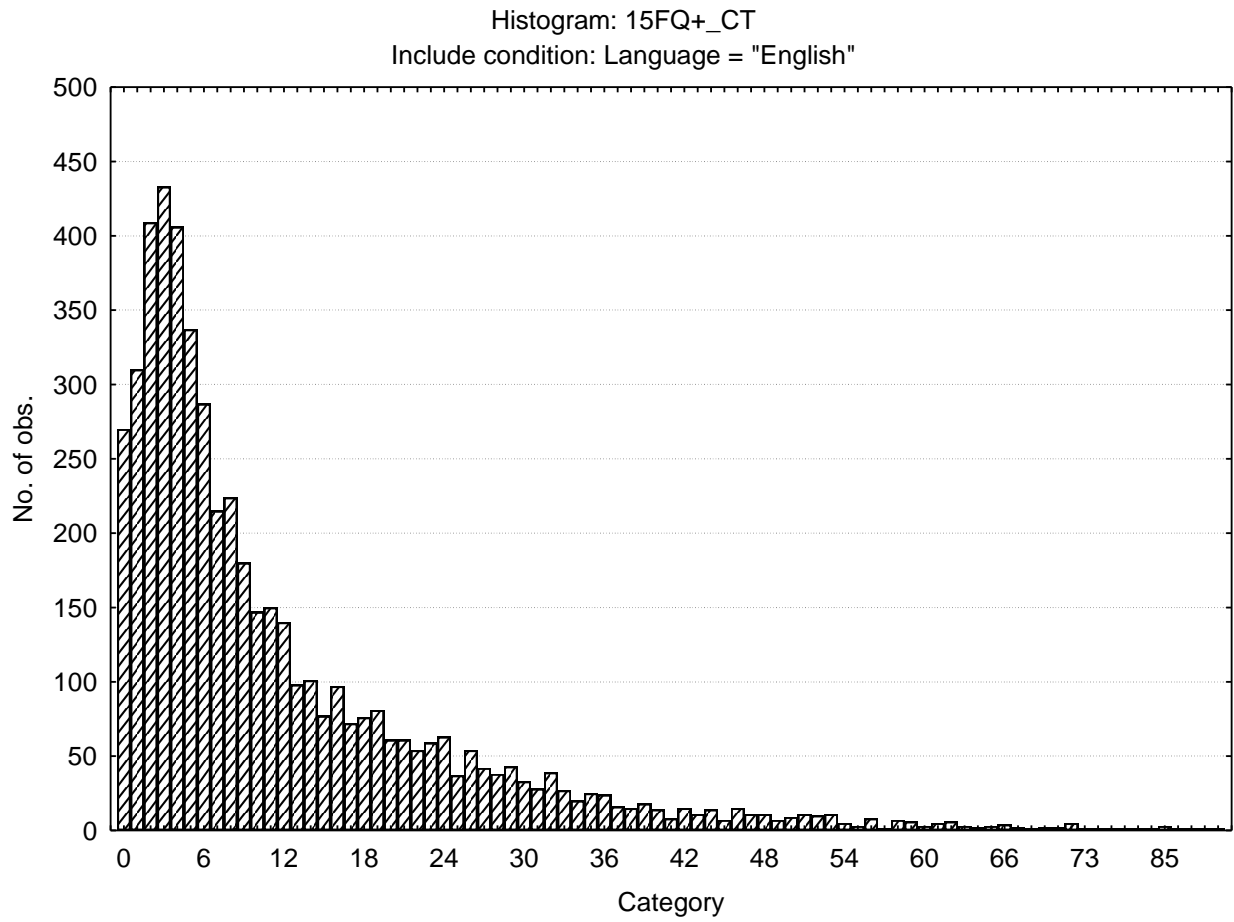
Composed - Tense Driven



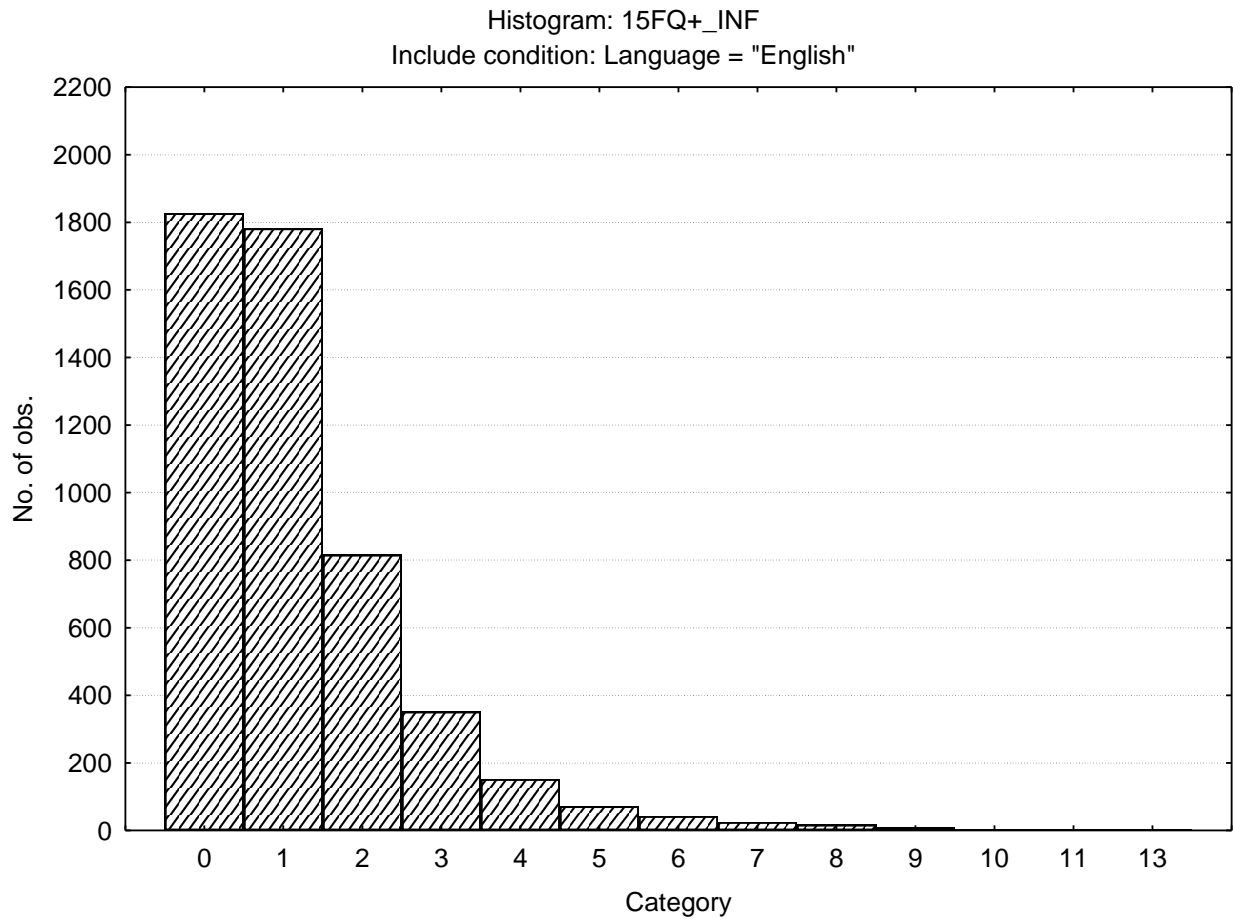
Social Desirability



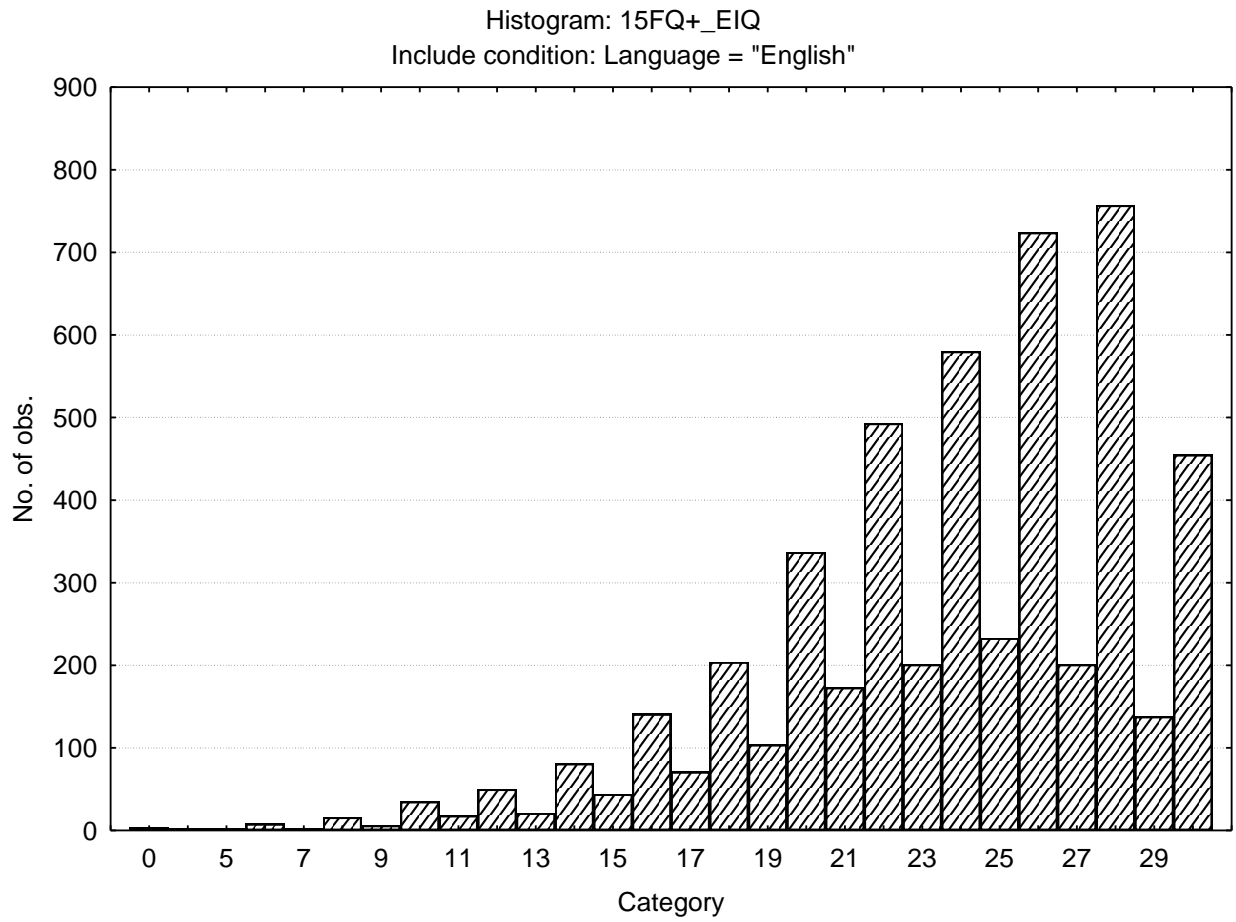
Central Tendency



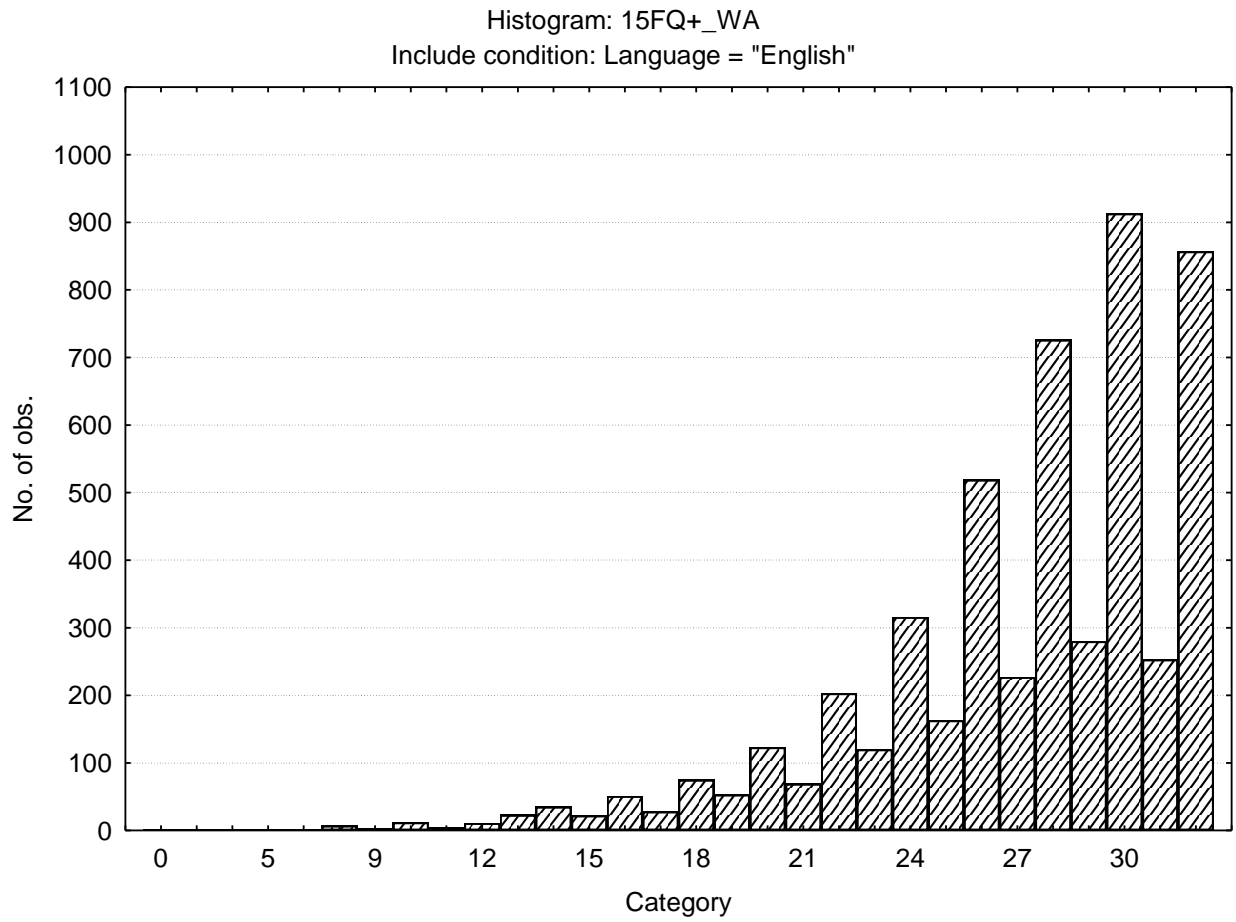
Infrequency



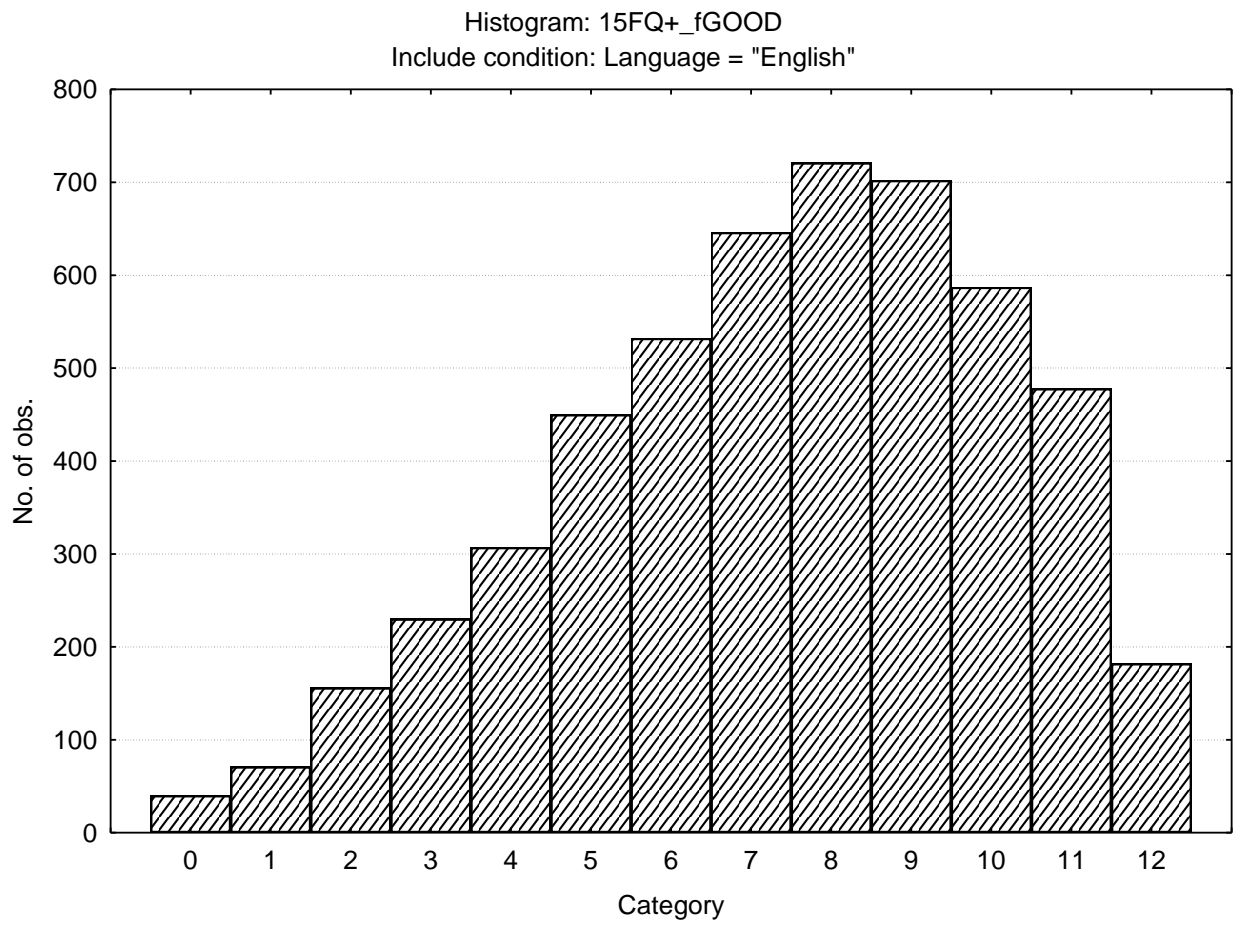
Emotional Intelligence



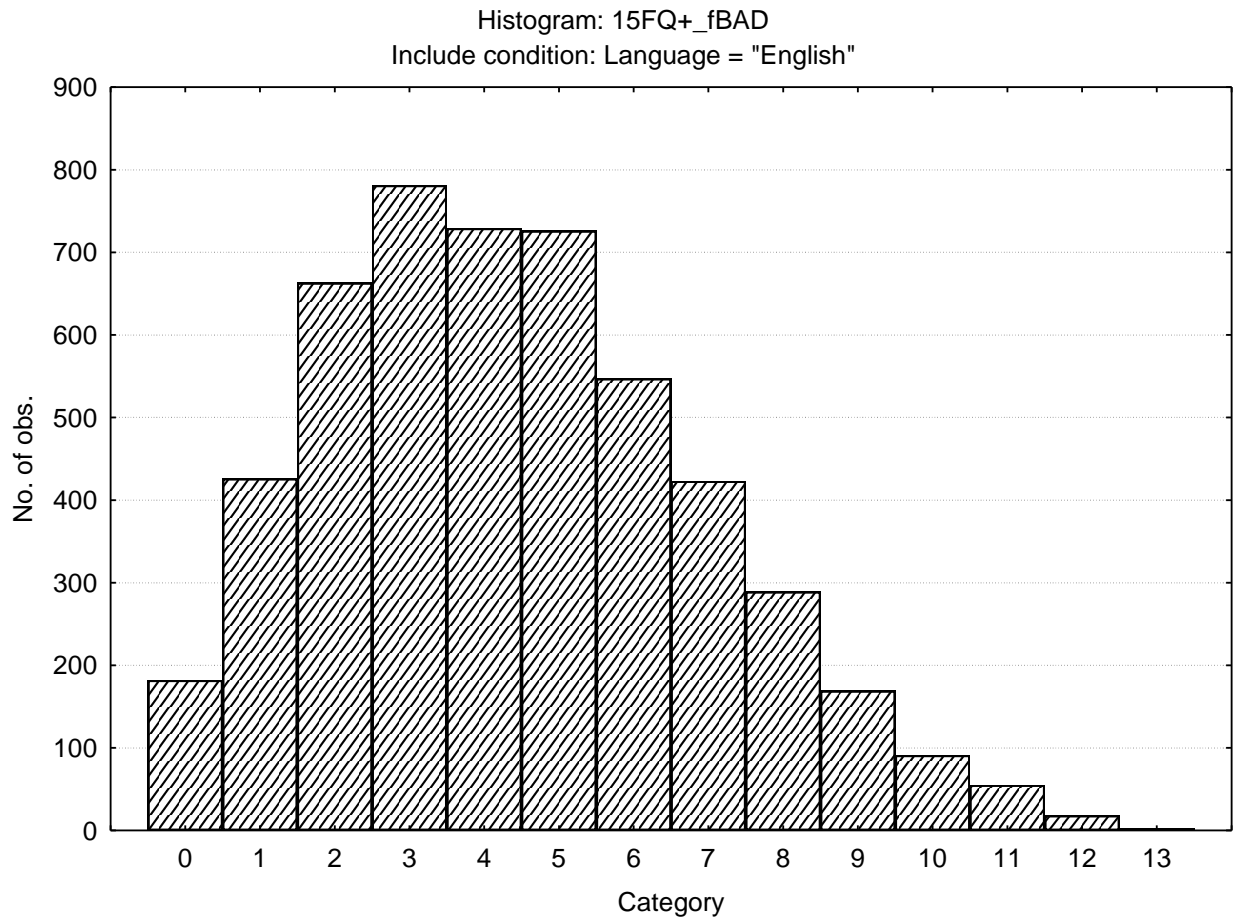
Work Attitude



Faking Good



Faking Bad



	S10_1	S10_2	S10_3	S10_4	S10_5	S10_6	S10_7	S10_8	S10_9	S10_10
15FQ+_fA	1-11	12-13	14-15	16-17	18-19	20-20	21-22	23-24		
15FQ+_B	0-12	13-14	15-16	17-18	19-20	21-22	23-24			
15FQ+_fC	0-7	8-10	11-12	13-15	16-17	18-19	20-22	23-24		
15FQ+_fE	0-7	8-9	10-12	13-14	15-16	17-18	19-21	22-23	24-24	
15FQ+_fF	0-4	5-7	8-10	11-12	13-15	16-18	19-21	22-23	24-24	
15FQ+_fG	0-9	10-12	13-14	15-16	17-19	20-21	22-23	24-24		
15FQ+_fH	0-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24		
15FQ+_fI	0-4	5-6	7-9	10-11	12-14	15-17	18-19	20-22	23-24	
15FQ+_fL	0--1	0-0	1-3	4-5	6-8	9-10	11-13	14-15	16-18	19-24
15FQ+_fM	0-1	2-3	4-6	7-8	9-10	11-12	13-14	15-16	17-19	20-24
15FQ+_fN	0-9	10-11	12-14	15-16	17-18	19-21	22-23	24-24		
15FQ+_fO	0-0	1-3	4-6	7-9	10-11	12-14	15-17	18-20	21-23	24-24
15FQ+_fQ1	0--1	0-1	2-3	4-6	7-9	10-11	12-14	15-16	17-19	20-24
15FQ+_fQ2	0--1	0-0	1-2	3-5	6-7	8-10	11-12	13-14	15-17	18-24
15FQ+_fQ3	2-13	14-14	15-16	17-18	19-20	21-21	22-23	24-24		
15FQ+_fQ4	0--1	0-0	1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24
15FQ+_fSD	0-3	4-5	6-7	8-9	10-11	12-12	13-14	15-16		
15FQ+_fCT	0--1	0-0	1-1	2-5	6-11	12-18	19-24	25-31	32-37	38-112
15FQ+_fINF	0--1	0-0	1-1	2-2	3-3	4-4	5-5	6-6	7-7	8-13
15FQ+_fEIQ	0-14	15-16	17-19	20-21	22-23	24-26	27-28	29-30		
15FQ+_fWA	0-18	19-20	21-22	23-24	25-27	28-29	30-31	32-32		
15FQ+_fGOO D	0-1	2-3	4-4	5-6	7-7	8-8	9-10	11-11	12-12	
15FQ+_fBAD	0--1	0-0	1-1	2-3	4-4	5-5	6-6	7-8	9-9	10-13

Norm group: SA Afrikaans speakers updated 2010

Norm type

Standard deviation norm

Sample composition

The sample consisted of 2857 Afrikaans speaking South Africans tested by Psytech SA and collaborators in the period up to February 2010

Gender composition of the sample

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	980	980	34.30172	34.3017
M	1870	2850	65.45327	99.7550
Missing	7	2857	0.24501	100.0000

Educational composition of the sample

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	951	951	33.28666	33.2867
Degree	457	1408	15.99580	49.2825
Post Graduate	383	1791	13.40567	62.6881
Technikon	301	2092	10.53553	73.2237
University diploma	150	2242	5.25026	78.4739
Grade 10 or 11	117	2359	4.09520	82.5691
Vocational Training	106	2465	3.71019	86.2793
Diploma	21	2486	0.73504	87.0144
Certificate	24	2510	0.84004	87.8544
Missing	347	2857	12.14561	100.0000

Language composition of the sample

Category	Frequency table: Language			
	Count	Cumulative Count	Percent	Cumulative Percent
Afrikaans	2857	2857	100.0000	100.0000
Missing	0	2857	0.0000	100.0000

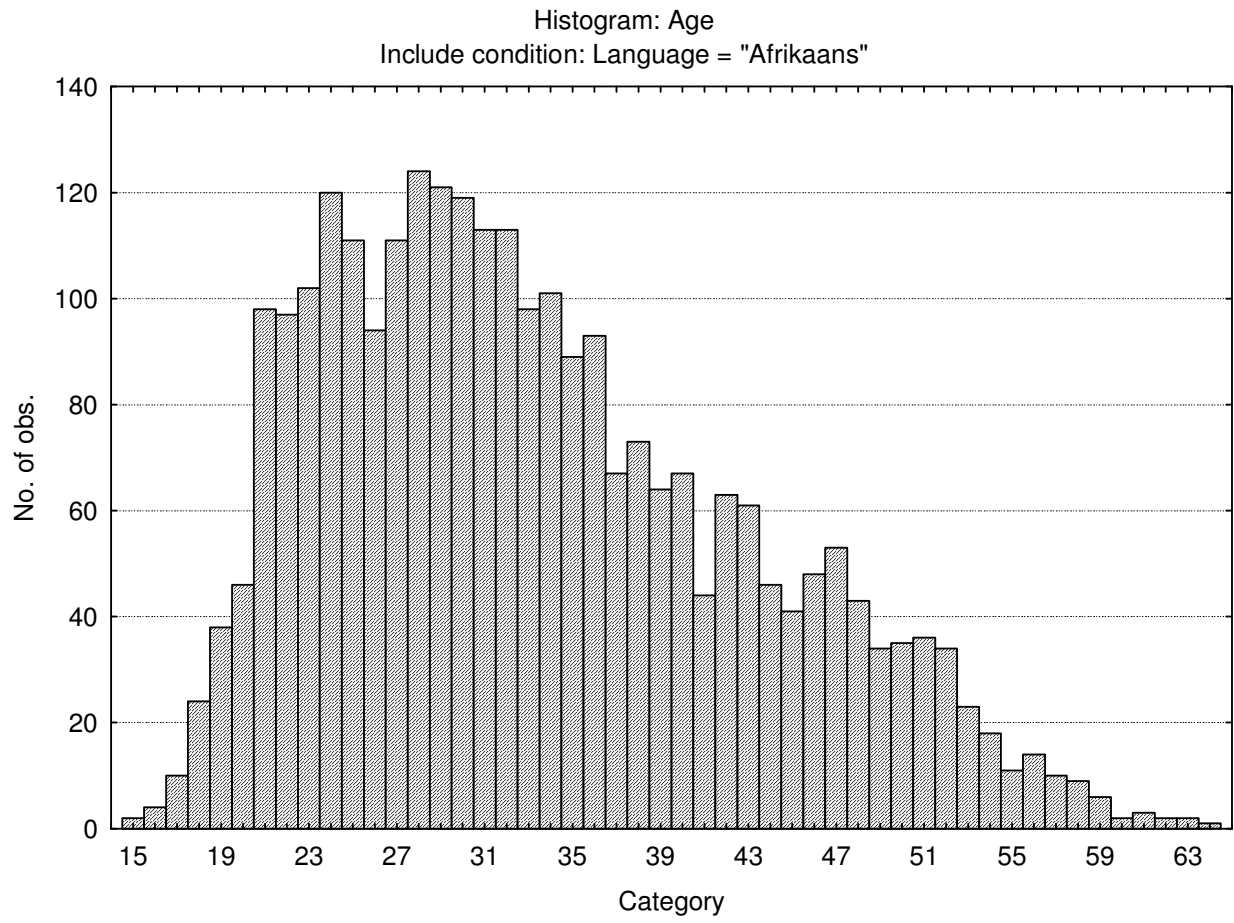
Updated 7 July 2010

Race composition of the sample

Category	Frequency table: RaceGroup			
	Count	Cumulative Count	Percent	Cumulative Percent
African	74	74	2.59013	2.5901
European	2399	2473	83.96920	86.5593
Coloured	315	2788	11.02555	97.5849
Asian	5	2793	0.17501	97.7599
Missing	64	2857	2.24011	100.0000

Age composition of the sample

Variable	Descriptive Statistics					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	33.44668	9.611198	15.00000	71.00000	2738	119



Updated 7 July 2010

N14-3

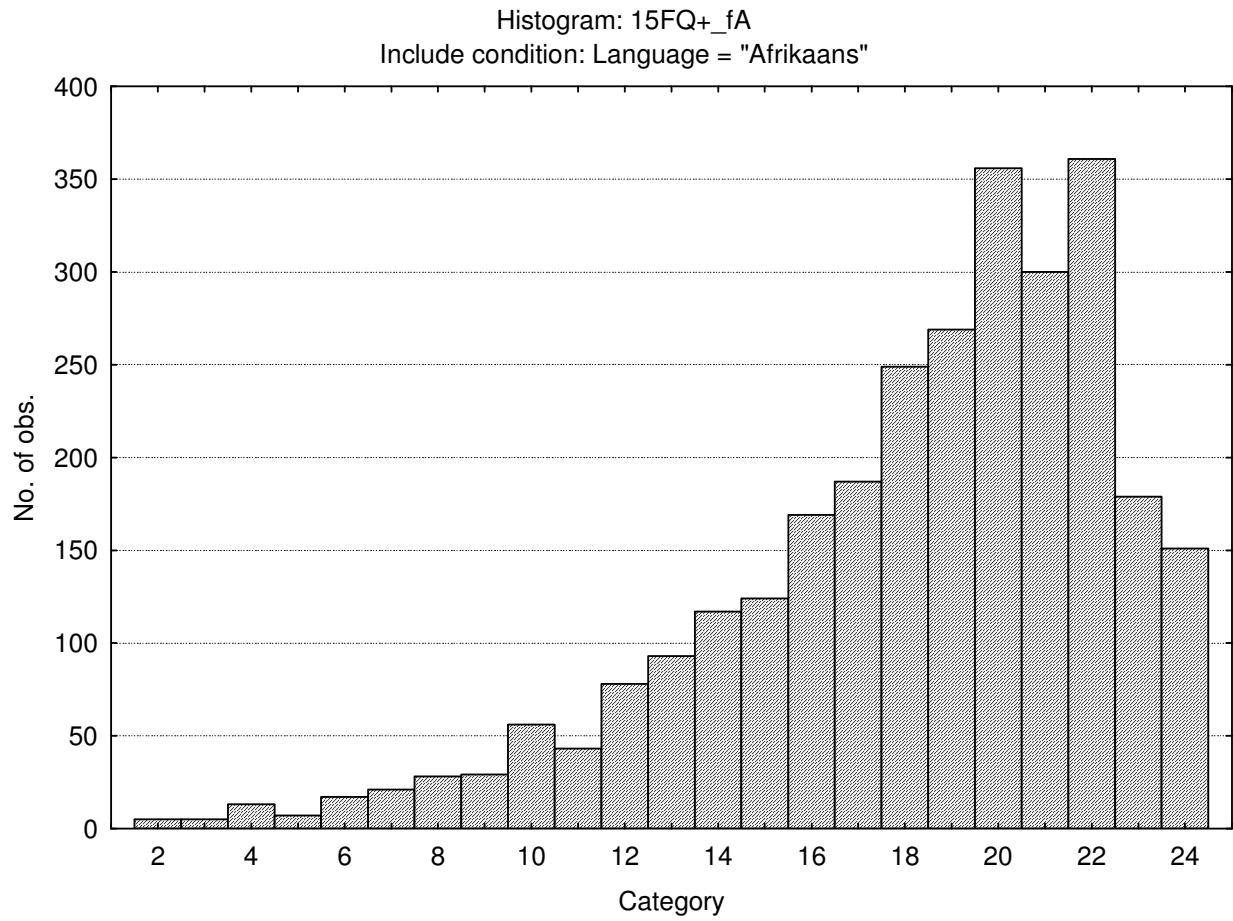
Descriptive statistics on 15FQPlus Raw Scores

Variable		Descriptive Statistics (15fqplus raws and resps dups rem) Include condition: Language = "Afrikaans"					
		Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
15FQ+_fA	Distant aloof - empathic	18.23626	4.22036	2.000000	24.0000	2857	0
15FQ+_B	Intellectance	19.51803	4.28433	1.000000	24.0000	2857	0
15FQ+_fC	Affected by feelings - emotionally stable	16.84879	5.10021	0.000000	24.0000	2857	0
15FQ+_fE	Accommodating - Dominant	16.43472	4.85923	0.000000	24.0000	2857	0
15FQ+_fF	Sober serious - Enthusiastic	13.91845	5.74968	0.000000	24.0000	2857	0
15FQ+_fG	Expedient - Conscientious	18.87644	4.81599	0.000000	24.0000	2857	0
15FQ+_fH	Retiring - Socially bold	14.17466	6.45280	0.000000	24.0000	2857	0
15FQ+_fI	Tough Minded - Tender minded	13.88309	5.44050	0.000000	24.0000	2857	0
15FQ+_fL	Trusting - Suspicious	9.41092	5.11669	0.000000	24.0000	2857	0
15FQ+_fM	Concrete - Abstract	10.15191	4.34651	0.000000	24.0000	2857	0
15FQ+_fN	Direct - Restrained	18.35772	4.84358	0.000000	24.0000	2857	0
15FQ+_fO	Self-assured - Apprehensive	13.03045	5.84332	0.000000	24.0000	2857	0
15FQ+_fQ1	Conventional - Radical	8.62058	4.95465	0.000000	24.0000	2857	0
15FQ+_fQ2	Group - orientated - Self-sufficient	8.75009	5.51035	0.000000	24.0000	2857	0
15FQ+_fQ3	Informal- self disciplined	20.55023	3.21896	1.000000	24.0000	2857	0
15FQ+_fQ4	Composed - tense driven	10.85579	6.13534	0.000000	24.0000	2857	0
15FQ+_SD	Social desirability	9.95590	3.63988	0.000000	16.0000	2857	0
15FQ+_CT	Central Tendency	12.64858	14.42836	0.000000	151.0000	2857	0
15FQ+_INF	Infrequency	1.49842	1.69798	0.000000	18.0000	2857	0
15FQ+_EIQ	Derived score: Emotional Intelligence	22.72594	5.06016	4.000000	30.0000	2857	0
15FQ+_WA	Derived score: Work attitude	27.16556	4.23052	6.000000	32.0000	2857	0
15FQ+_fGOOD	Faking good	6.59223	2.78790	0.000000	12.0000	2857	0
15FQ+_fBAD	Faking bad	4.74694	2.59673	0.000000	13.0000	2857	0

Updated 7 July 2010

Frequency distributions of 15FQPlus scale scores

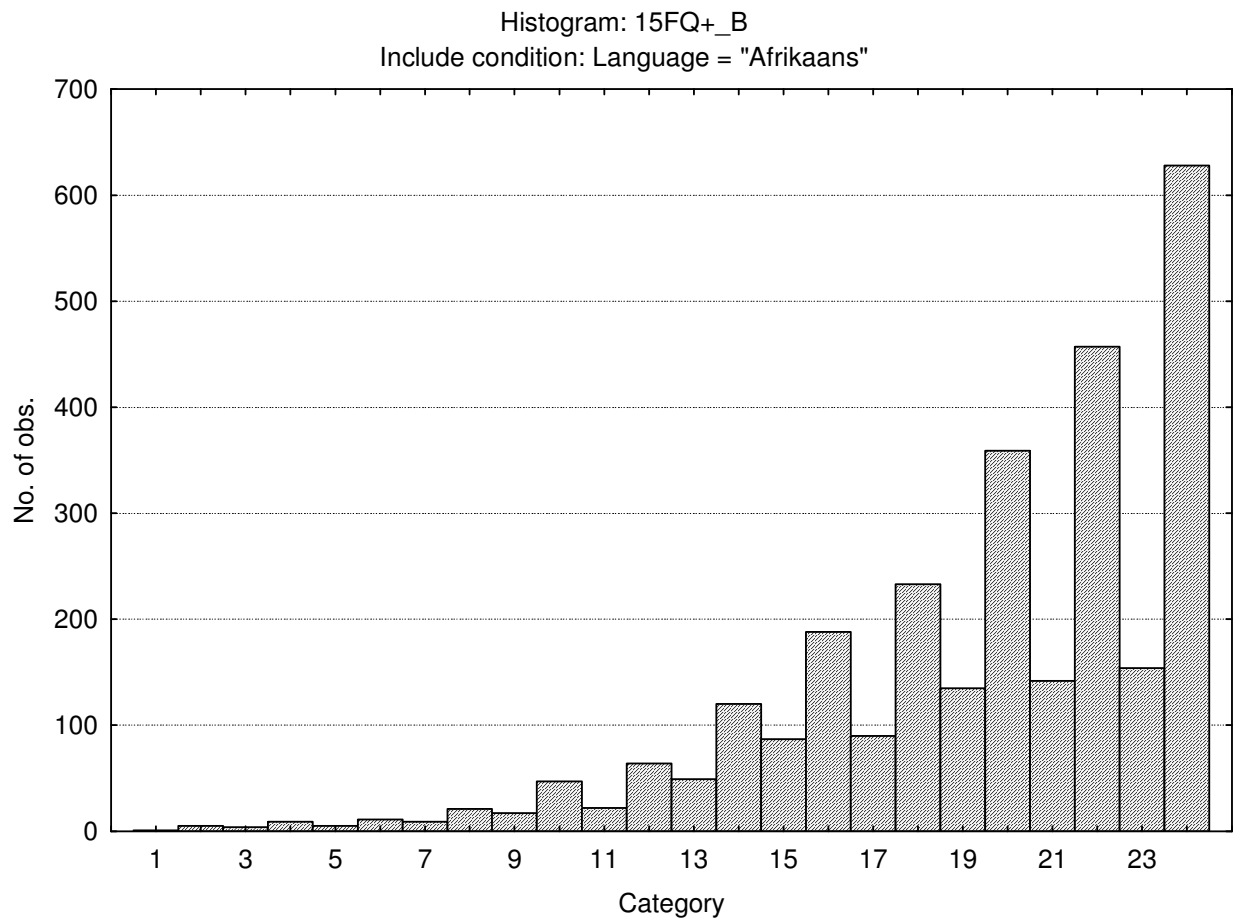
Distant Aloof - Empathic



Updated 7 July 2010

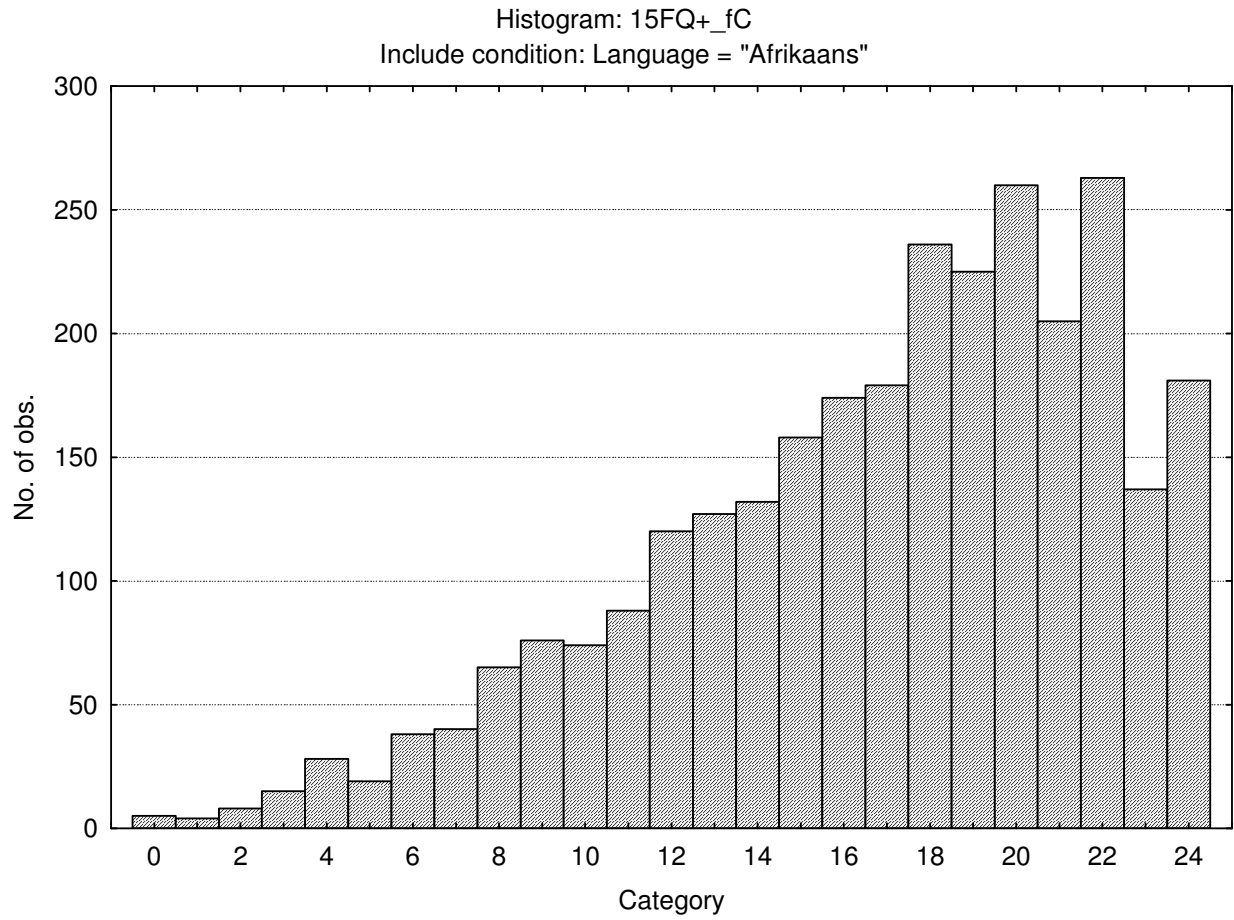
N14-5

Intellectance



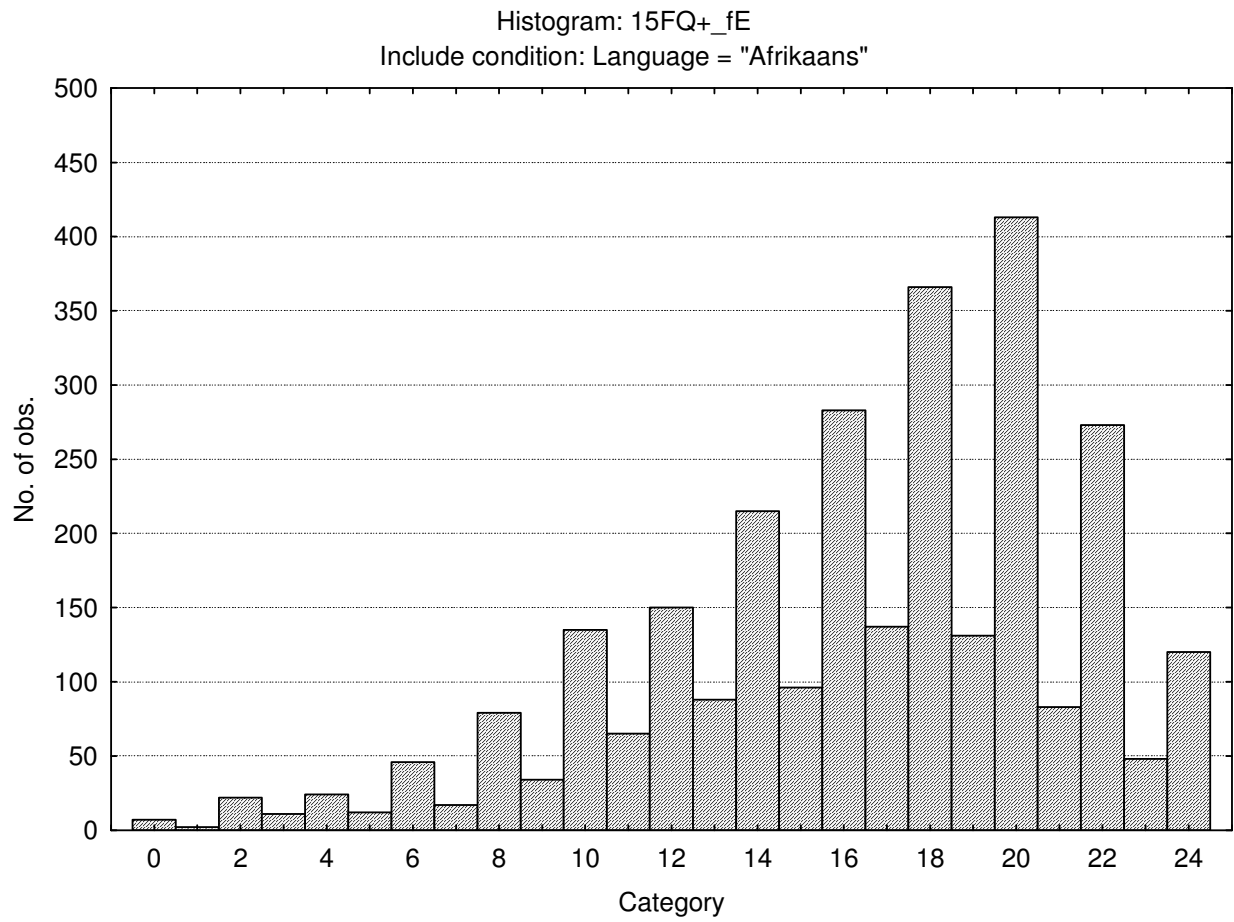
Updated 7 July 2010

Affected by Feelings – Emotionally Stable



Updated 7 July 2010

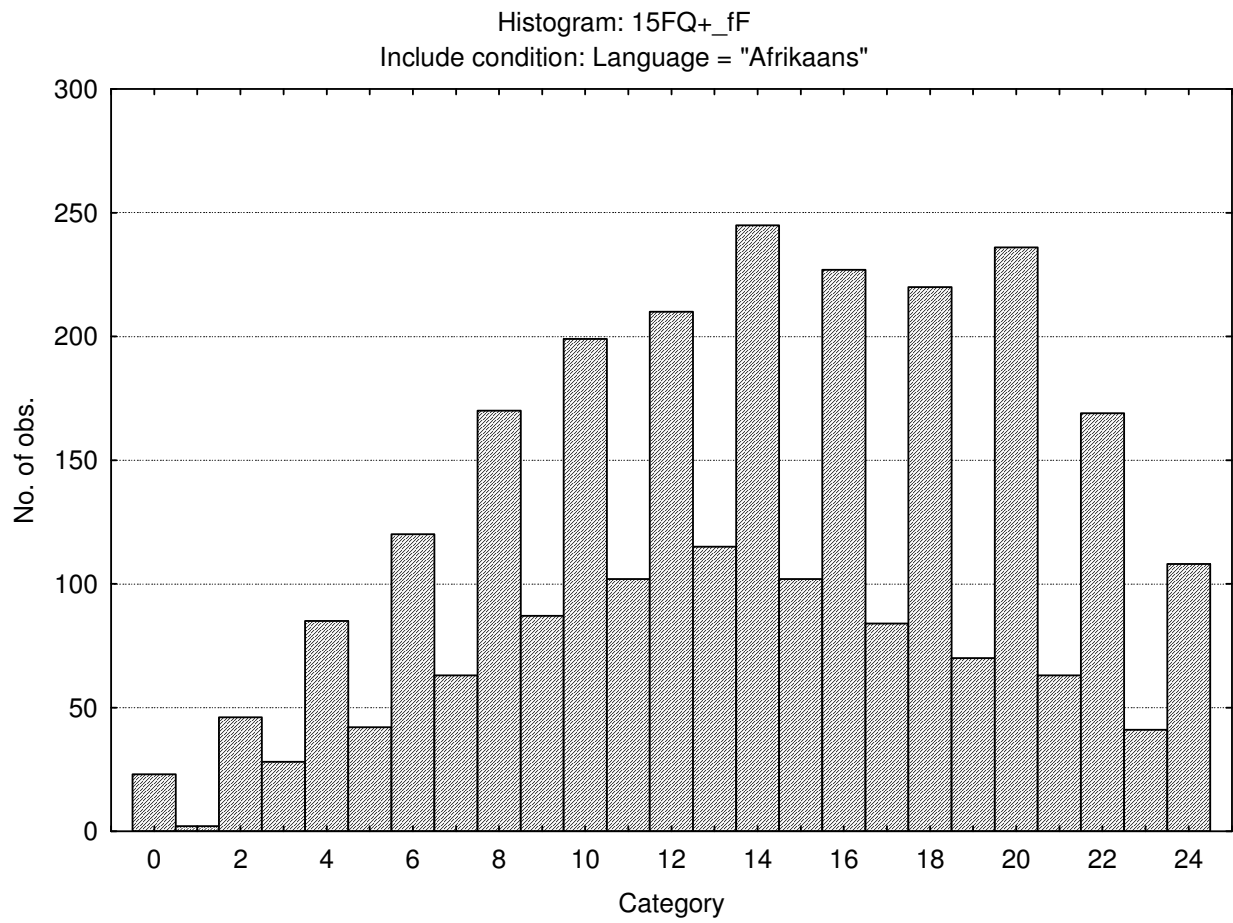
Accommodating - Dominant



Updated 7 July 2010

N14-8

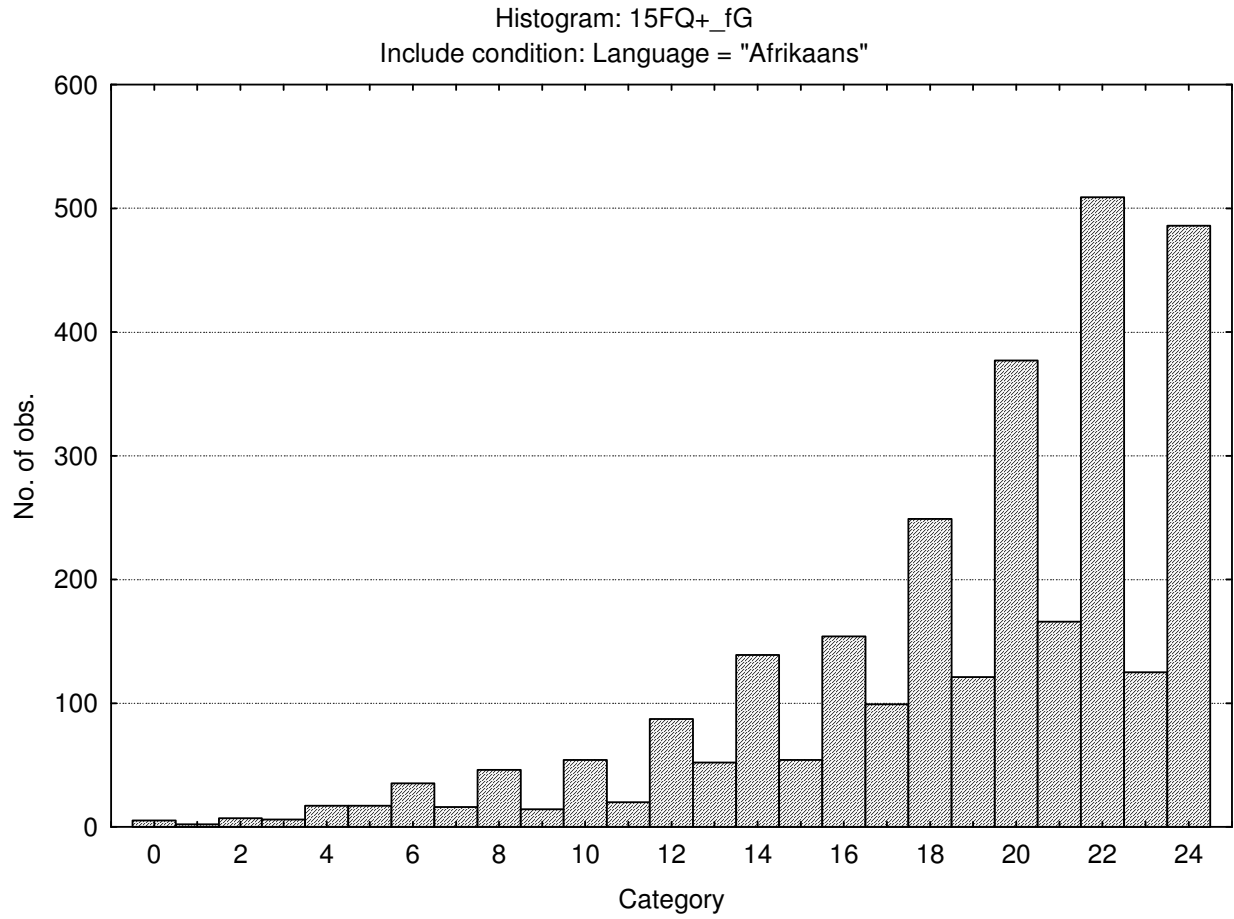
Sober Serious – Enthusiastic



Updated 7 July 2010

N14-9

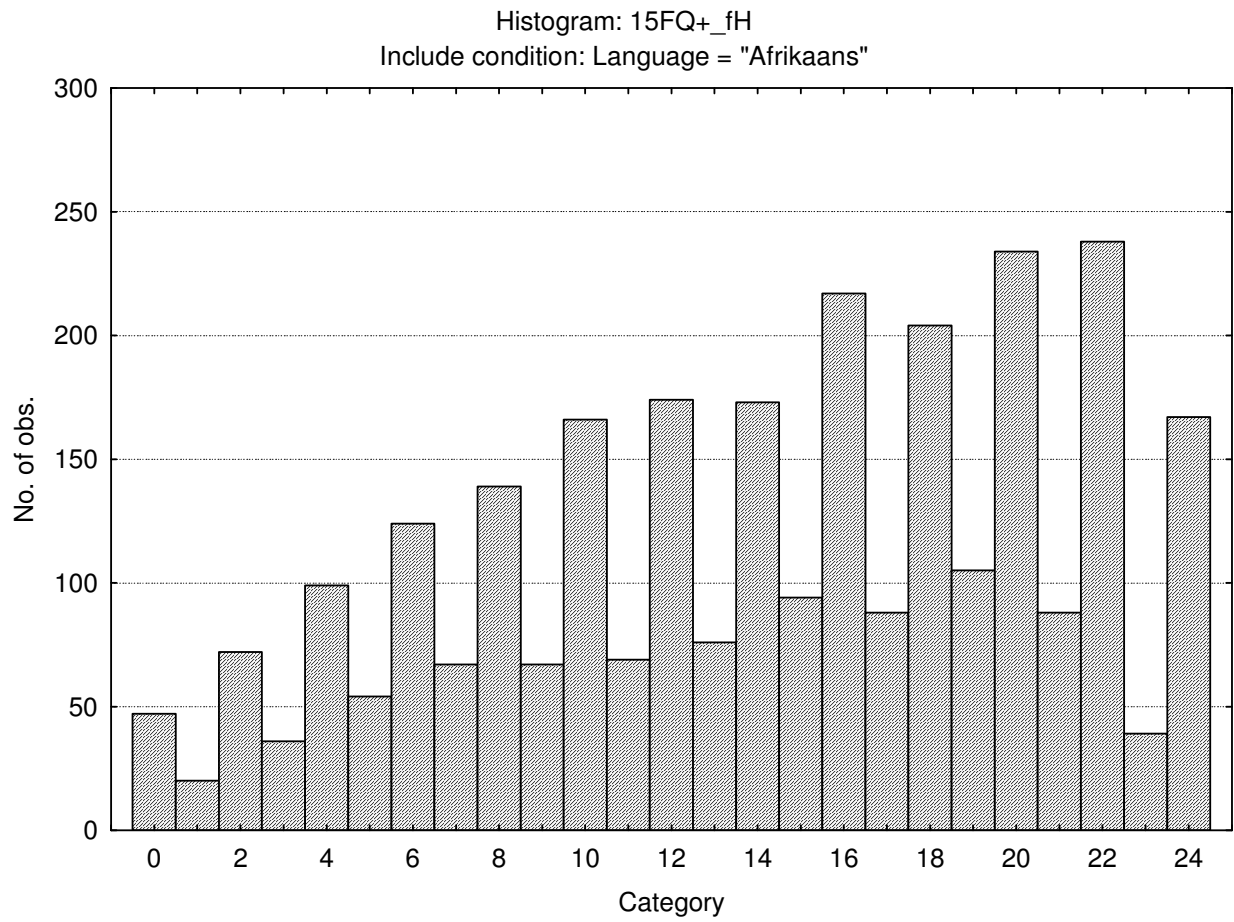
Expedient - Conscientious



Updated 7 July 2010

N14-10

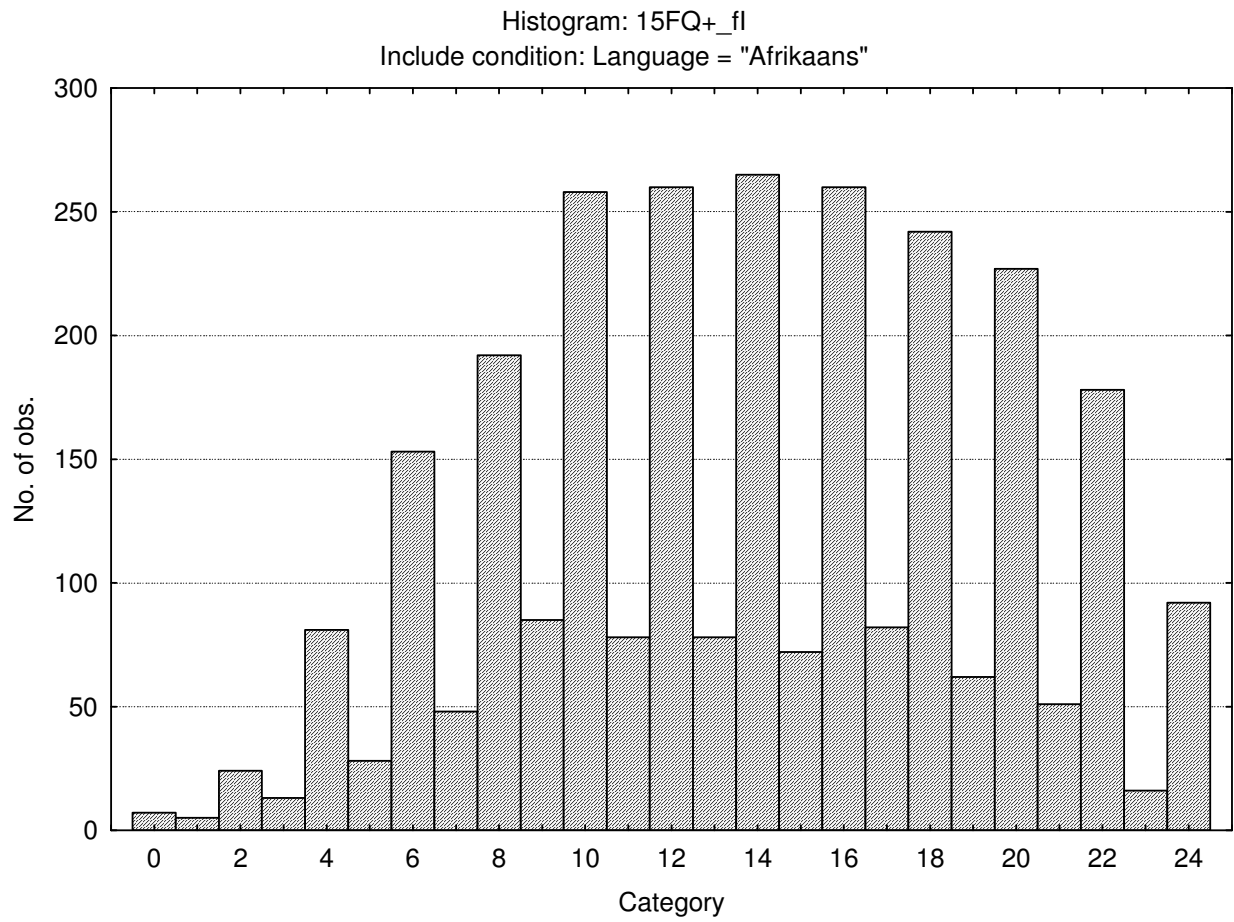
Retiring - Socially Bold



Updated 7 July 2010

N14-11

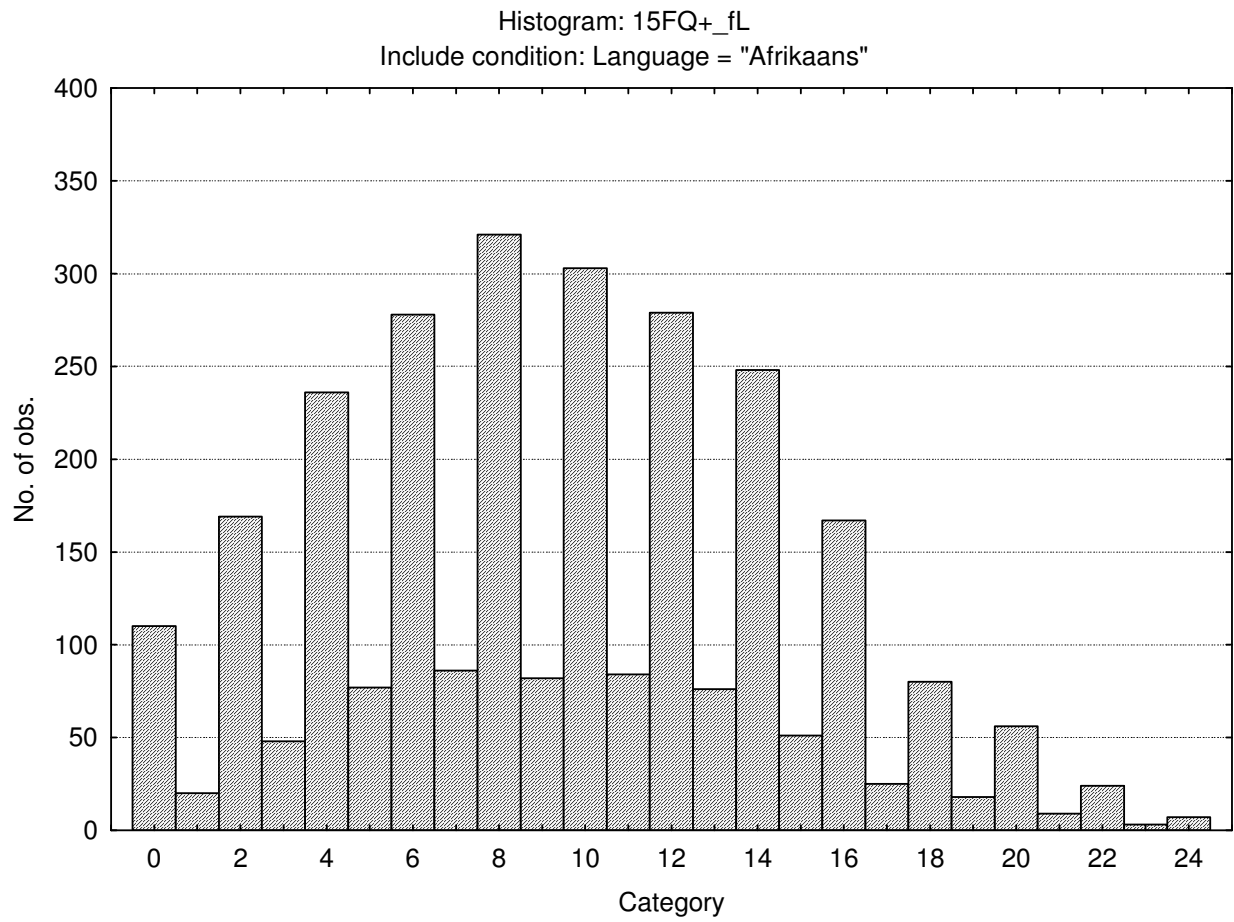
Tough Minded – Tender Minded



Updated 7 July 2010

N14-12

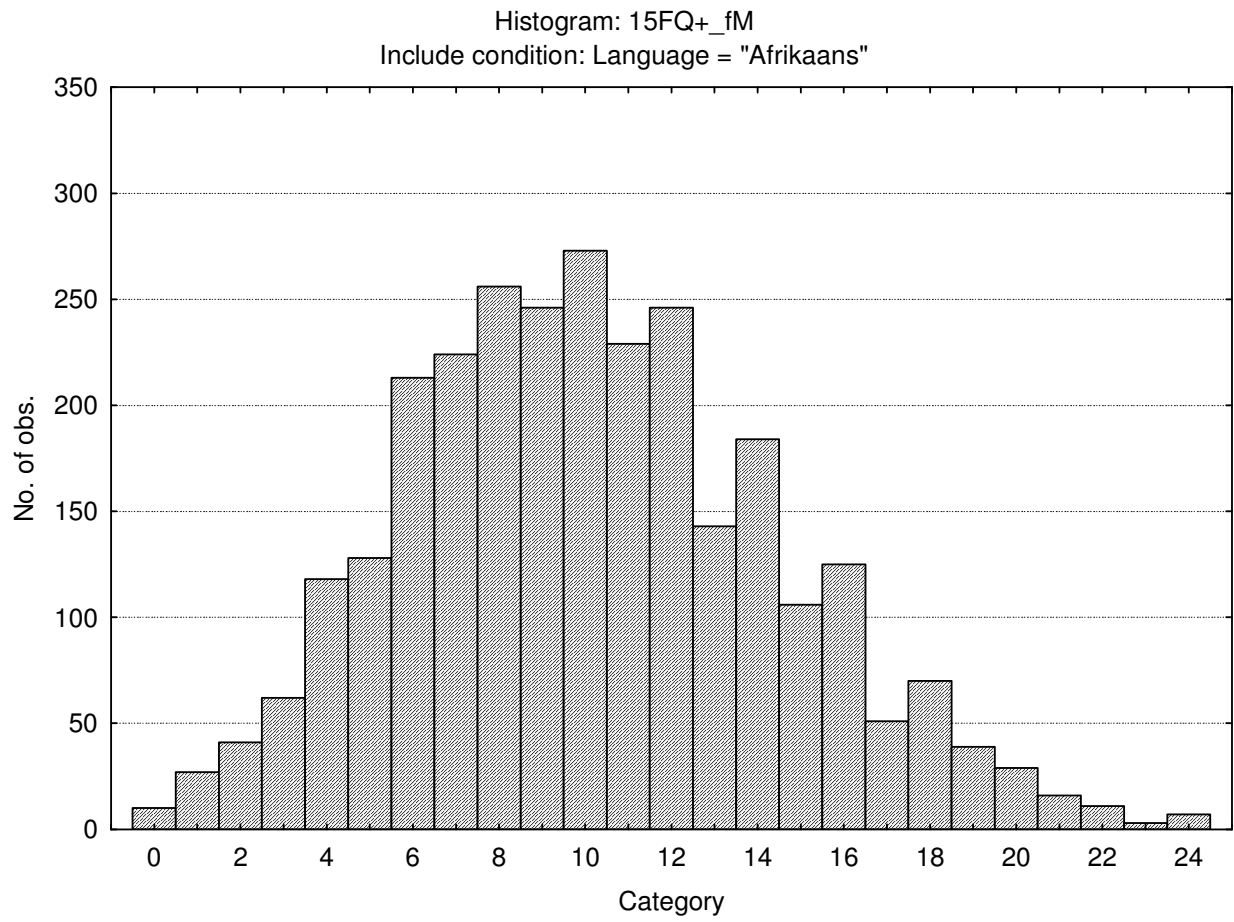
Trusting - Suspicious



Updated 7 July 2010

N14-13

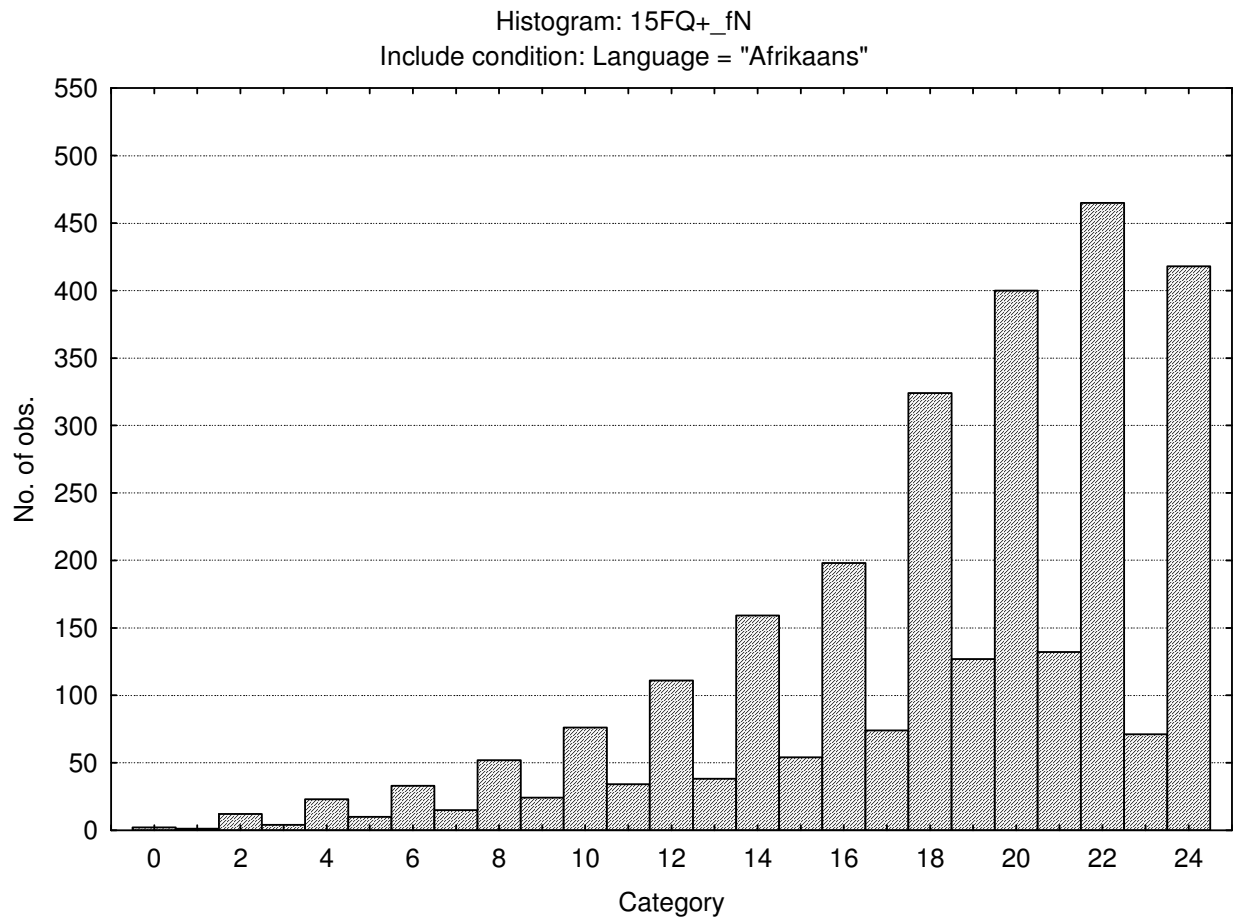
Concrete - Abstract



Updated 7 July 2010

N14-14

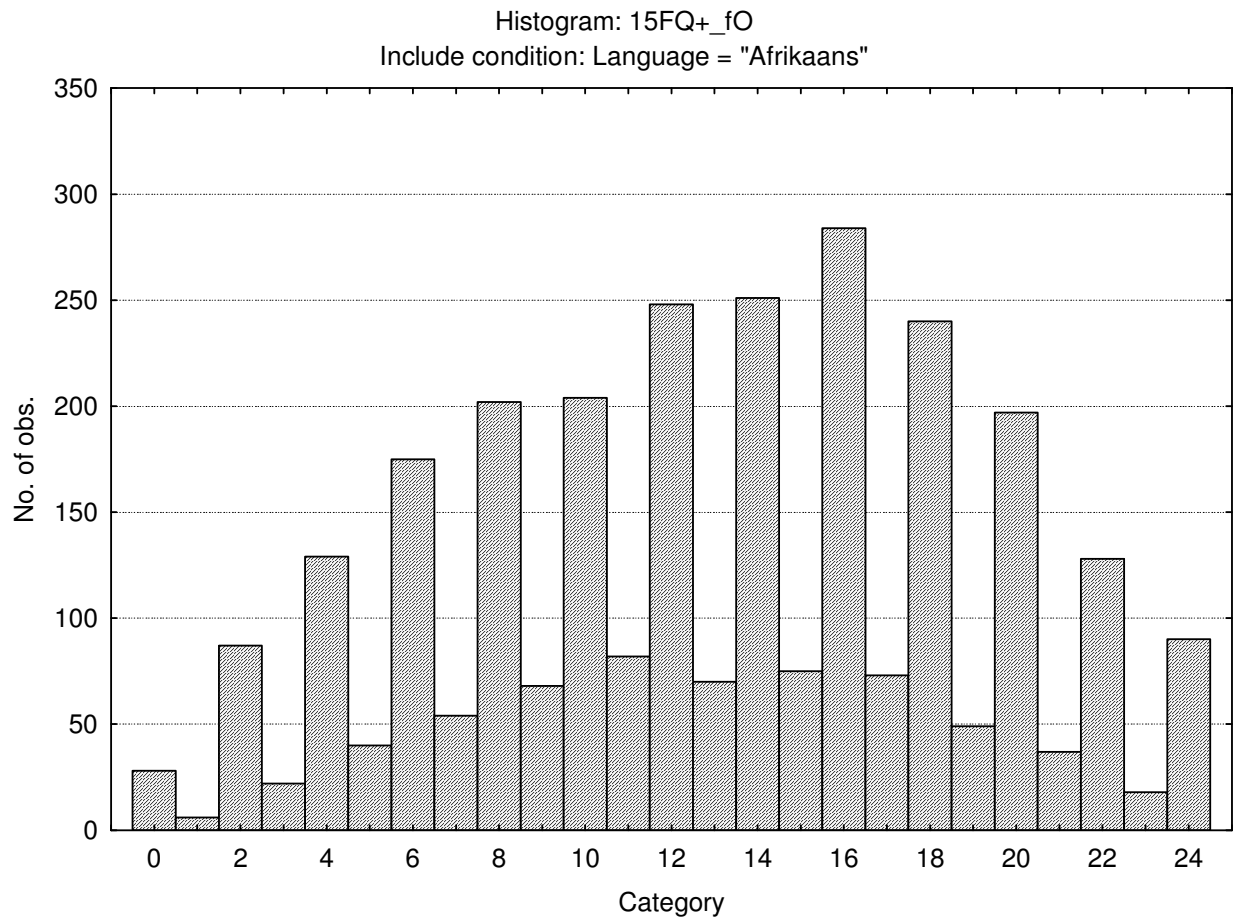
Direct - Restrained



Updated 7 July 2010

N14-15

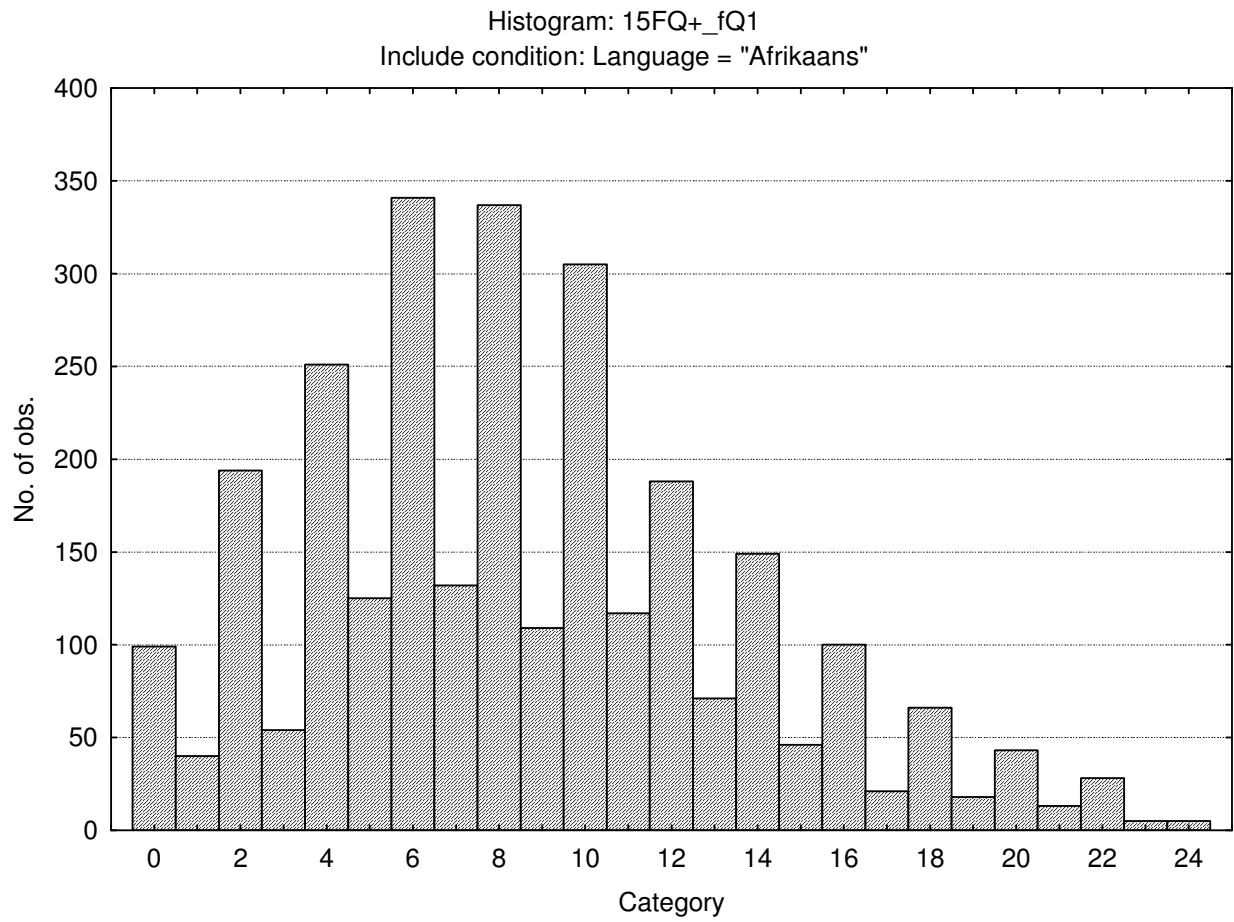
Self Assured – Apprehensive



Updated 7 July 2010

N14-16

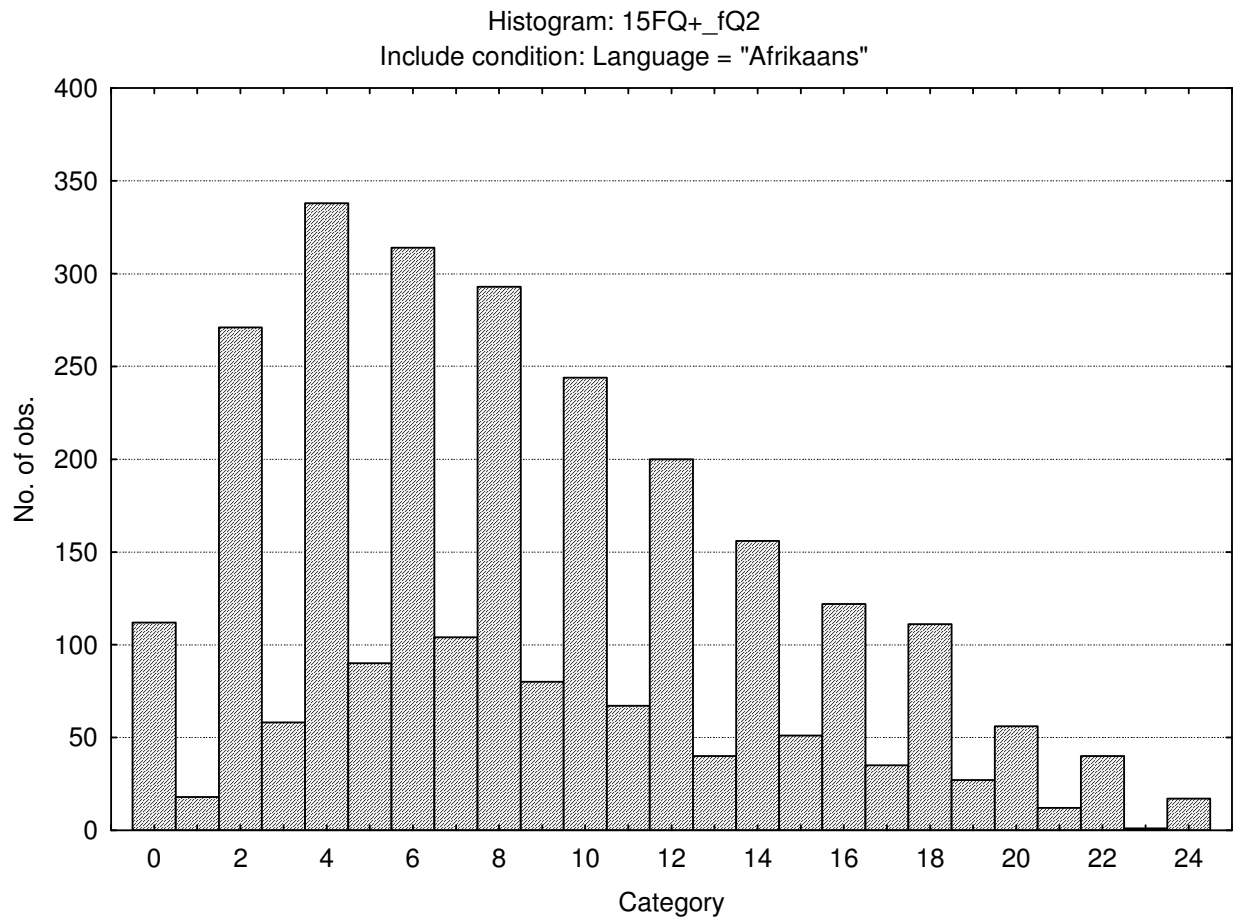
Conventional - Radical



Updated 7 July 2010

N14-17

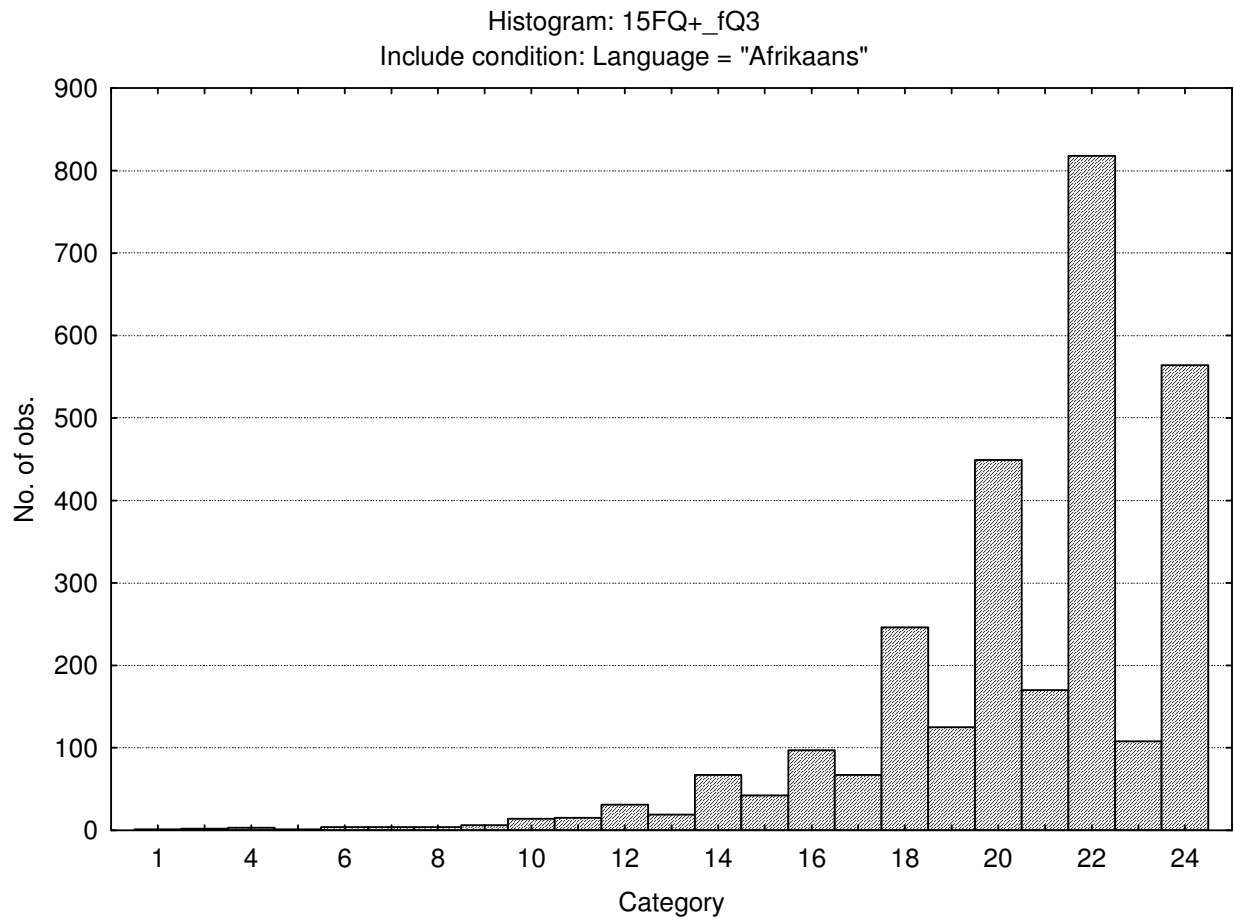
Group Orientated - Self-sufficient



Updated 7 July 2010

N14-18

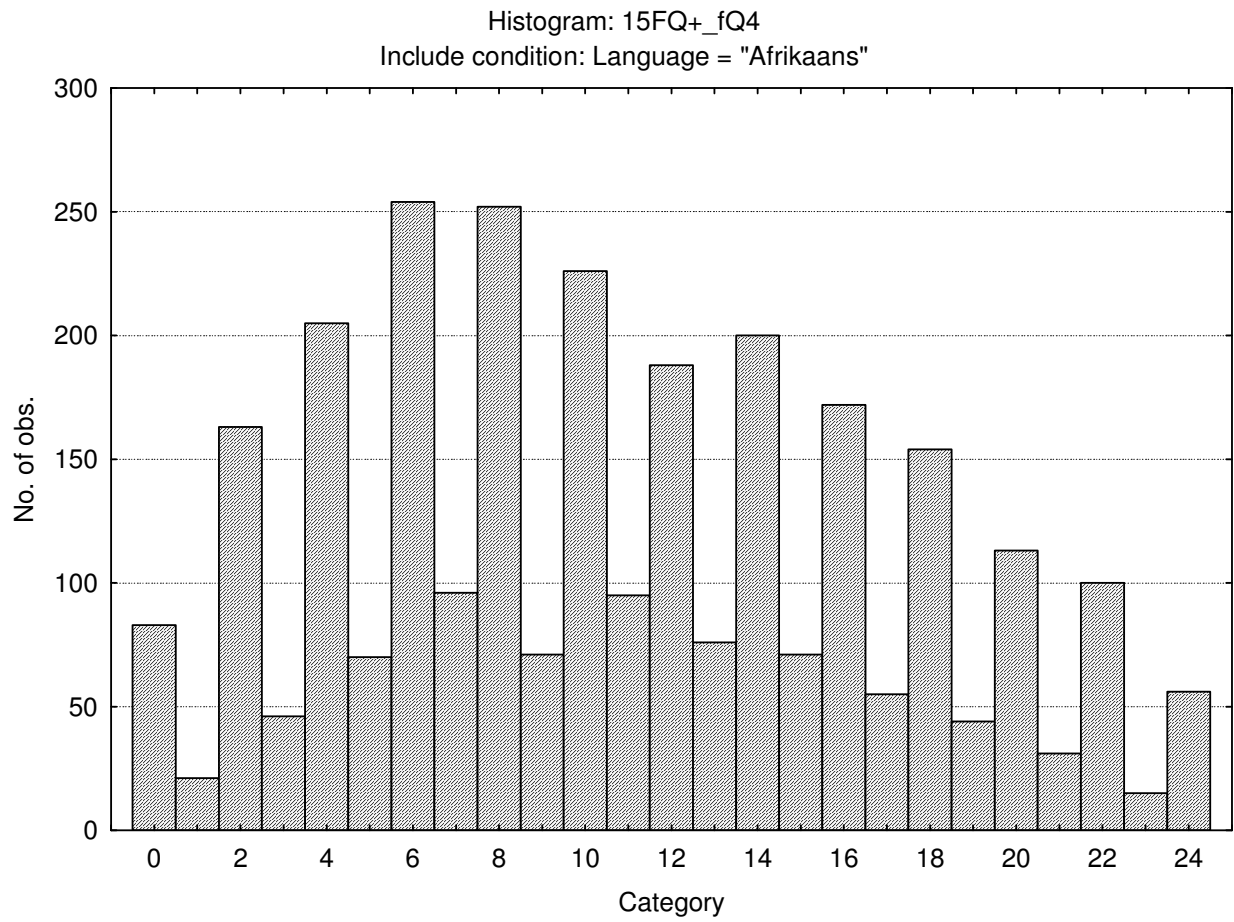
Informal – Self Disciplined



Updated 7 July 2010

N14-19

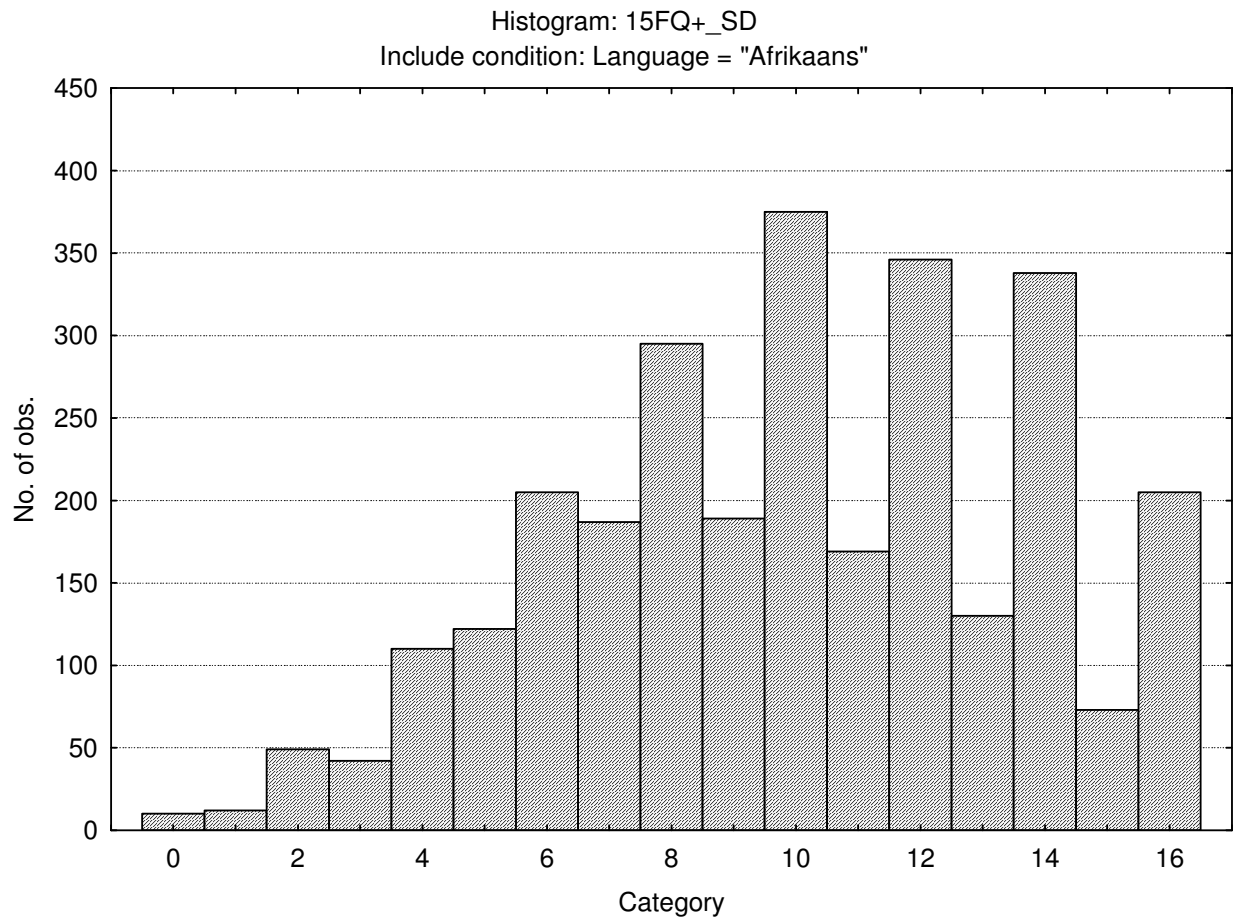
Composed - Tense driven



Updated 7 July 2010

N14-20

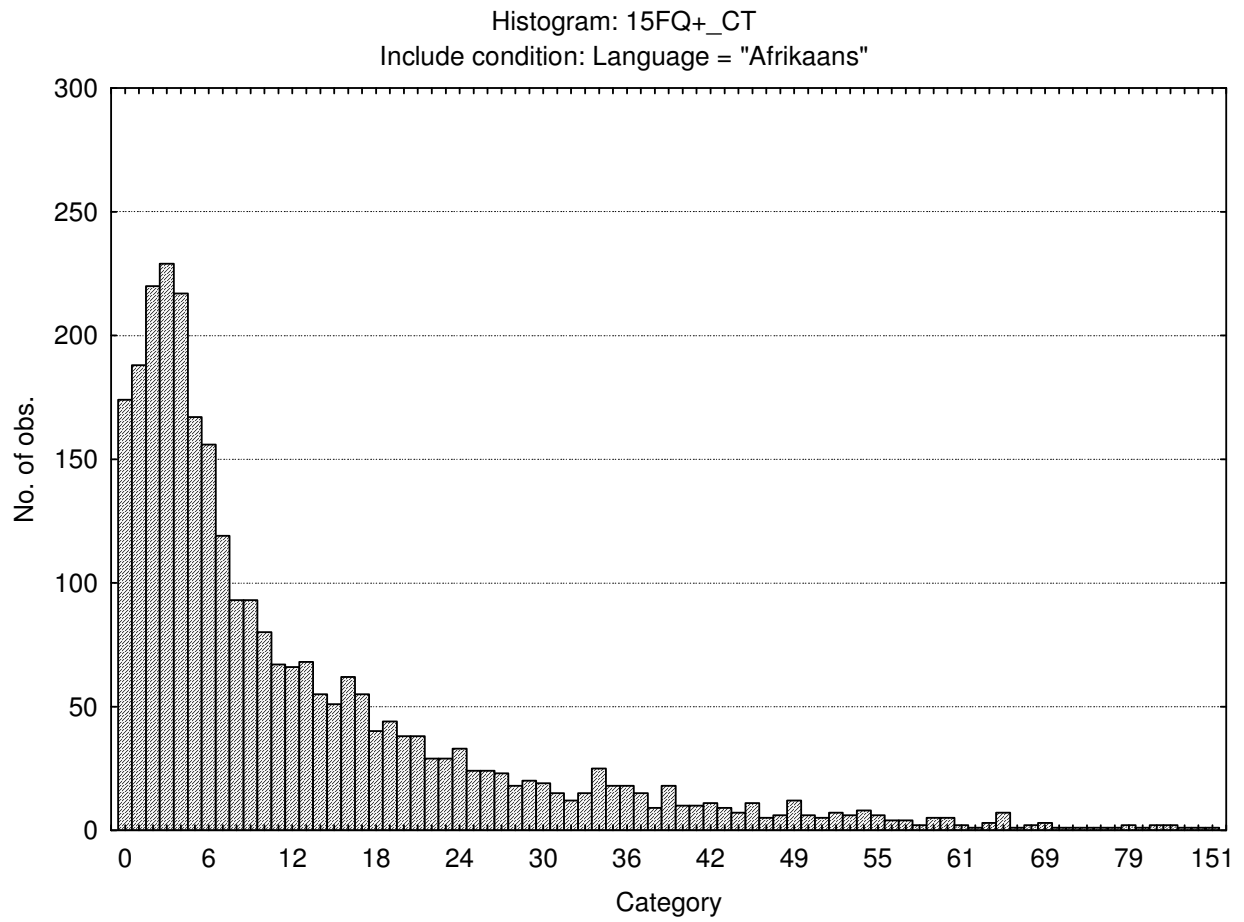
Social Desirability



Updated 7 July 2010

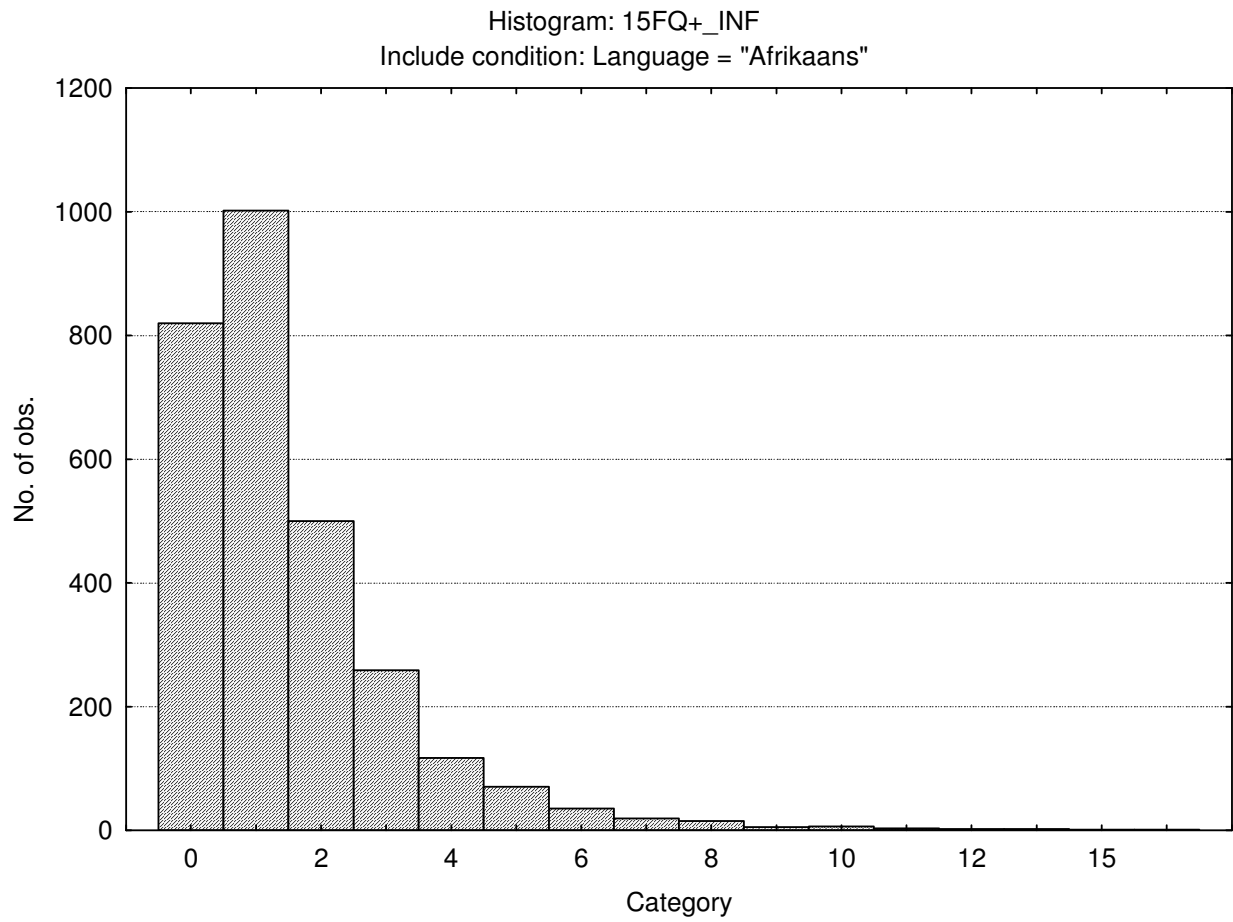
N14-21

Central Tendency



Updated 7 July 2010

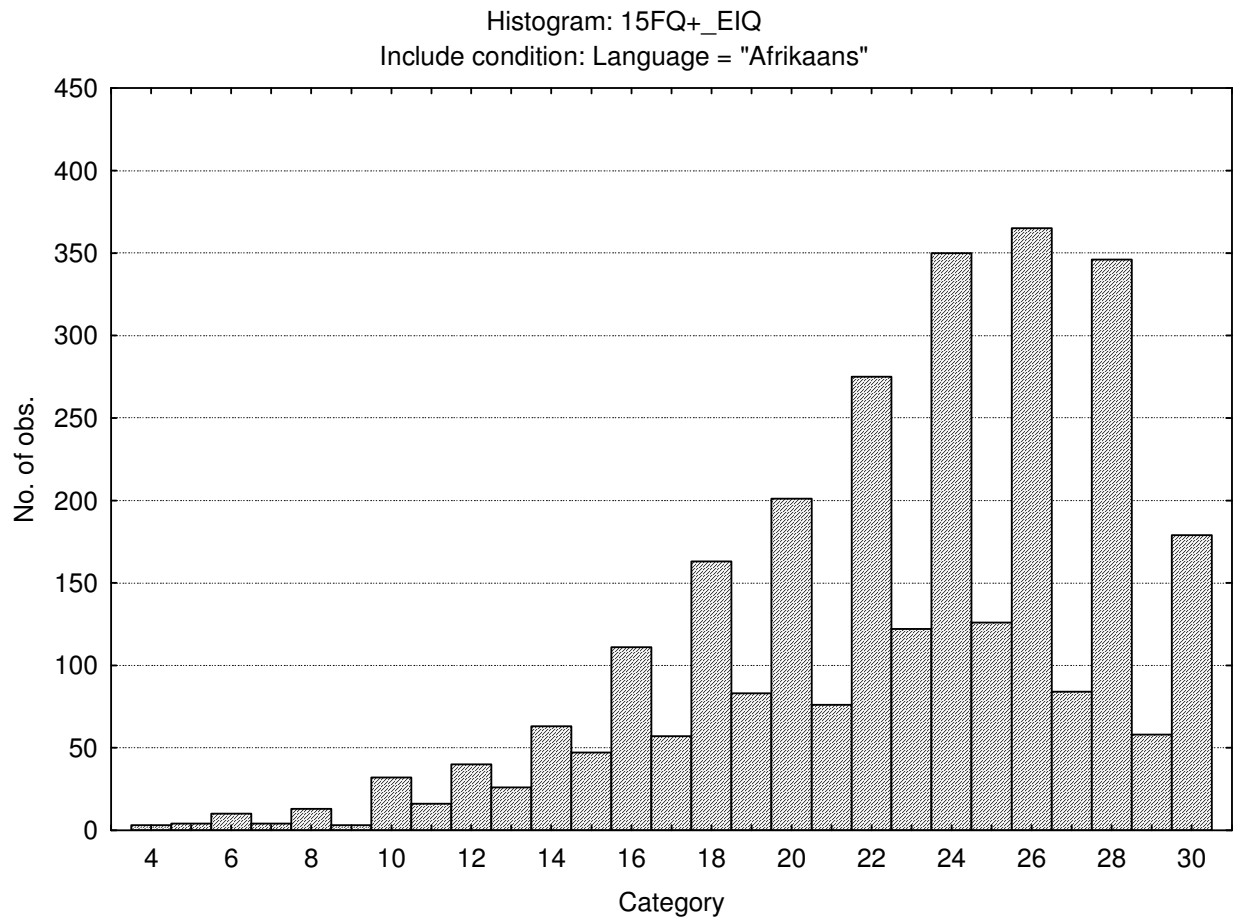
Infrequency



Updated 7 July 2010

N14-23

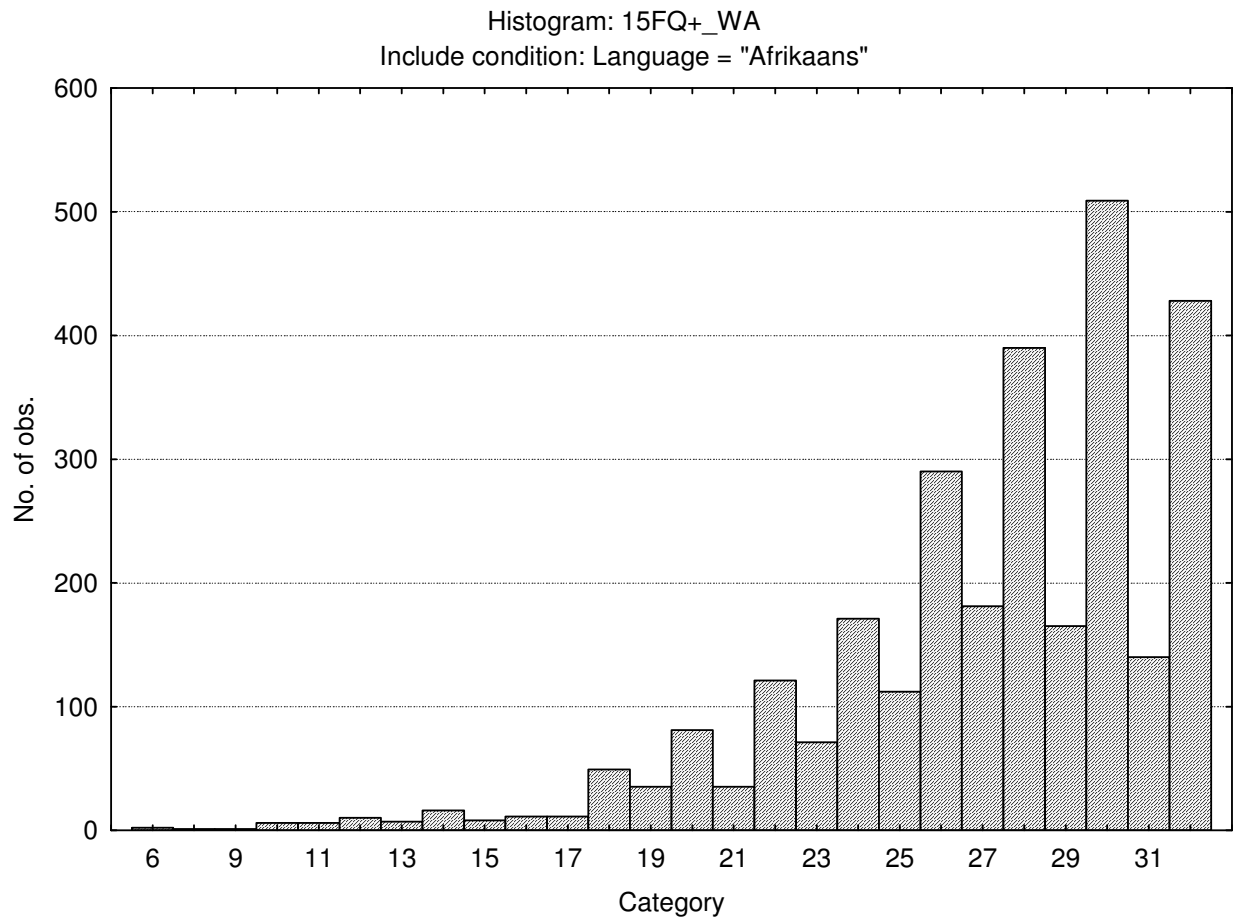
Emotional Intelligence



Updated 7 July 2010

N14-24

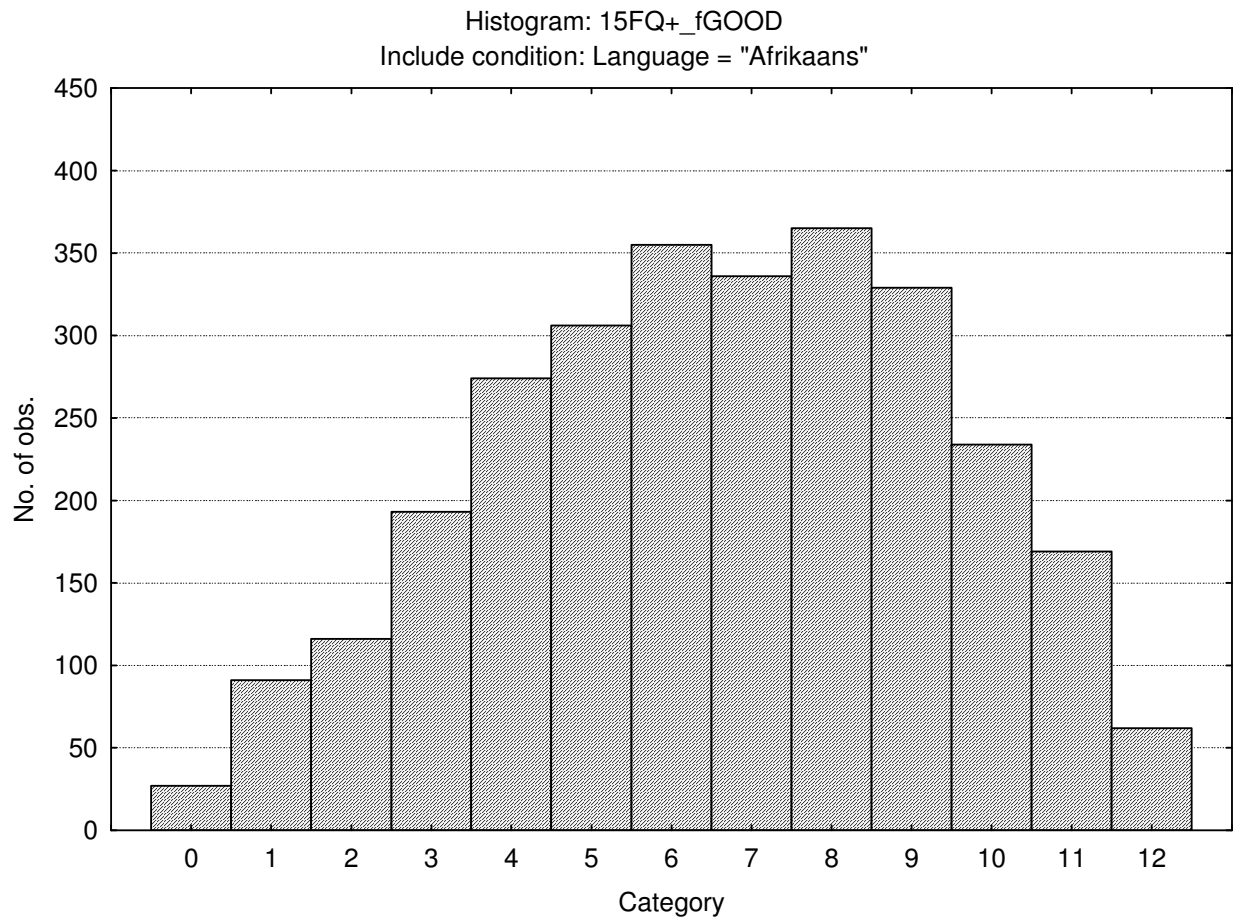
Work Attitude



Updated 7 July 2010

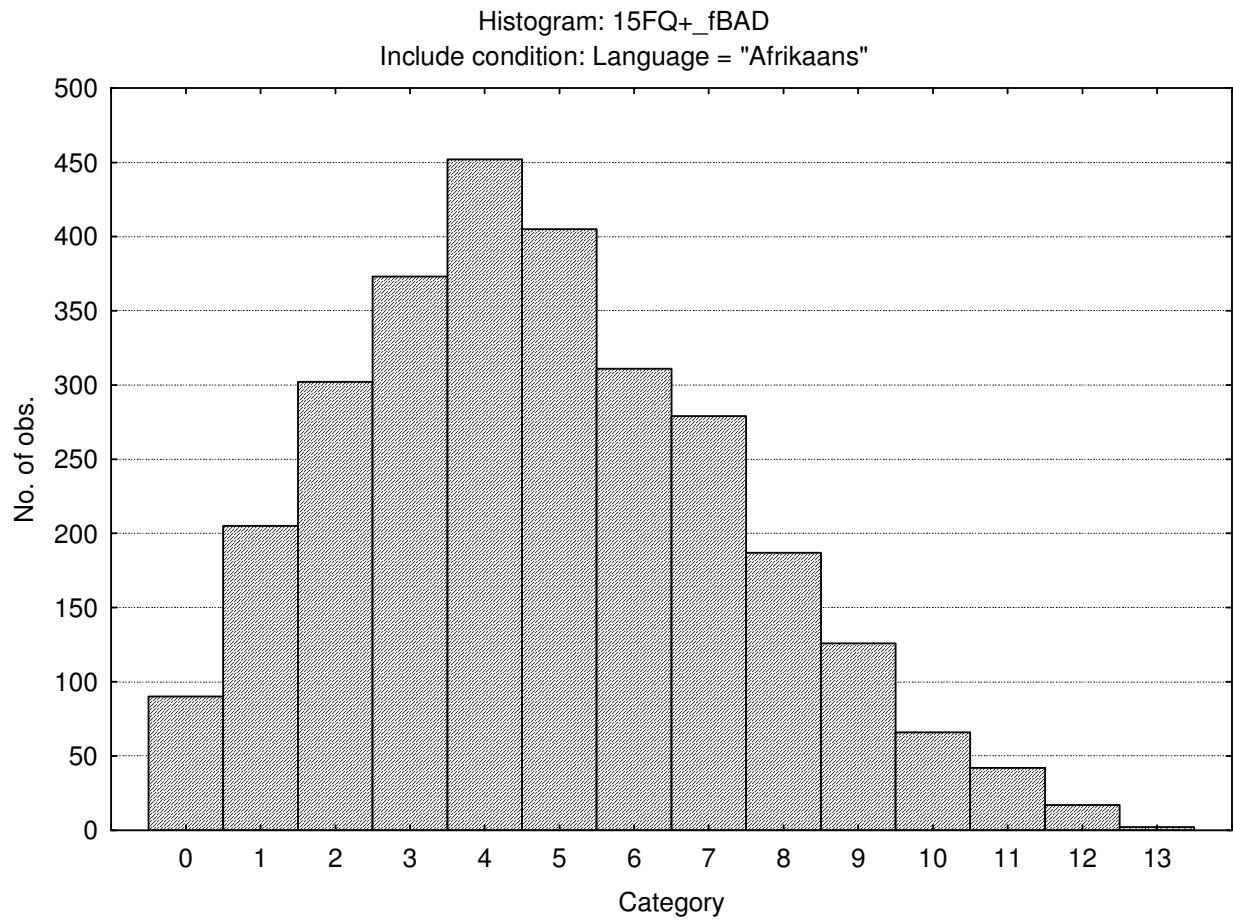
N14-25

Faking Good



Updated 7 July 2010

Faking Bad



Updated 7 July 2010

N14-27

Sten table

	S10_1	S10_2	S10_3	S10_4	S10_5	S10_6	S10_7	S10_8	S10_9	S10_10
15FQ+_fA	2-9	10-11	12-14	15-16	17-18	19-20	21-22	23-24		
15FQ+_B	1-10	11-13	14-15	16-17	18-19	20-21	22-23	24-24		
15FQ+_fC	0-6	7-9	10-11	12-14	15-16	17-19	20-21	22-24		
15FQ+_fE	0-6	7-9	10-11	12-14	15-16	17-18	19-21	22-23	24-24	
15FQ+_fF	0-2	3-5	6-8	9-11	12-13	14-16	17-19	20-22	23-24	
15FQ+_fG	0-9	10-11	12-14	15-16	17-18	19-21	22-23	24-24		
15FQ+_fH	0-1	2-4	5-7	8-10	11-14	15-17	18-20	21-23	24-24	
15FQ+_fI	0-3	4-5	6-8	9-11	12-13	14-16	17-19	20-22	23-24	
15FQ+_fL	0--1	0-1	2-4	5-6	7-9	10-11	12-14	15-17	18-19	20-24
15FQ+_fM	0-1	2-3	4-5	6-7	8-10	11-12	13-14	15-16	17-18	19-24
15FQ+_fN	0-8	9-11	12-13	14-15	16-18	19-20	21-23	24-24		
15FQ+_fO	0-1	2-4	5-7	8-10	11-13	14-15	16-18	19-21	22-24	
15FQ+_fQ1	0--1	0-1	2-3	4-6	7-8	9-11	12-13	14-16	17-18	19-24
15FQ+_fQ2	0--1	0-0	1-3	4-5	6-8	9-11	12-14	15-17	18-19	20-24
15FQ+_fQ3	1-14	15-15	16-17	18-18	19-20	21-22	23-23	24-24		
15FQ+_fQ4	0--1	0-1	2-4	5-7	8-10	11-13	14-16	17-20	21-23	24-24
15FQ+_SD	0-2	3-4	5-6	7-8	9-9	10-11	12-13	14-15	16-16	
15FQ+_CT	0--1	0-0	1-1	2-5	6-12	13-19	20-27	28-34	35-41	42-151
15FQ+_INF	0--1	0-0	1-1	2-2	3-3	4-4	5-5	6-6	7-7	8-18
15FQ+_EIQ	4-12	13-15	16-17	18-20	21-22	23-25	26-27	28-30		
15FQ+_WA	6-18	19-20	21-22	23-25	26-27	28-29	30-31	32-32		
15FQ+_fGOOD	0-1	2-2	3-3	4-5	6-6	7-7	8-9	10-10	11-12	

Updated 7 July 2010

Norm group: South Africans, race African, updated 2010

Sample composition

The sample consisted of 5803 South Africans of African race (Black) tested in the period up to February 2010

Gender composition of the sample

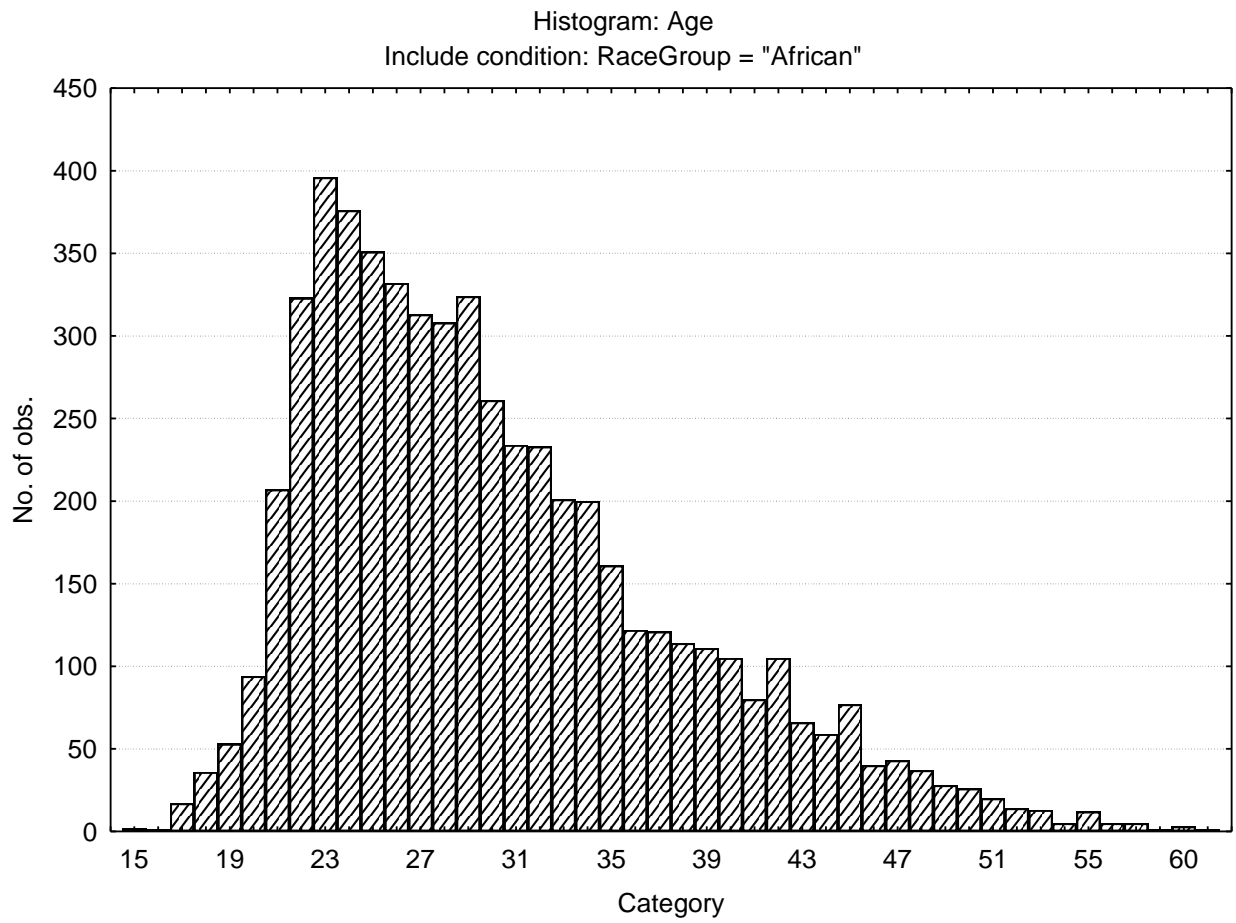
Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	2267	2267	39.06600	39.0660
M	3507	5774	60.43426	99.5003
Missing	29	5803	0.49974	100.0000

Educational composition of the sample

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	1284	1284	22.12649	22.1265
Degree	979	2263	16.87058	38.9971
Post Graduate	767	3030	13.21730	52.2144
Technikon	937	3967	16.14682	68.3612
University diploma	584	4551	10.06376	78.4250
Grade 10 or 11	114	4665	1.96450	80.3895
Vocational Training	223	4888	3.84284	84.2323
Diploma	143	5031	2.46424	86.6965
Certificate	112	5143	1.93004	88.6266
Missing	660	5803	11.37343	100.0000

Age composition of the sample

Variable	Descriptive Statistics					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	30.12793	7.593987	15.00000	62.00000	5636	167

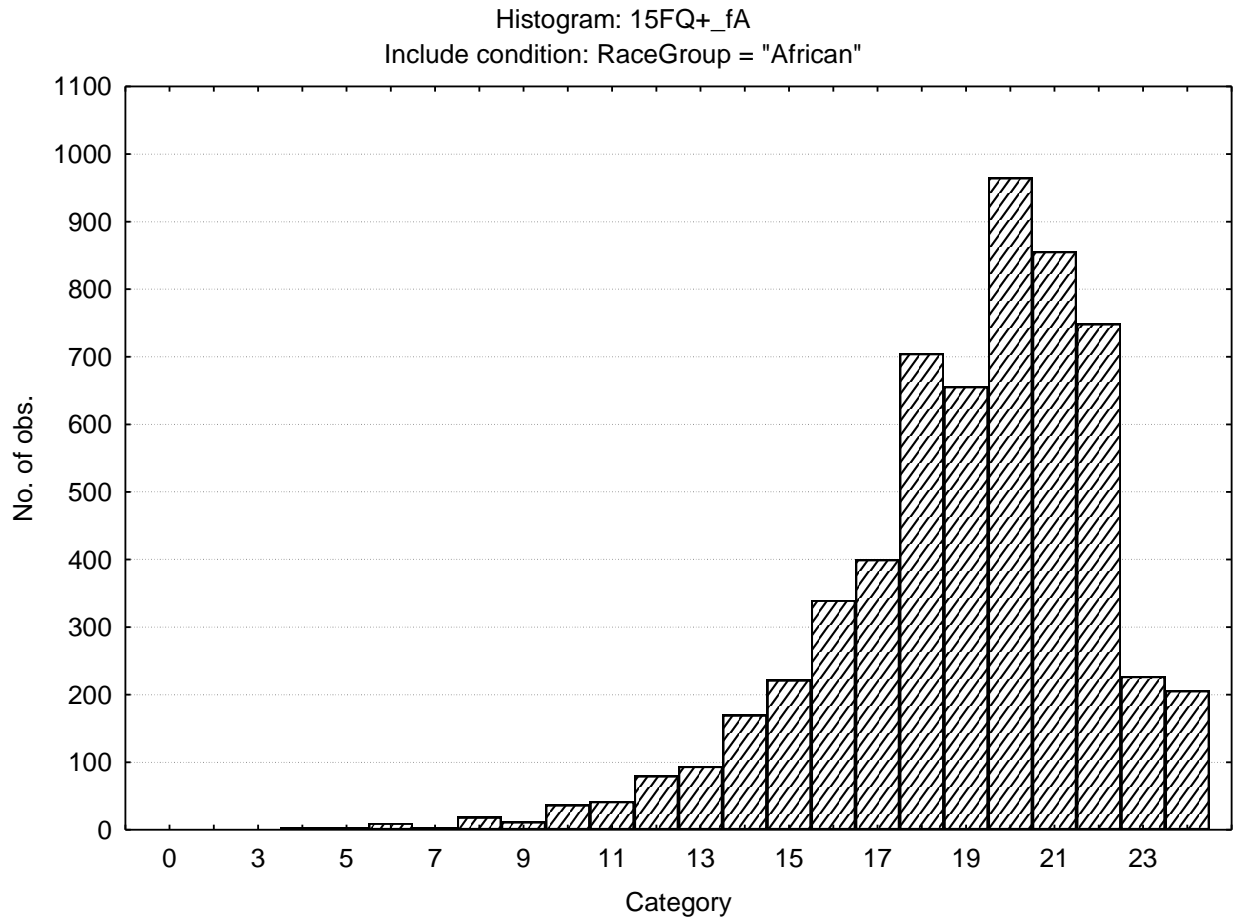


Descriptive statistics on 15FQPlus scales

Variable		Descriptive Statistics					
		Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
15FQ+_fA	<i>Distant aloof - empathic</i>	19.02740	3.05168	0.000000	24.0000	5803	0
15FQ+_B	<i>Intellectance</i>	19.15888	3.88213	1.000000	24.0000	5803	0
15FQ+_fC	<i>Affected by feelings - emotionally stable</i>	17.40238	4.38711	1.000000	24.0000	5803	0
15FQ+_fE	<i>Accommodating - Dominant</i>	16.40065	3.82506	0.000000	24.0000	5803	0
15FQ+_fF	<i>Sober serious - Enthusiastic</i>	14.24263	5.29128	0.000000	24.0000	5803	0
15FQ+_fG	<i>Expedient - Conscientious</i>	19.93986	3.86875	0.000000	24.0000	5803	0
15FQ+_fH	<i>Retiring - Socially bold</i>	16.46321	5.28757	0.000000	24.0000	5803	0
15FQ+_fI	<i>Tough Minded - Tender minded</i>	14.65242	4.69541	0.000000	24.0000	5803	0
15FQ+_fL	<i>Trusting - Suspicious</i>	10.74289	4.53270	0.000000	24.0000	5803	0
15FQ+_fM	<i>Concrete - Abstract</i>	10.36309	3.38157	0.000000	24.0000	5803	0
15FQ+_fN	<i>Direct - Restrained</i>	20.31432	3.18483	1.000000	24.0000	5803	0
15FQ+_fO	<i>Self-assured - Apprehensive</i>	12.00345	4.82435	0.000000	24.0000	5803	0
15FQ+_fQ1	<i>Conventional - Radical</i>	9.13527	4.25195	0.000000	24.0000	5803	0
15FQ+_fQ2	<i>Group - orientated - Self-sufficient</i>	6.97622	4.33930	0.000000	24.0000	5803	0
15FQ+_fQ3	<i>Informal- self disciplined</i>	20.46752	2.73034	0.000000	24.0000	5803	0
15FQ+_fQ4	<i>Composed - tense driven</i>	7.73186	4.42788	0.000000	24.0000	5803	0
15FQ+_SD	<i>Social desirability</i>	11.46528	3.47289	0.000000	16.0000	5803	0
15FQ+_CT	<i>Central Tendency</i>	11.46045	13.35514	0.000000	128.0000	5803	0
15FQ+_INF	<i>Infrequency</i>	1.51491	1.72544	0.000000	16.0000	5803	0
15FQ+_EIQ	<i>Derived score: Emotional Intelligence</i>	24.11425	3.75979	0.000000	30.0000	5803	0
15FQ+_WA	<i>Derived score: Work attitude</i>	27.24125	3.82760	0.000000	32.0000	5803	0
15FQ+_fGOOD	<i>Faking good</i>	7.91470	2.33725	0.000000	12.0000	5803	0
15FQ+_fBAD	<i>Faking bad</i>	4.35171	2.21443	0.000000	12.0000	5803	0

Frequency distributions of 15FQPlus scales

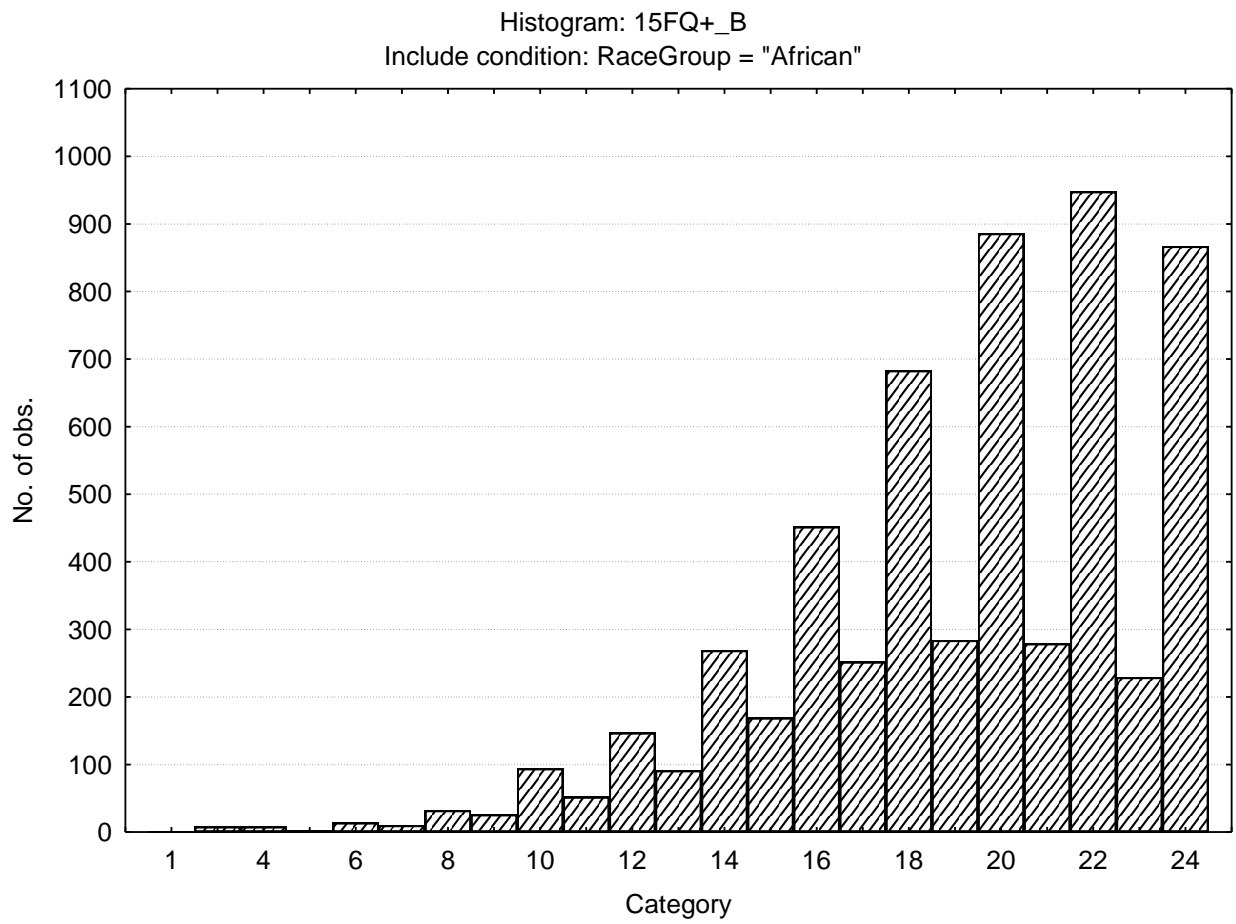
Distant Aloof-Empathic



N15-4

Updated 13 July 2010

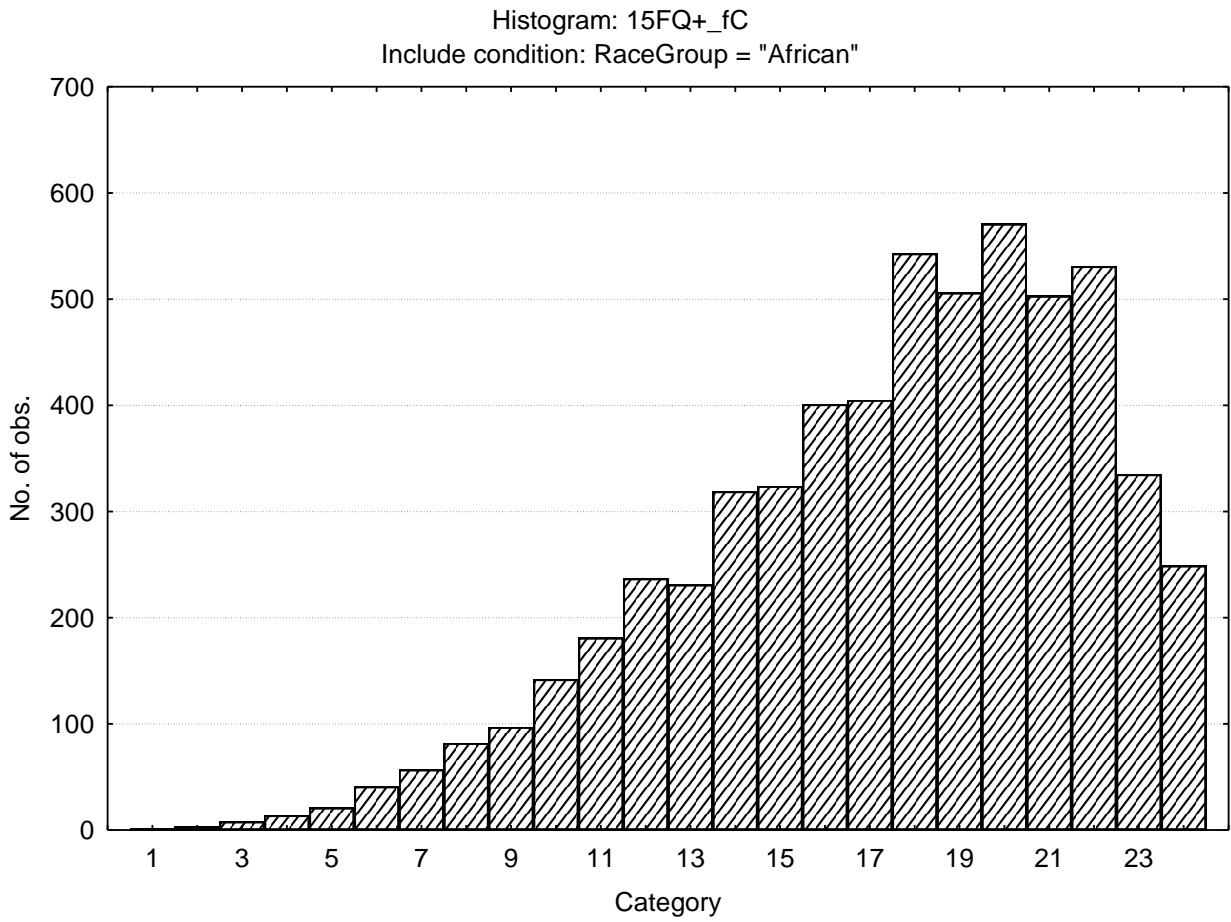
Intellectance



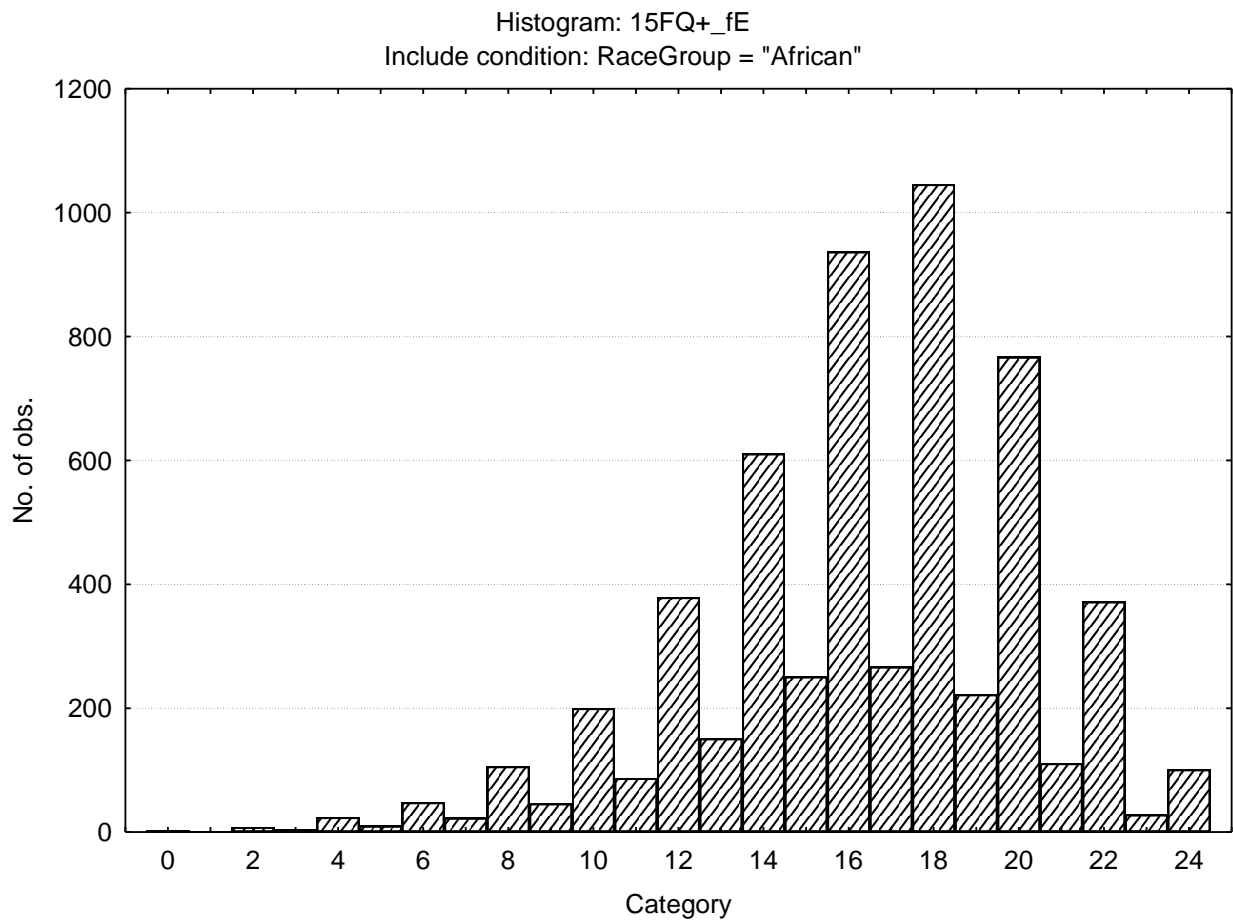
N15-5

Updated 13 July 2010

Affected by feelings - Emotionally stable



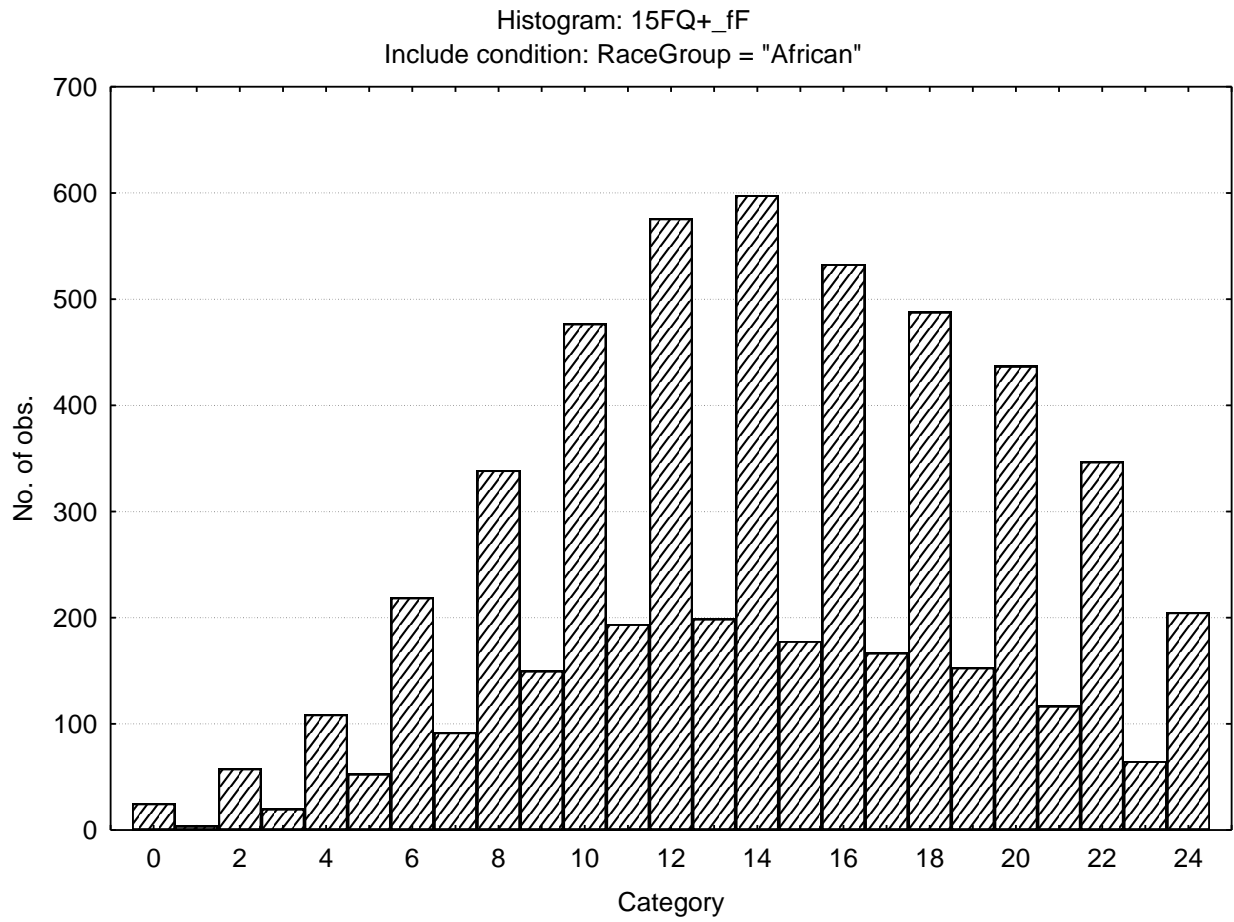
Accommodating - Dominant



N15-7

Updated 13 July 2010

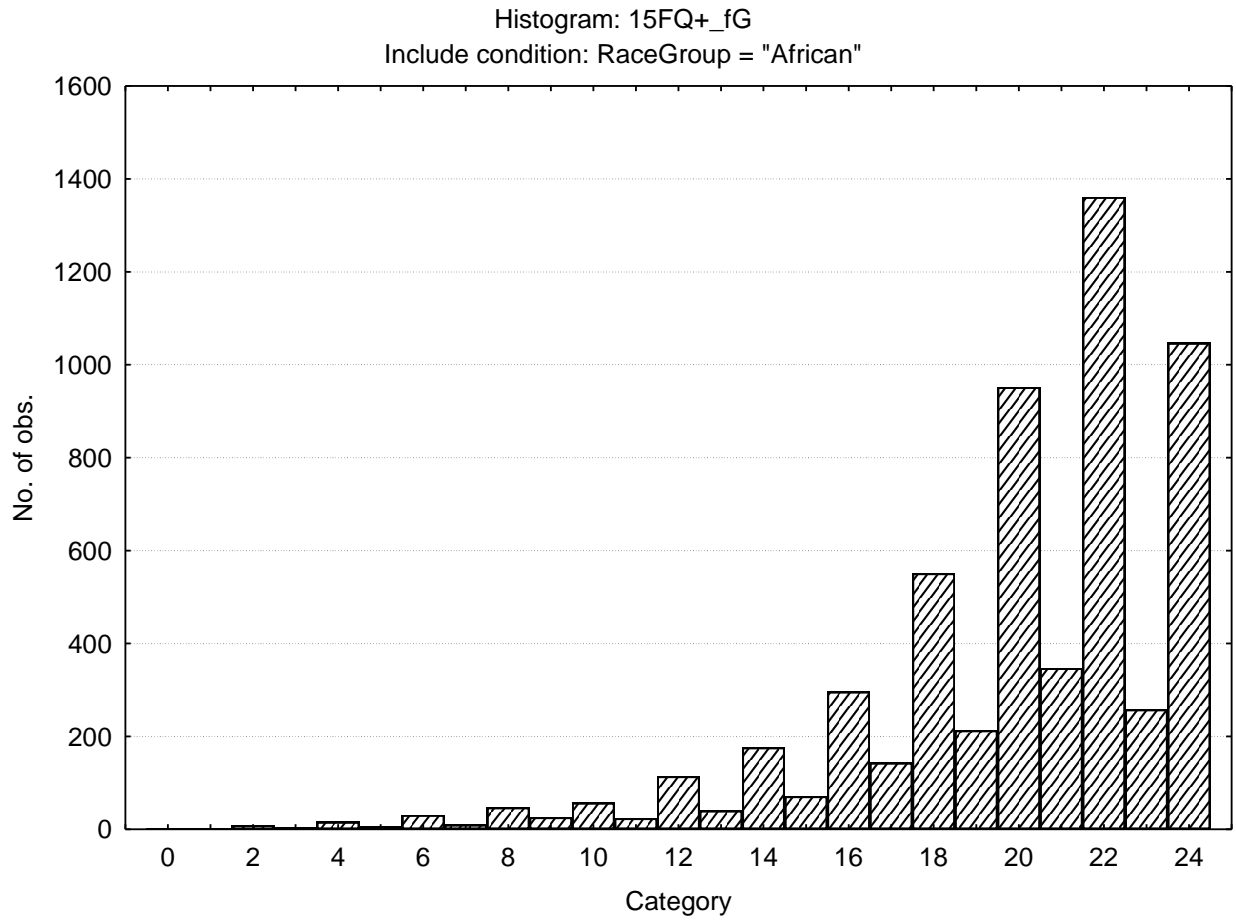
Sober serious - Enthusiastic



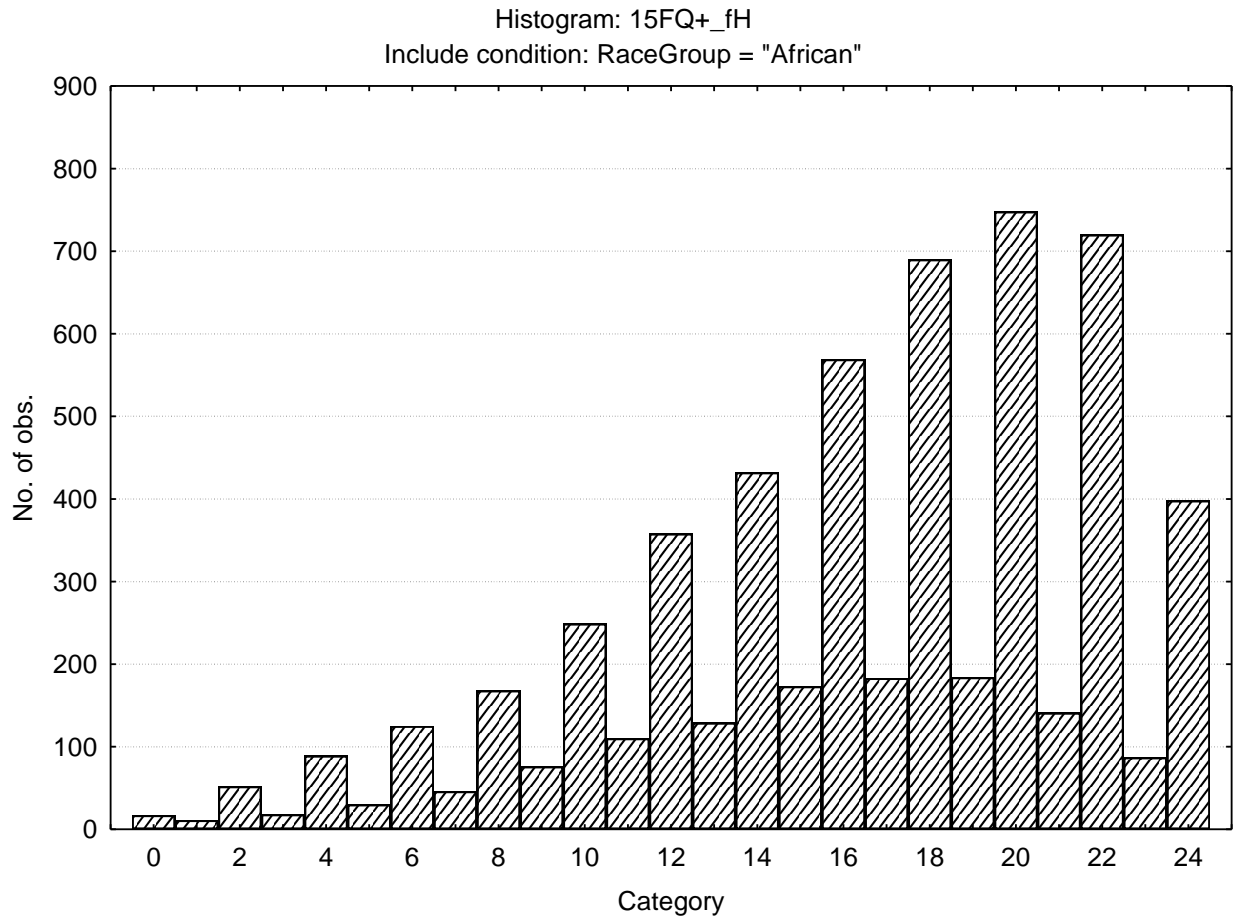
N15-8

Updated 13 July 2010

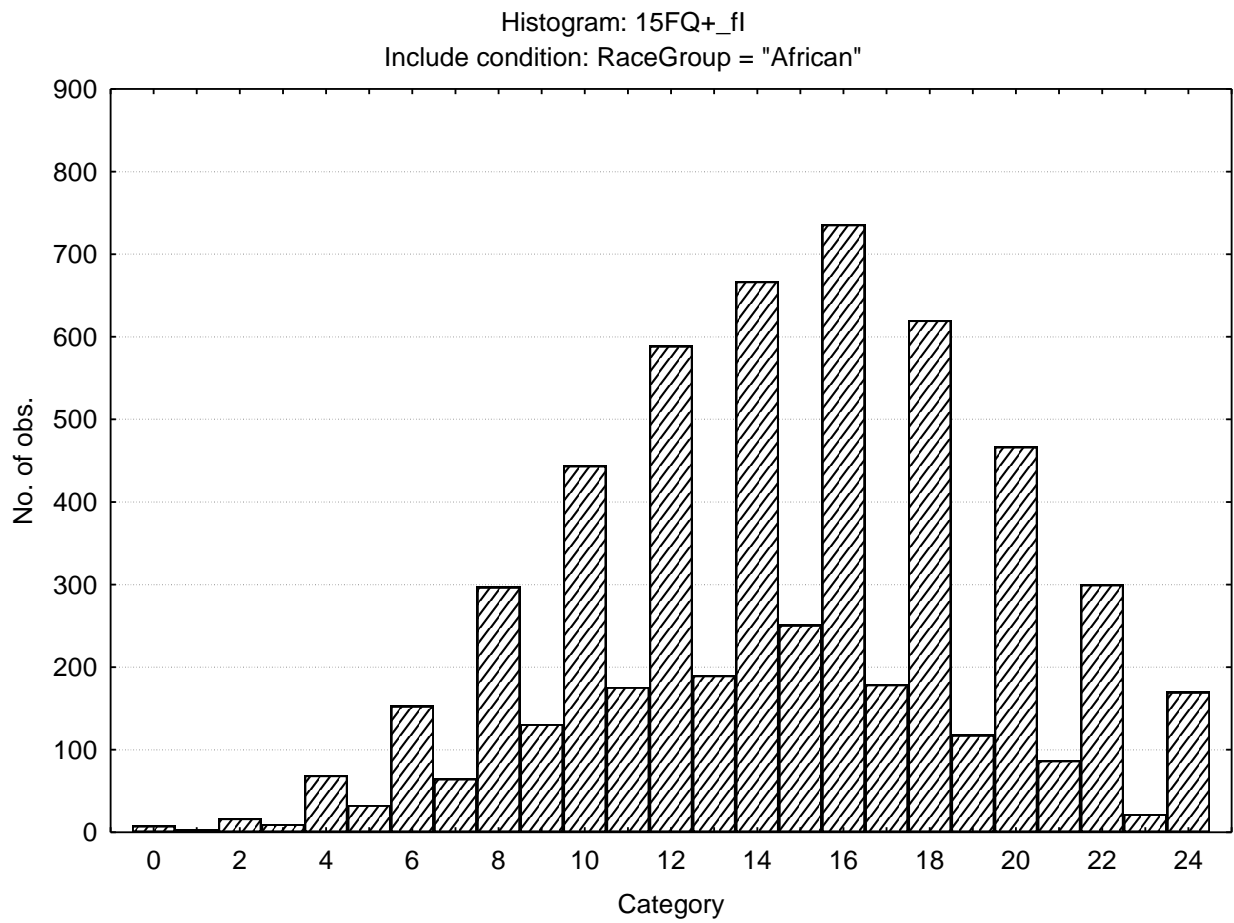
Expedient - Conscientious



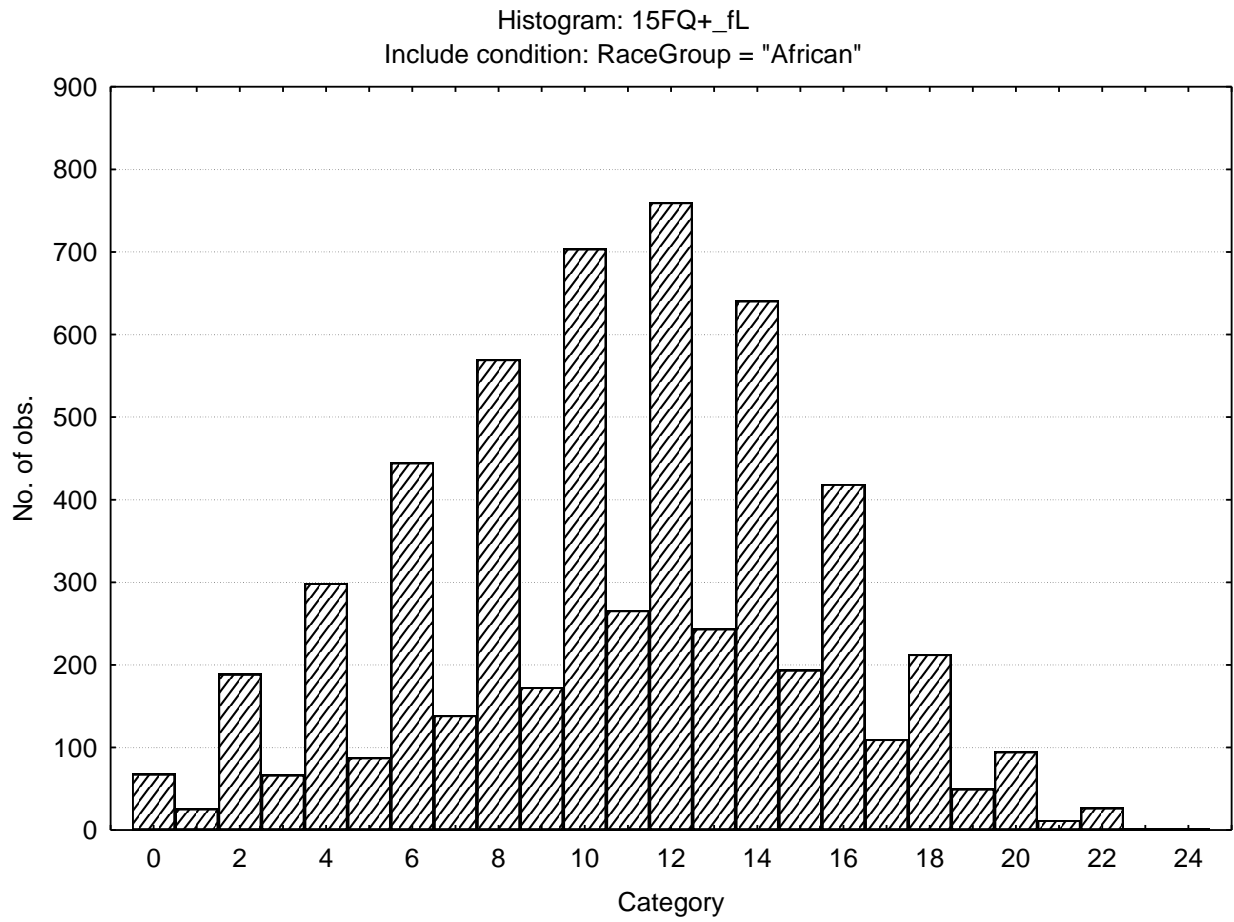
Retiring - Socially bold



Tough minded - Tended minded



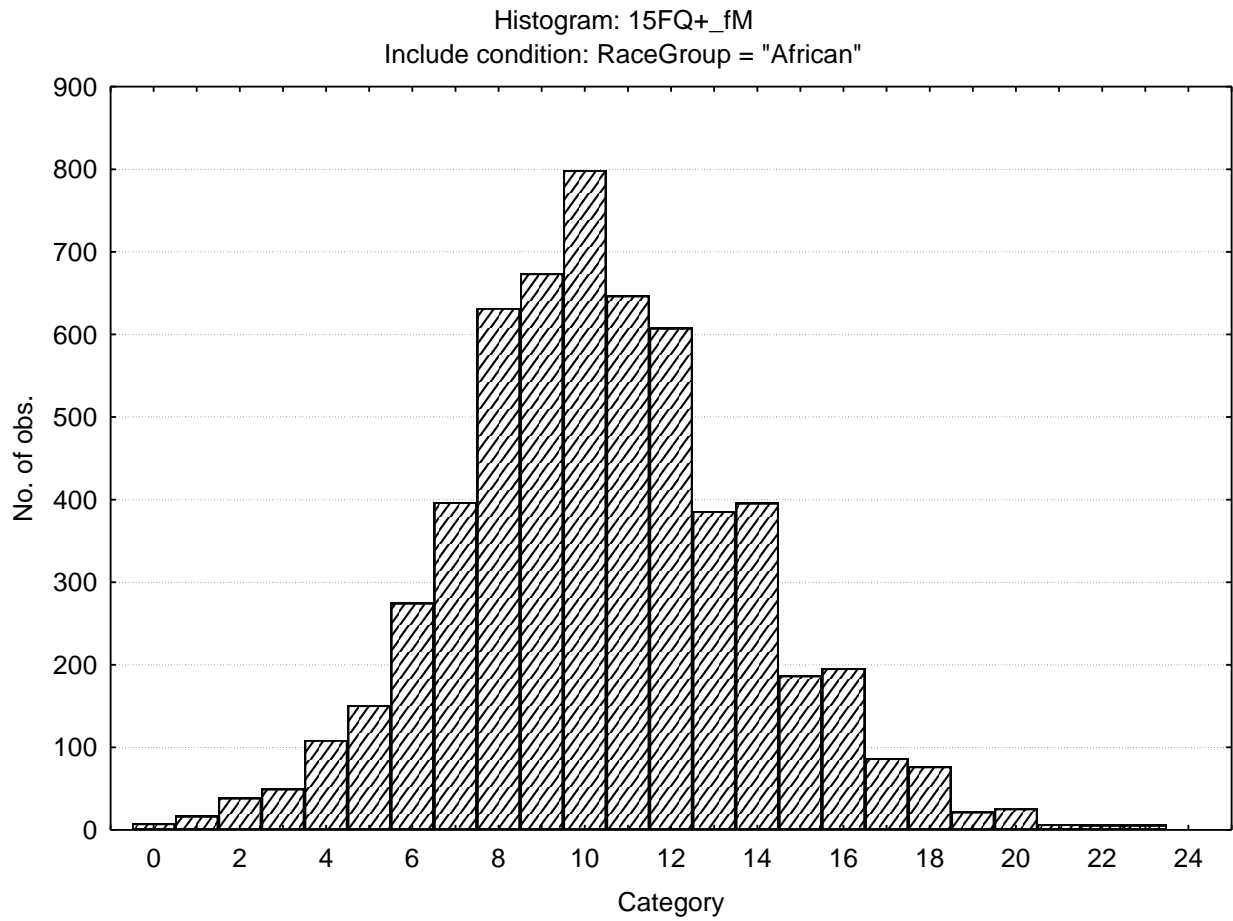
Trusting - Suspicious



N15-12

Updated 13 July 2010

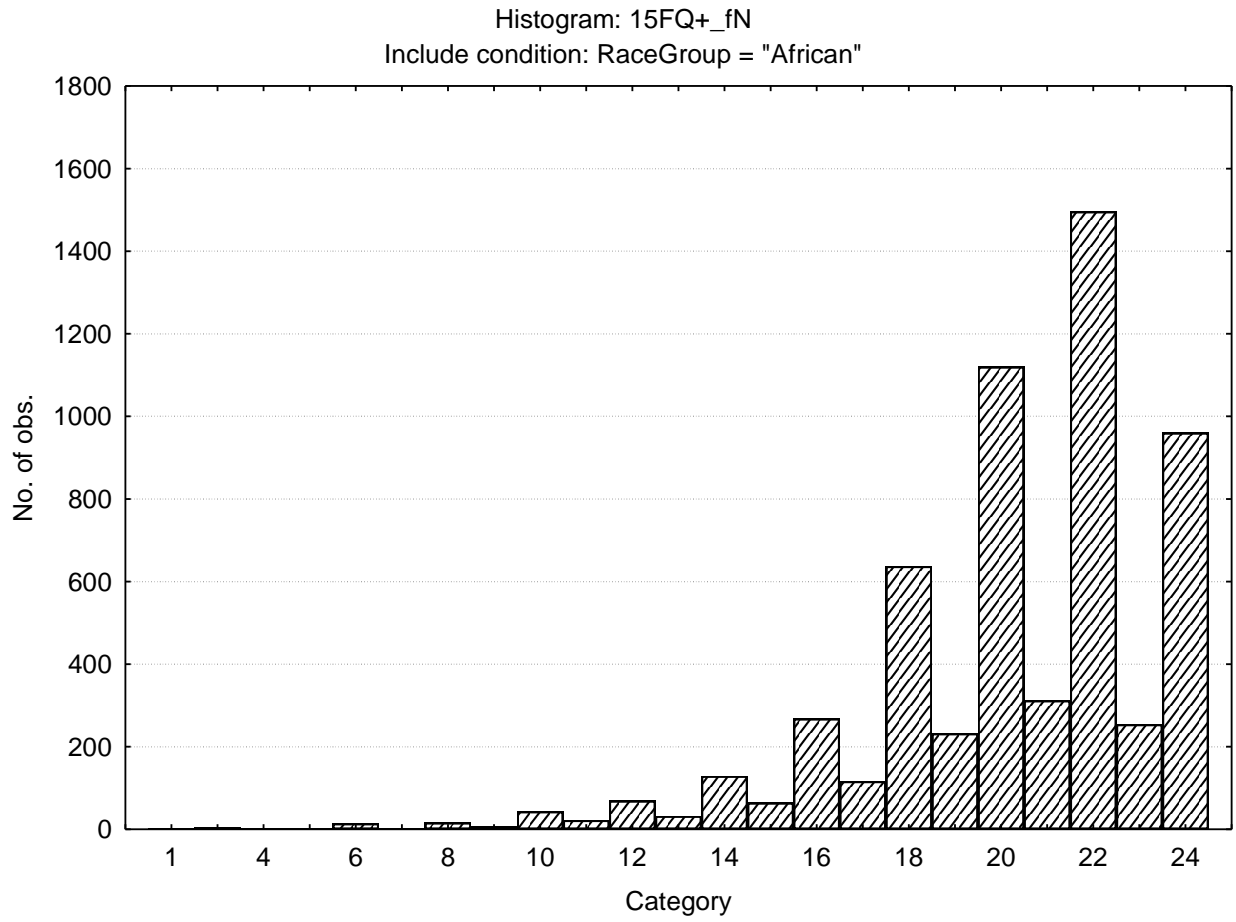
Concrete - Abstract



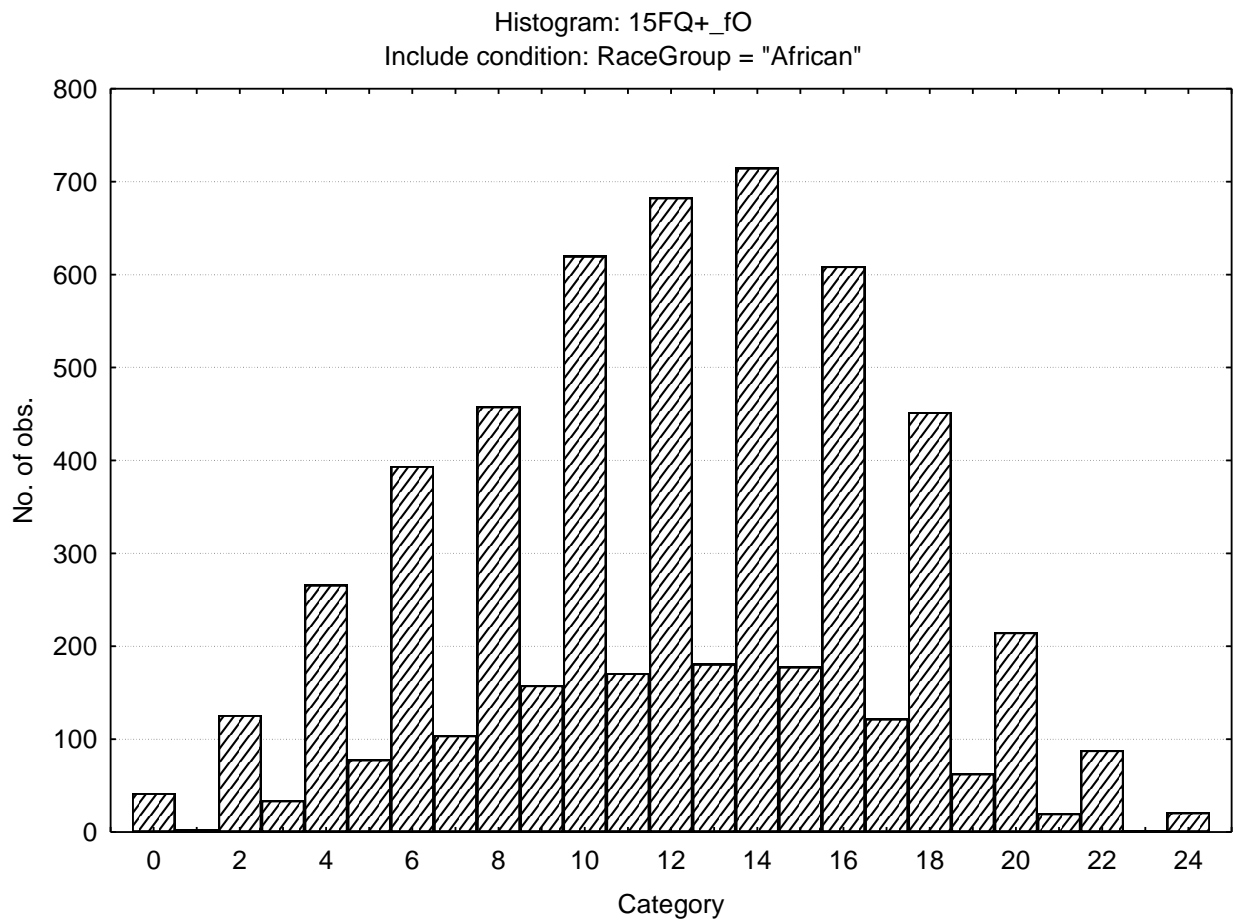
N15-13

Updated 13 July 2010

Direct - Restrained



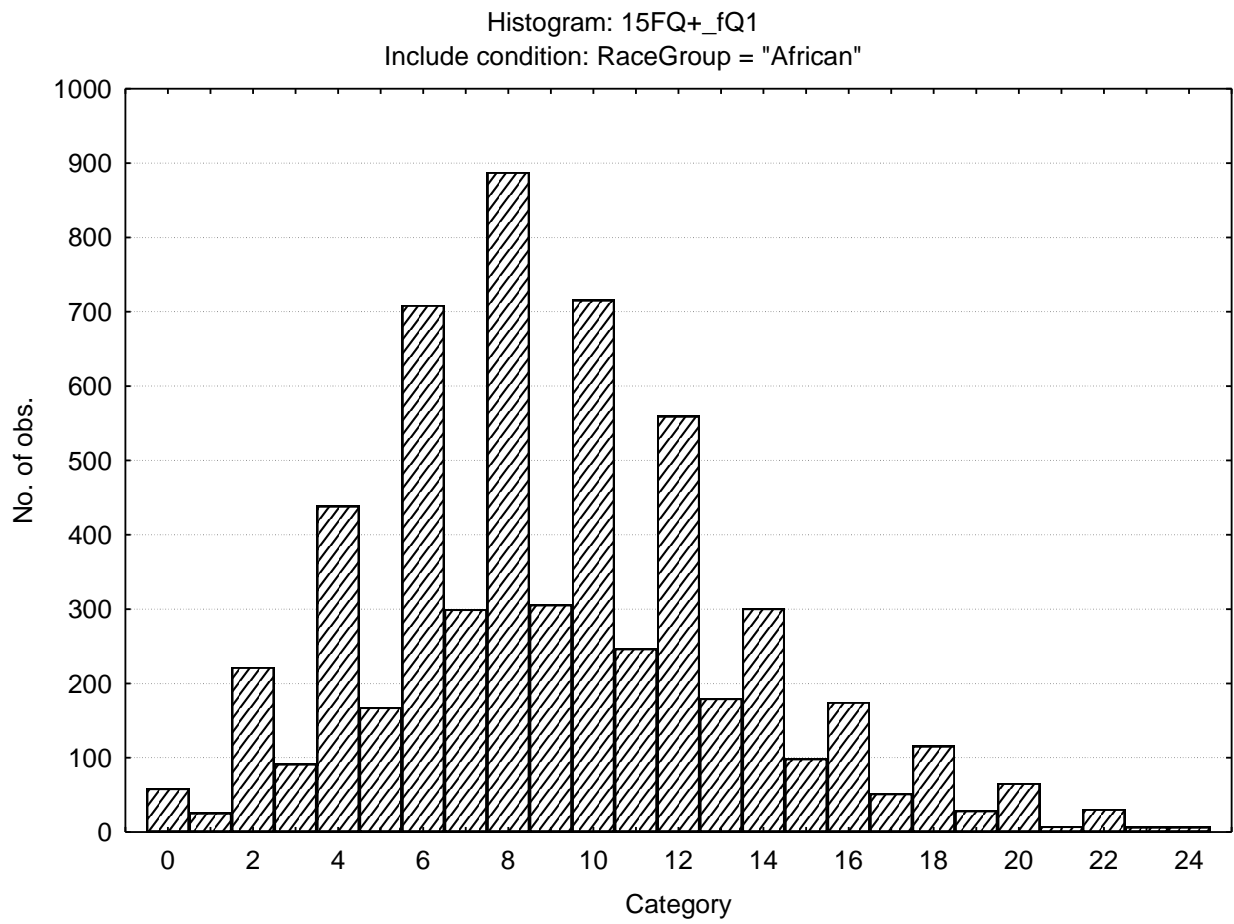
Self assured - Apprehensive



N15-15

Updated 13 July 2010

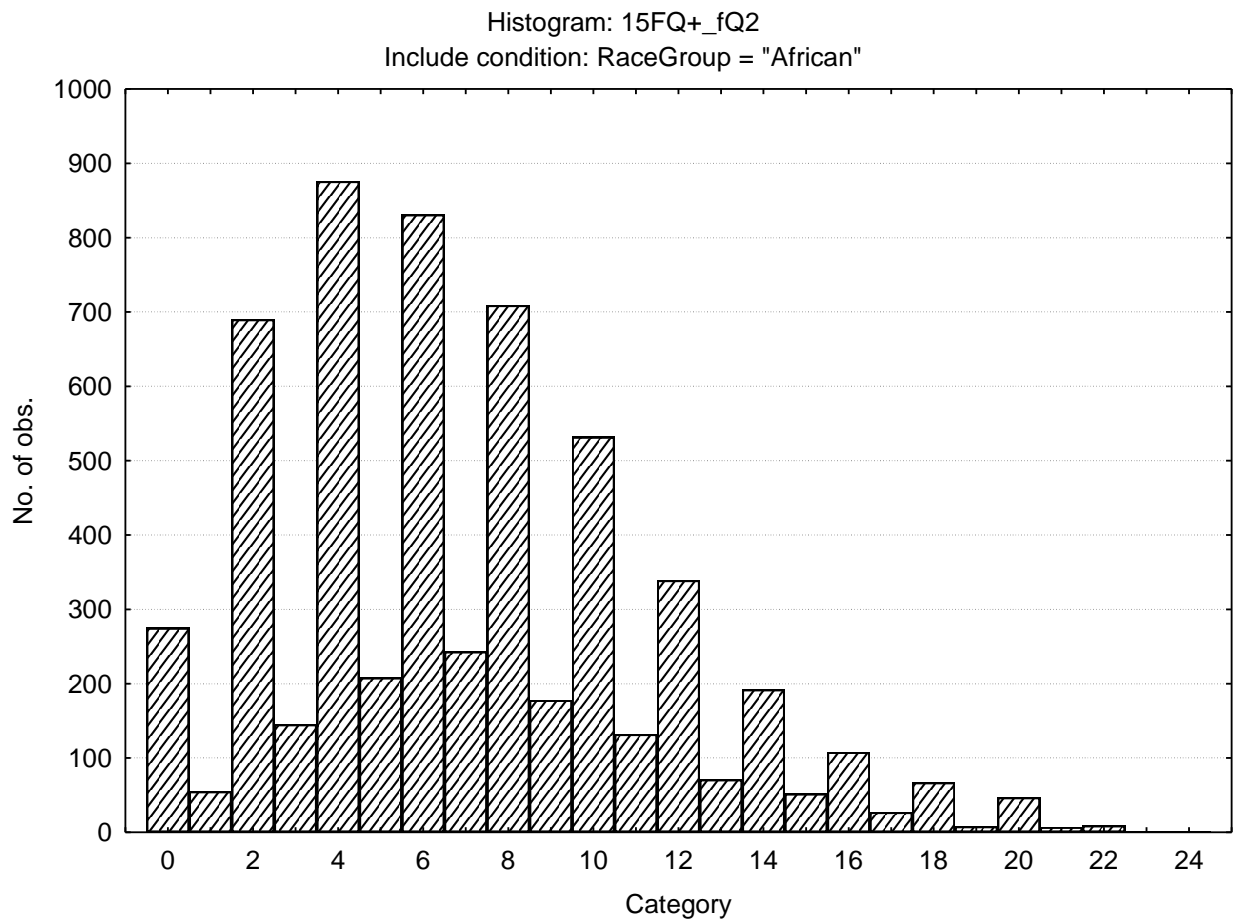
Conventional - Radical



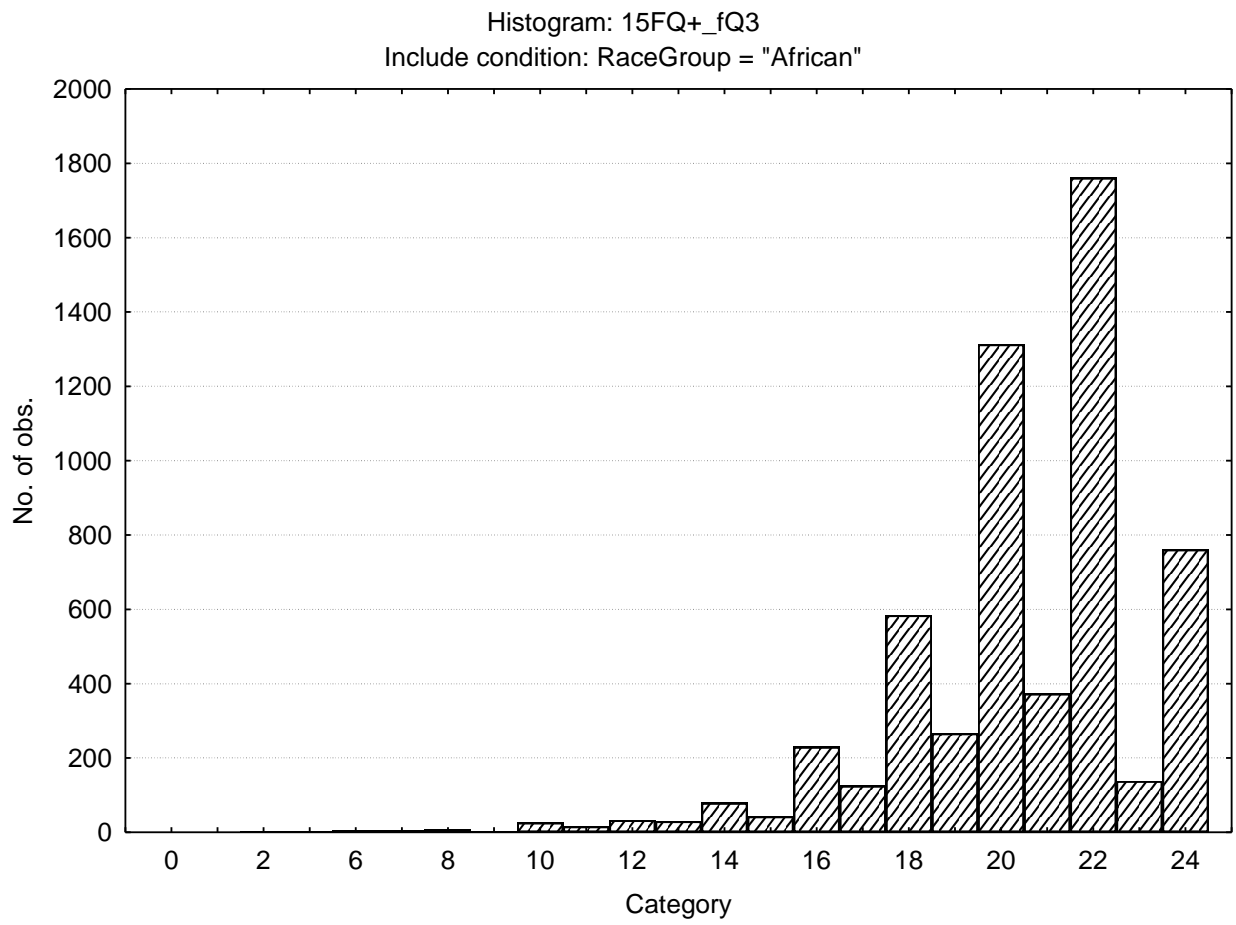
N15-16

Updated 13 July 2010

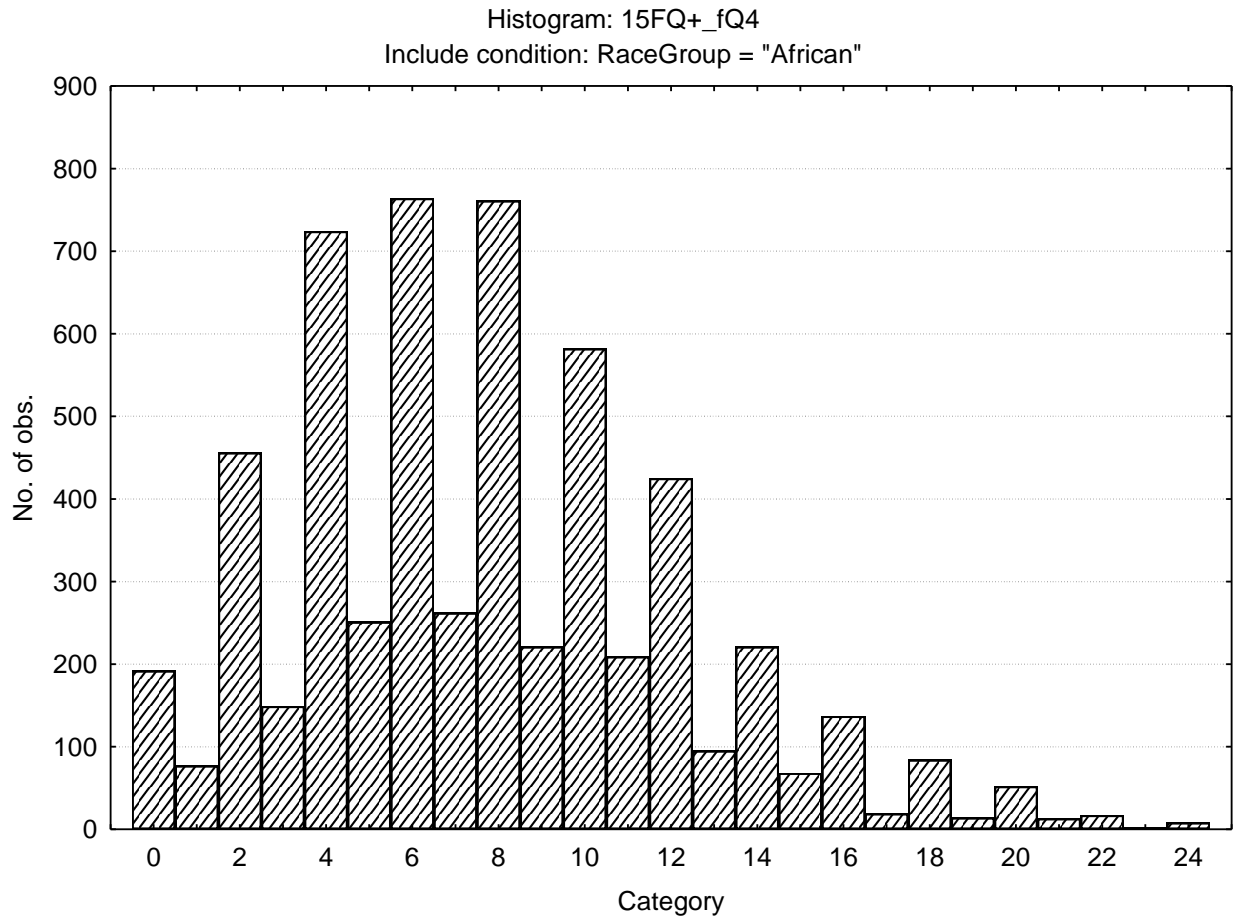
Group orientated - Self sufficient



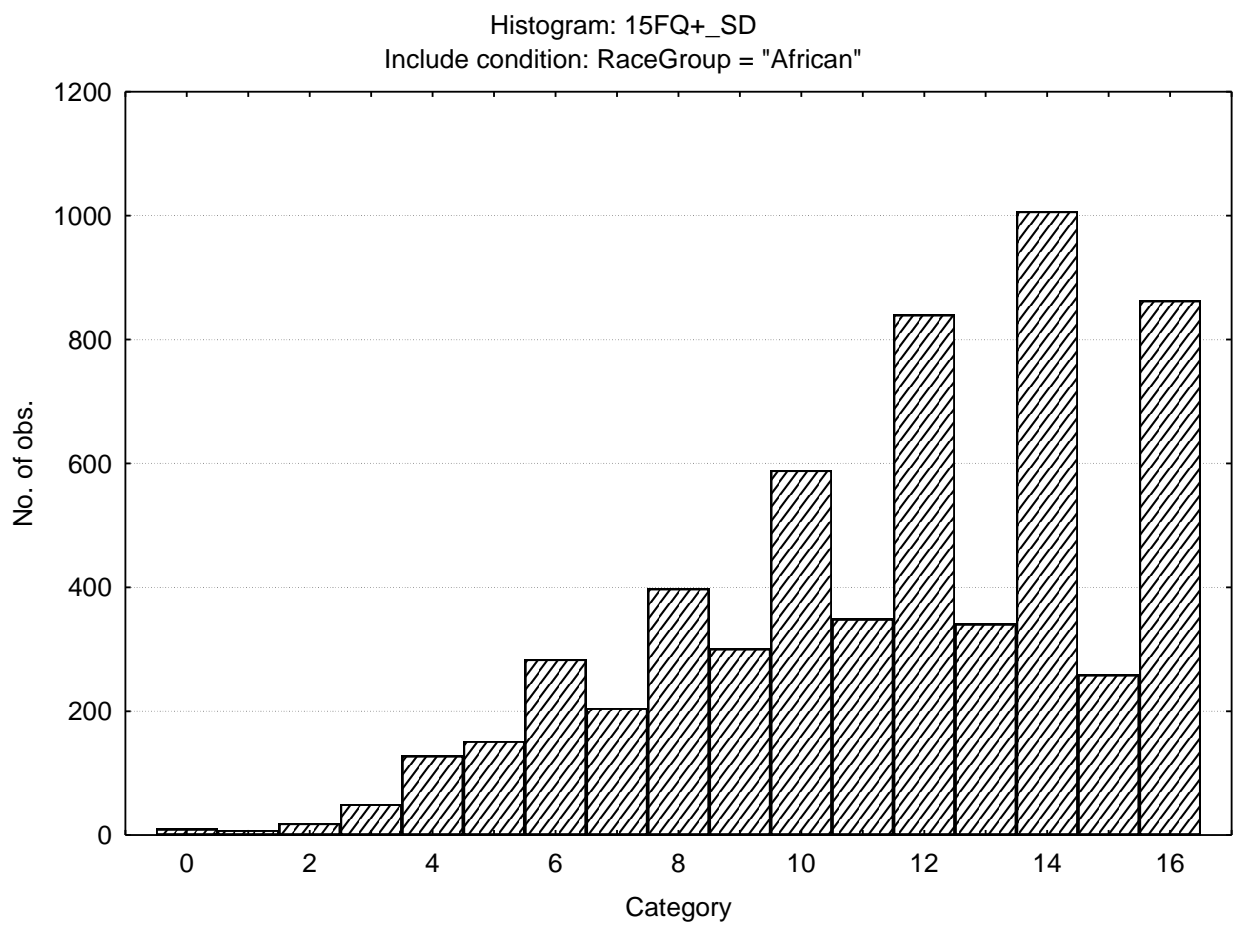
Informal – Self disciplined



Composed - Tense driven



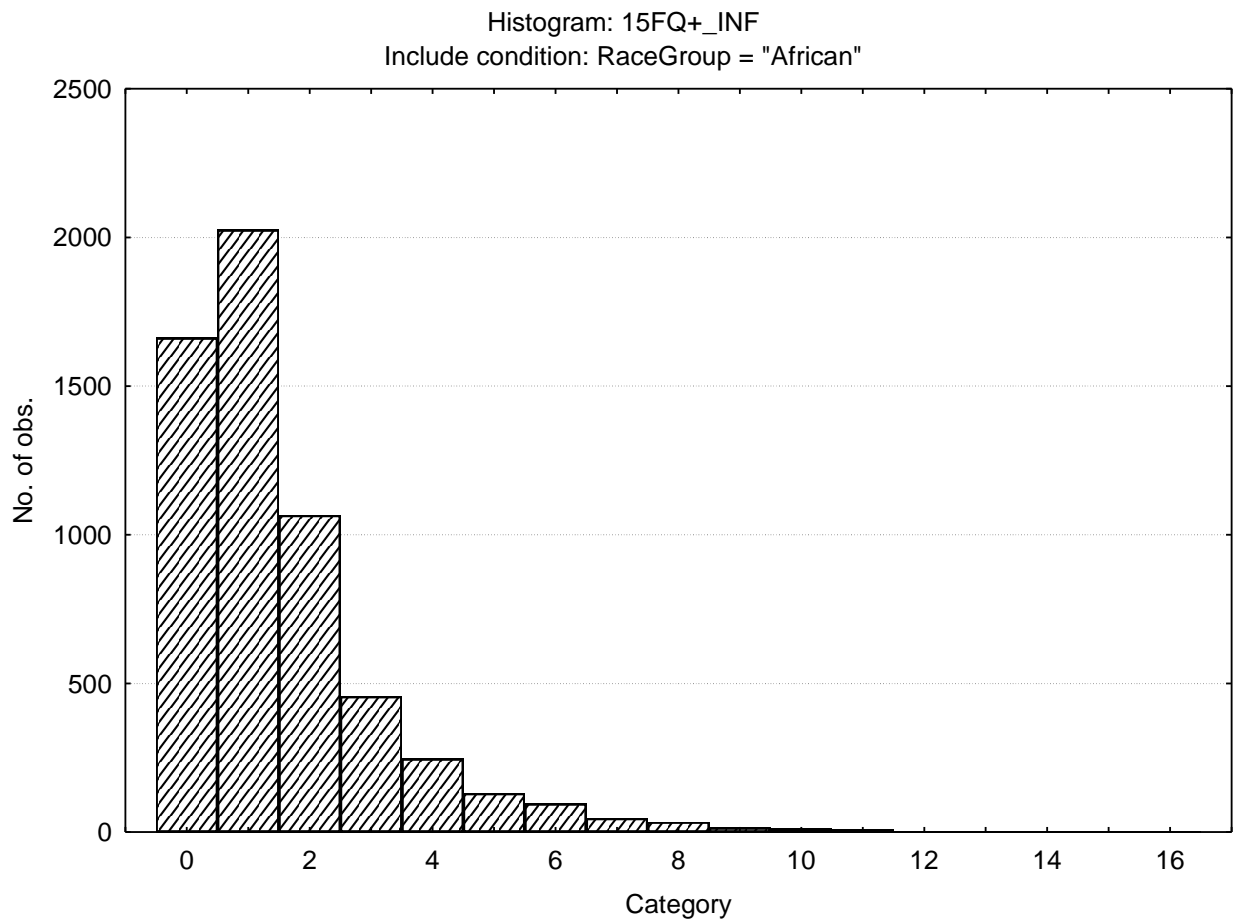
Social Desirability



N15-20

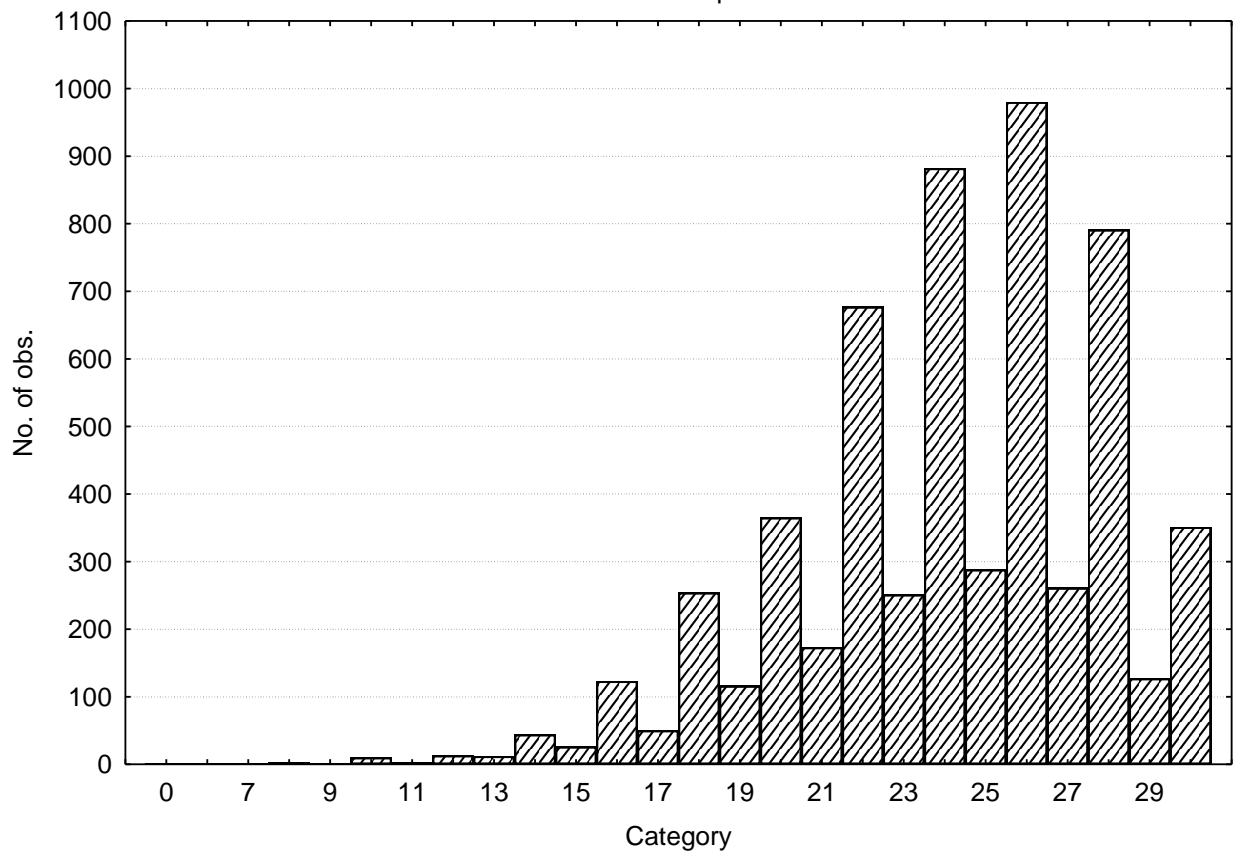
Updated 13 July 2010

Central Tendency



Emotional Intelligence

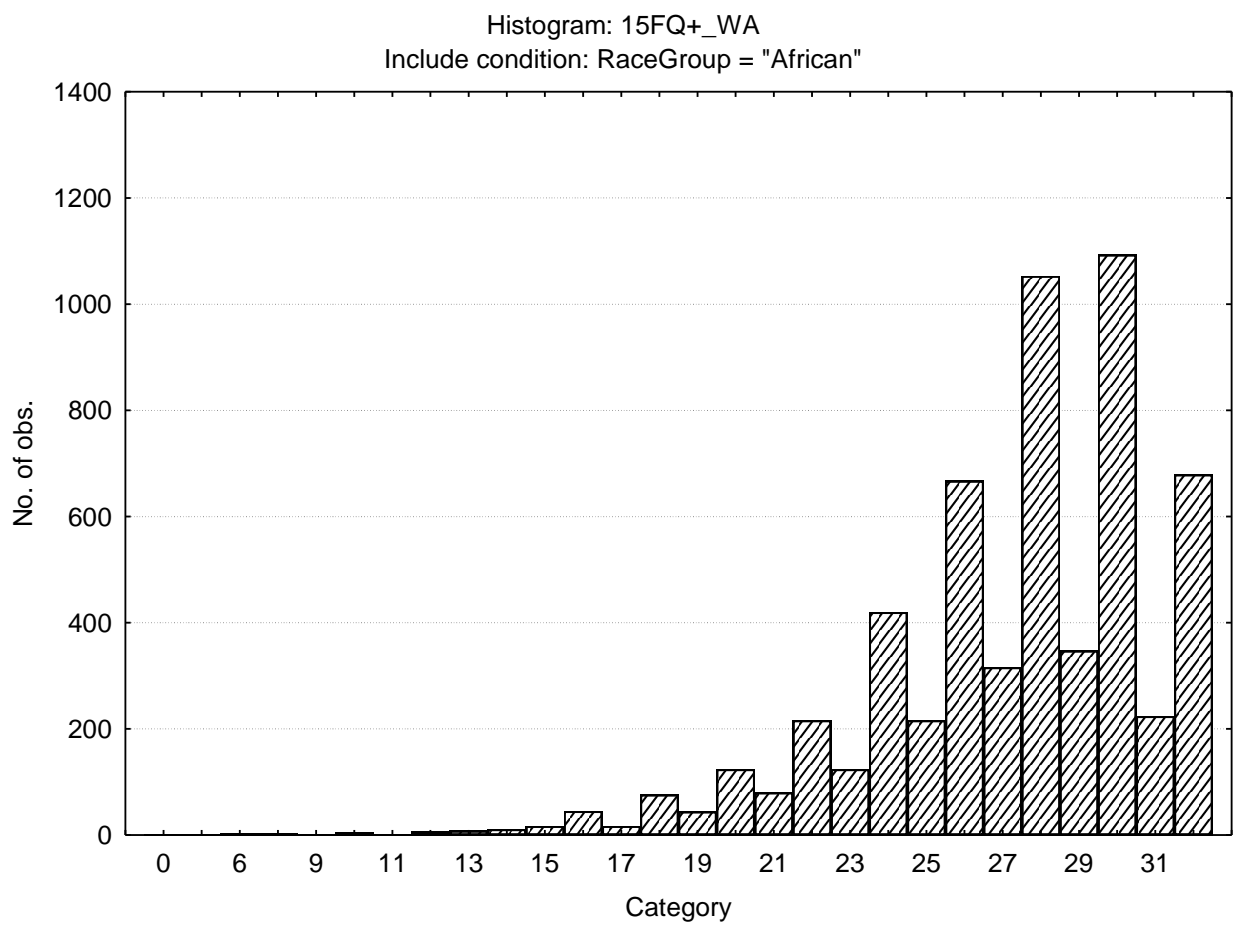
Histogram: 15FQ+_EIQ
Include condition: RaceGroup = "African"



N15-22

Updated 13 July 2010

Work Attitude

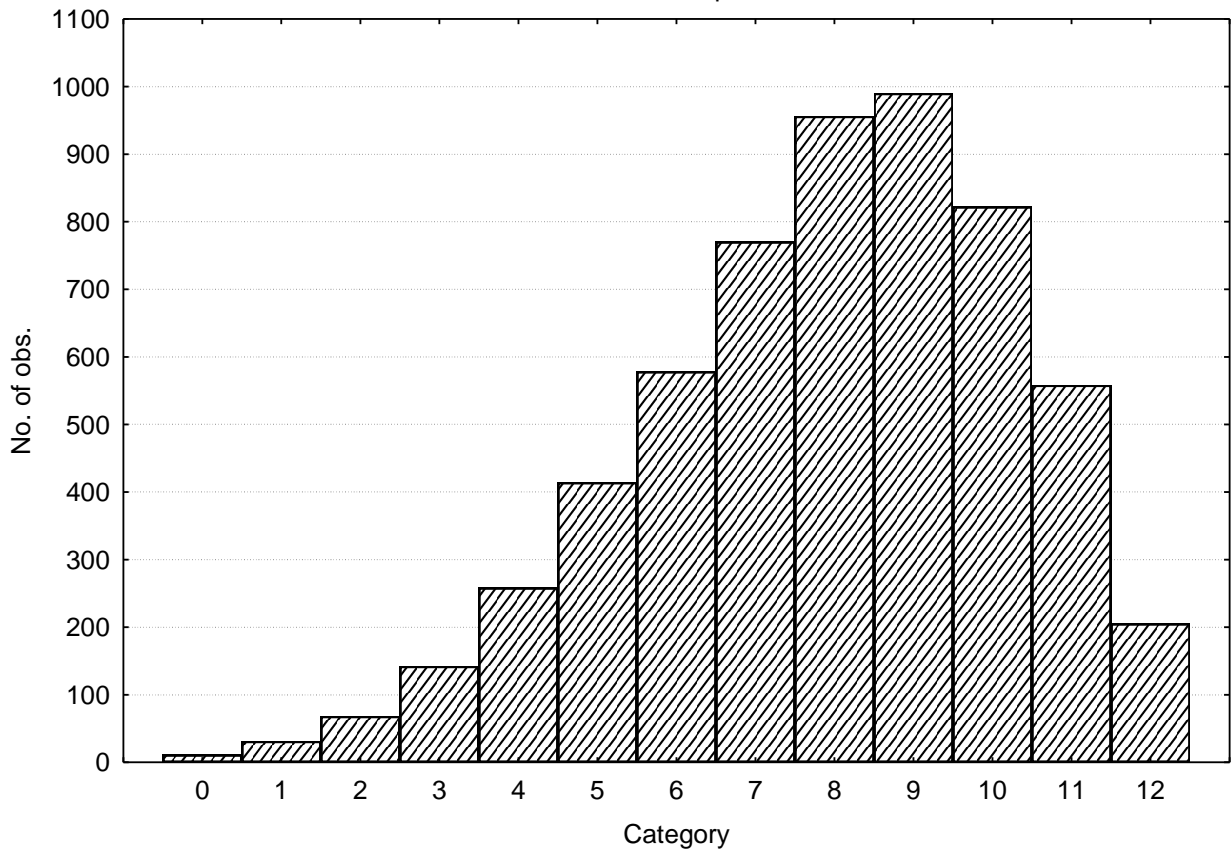


N15-23

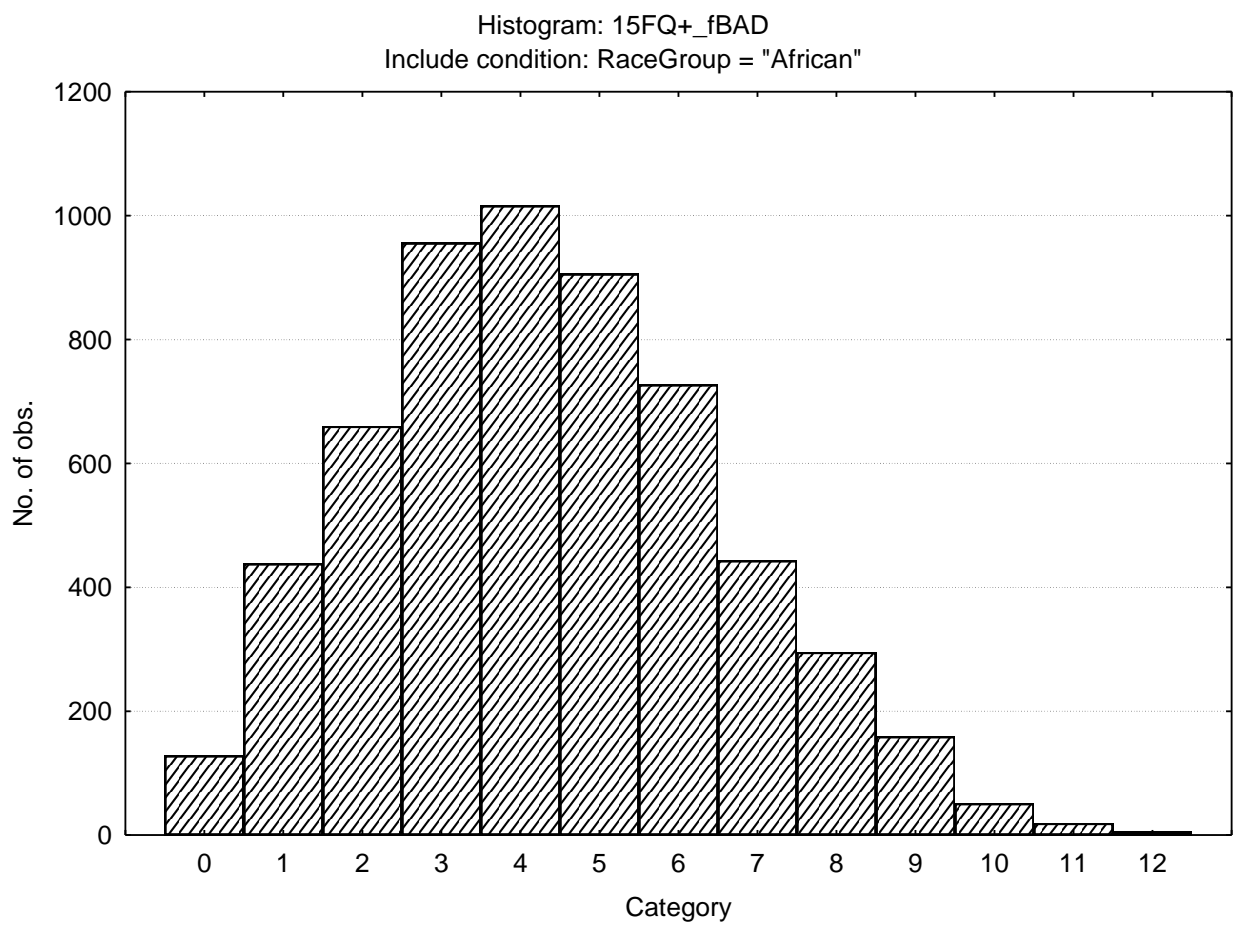
Updated 13 July 2010

Faking Good

Histogram: 15FQ+_fGOOD
Include condition: RaceGroup = "African"



Faking bad



N15-25

Updated 13 July 2010

Sten table

		S10_1	S10_2	S10_3	S10_4	S10_5	S10_6	S10_7	S10_8	S10_9	S10_10
15FQ+_fA	<i>Distant aloof - empathic</i>	0-12	13-14	15-15	16-17	18-19	20-20	21-22	23-23	24-24	
15FQ+_B	<i>Intellectance</i>	1-11	12-13	14-15	16-17	18-19	20-21	22-23	24-24		
15FQ+_fC	<i>Affected by feelings - emotionally stable</i>	1-8	9-10	11-13	14-15	16-17	18-19	20-21	22-23	24-24	
15FQ+_fE	<i>Accommodating - Dominant</i>	0-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	
15FQ+_fF	<i>Sober serious - Enthusiastic</i>	0-3	4-6	7-8	9-11	12-14	15-16	17-19	20-22	23-24	
15FQ+_fG	<i>Expedient - Conscientious</i>	0-12	13-14	15-16	17-18	19-19	20-21	22-23	24-24		
15FQ+_fH	<i>Retiring - Socially bold</i>	0-5	6-8	9-11	12-13	14-16	17-19	20-21	22-24		
15FQ+_fI	<i>Tough Minded - Tender minded</i>	0-5	6-7	8-9	10-12	13-14	15-17	18-19	20-21	22-24	
15FQ+_fL	<i>Trusting - Suspicious</i>	0-1	2-3	4-6	7-8	9-10	11-13	14-15	16-17	18-19	20-24
15FQ+_fM	<i>Concrete - Abstract</i>	0-3	4-5	6-6	7-8	9-10	11-12	13-13	14-15	16-17	18-24
15FQ+_fN	<i>Direct - Restrained</i>	1-13	14-15	16-17	18-18	19-20	21-21	22-23	24-24		
15FQ+_fO	<i>Self-assured - Apprehensive</i>	0-2	3-4	5-7	8-9	10-12	13-14	15-16	17-19	20-21	22-24
15FQ+_fQ1	<i>Conventional - Radical</i>	0-0	1-2	3-4	5-7	8-9	10-11	12-13	14-15	16-17	18-24
15FQ+_fQ2	<i>Group - orientated - Self-sufficient</i>	0--1	0-0	1-2	3-4	5-6	7-9	10-11	12-13	14-15	16-24

N15-26

Updated 13 July 2010

		S10_1	S10_2	S10_3	S10_4	S10_5	S10_6	S10_7	S10_8	S10_9	S10_10
15FQ+_fQ3	<i>Informal- self disciplined</i>	0-15	16-16	17-17	18-19	20-20	21-21	22-23	24-24		
15FQ+_fQ4	<i>Composed - tense driven</i>	0--1	0-1	2-3	4-5	6-7	8-9	10-12	13-14	15-16	17-24
15FQ+_SD	<i>Social desirability</i>	0-4	5-6	7-7	8-9	10-11	12-13	14-14	15-16		
15FQ+_CT	<i>Central Tendency</i>	0--1	0-0	1-1	2-4	5-11	12-18	19-24	25-31	32-38	39-128
15FQ+_INF	<i>Infrequency</i>	0--1	0-0	1-1	2-2	3-3	4-4	5-5	6-6	7-7	8-16
15FQ+_EIQ	<i>Derived score: Emotional Intelligence</i>	0-16	17-18	19-20	21-22	23-24	25-25	26-27	28-29	30-30	
15FQ+_WA	<i>Derived score: Work attitude</i>	0-19	20-21	22-23	24-25	26-27	28-29	30-31	32-32		
15FQ+_fGOOD	<i>Faking good</i>	0-3	4-4	5-5	6-6	7-7	8-9	10-10	11-11	12-12	
15FQ+_fBAD	<i>Faking bad</i>	0--1	0-1	2-2	3-3	4-4	5-5	6-6	7-7	8-8	9-12

N15-27

Updated 13 July 2010

Norm group: South Africans, race European, updated 2010

Composition of the sample

The sample consisted of 5002 South Africans who gave their race as European (White) tested in the period up to February 2010

Gender composition of the sample

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	1802	1802	36.02559	36.0256
M	3184	4986	63.65454	99.6801
Missing	16	5002	0.31987	100.0000

Educational composition of the sample

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	1551	1551	31.00760	31.0076
Degree	777	2328	15.53379	46.5414
Post Graduate	704	3032	14.07437	60.6158
Technikon	485	3517	9.69612	70.3119
University diploma	374	3891	7.47701	77.7889
Grade 10 or 11	152	4043	3.03878	80.8277
Vocational Training	166	4209	3.31867	84.1463
Diploma	72	4281	1.43942	85.5858
Certificate	18	4299	0.35986	85.9456
Missing	703	5002	14.05438	100.0000

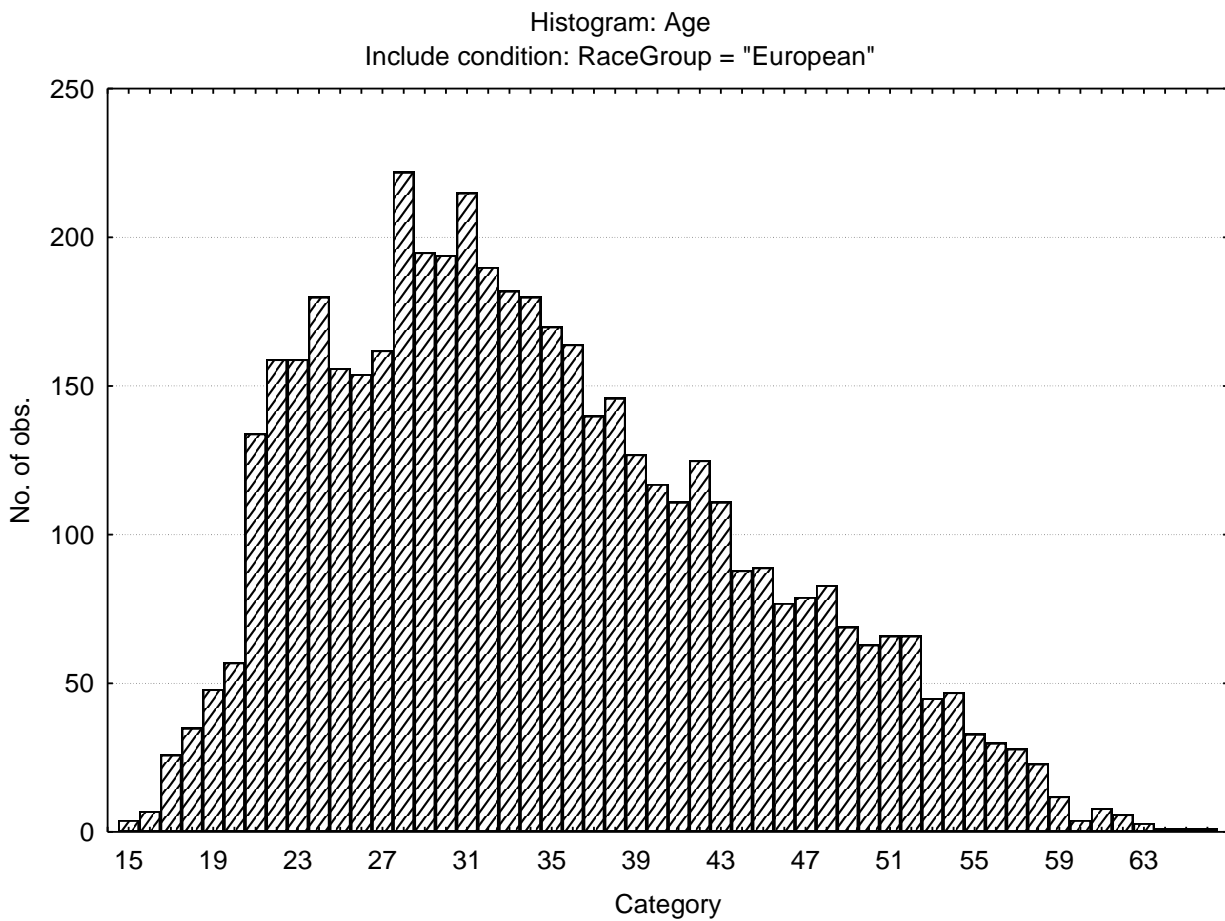
Language composition of the sample

Category	Frequency table: Language			
	Count	Cumulative Count	Percent	Cumulative Percent
English	2300	2300	45.98161	45.9816
Afrikaans	2399	4699	47.96082	93.9424
isiZulu	5	4704	0.09996	94.0424

Category	Frequency table: Language			
	Count	Cumulative Count	Percent	Cumulative Percent
isiXhosa	5	4709	0.09996	94.1423
Sesotho	2	4711	0.03998	94.1823
Setswana	1	4712	0.01999	94.2023
Sepedi	3	4715	0.05998	94.2623
Xitsonga	1	4716	0.01999	94.2823
Tshivenda	1	4717	0.01999	94.3023
siSwati	1	4718	0.01999	94.3223
Missing	284	5002	5.67773	100.0000

Age composition of the sample

Variable	Descriptive					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	34.47621	9.785972	15.00000	71.00000	4792	210



N16-2

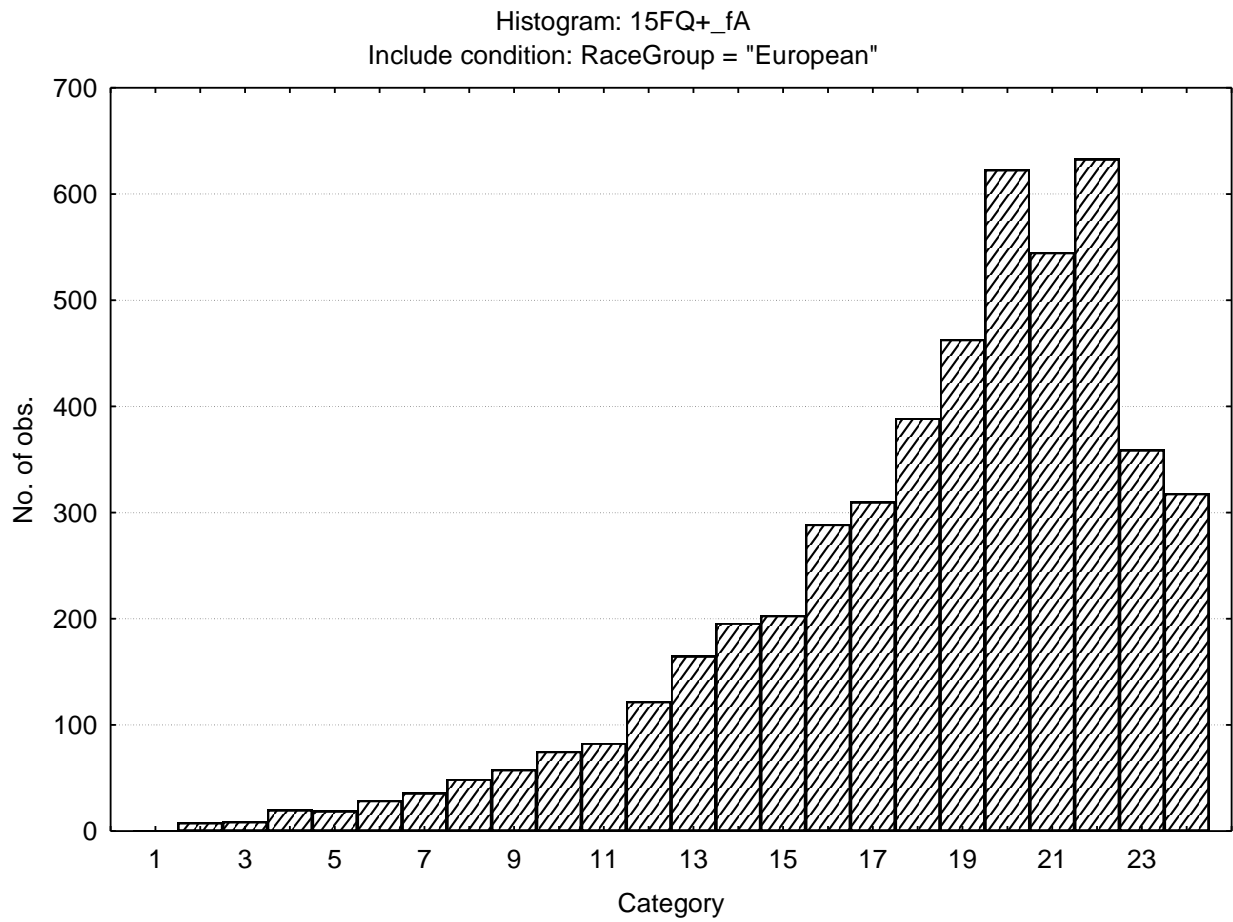
Updated 13 July 2010

Basic statistics on 15FQPlus scales

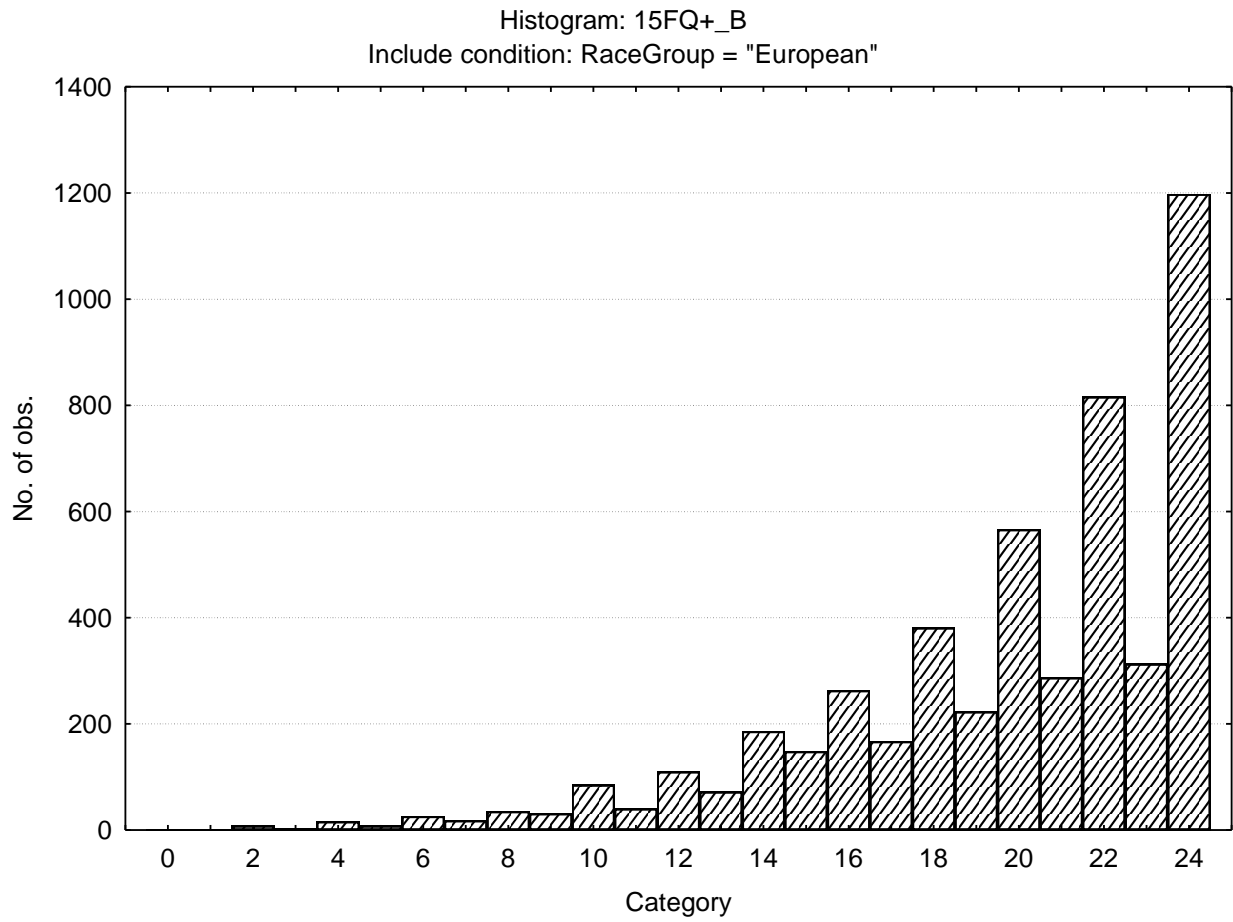
Variable		Descriptive statistics					
		Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
15FQ+_fA	<i>Distant aloof - empathic</i>	18.39924	4.26688	1.000000	24.0000	5002	0
15FQ+_B	<i>Intellectance</i>	19.73870	4.29844	0.000000	24.0000	5002	0
15FQ+_fC	<i>Affected by feelings - emotionally stable</i>	17.01160	5.11776	0.000000	24.0000	5002	0
15FQ+_fE	<i>Accommodating - Dominant</i>	16.57497	4.89466	0.000000	24.0000	5002	0
15FQ+_fF	<i>Sober serious - Enthusiastic</i>	14.58297	5.75890	0.000000	24.0000	5002	0
15FQ+_fG	<i>Expedient - Conscientious</i>	18.75770	5.04069	0.000000	24.0000	5002	0
15FQ+_fH	<i>Retiring - Socially bold</i>	14.38784	6.44950	0.000000	24.0000	5002	0
15FQ+_fI	<i>Tough Minded - Tender minded</i>	14.27869	5.39634	0.000000	24.0000	5002	0
15FQ+_fL	<i>Trusting - Suspicious</i>	8.36445	5.10315	0.000000	24.0000	5002	0
15FQ+_fM	<i>Concrete - Abstract</i>	10.33826	4.57329	0.000000	24.0000	5002	0
15FQ+_fN	<i>Direct - Restrained</i>	18.09096	5.02152	0.000000	24.0000	5002	0
15FQ+_fO	<i>Self-assured - Apprehensive</i>	12.71411	5.96254	0.000000	24.0000	5002	0
15FQ+_fQ1	<i>Conventional - Radical</i>	8.72431	5.26116	0.000000	24.0000	5002	0
15FQ+_fQ2	<i>Group - orientated - Self-sufficient</i>	8.54178	5.47671	0.000000	24.0000	5002	0
15FQ+_fQ3	<i>Informal- self disciplined</i>	20.07257	3.54993	1.000000	24.0000	5002	0
15FQ+_fQ4	<i>Composed - tense driven</i>	10.92443	6.16881	0.000000	24.0000	5002	0
15FQ+_SD	<i>Social desirability</i>	9.84346	3.63442	0.000000	16.0000	5002	0
15FQ+_CT	<i>Central Tendency</i>	12.56457	13.79869	0.000000	146.0000	5002	0
15FQ+_INF	<i>Infrequency</i>	1.36106	1.55753	0.000000	15.0000	5002	0
15FQ+_EIQ	<i>Derived score: Emotional Intelligence</i>	22.69932	5.11440	0.000000	30.0000	5002	0
15FQ+_WA	<i>Derived score: Work attitude</i>	26.86405	4.64465	0.000000	32.0000	5002	0
15FQ+_fGOOD	<i>Faking good</i>	6.68992	2.78102	0.000000	12.0000	5002	0
15FQ+_fBAD	<i>Faking bad</i>	4.75750	2.64582	0.000000	13.0000	5002	0

Frequency distributions of 15FQPlus scales

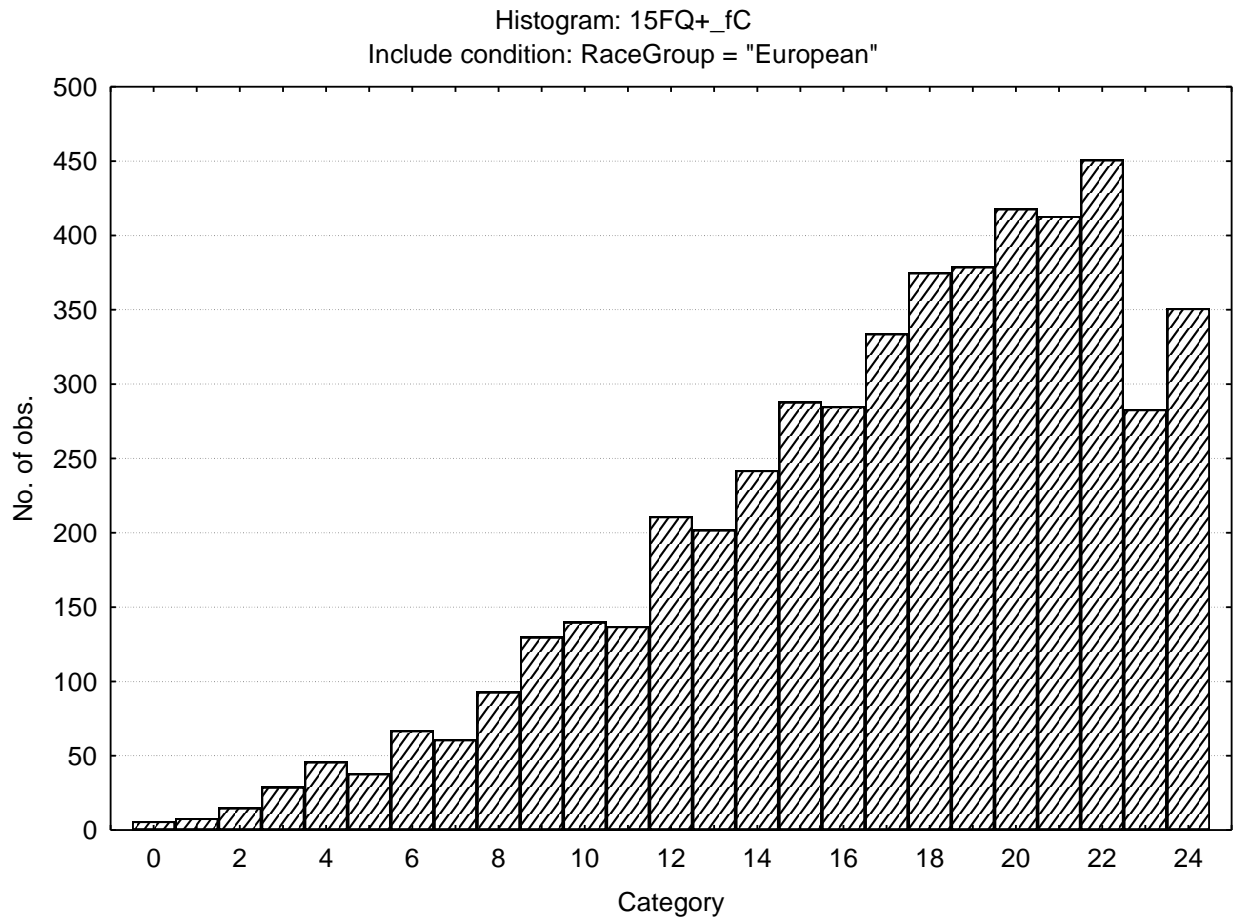
Distant aloof - Empathic



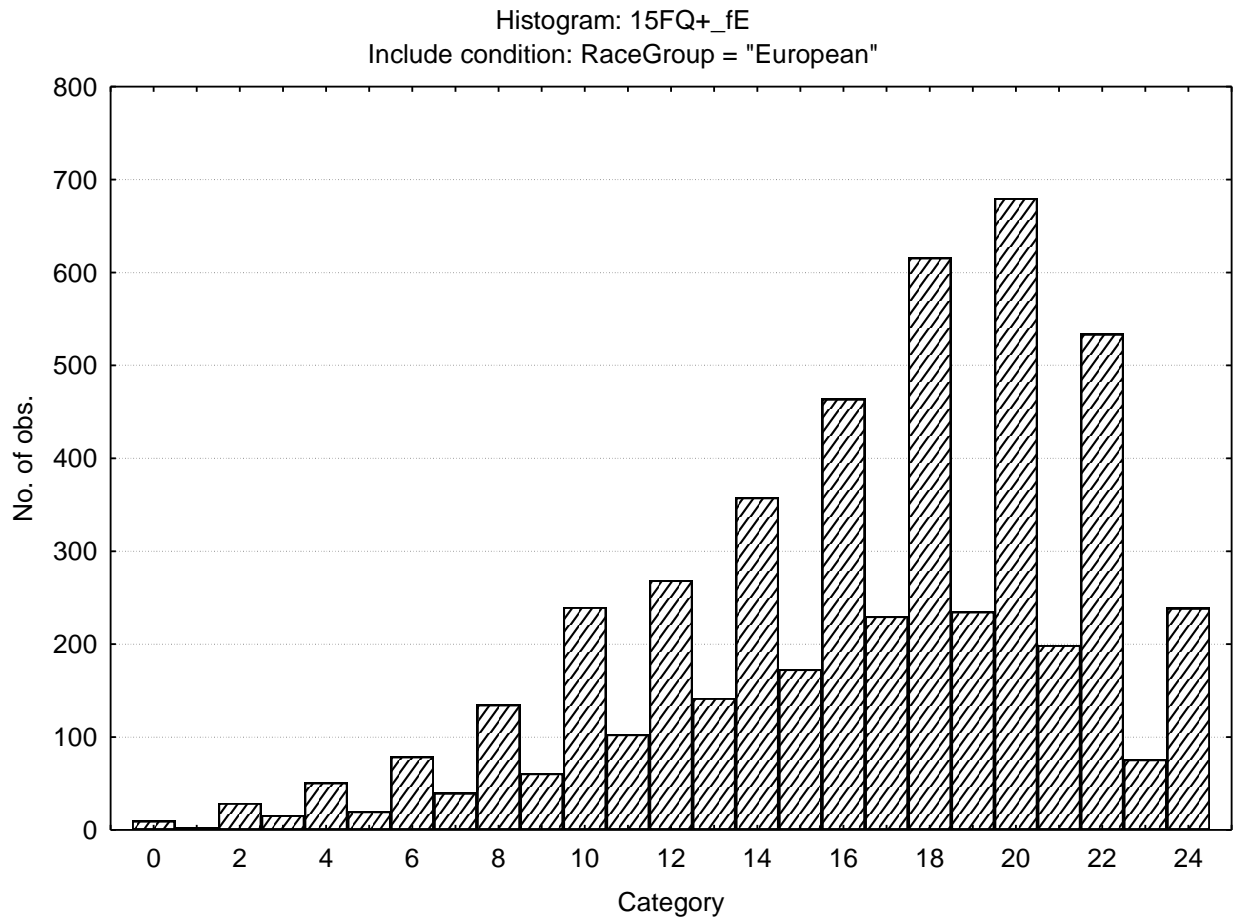
Intellectance



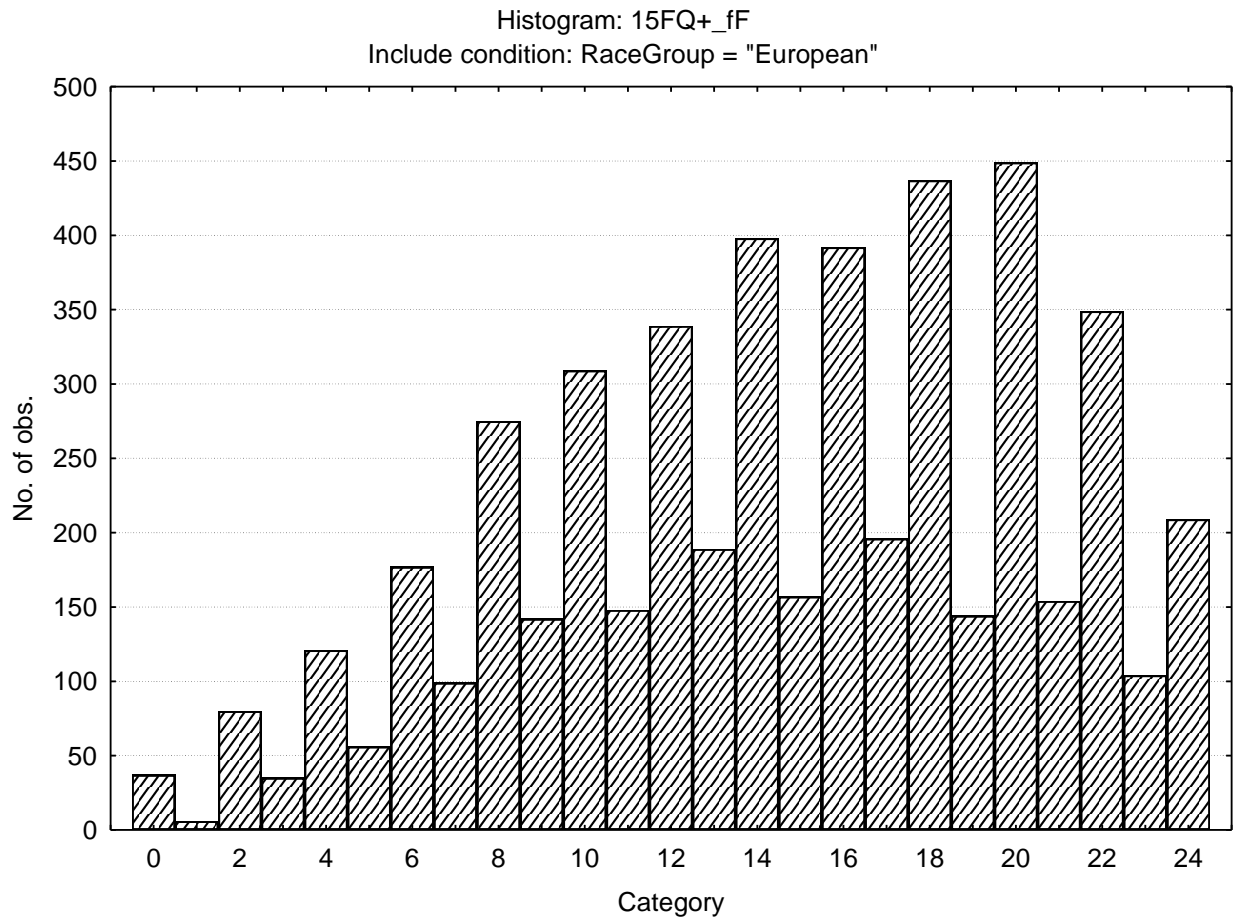
Affected by feelings – Emotionally stable



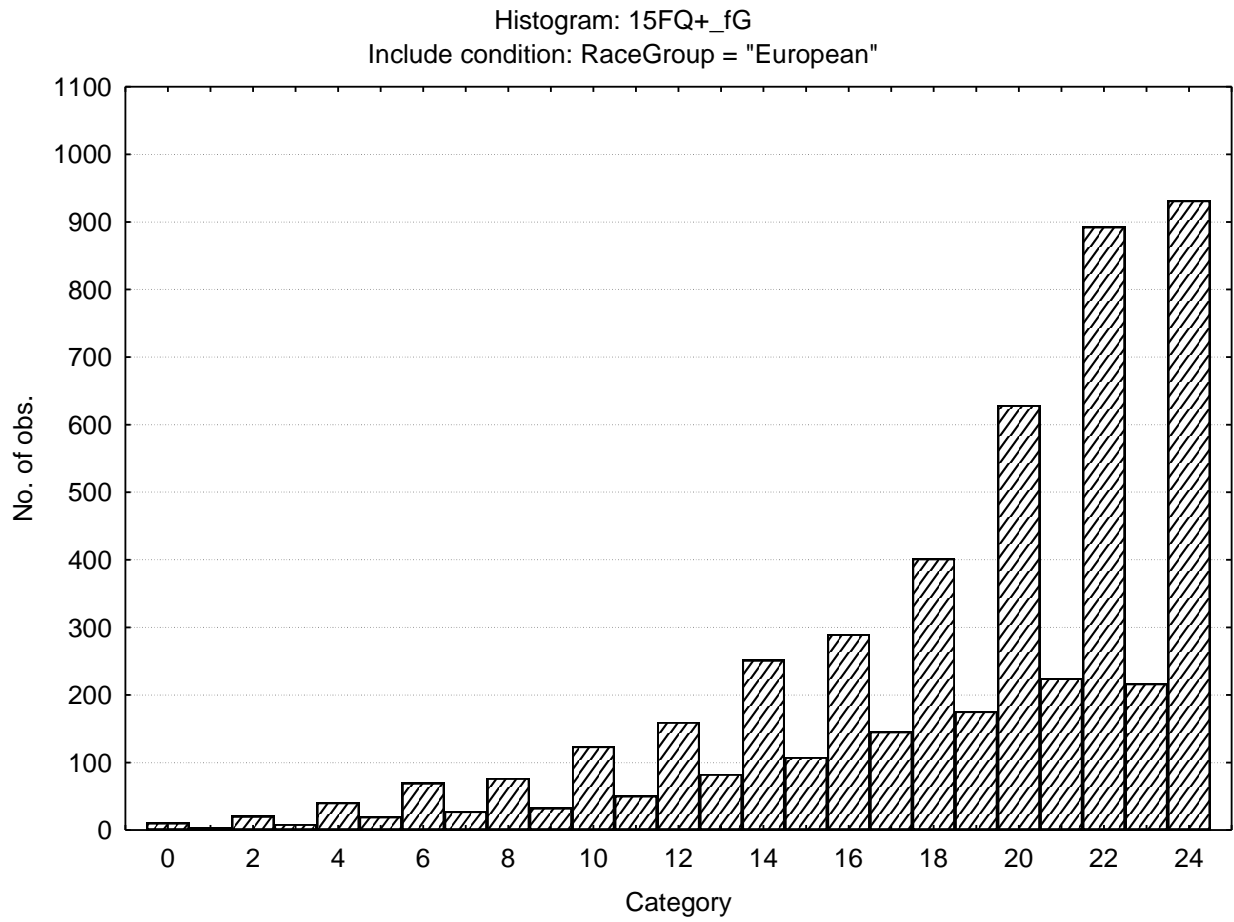
Accommodating - Dominant



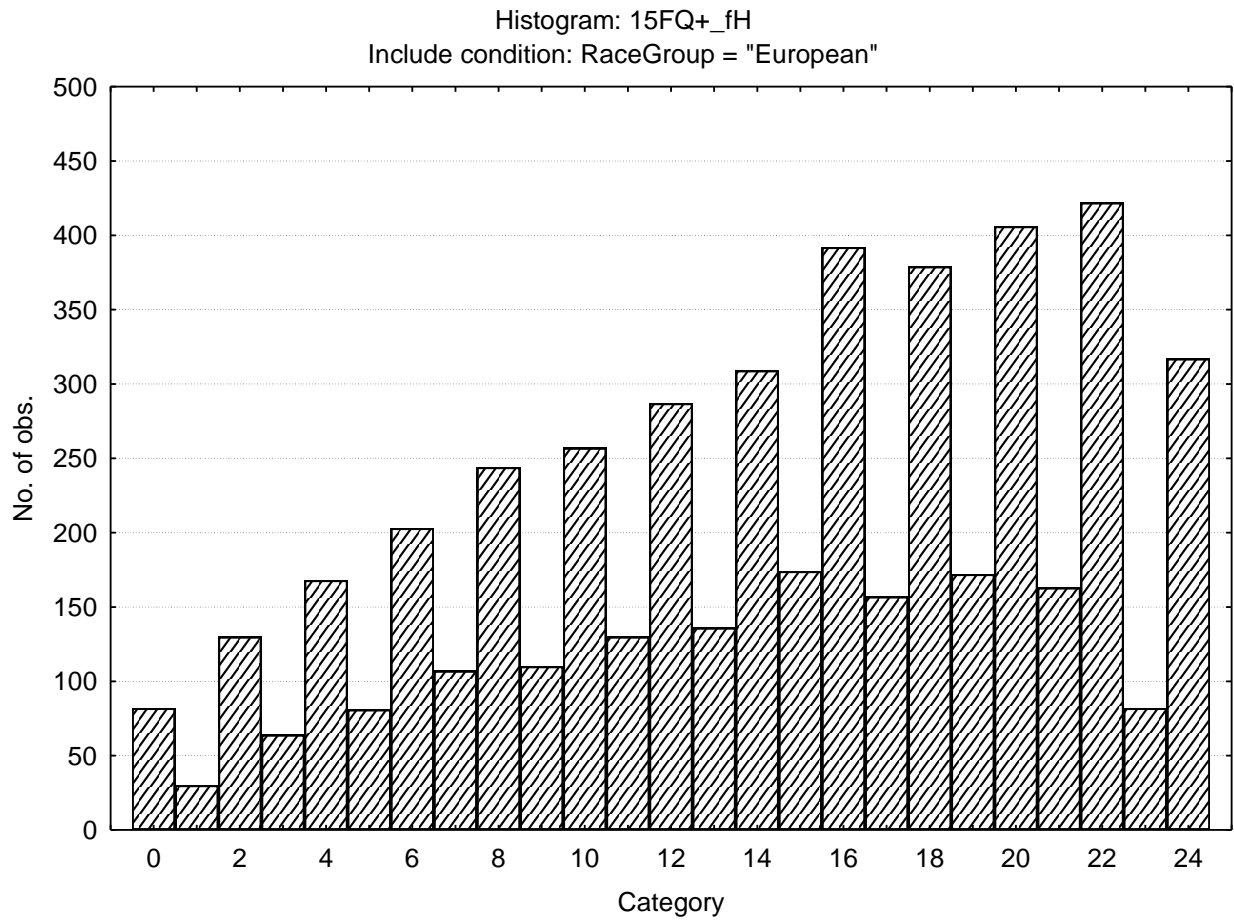
Sober serious - Enthusiastic



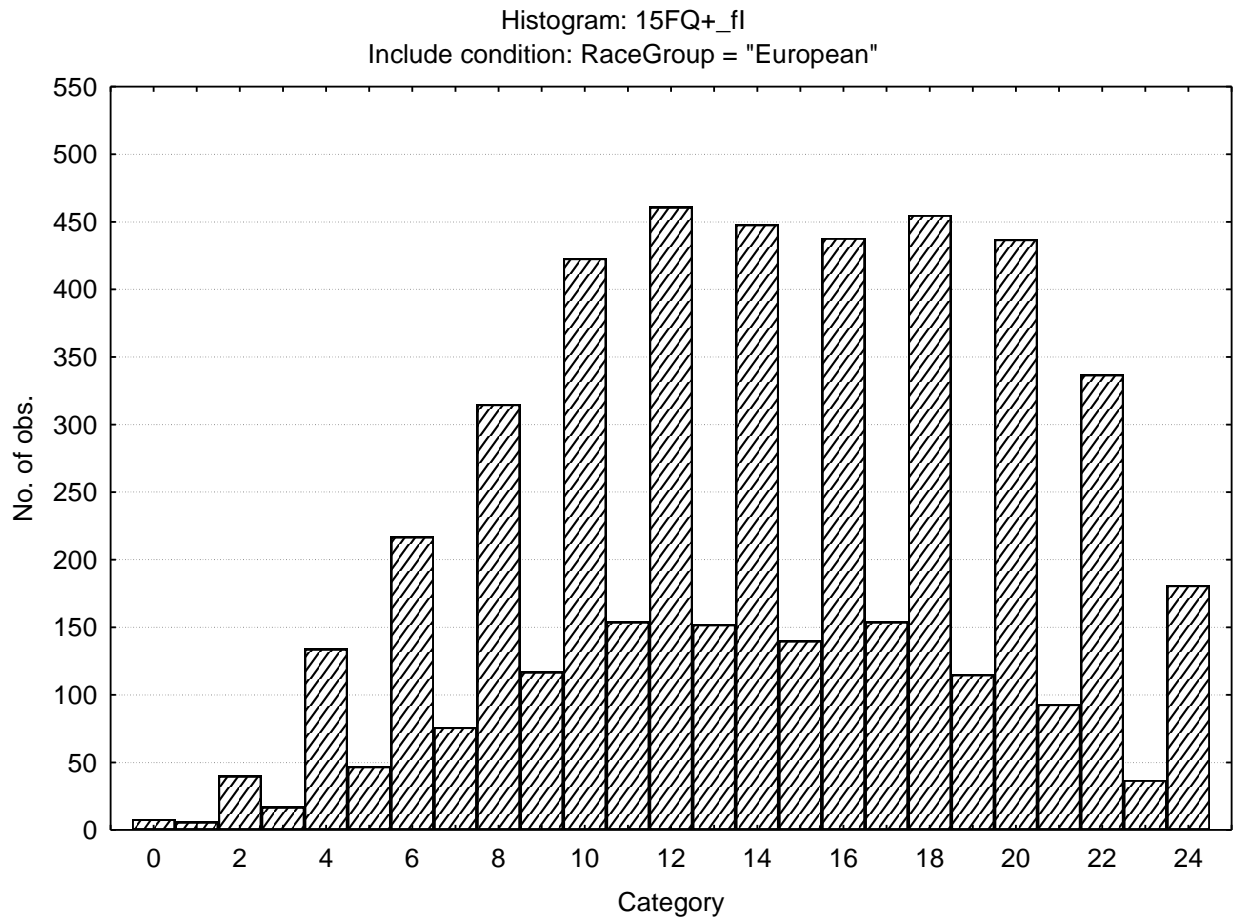
Expedient - Conscientious



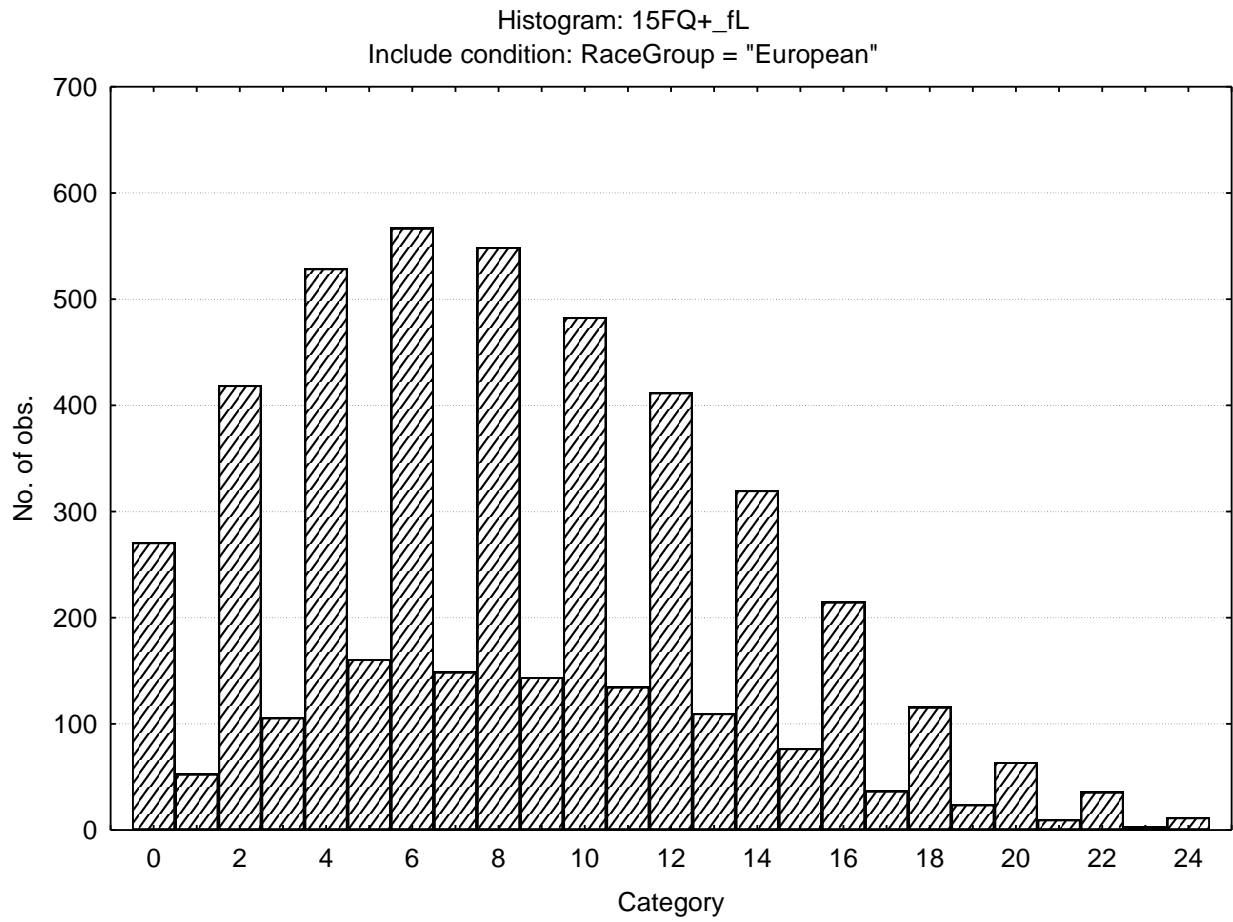
Retiring - Socially bold



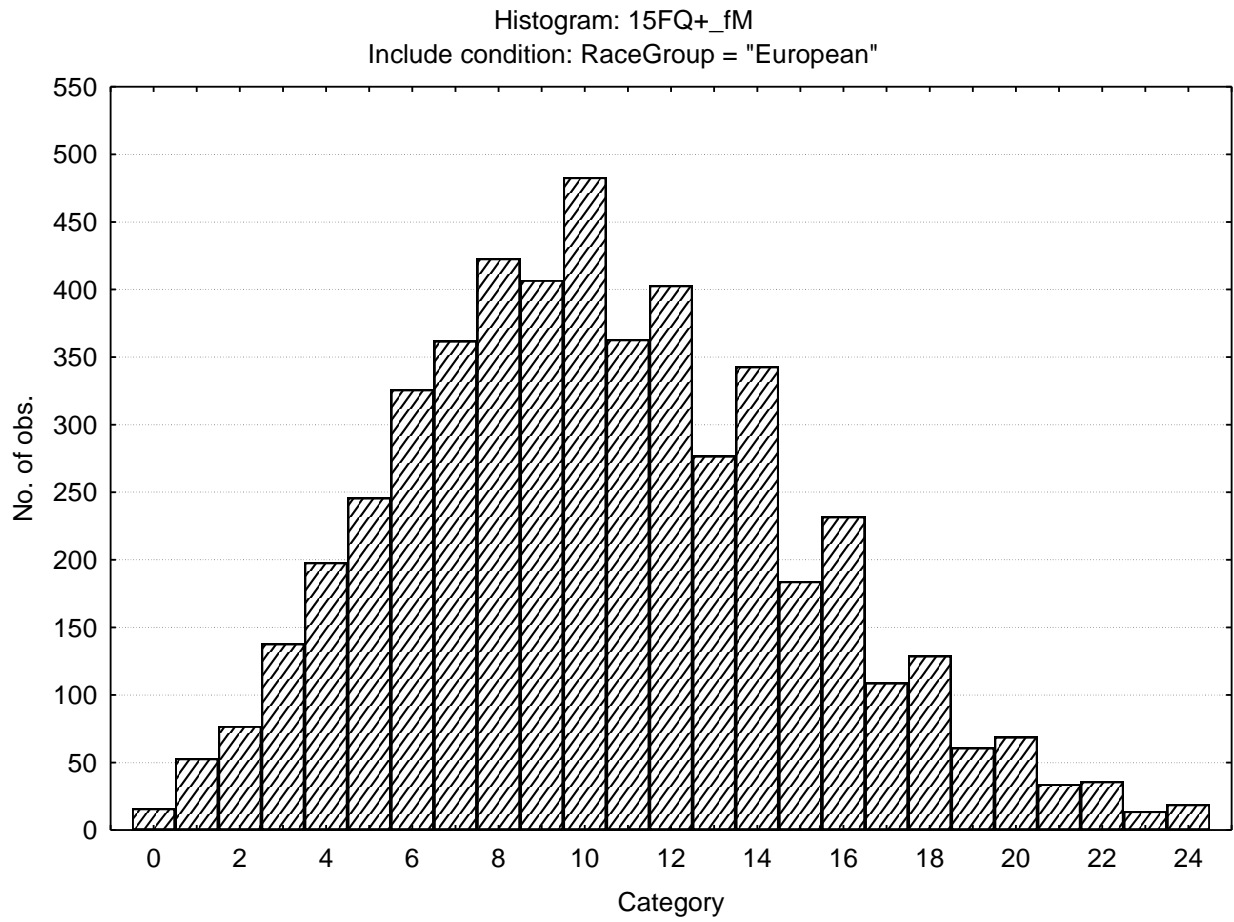
Tough minded - Tender minded



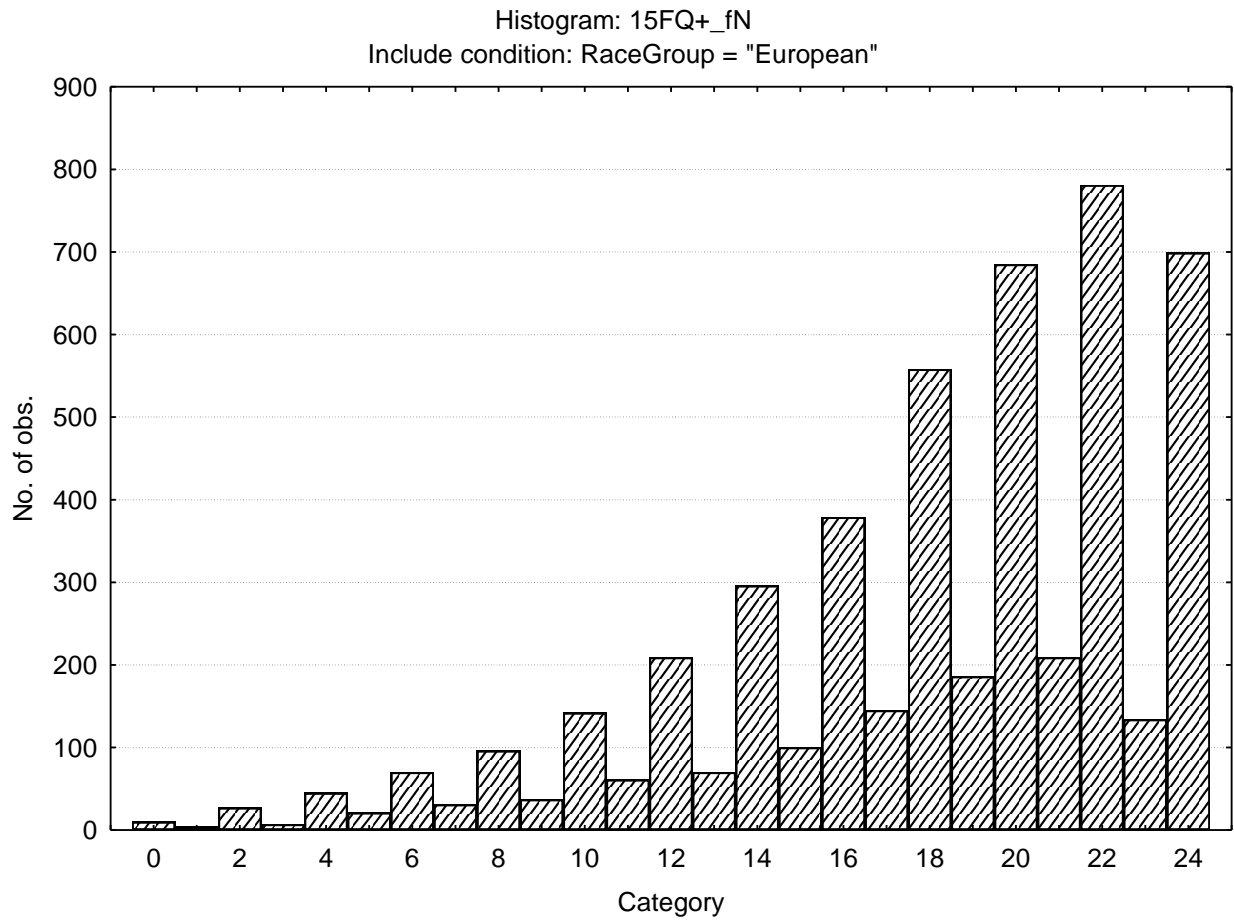
Trusting - Suspicious



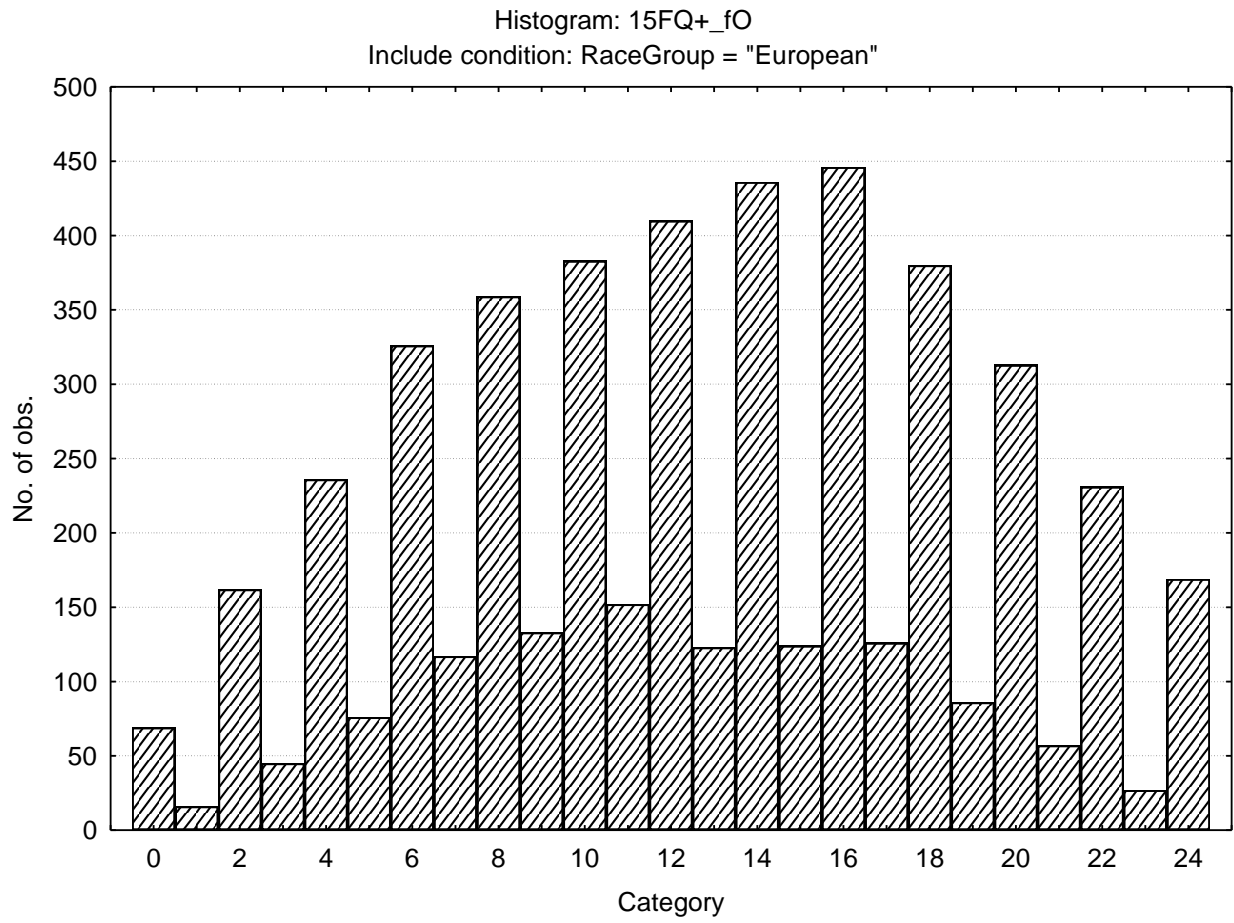
Concrete - Abstract



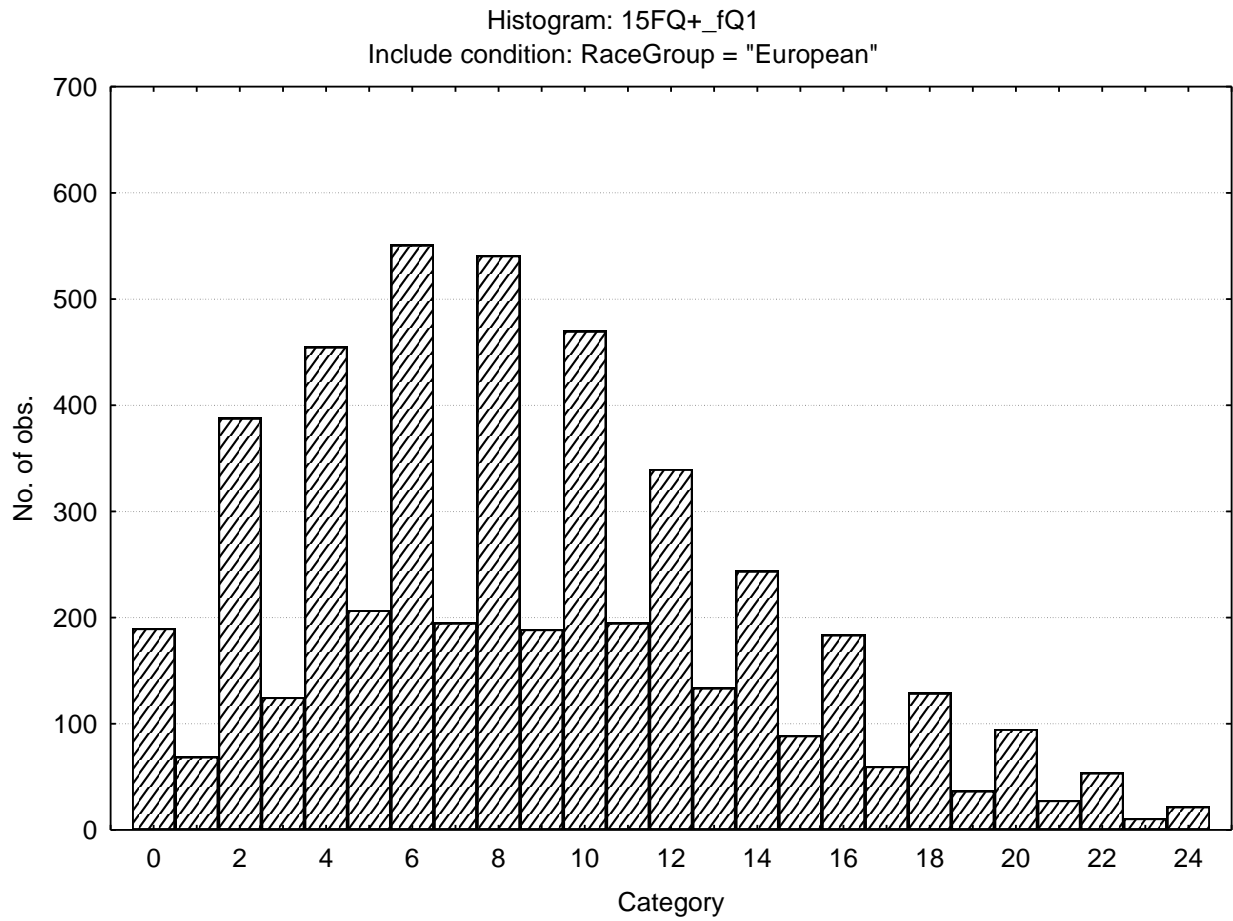
Direct - Restrained



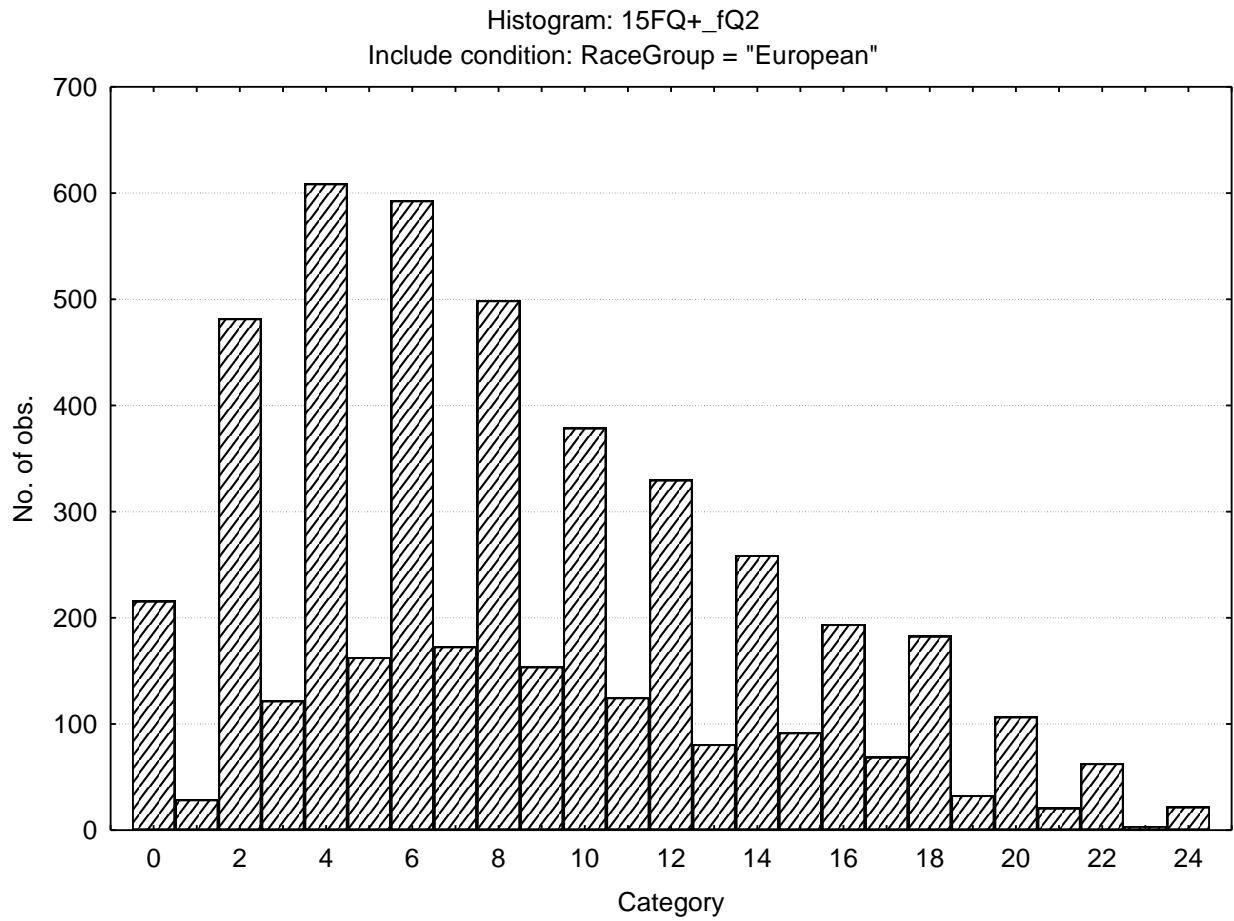
Self assured - Apprehensive



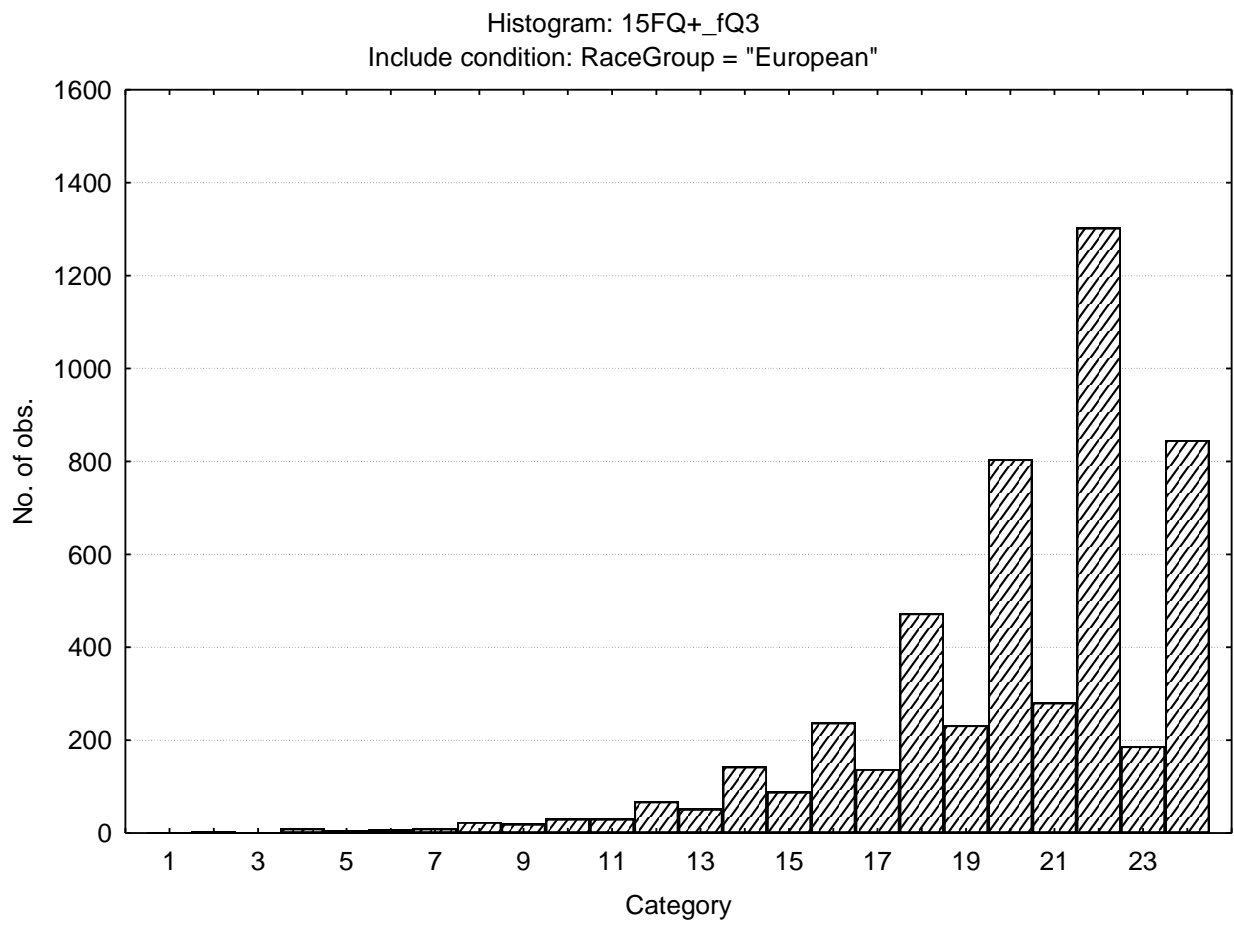
Conventional - Radical



Group orientated - Self-sufficient



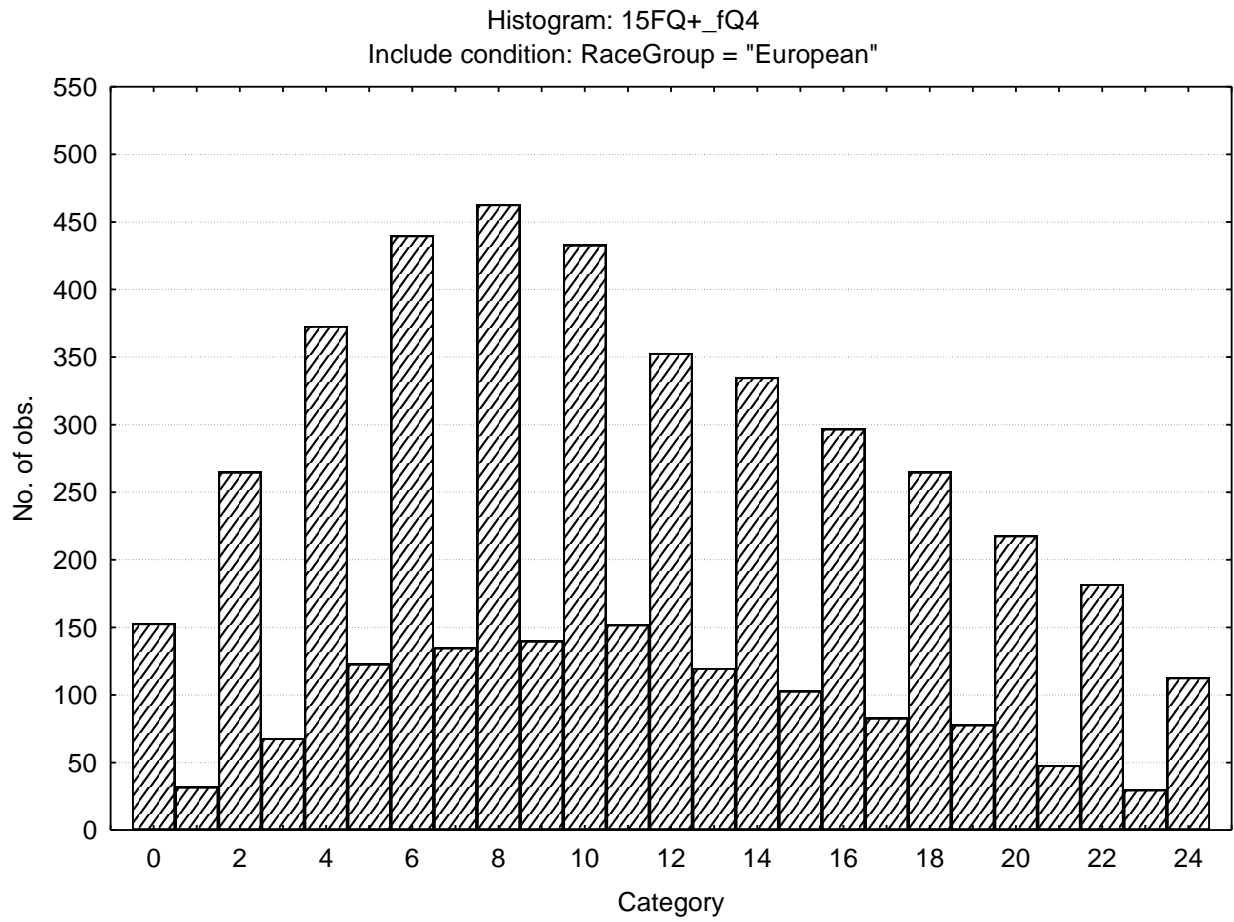
Informal – Self disciplined



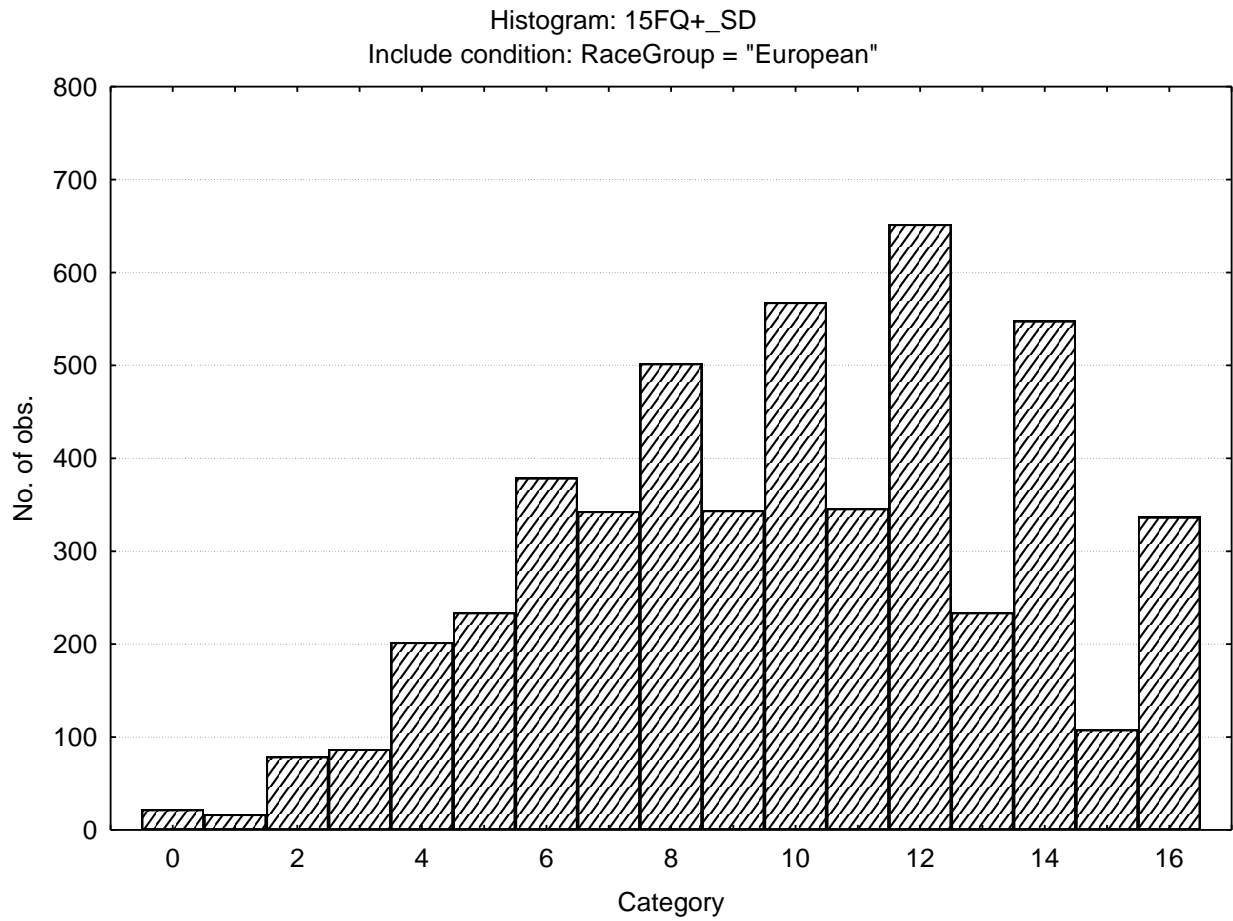
N16-18

Updated 13 July 2010

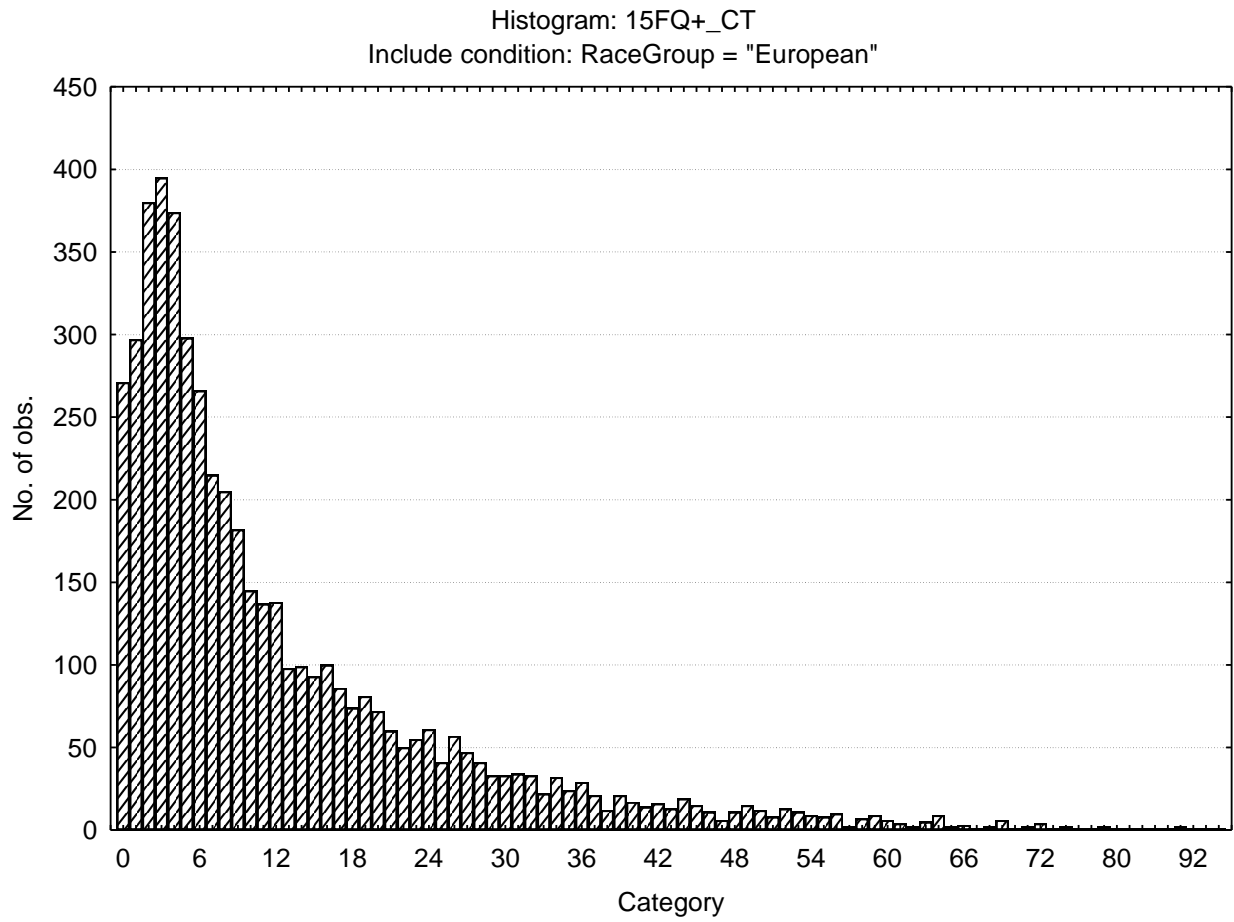
Composed - Tense driven



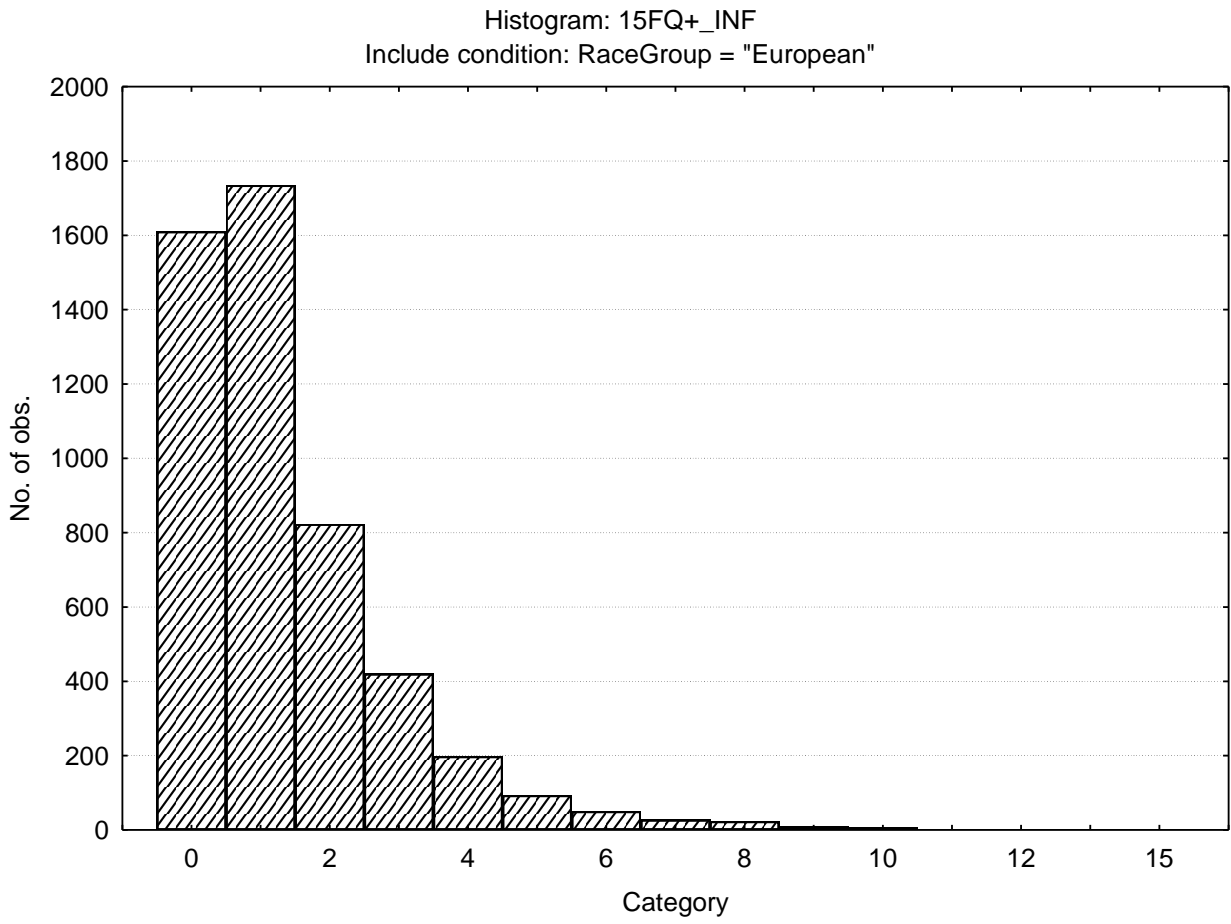
Social desirability



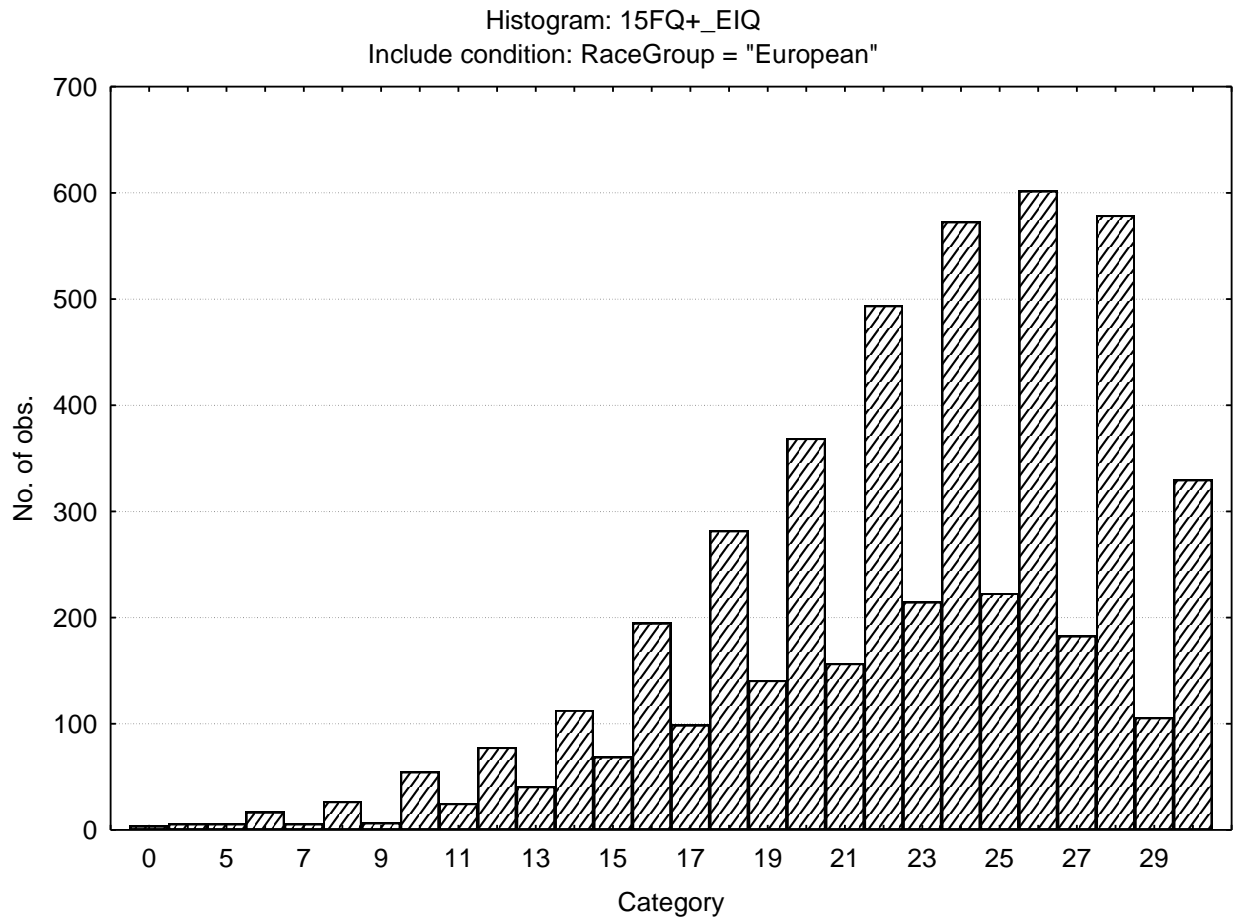
Central Tendency



Infrequency



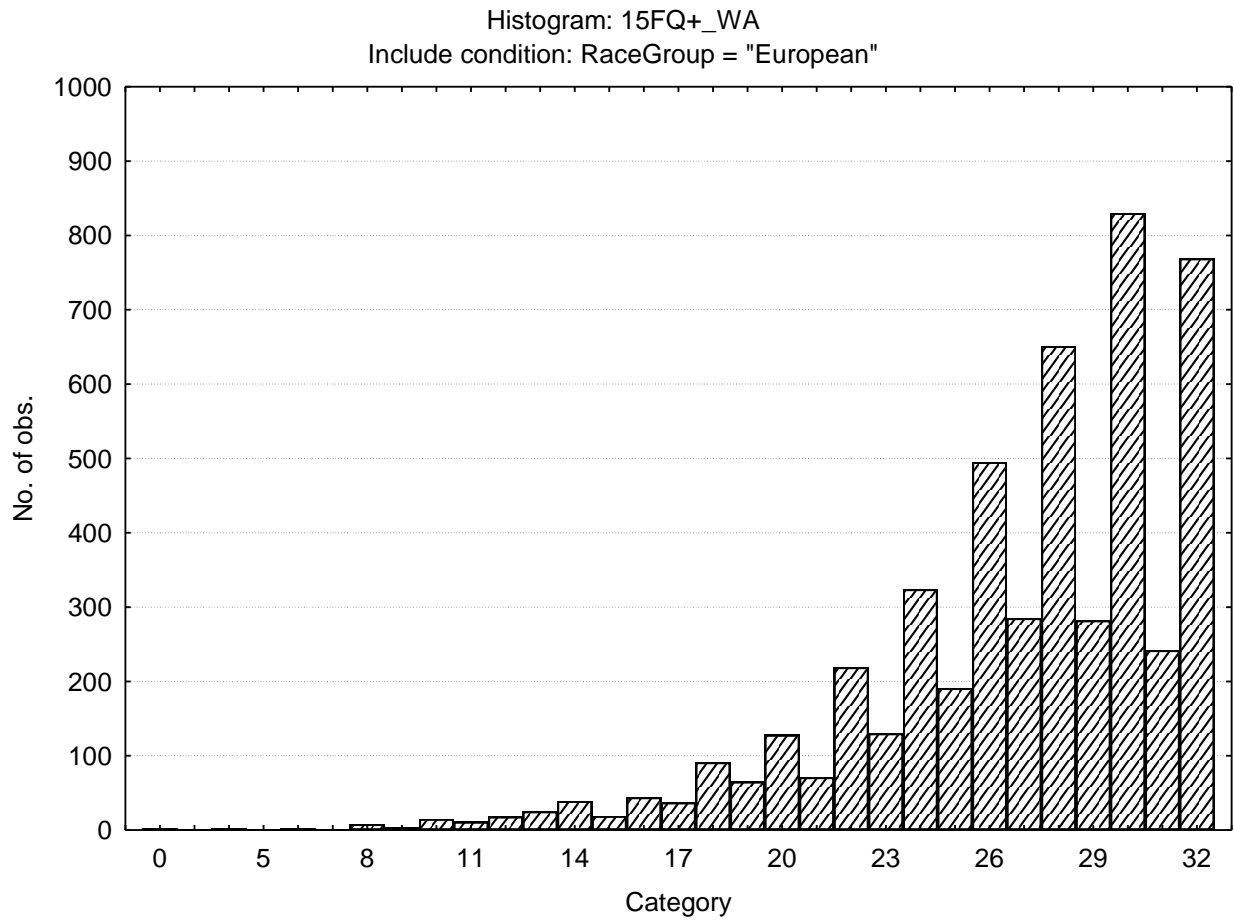
Emotional Intelligence



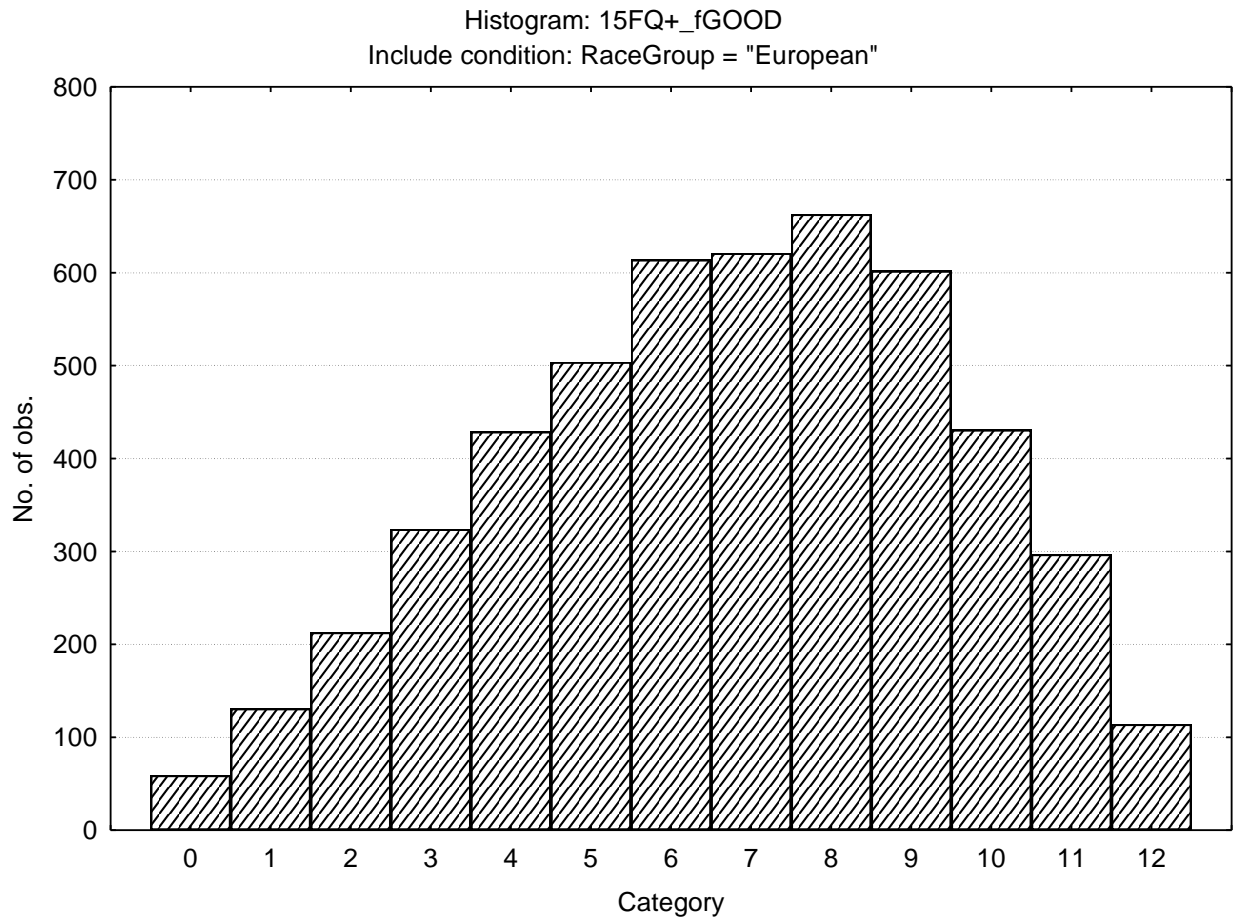
N16-23

Updated 13 July 2010

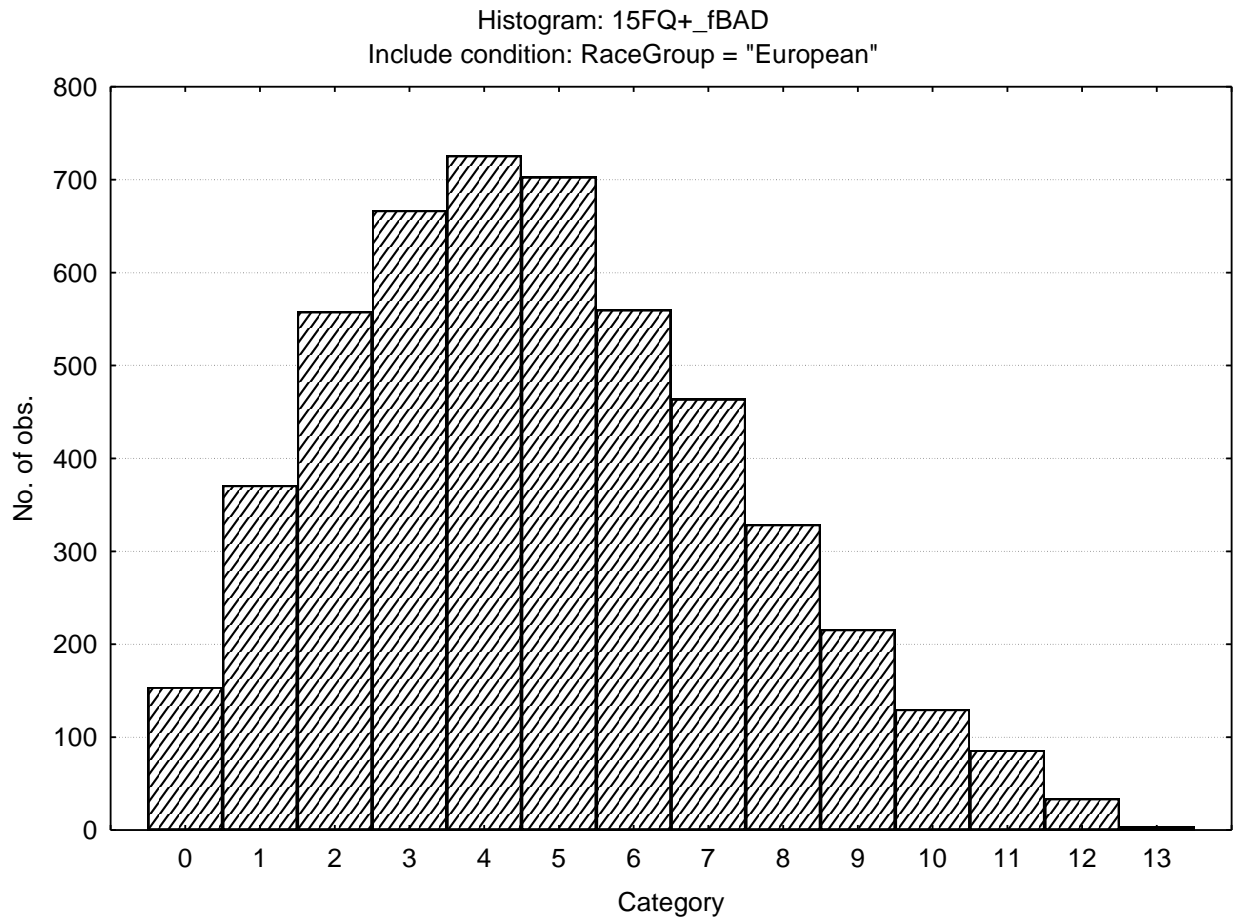
Work Attitude



Faking Good



Faking Bad



Sten table

		<i>S10_1</i>	<i>S10_2</i>	<i>S10_3</i>	<i>S10_4</i>	<i>S10_5</i>	<i>S10_6</i>	<i>S10_7</i>	<i>S10_8</i>	<i>S10_9</i>	<i>S10_10</i>
15FQ+_fA	<i>Distant aloof - empathic</i>	1-9	10-11	12-14	15-16	17-18	19-20	21-22	23-24		
15FQ+_B	<i>Intellectance</i>	0-11	12-13	14-15	16-17	18-19	20-21	22-24			
15FQ+_fC	<i>Affected by feelings - emotionally stable</i>	0-6	7-9	10-11	12-14	15-17	18-19	20-22	23-24		
15FQ+_fE	<i>Accommodating - Dominant</i>	0-6	7-9	10-11	12-14	15-16	17-19	20-21	22-23	24-24	
15FQ+_fF	<i>Sober serious - Enthusiastic</i>	0-3	4-5	6-8	9-11	12-14	15-17	18-20	21-23	24-24	
15FQ+_fG	<i>Expedient - Conscientious</i>	0-8	9-11	12-13	14-16	17-18	19-21	22-23	24-24		
15FQ+_fH	<i>Retiring - Socially bold</i>	0-1	2-4	5-7	8-11	12-14	15-17	18-20	21-24		
15FQ+_fI	<i>Tough Minded - Tender minded</i>	0-3	4-6	7-8	9-11	12-14	15-16	17-19	20-22	23-24	
15FQ+_fL	<i>Trusting - Suspicious</i>	0--1	0-0	1-3	4-5	6-8	9-10	11-13	14-16	17-18	19-24
15FQ+_fM	<i>Concrete - Abstract</i>	0-1	2-3	4-5	6-8	9-10	11-12	13-14	15-17	18-19	20-24
15FQ+_fN	<i>Direct - Restrained</i>	0-8	9-10	11-13	14-15	16-18	19-20	21-23	24-24		
15FQ+_fO	<i>Self-assured - Apprehensive</i>	0-0	1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24	

N16-27

Updated 13 July 2010

		<i>S10_1</i>	<i>S10_2</i>	<i>S10_3</i>	<i>S10_4</i>	<i>S10_5</i>	<i>S10_6</i>	<i>S10_7</i>	<i>S10_8</i>	<i>S10_9</i>	<i>S10_10</i>
15FQ+_fQ1	<i>Conventional - Radical</i>	0--1	0-0	1-3	4-6	7-8	9-11	12-13	14-16	17-19	20-24
15FQ+_fQ2	<i>Group - orientated - Self-sufficient</i>	0--1	0-0	1-3	4-5	6-8	9-11	12-14	15-16	17-19	20-24
15FQ+_fQ3	<i>Informal- self disciplined</i>	1-12	13-14	15-16	17-18	19-20	21-21	22-23	24-24		
15FQ+_fQ4	<i>Composed - tense driven</i>	0--1	0-1	2-4	5-7	8-10	11-14	15-17	18-20	21-23	24-24
15FQ+_SD	<i>Social desirability</i>	0-2	3-4	5-6	7-8	9-9	10-11	12-13	14-15	16-16	
15FQ+_CT	<i>Central Tendency</i>	0--1	0-0	1-1	2-5	6-12	13-19	20-26	27-33	34-40	41-146
15FQ+_INF	<i>Infrequency</i>	0--1	0-0	1-1	2-2	3-3	4-4	5-5	6-6	7-7	8-15
15FQ+_EIQ	<i>Derived score: Emotional Intelligence</i>	0-12	13-15	16-17	18-20	21-22	23-25	26-27	28-30		
15FQ+_WA	<i>Derived score: Work attitude</i>	0-17	18-19	20-22	23-24	25-26	27-29	30-31	32-32		
15FQ+_fGOOD	<i>Faking good</i>	0-1	2-2	3-3	4-5	6-6	7-8	9-9	10-10	11-12	
15FQ+_fBAD	<i>Faking bad</i>	0--1	0-0	1-2	3-3	4-4	5-6	7-7	8-8	9-10	11-13

Norm group: South Africans, race Coloured, Updated 2010

Composition of the sample

The sample consisted of 1124 South Africans who described their race group as Coloured, tested in the period up to February 2010

Gender Composition of the sample

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	483	483	42.97153	42.9715
M	636	1119	56.58363	99.5552
Missing	5	1124	0.44484	100.0000

Educational composition of the sample

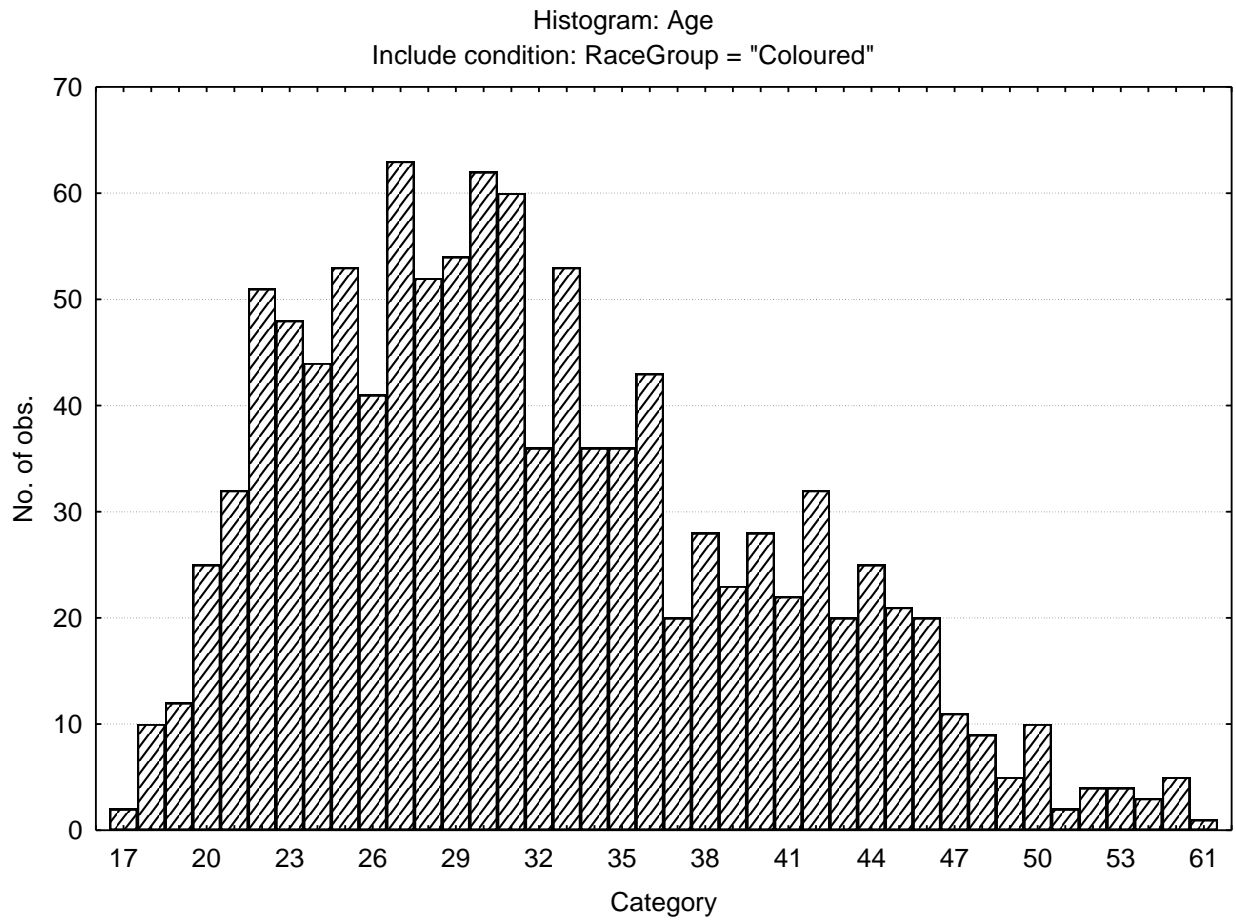
Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	456	456	40.56940	40.5694
Degree	124	580	11.03203	51.6014
Post Graduate	101	681	8.98577	60.5872
Technikon	137	818	12.18861	72.7758
University diploma	64	882	5.69395	78.4698
Grade 10 or 11	58	940	5.16014	83.6299
Vocational Training	41	981	3.64769	87.2776
Diploma	16	997	1.42349	88.7011
Certificate	13	1010	1.15658	89.8577
Missing	114	1124	10.14235	100.0000

Language composition of the sample

Category	Frequency table: LangGroup			
	Count	Cumulative Count	Percent	Cumulative Percent
Indigenous	7	7	0.62278	0.6228
Afrikaans	315	322	28.02491	28.6477
English	745	1067	66.28114	94.9288
Missing	57	1124	5.07117	100.0000

Age composition of the sample

Variable	Descriptive Statistics					No.cases Missing
	Mean	Std.Dev	Minimum	Maximum	N	
Age	31.88879	8.159569	17.00000	61.00000	1106	18

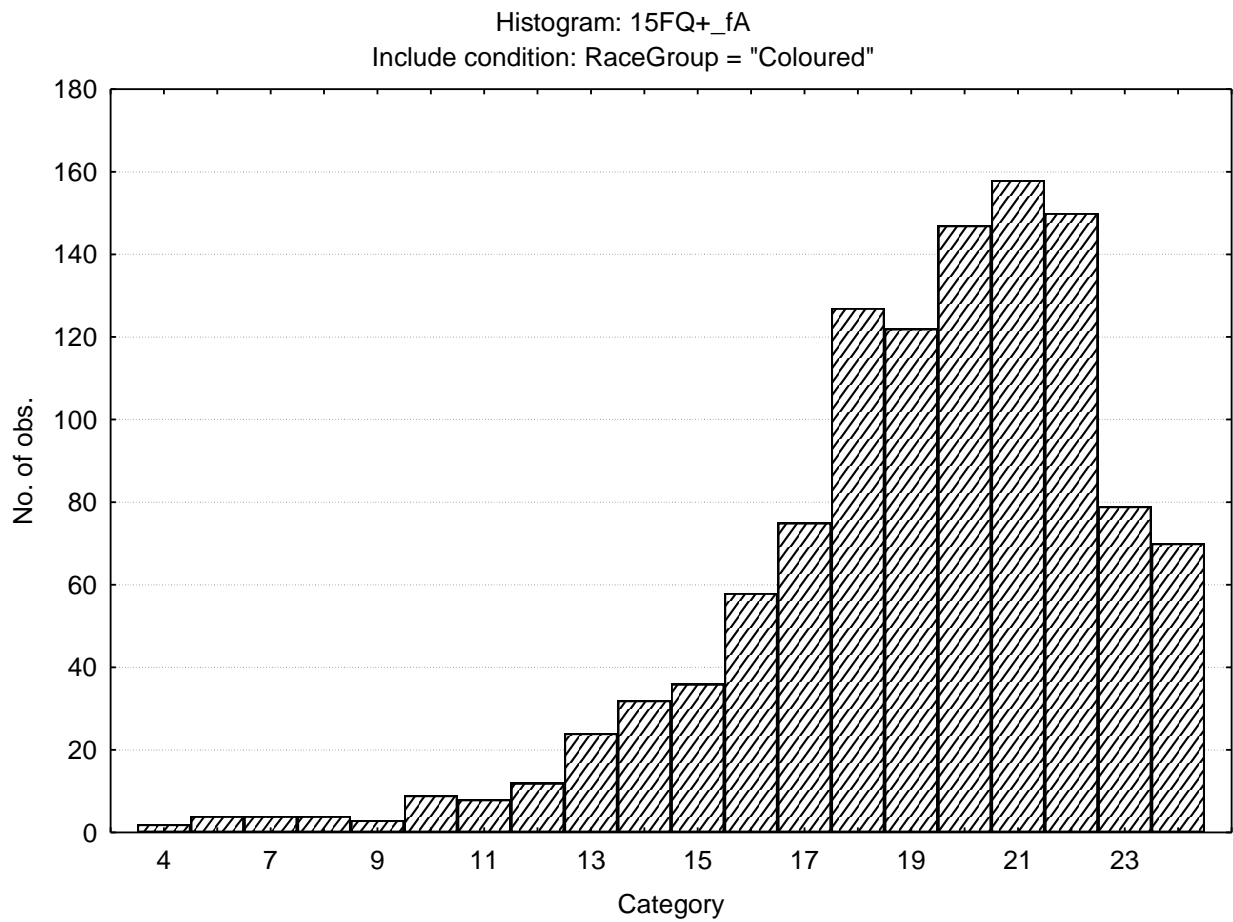


Descriptive statistics on 15FQPlus raw scores

Variable		Descriptive Statistics					
		Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
15FQ+_fA	<i>Distant aloof - empathic</i>	19.21975	3.34865	4.00000	24.0000	1124	0
15FQ+_B	<i>Intellectance</i>	19.99644	3.99978	2.00000	24.0000	1124	0
15FQ+_fC	<i>Affected by feelings - emotionally stable</i>	17.44306	4.40607	1.00000	24.0000	1124	0
15FQ+_fE	<i>Accommodating - Dominant</i>	16.53381	4.06292	1.00000	24.0000	1124	0
15FQ+_fF	<i>Sober serious - Enthusiastic</i>	15.02847	5.26798	0.00000	24.0000	1124	0
15FQ+_fG	<i>Expedient - Conscientious</i>	19.37633	4.31257	1.00000	24.0000	1124	0
15FQ+_fH	<i>Retiring - Socially bold</i>	15.62544	5.84082	0.00000	24.0000	1124	0
15FQ+_fI	<i>Tough Minded - Tender minded</i>	15.09253	5.10254	0.00000	24.0000	1124	0
15FQ+_fL	<i>Trusting - Suspicious</i>	9.17794	4.95037	0.00000	24.0000	1124	0
15FQ+_fM	<i>Concrete - Abstract</i>	10.25979	3.95794	0.00000	24.0000	1124	0
15FQ+_fN	<i>Direct - Restrained</i>	19.21085	4.06284	0.00000	24.0000	1124	0
15FQ+_fO	<i>Self-assured - Apprehensive</i>	12.16637	5.39201	0.00000	24.0000	1124	0
15FQ+_fQ1	<i>Conventional - Radical</i>	8.99021	4.79266	0.00000	24.0000	1124	0
15FQ+_fQ2	<i>Group - orientated - Self-sufficient</i>	7.48932	4.77050	0.00000	24.0000	1124	0
15FQ+_fQ3	<i>Informal- self disciplined</i>	20.62989	3.01584	4.00000	24.0000	1124	0
15FQ+_fQ4	<i>Composed - tense driven</i>	8.19128	5.37199	0.00000	24.0000	1124	0
15FQ+_SD	<i>Social desirability</i>	11.21441	3.50592	1.00000	16.0000	1124	0
15FQ+_CT	<i>Central Tendency</i>	11.20730	13.65230	0.00000	151.0000	1124	0
15FQ+_INF	<i>Infrequency</i>	1.27580	1.56045	0.00000	18.0000	1124	0
15FQ+_EIQ	<i>Derived score: Emotional Intelligence</i>	24.18594	4.12215	8.00000	30.0000	1124	0
15FQ+_WA	<i>Derived score: Work attitude</i>	27.60765	3.82963	10.00000	32.0000	1124	0
15FQ+_fGOOD	<i>Faking good</i>	7.52669	2.57258	0.00000	12.0000	1124	0
15FQ+_fBAD	<i>Faking bad</i>	4.26246	2.32903	0.00000	12.0000	1124	0

Frequency distributions for 15FQPlus raw scores

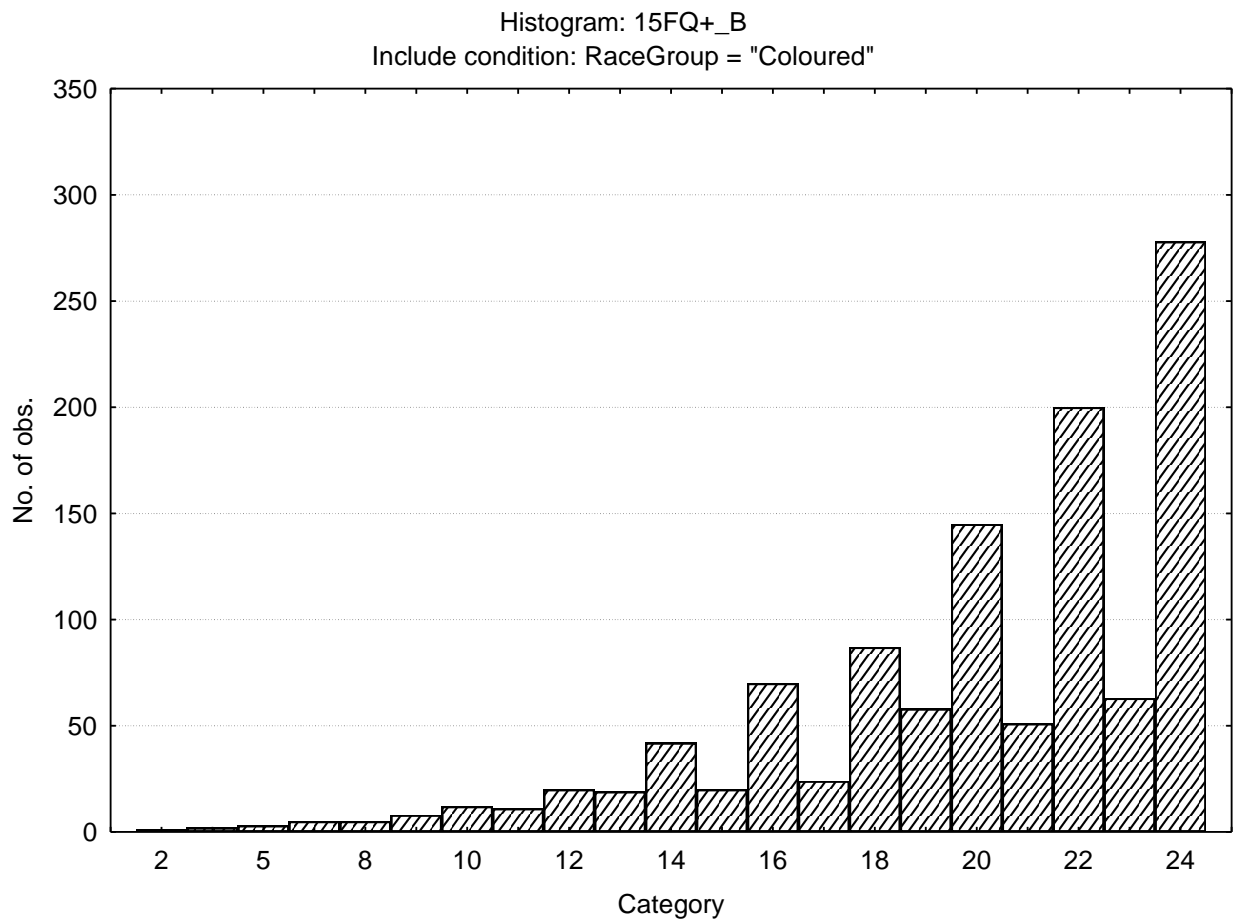
Distant aloof-Empathic



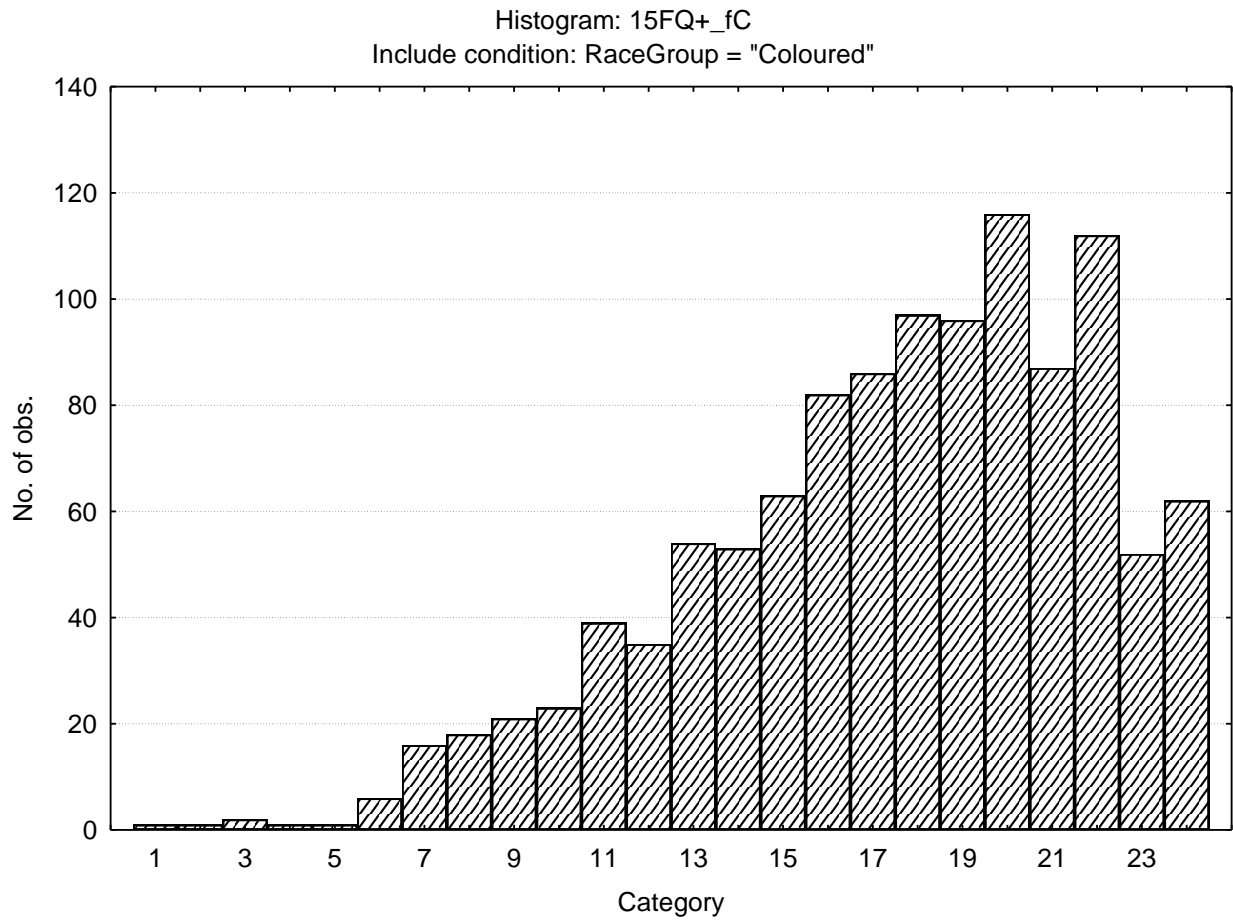
N17-5

Updated 20 July 2010

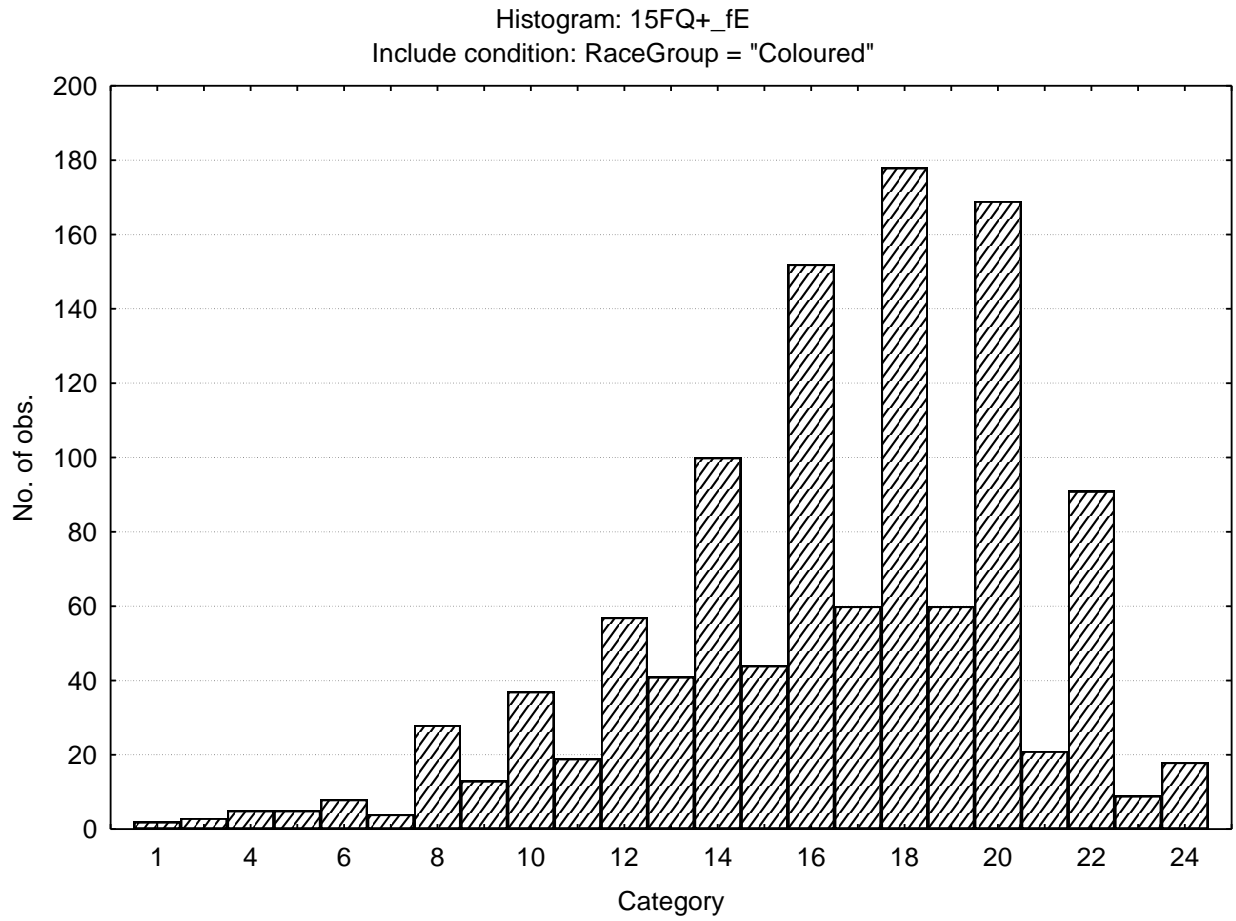
Intellectance



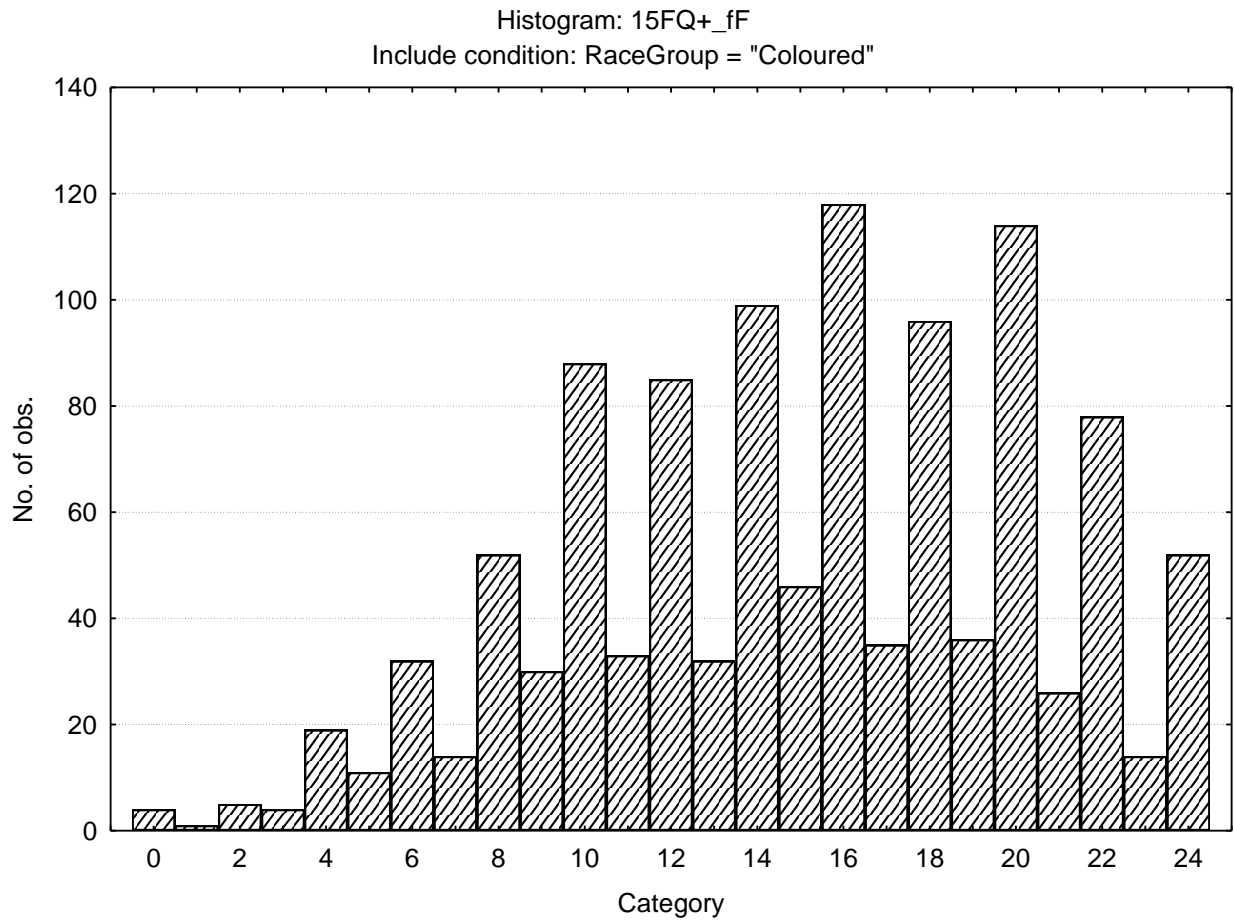
Affected by feelings - emotionally stable



Accommodating - Dominant



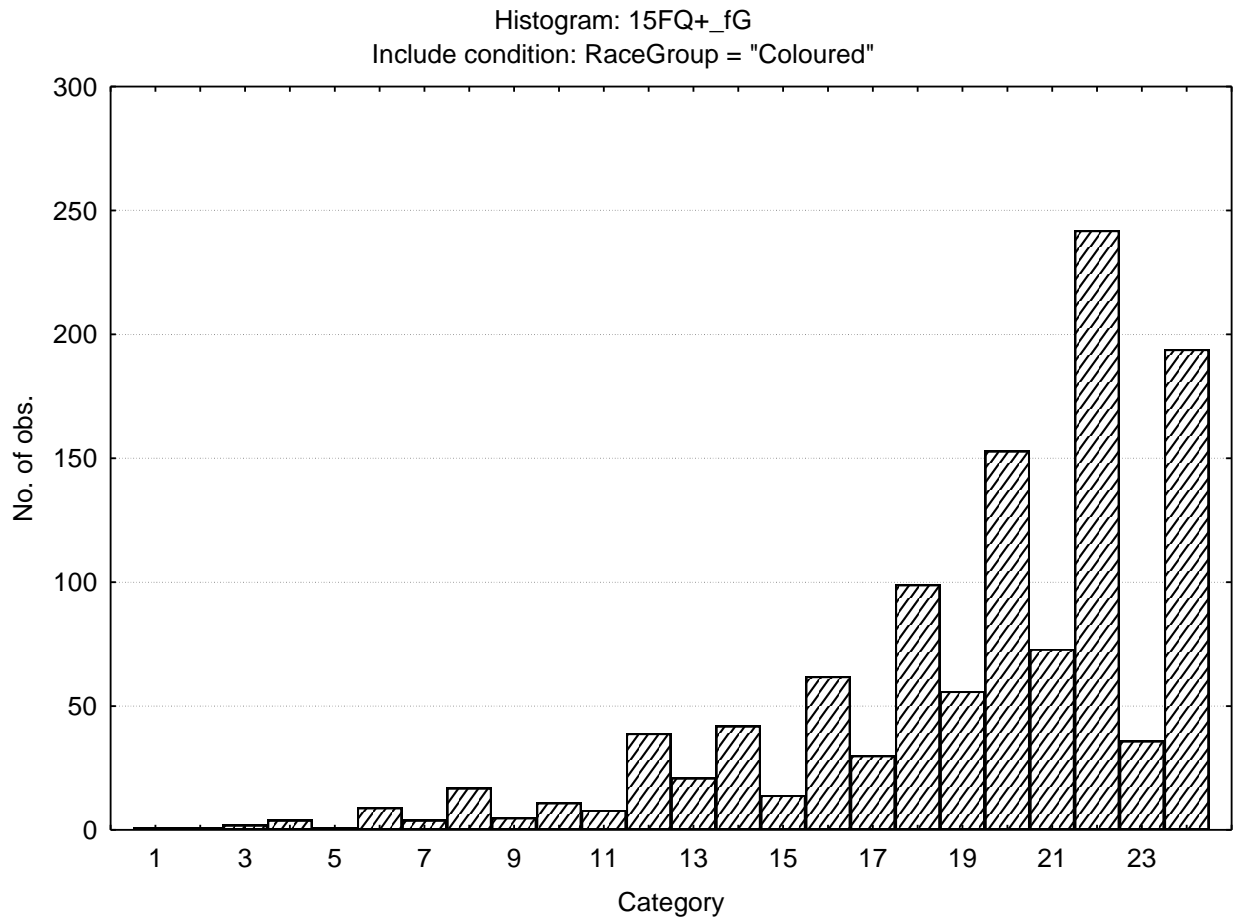
Sober Serious – Enthusiastic



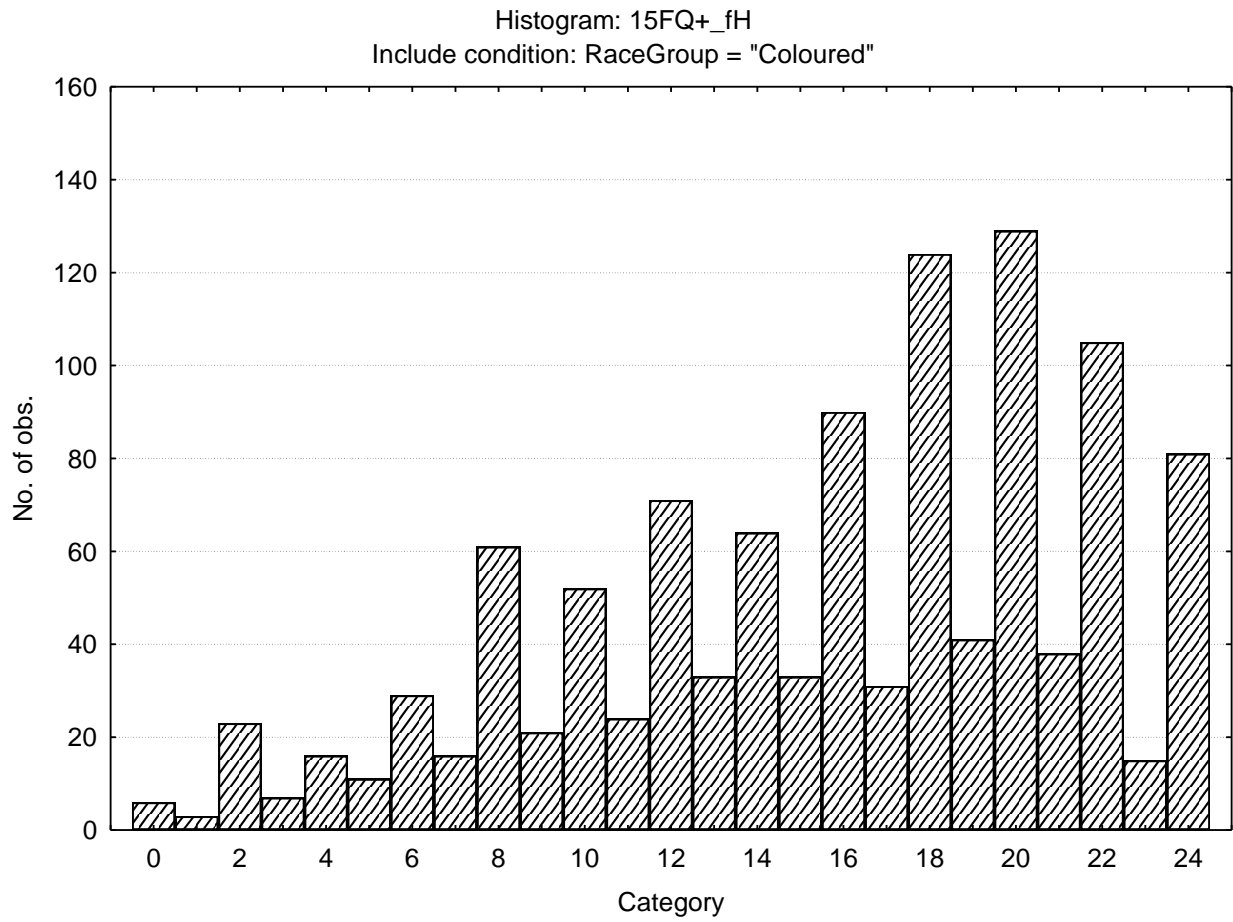
N17-9

Updated 20 July 2010

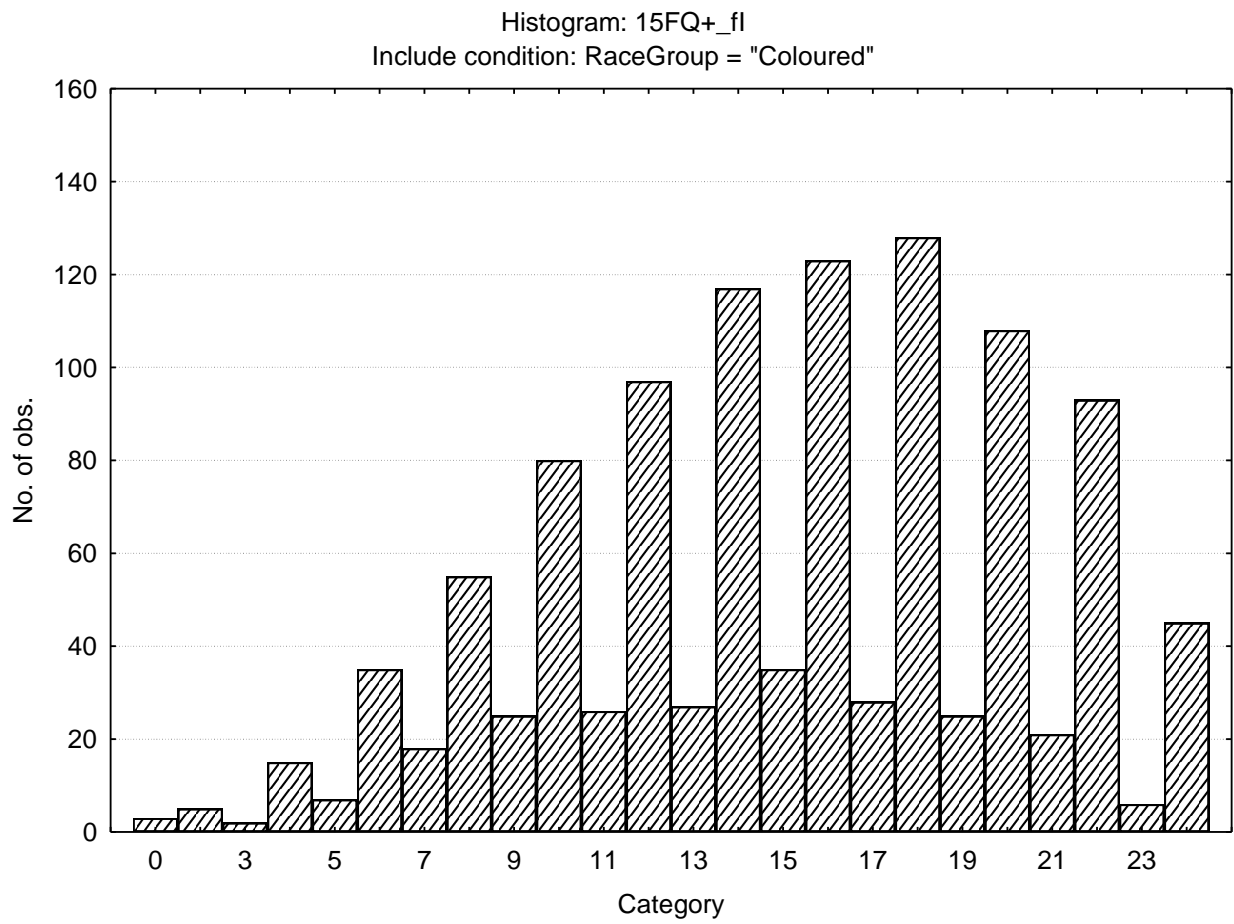
Expedient - Conscientious



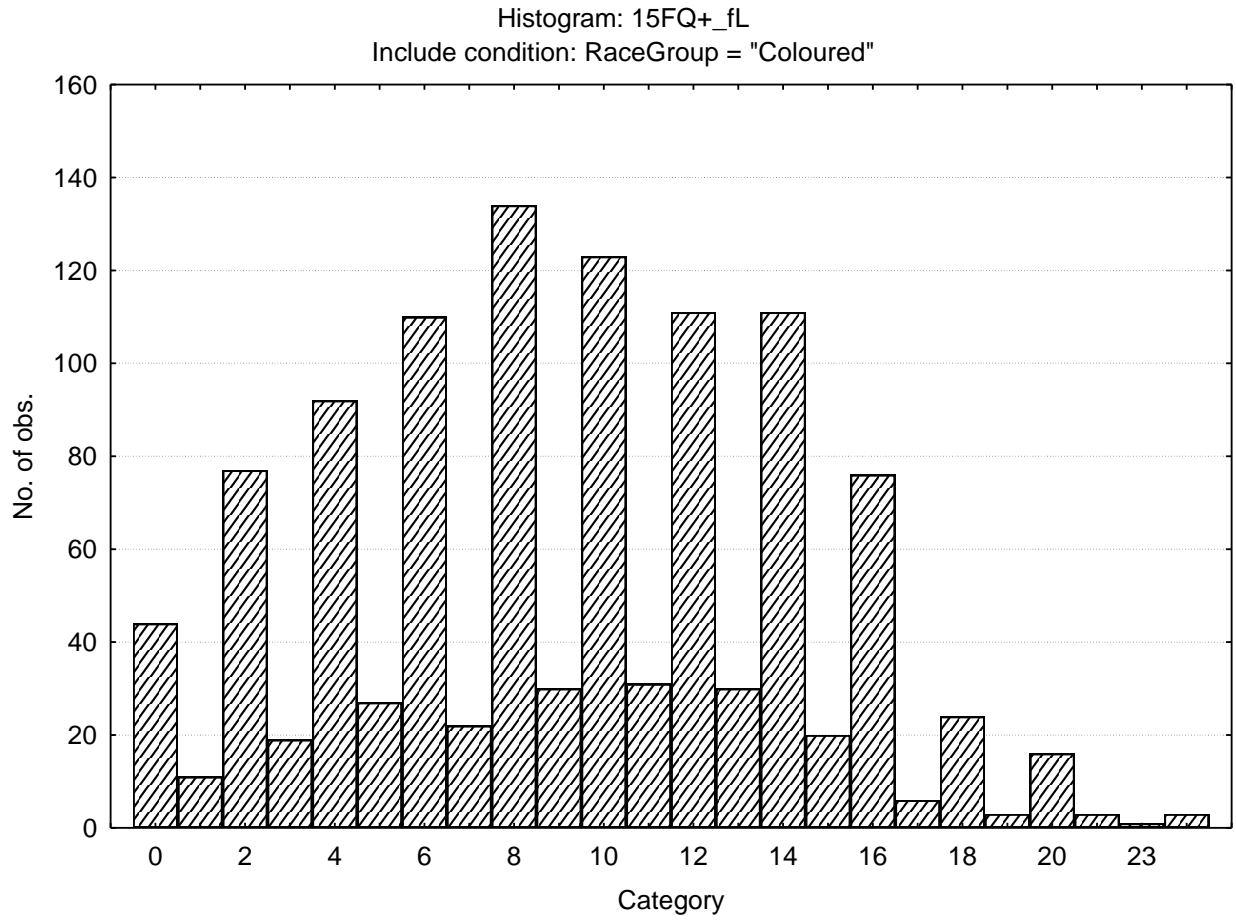
Retiring - Socially Bold



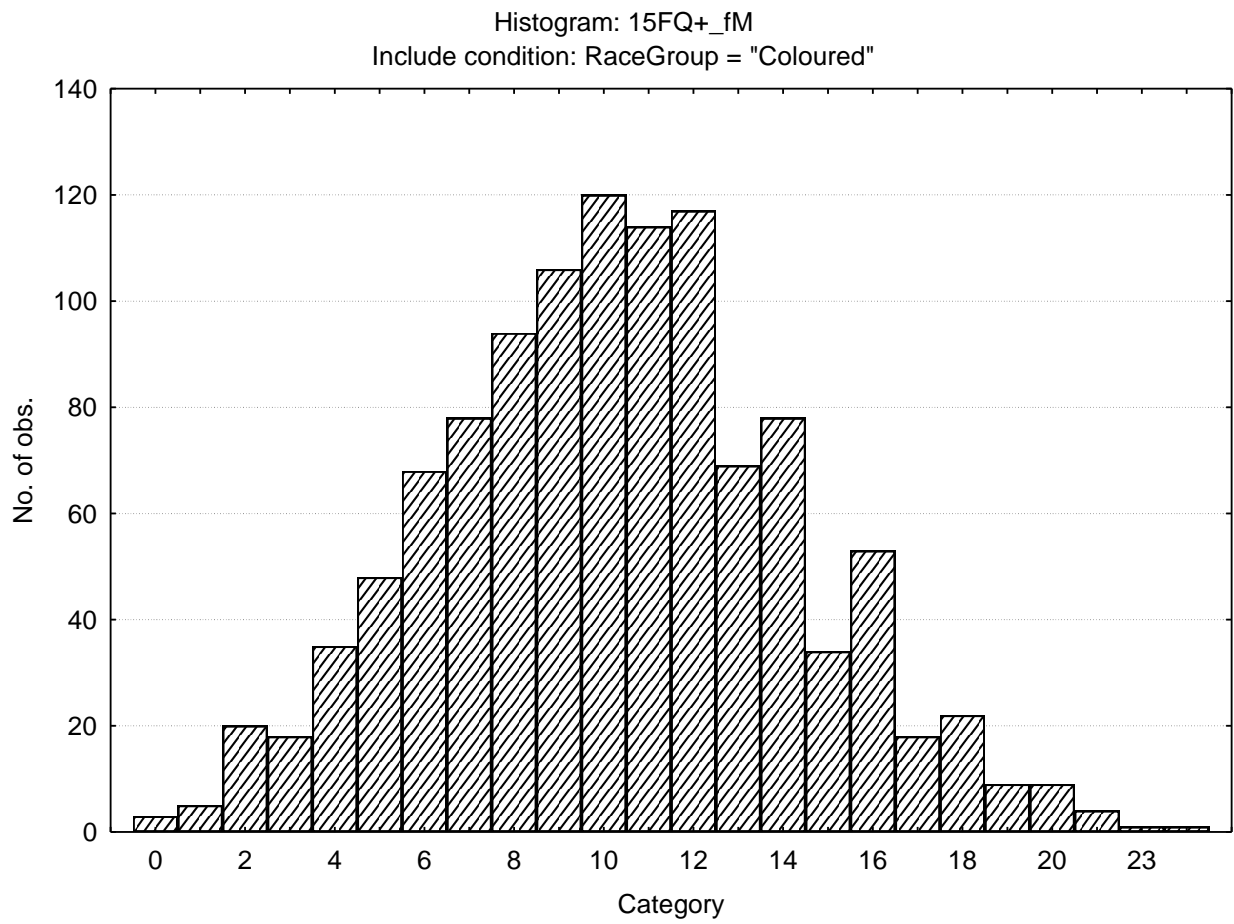
Tough Minded – Tender Minded



Trusting - Suspicious



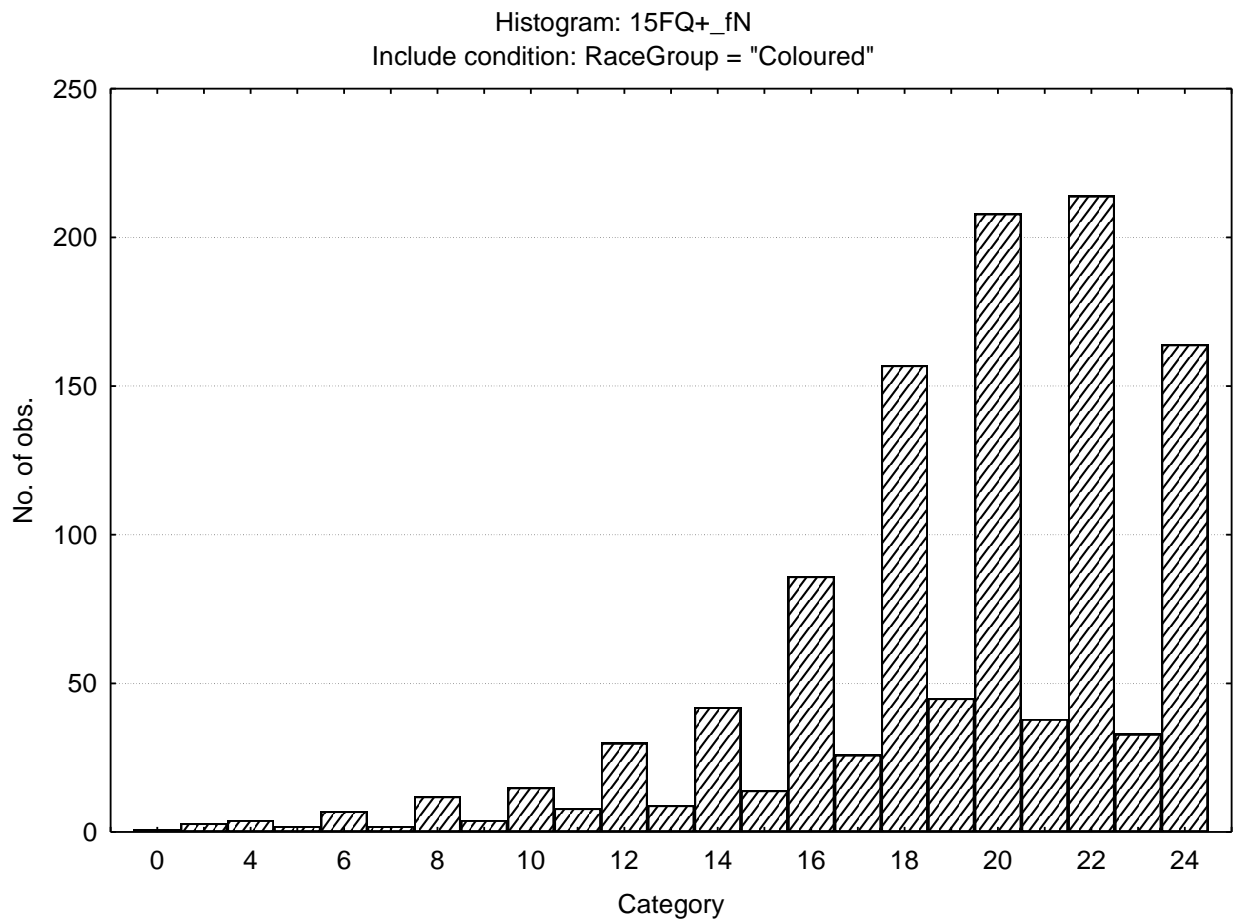
Concrete - Abstract



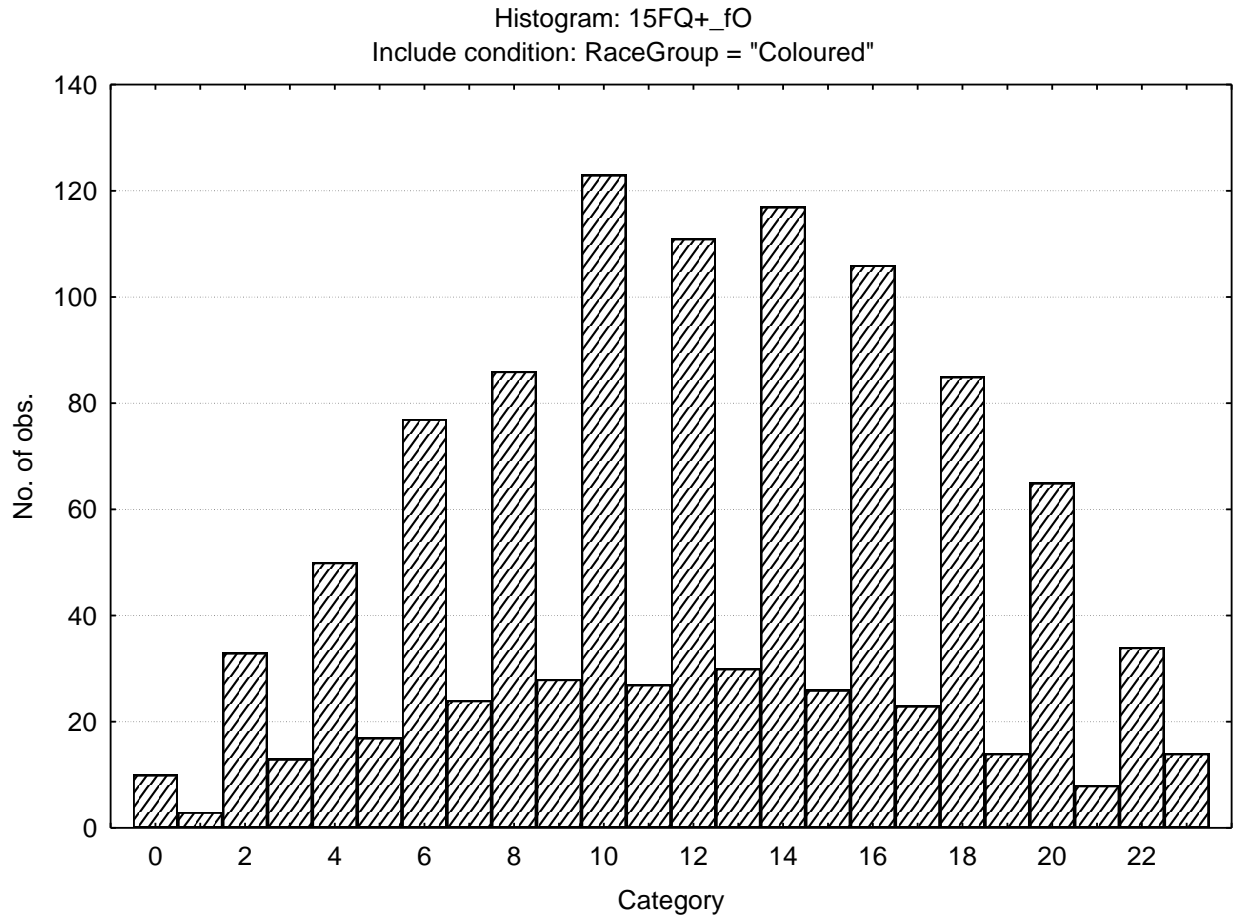
N17-14

Updated 20 July 2010

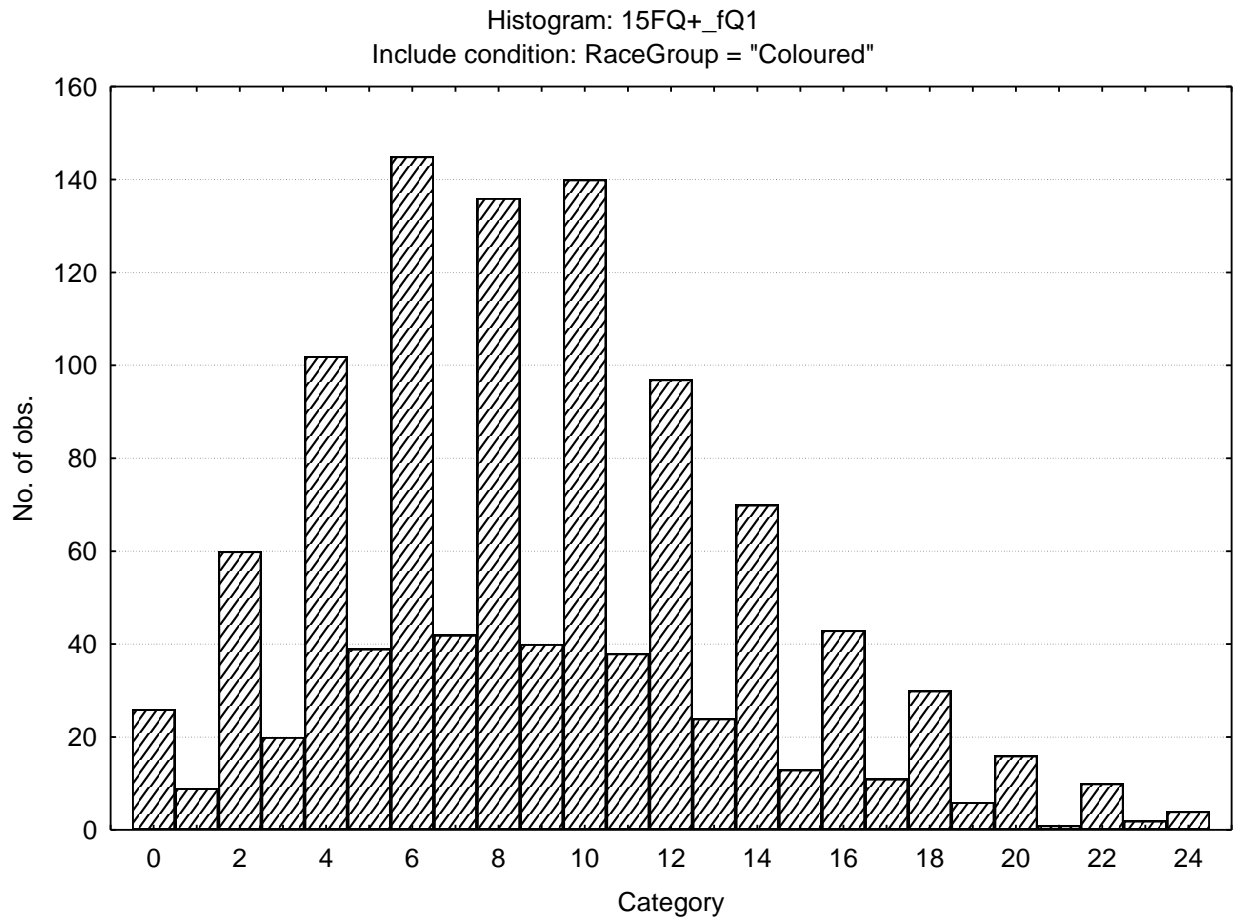
Direct - Restrained



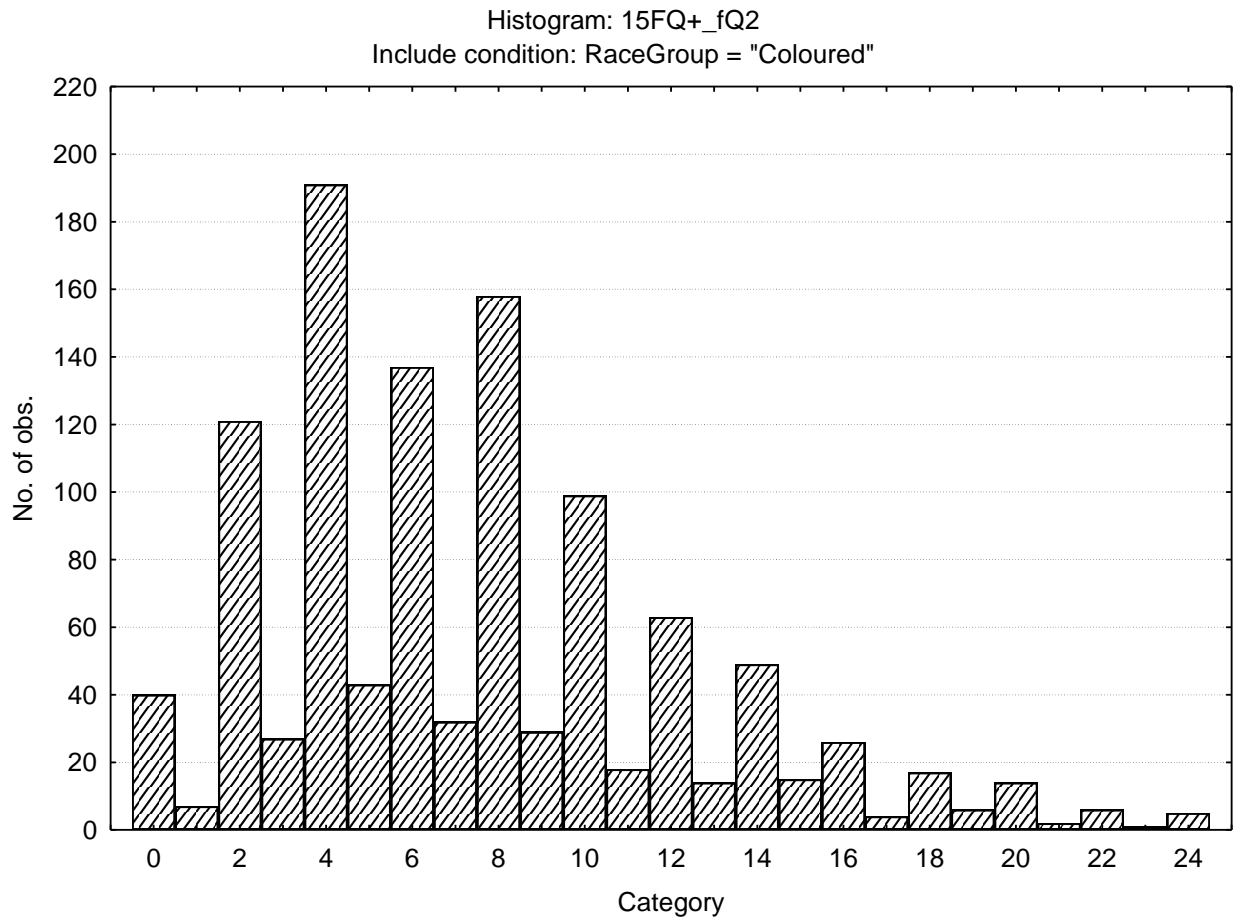
Self assured - Apprehensive



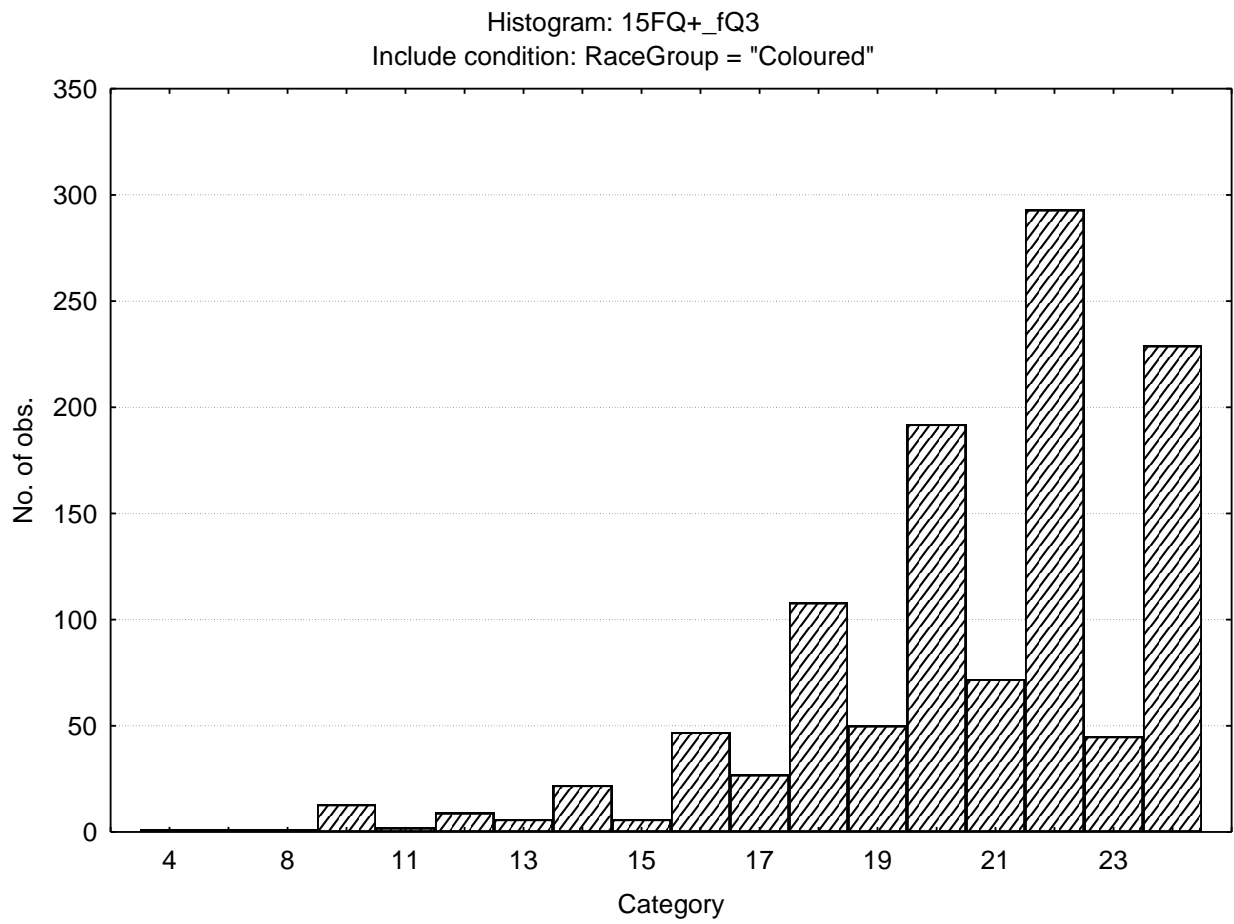
Conventional - Radical



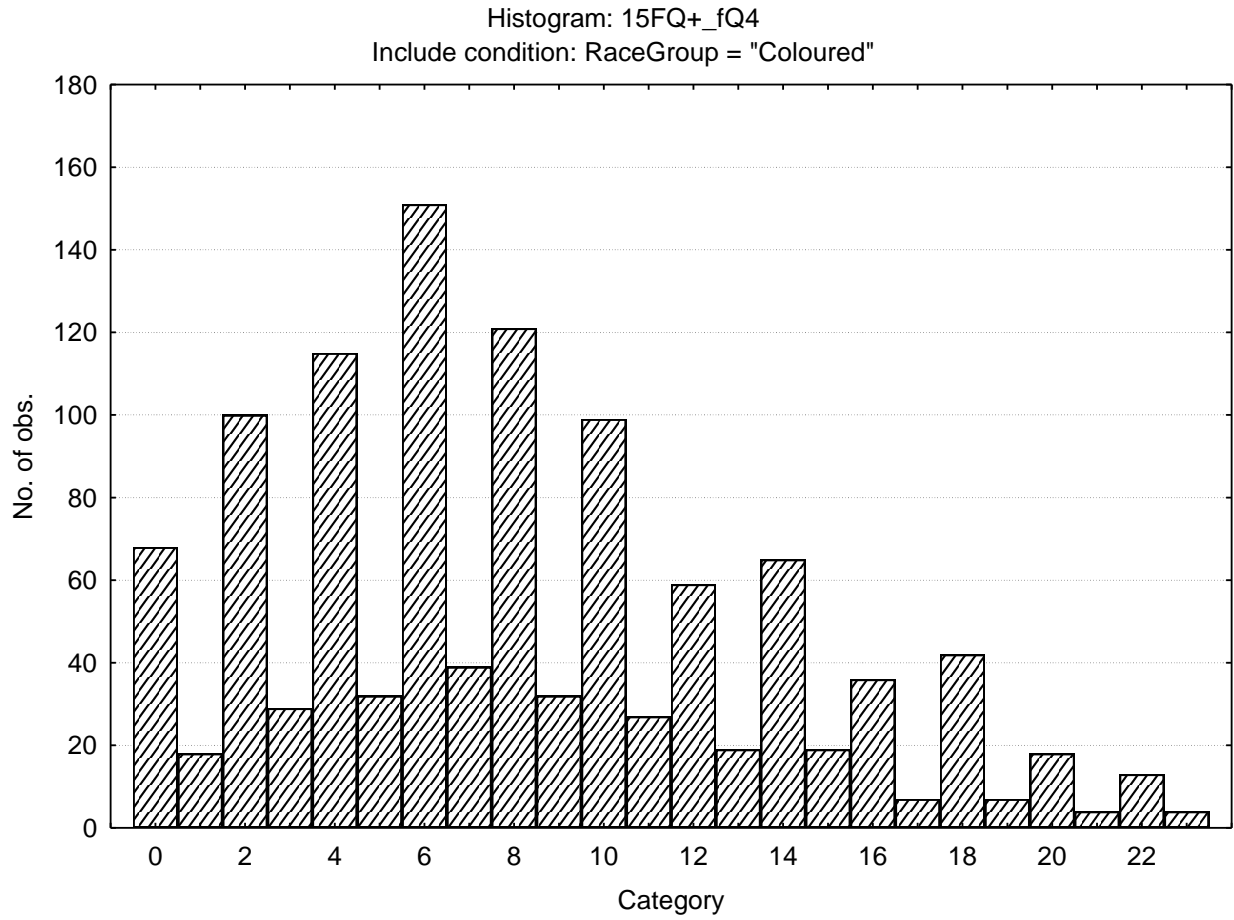
Group Orientated - Self Sufficient



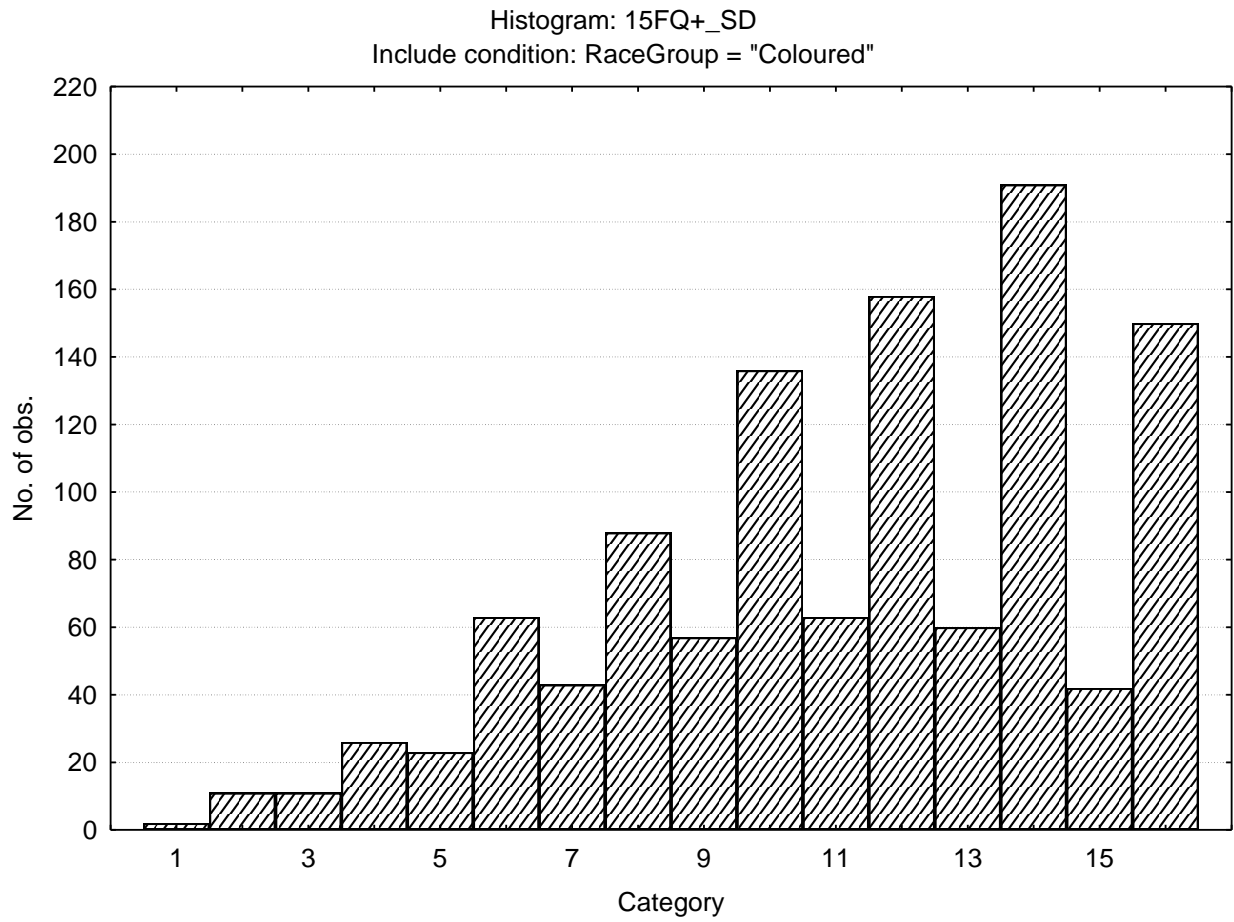
Informal – Self disciplined



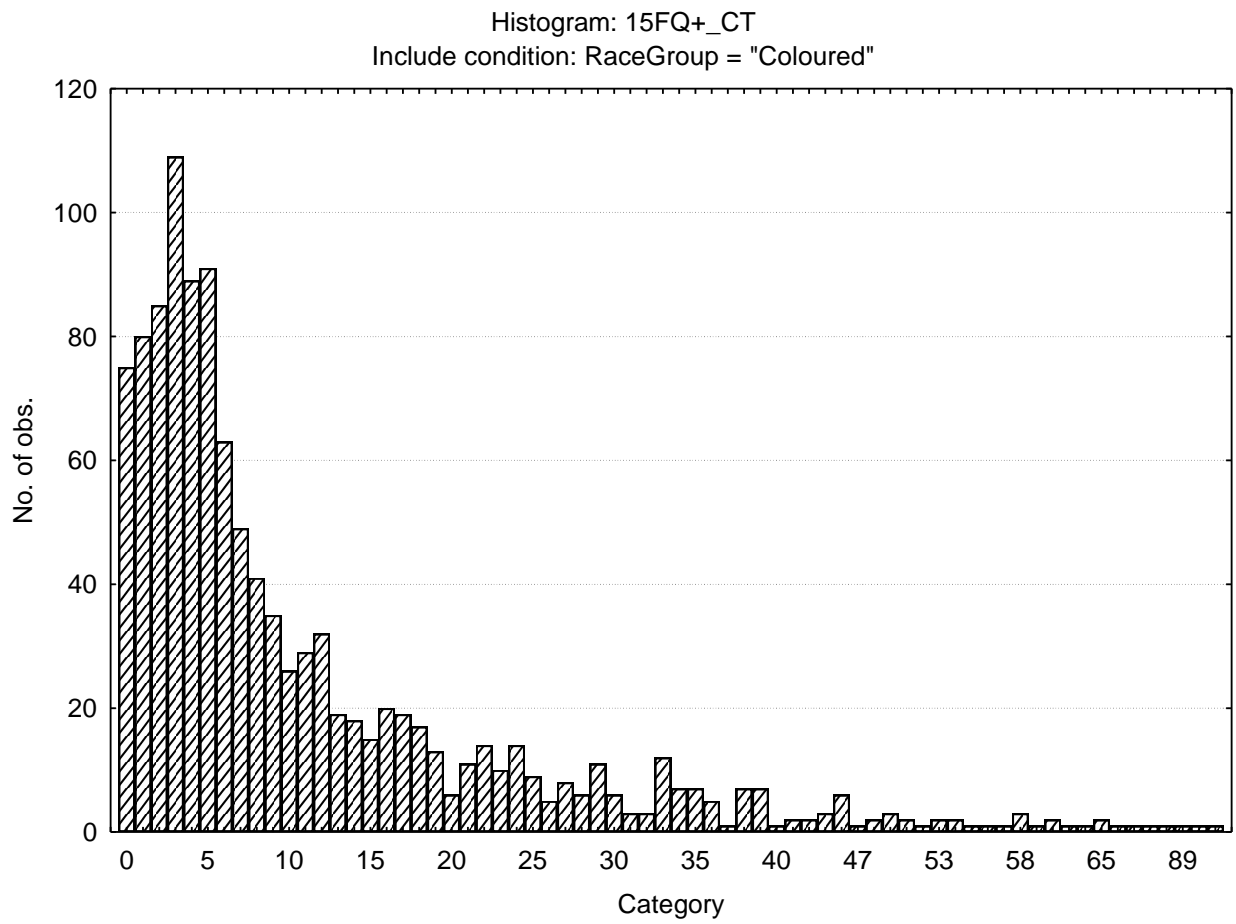
Composed - Tense Driven



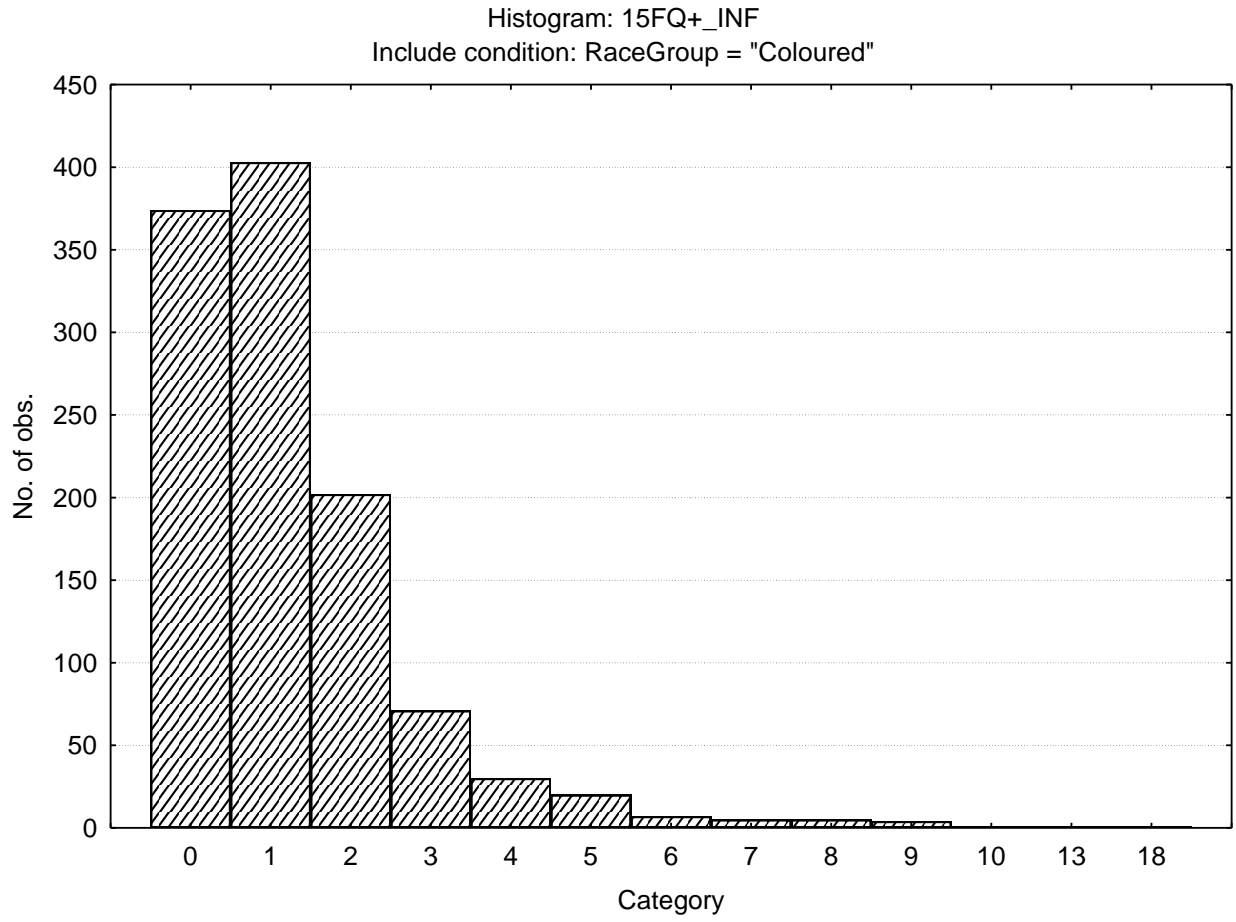
Social Desirability



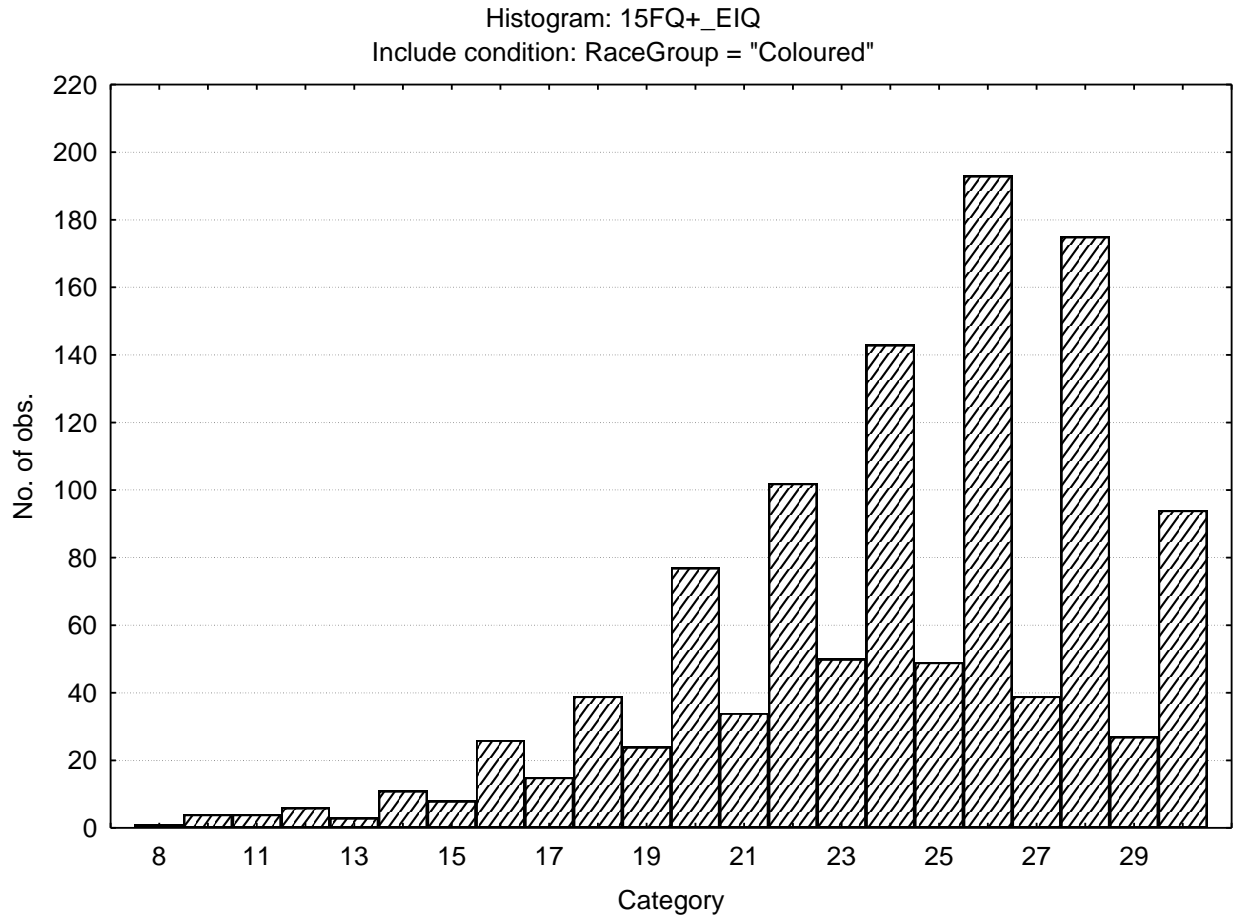
Central Tendency



Infrequency



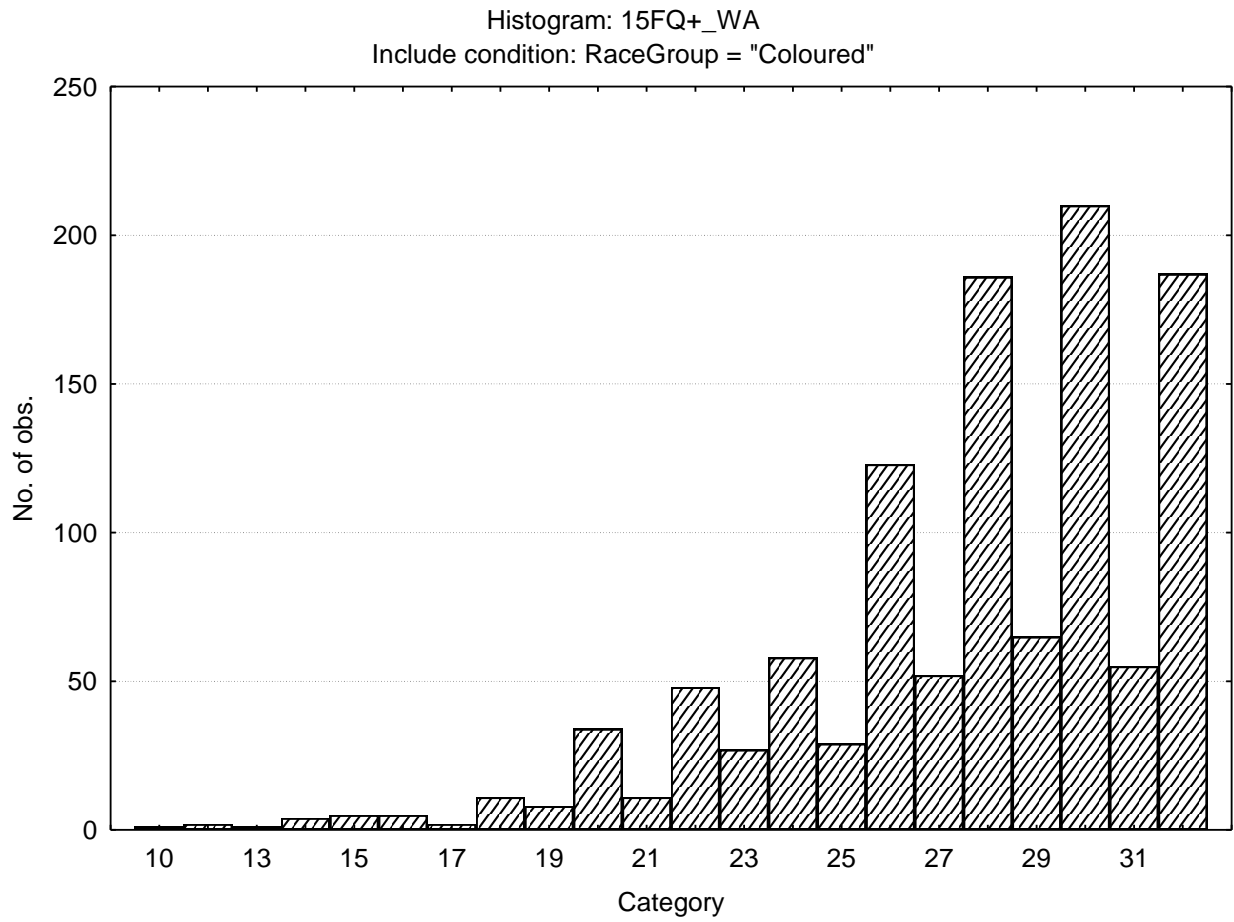
Emotional Intelligence



N17-24

Updated 20 July 2010

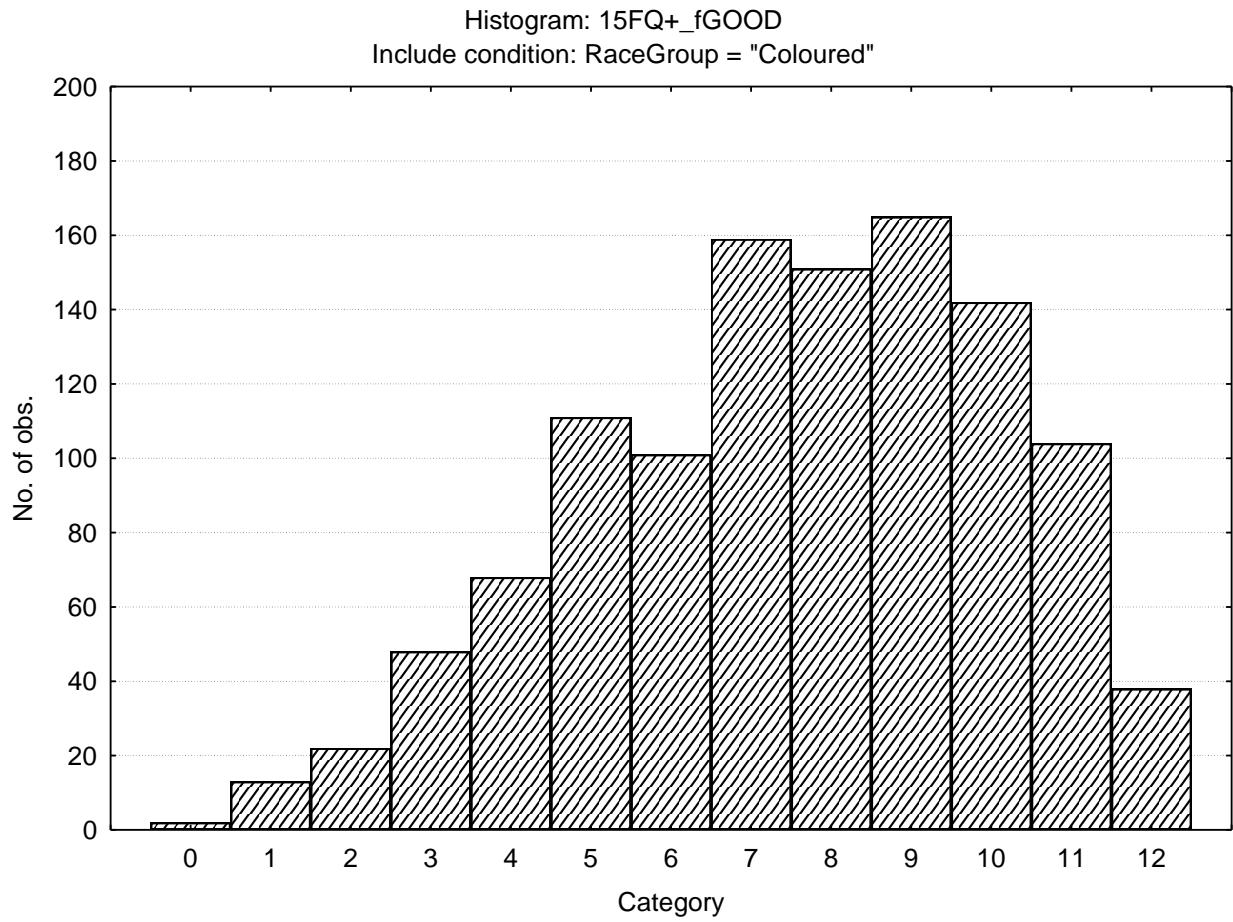
Work Attitude



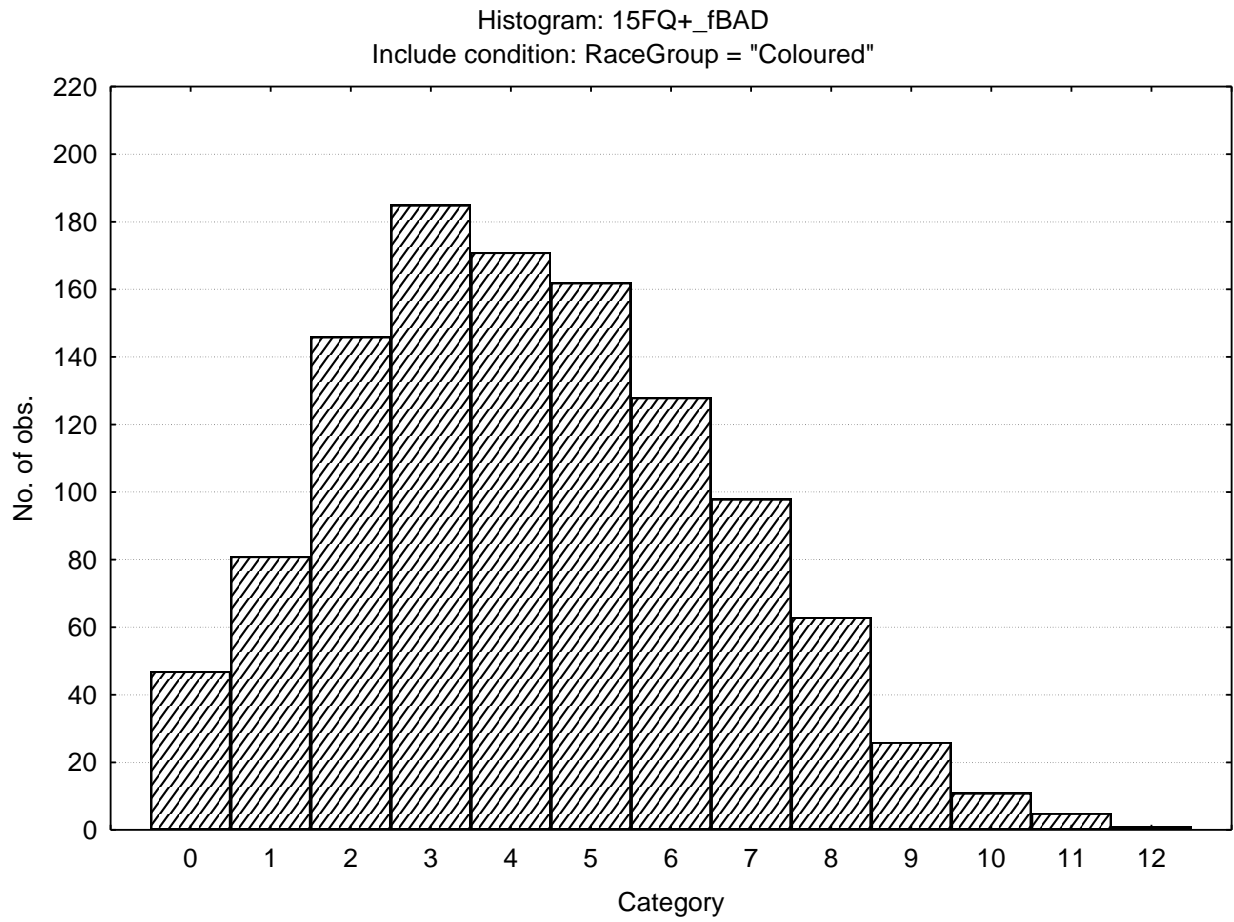
N17-25

Updated 20 July 2010

Faking Good



Faking Bad



Sten Table

		<i>S10_1</i>	<i>S10_2</i>	<i>S10_3</i>	<i>S10_4</i>	<i>S10_5</i>	<i>S10_6</i>	<i>S10_7</i>	<i>S10_8</i>	<i>S10_9</i>	<i>S10_10</i>
15FQ+_fA	<i>Distant aloof - empathic</i>	4-12	13-14	15-15	16-17	18-19	20-20	21-22	23-24		
15FQ+_B	<i>Intellectance</i>	2-11	12-13	14-15	16-17	18-19	20-21	22-23	24-24		
15FQ+_fC	<i>Affected by feelings - emotionally stable</i>	1-8	9-10	11-13	14-15	16-17	18-19	20-21	22-24		
15FQ+_fE	<i>Accommodating - Dominant</i>	1-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	
15FQ+_fF	<i>Sober serious - Enthusiastic</i>	0-4	5-7	8-9	10-12	13-15	16-17	18-20	21-22	23-24	
15FQ+_fG	<i>Expedient - Conscientious</i>	1-10	11-12	13-15	16-17	18-19	20-21	22-23	24-24		
15FQ+_fH	<i>Retiring - Socially bold</i>	0-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24		
15FQ+_fI	<i>Tough Minded - Tender minded</i>	0-4	5-7	8-9	10-12	13-15	16-17	18-20	21-22	23-24	
15FQ+_fL	<i>Trusting - Suspicious</i>	0--1	0-1	2-4	5-6	7-9	10-11	12-14	15-16	17-19	20-24
15FQ+_fM	<i>Concrete - Abstract</i>	0-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-24
15FQ+_fN	<i>Direct - Restrained</i>	0-11	12-13	14-15	16-17	18-19	20-21	22-23	24-24		
15FQ+_fO	<i>Self-assured - Apprehensive</i>	0-1	2-4	5-6	7-9	10-12	13-14	15-17	18-20	21-22	23-24
15FQ+_fQ1	<i>Conventional - Radical</i>	0--1	0-1	2-4	5-6	7-8	9-11	12-13	14-16	17-18	19-24

N17-28

Updated 20 July 2010

		<i>S10_1</i>	<i>S10_2</i>	<i>S10_3</i>	<i>S10_4</i>	<i>S10_5</i>	<i>S10_6</i>	<i>S10_7</i>	<i>S10_8</i>	<i>S10_9</i>	<i>S10_10</i>
15FQ+_fQ2	<i>Group - orientated - Self-sufficient</i>	0--1	0-0	1-2	3-5	6-7	8-9	10-12	13-14	15-17	18-24
15FQ+_fQ3	<i>Informal- self disciplined</i>	4-14	15-16	17-17	18-19	20-20	21-22	23-23	24-24		
15FQ+_fQ4	<i>Composed - tense driven</i>	0--1	0-0	1-2	3-5	6-8	9-10	11-13	14-16	17-18	19-24
15FQ+_SD	<i>Social desirability</i>	1-4	5-5	6-7	8-9	10-11	12-12	13-14	15-16		
15FQ+_CT	<i>Central Tendency</i>	0--1	0-0	1-1	2-4	5-11	12-18	19-24	25-31	32-38	39-151
15FQ+_INF	<i>Infrequency</i>	0--1	0-0	1-1	2-2	3-3	4-4	5-5	6-6	7-7	8-18
15FQ+_EIQ	<i>Derived score: Emotional Intelligence</i>	8-15	16-18	19-20	21-22	23-24	25-26	27-28	29-30		
15FQ+_WA	<i>Derived score: Work attitude</i>	10-19	20-21	22-23	24-25	26-27	28-29	30-31	32-32		
15FQ+_fGOOD	<i>Faking good</i>	0-2	3-3	4-4	5-6	7-7	8-8	9-10	11-11	12-12	
15FQ+_fBAD	<i>Faking bad</i>	0--1	0-0	1-1	2-3	4-4	5-5	6-6	7-7	8-8	9-12

N17-29

Updated 20 July 2010

Norm group: South Africans, race Asian, updated 2010

Sample composition

The sample consisted of South Africans who gave their race as Asian, tested by Psytech SA and collaborators in the period up to January 2010.

Gender composition of the sample

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	687	687	39.61938	39.6194
M	1040	1727	59.97693	99.5963
Missing	7	1734	0.40369	100.0000

Educational composition of the sample

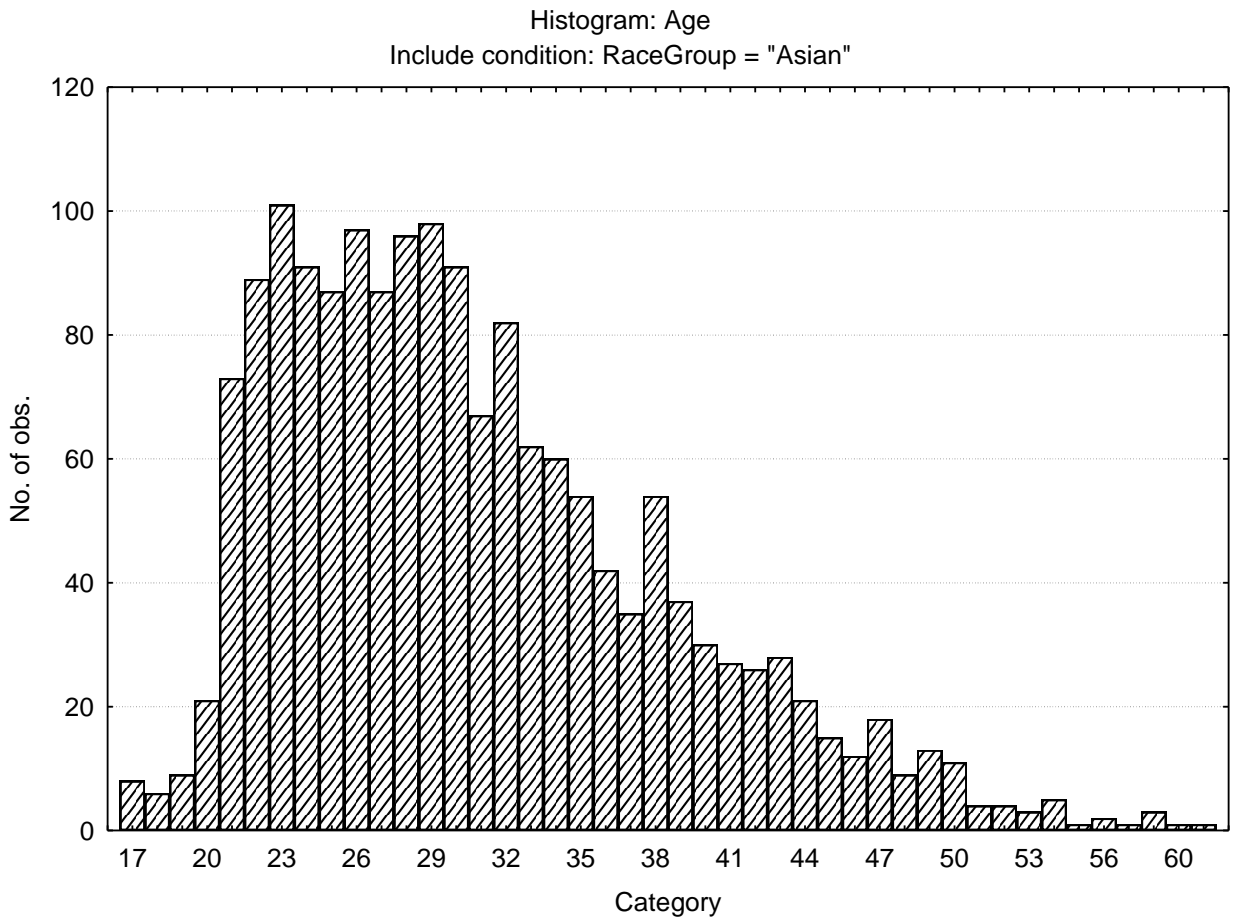
Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	484	484	27.91234	27.9123
Degree	340	824	19.60784	47.5202
Post Graduate	321	1145	18.51211	66.0323
Technikon	163	1308	9.40023	75.4325
University diploma	133	1441	7.67013	83.1027
Grade 10 or 11	42	1483	2.42215	85.5248
Vocational Training	45	1528	2.59516	88.1200
Diploma	24	1552	1.38408	89.5040
Certificate	9	1561	0.51903	90.0231
Missing	173	1734	9.97693	100.0000

Language composition of the sample

Category	Frequency table: Language Group			
	Count	Cumulative Count	Percent	Cumulative Percent
Indigenous	13	13	0.74971	0.7497
Afrikaans	5	18	0.28835	1.0381
English	1587	1605	91.52249	92.5606
Missing	129	1734	7.43945	100.0000

Age composition of the sample

Variable	Descriptive Statistics					No.cases Missing
	Mean	Std.Dev	Minimum	Maximum	N	
Age	30.73543	7.707752	17.00000	61.00000	1682	52

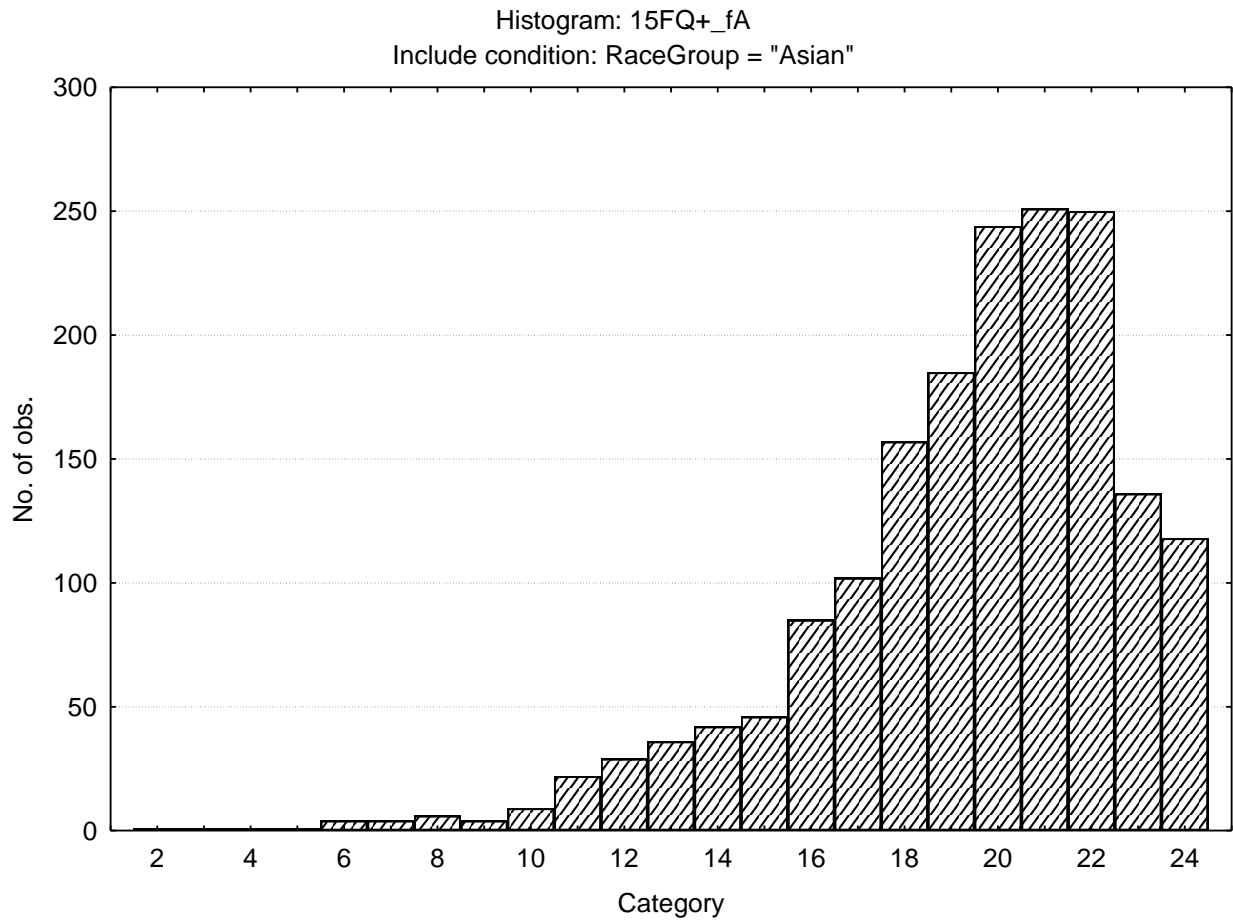


Descriptive statistics on 15FQ+ scales

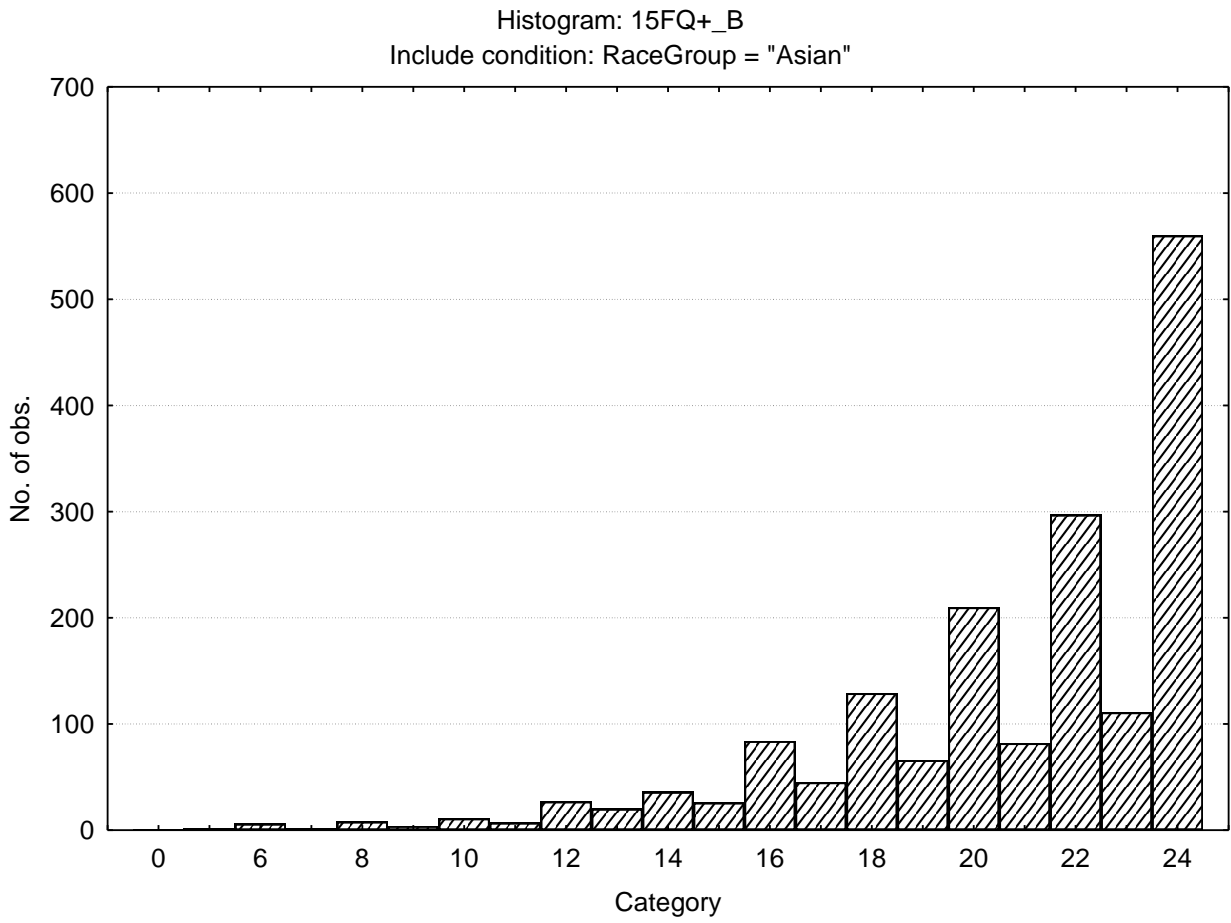
Variable		Descriptive Statistics					
		Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
15FQ+_fA	<i>Distant aloof - empathic</i>	19.38985	3.36940	2.00000	24.0000	1734	0
15FQ+_B	<i>Intellectance</i>	20.73645	3.64325	0.00000	24.0000	1734	0
15FQ+_fC	<i>Affected by feelings - emotionally stable</i>	17.76528	4.46034	0.00000	24.0000	1734	0
15FQ+_fE	<i>Accommodating - Dominant</i>	16.55190	4.45124	0.00000	24.0000	1734	0
15FQ+_fF	<i>Sober serious - Enthusiastic</i>	15.93483	5.21525	0.00000	24.0000	1734	0
15FQ+_fG	<i>Expedient - Conscientious</i>	20.09746	3.89123	2.00000	24.0000	1734	0
15FQ+_fH	<i>Retiring - Socially bold</i>	16.07728	5.87265	0.00000	24.0000	1734	0
15FQ+_fI	<i>Tough Minded - Tender minded</i>	14.43599	5.24871	0.00000	24.0000	1734	0
15FQ+_fL	<i>Trusting - Suspicious</i>	8.94983	5.05929	0.00000	24.0000	1734	0
15FQ+_fM	<i>Concrete - Abstract</i>	10.45559	3.87172	0.00000	24.0000	1734	0
15FQ+_fN	<i>Direct - Restrained</i>	19.59862	3.90353	0.00000	24.0000	1734	0
15FQ+_fO	<i>Self-assured - Apprehensive</i>	11.18339	5.57143	0.00000	24.0000	1734	0
15FQ+_fQ1	<i>Conventional - Radical</i>	9.19493	4.96567	0.00000	24.0000	1734	0
15FQ+_fQ2	<i>Group - orientated - Self-sufficient</i>	6.92734	4.43201	0.00000	24.0000	1734	0
15FQ+_fQ3	<i>Informal- self disciplined</i>	20.21742	3.10269	6.00000	24.0000	1734	0
15FQ+_fQ4	<i>Composed - tense driven</i>	7.58997	5.54088	0.00000	24.0000	1734	0
15FQ+_SD	<i>Social desirability</i>	12.14994	3.44916	0.00000	16.0000	1734	0
15FQ+_CT	<i>Central Tendency</i>	11.45271	13.19597	0.00000	125.0000	1734	0
15FQ+_INF	<i>Infrequency</i>	1.16436	1.45249	0.00000	13.0000	1734	0
15FQ+_EIQ	<i>Derived score: Emotional Intelligence</i>	24.94348	4.02534	6.00000	30.0000	1734	0
15FQ+_WA	<i>Derived score: Work attitude</i>	27.86736	3.83153	10.00000	32.0000	1734	0
15FQ+_fGOOD	<i>Faking good</i>	7.96251	2.59328	0.00000	12.0000	1734	0
15FQ+_fBAD	<i>Faking bad</i>	3.98385	2.31525	0.00000	13.0000	1734	0

Frequency distributions of 15FQ+ scale scores

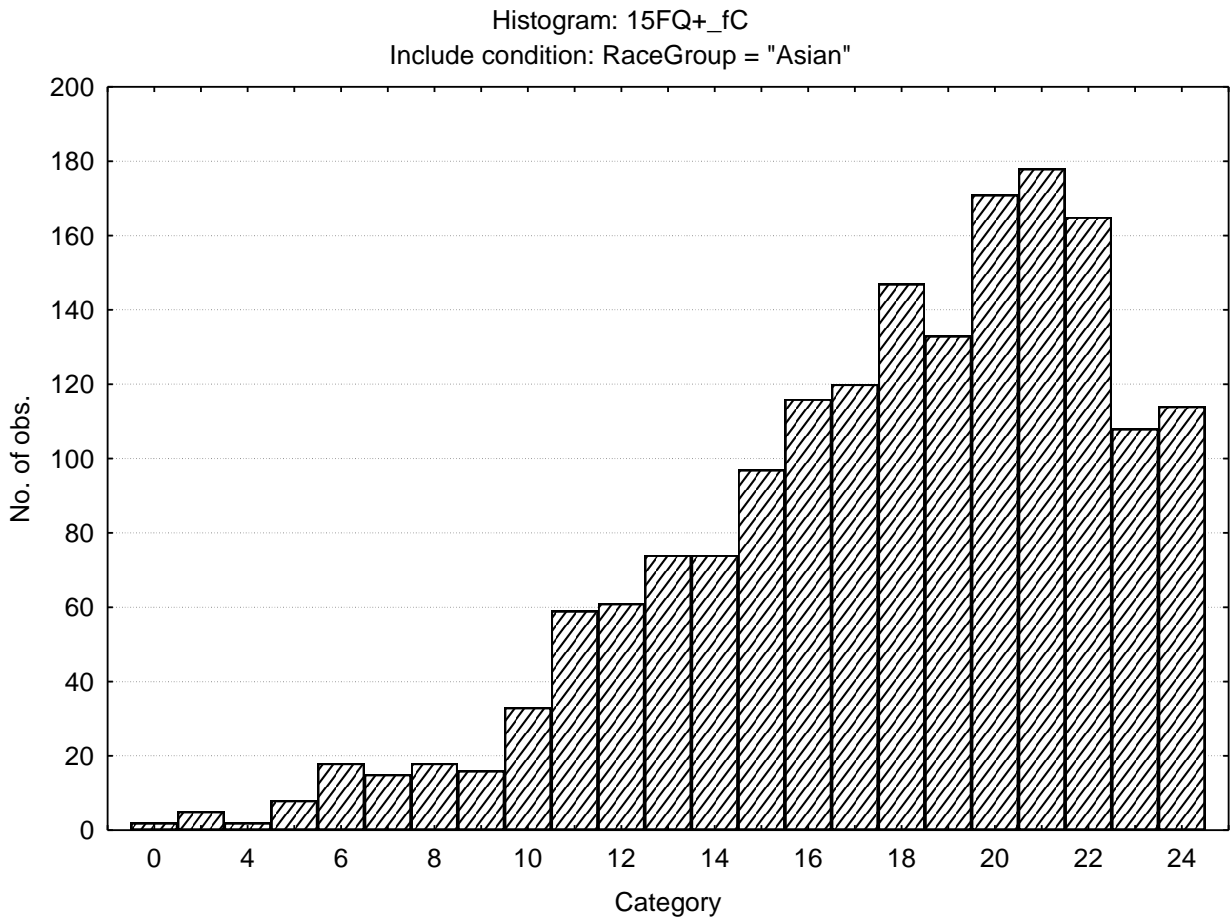
Distant aloof - Empathic



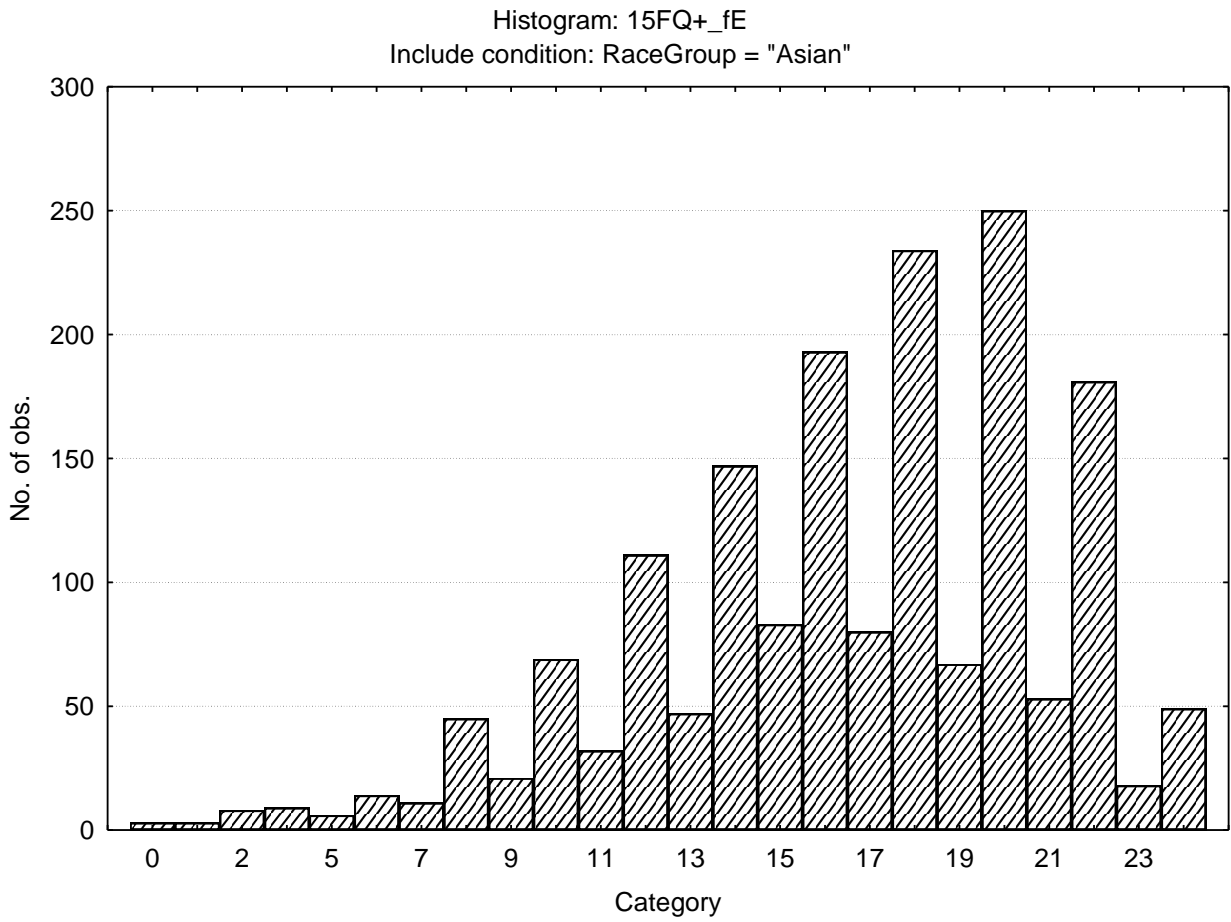
Intellectance



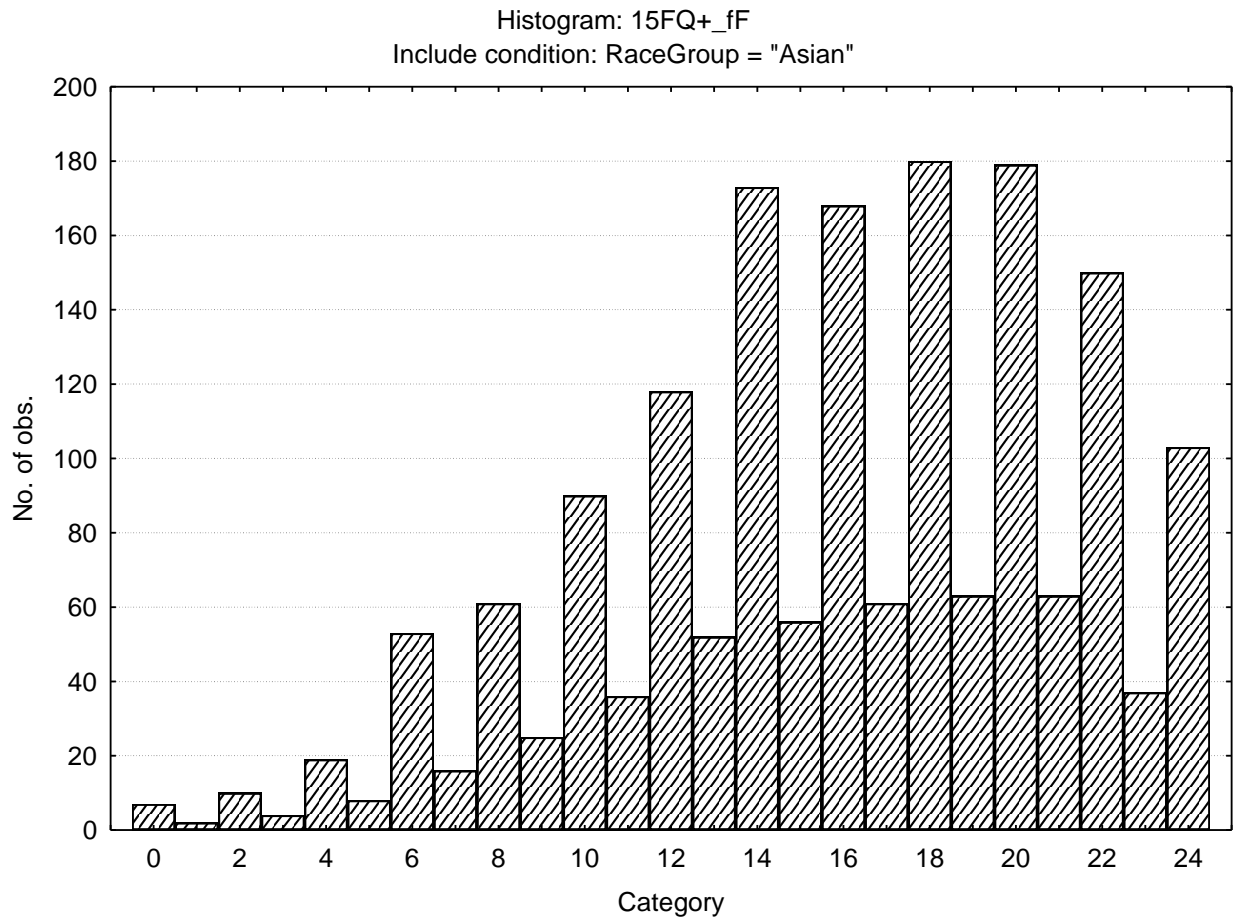
Affected by feelings – Emotionally stable



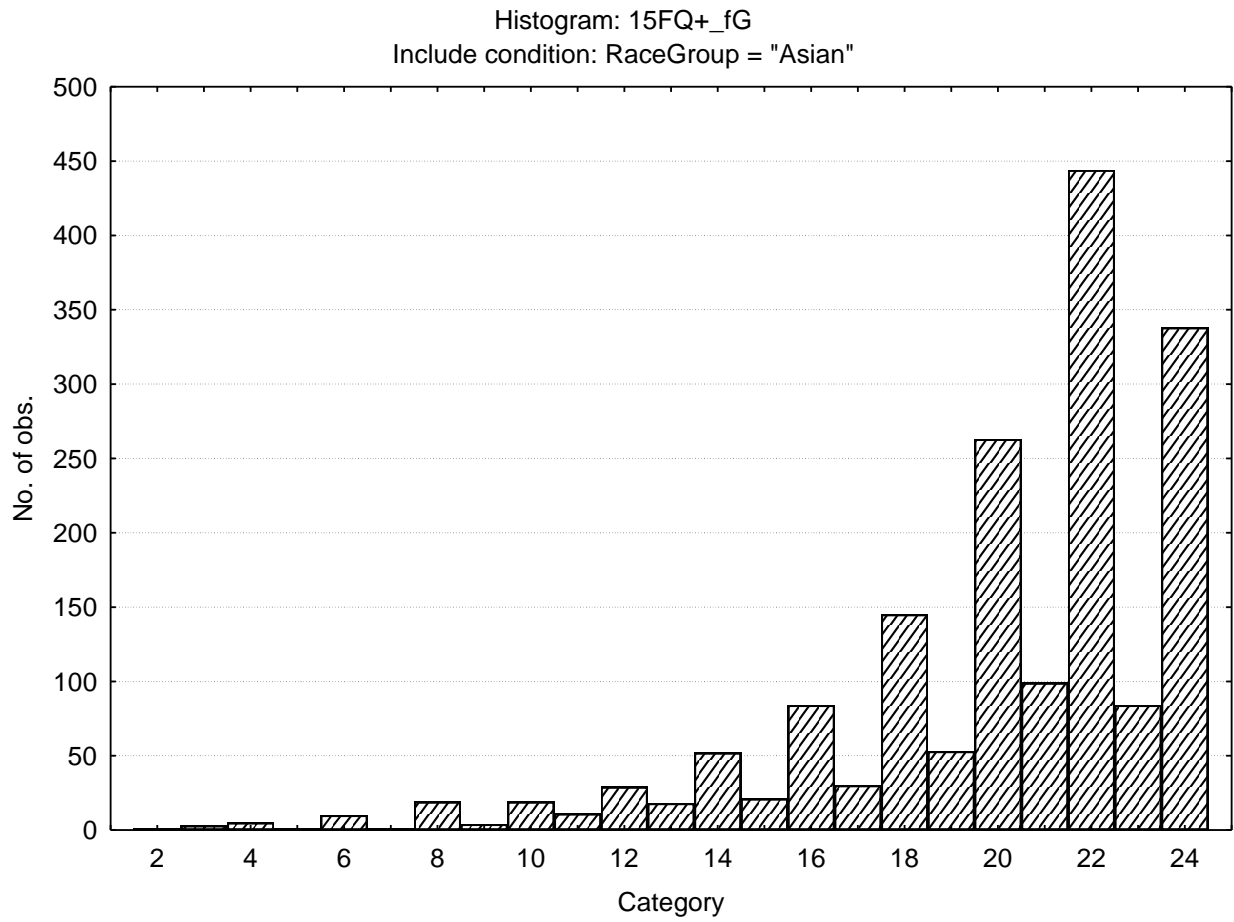
Accommodating - Dominant



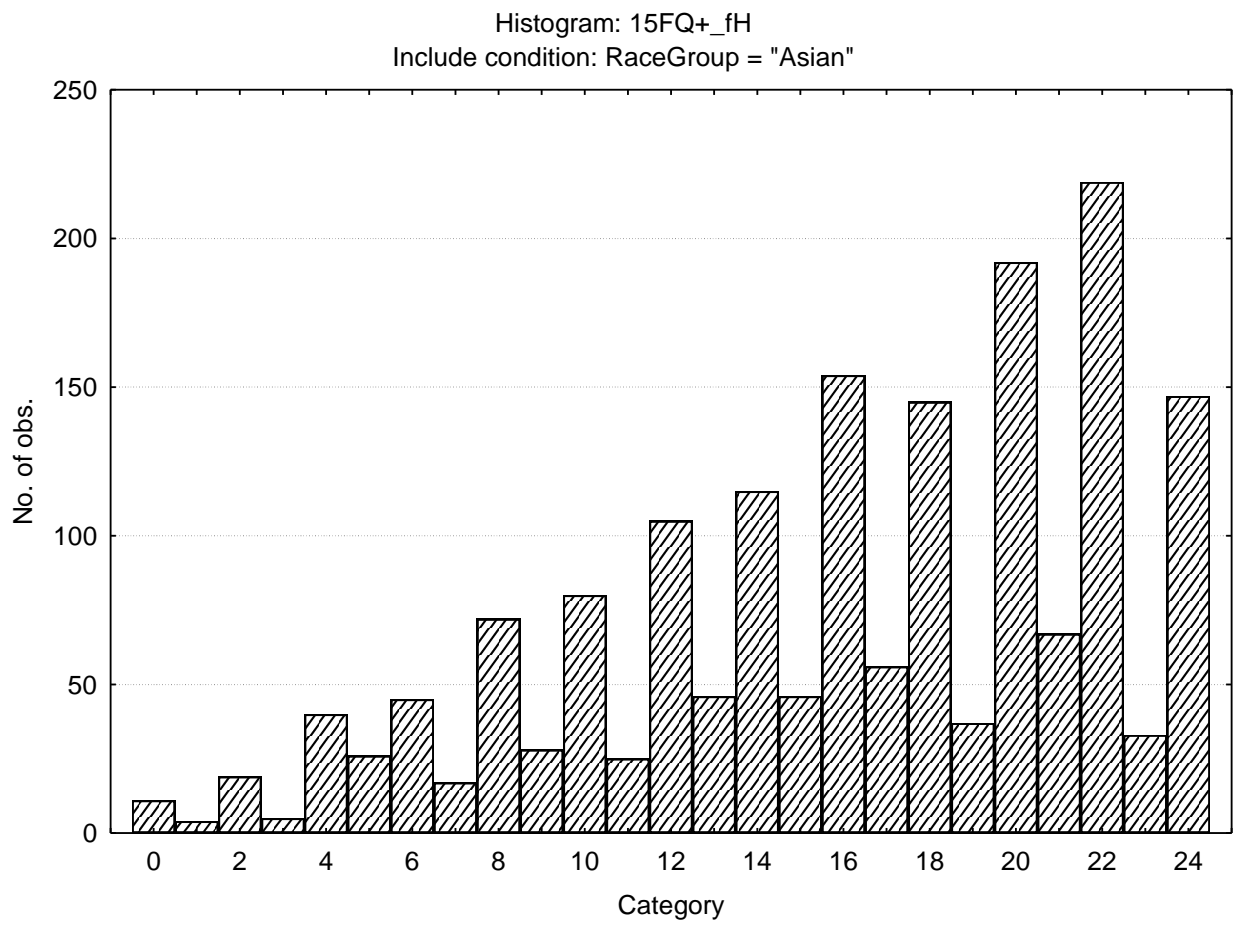
Sober serious - Enthusiastic



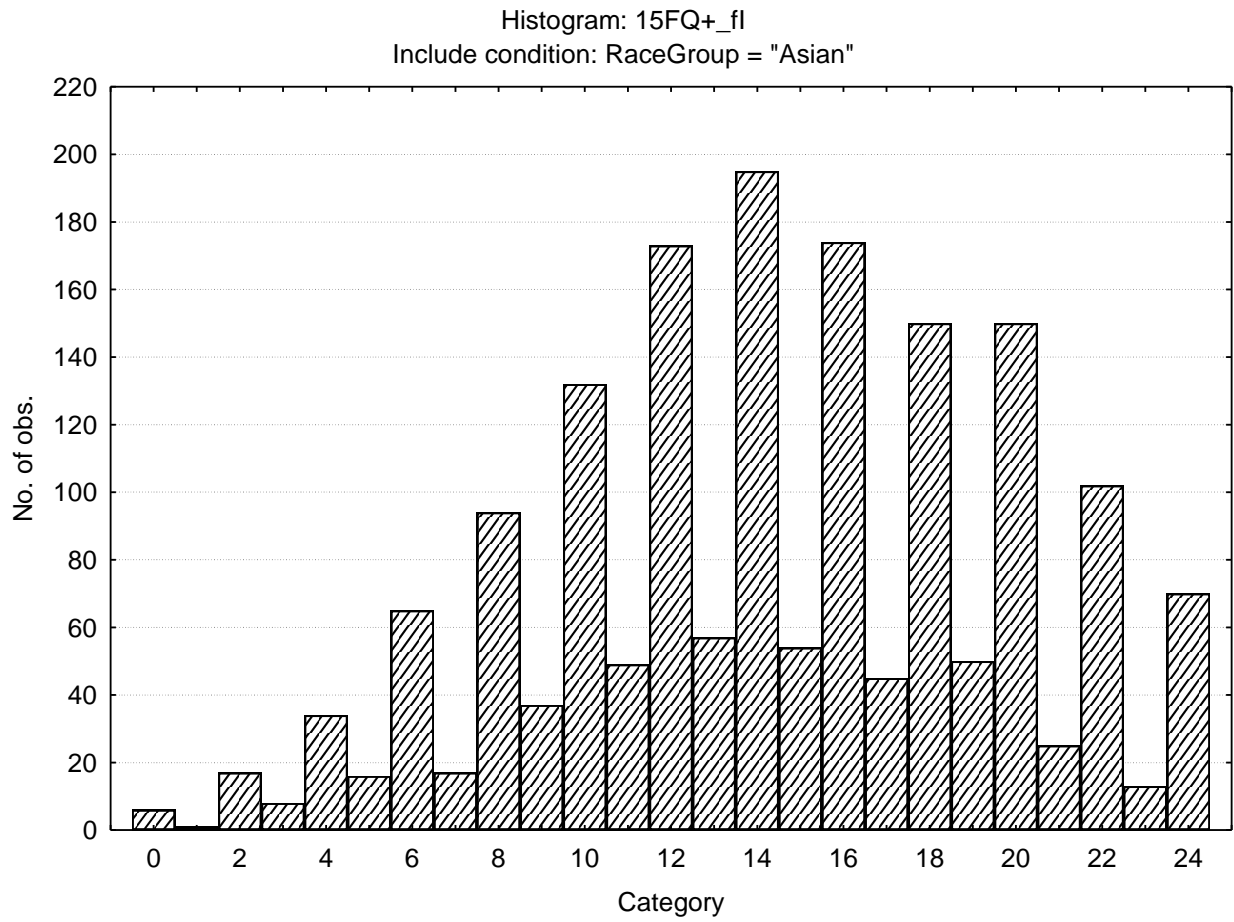
Expedient - Conscientious



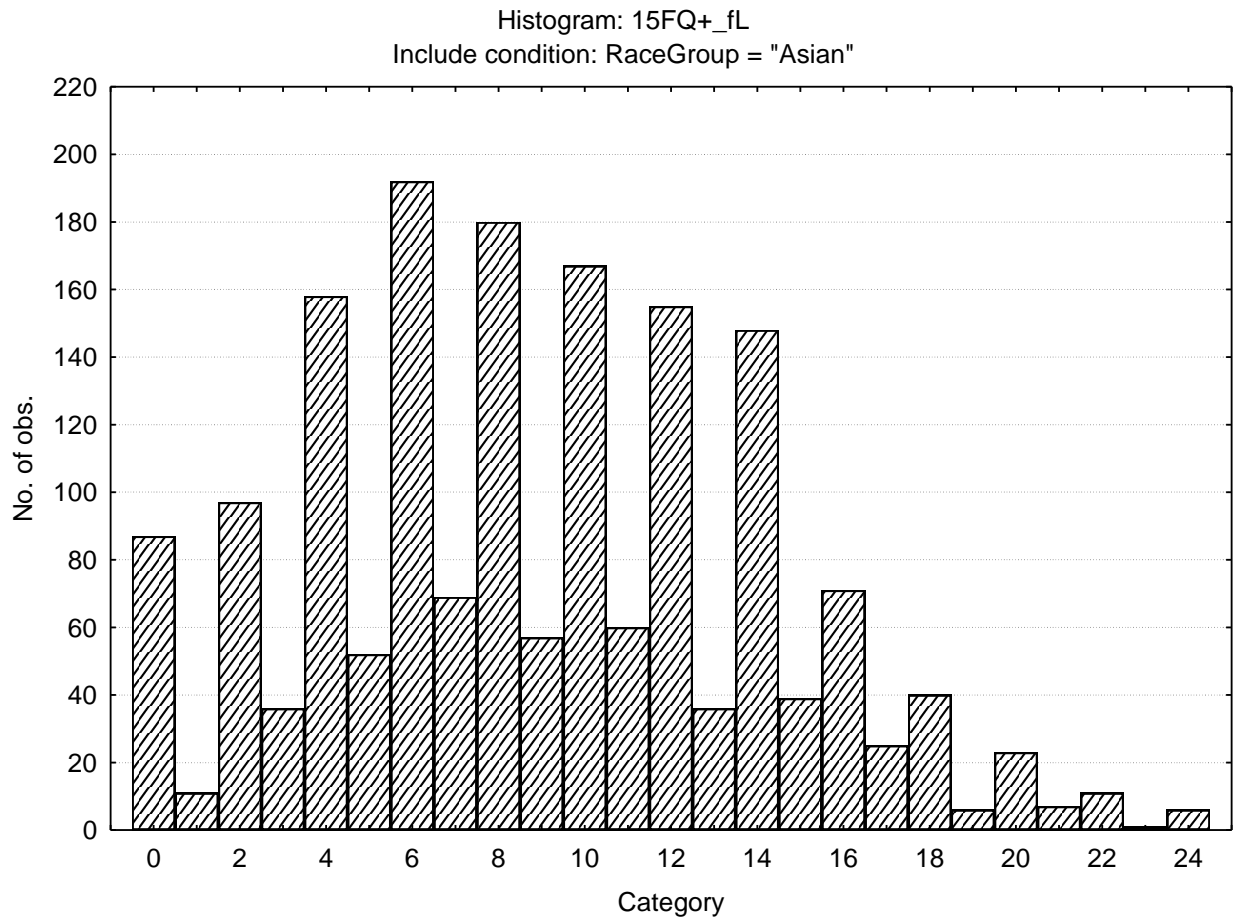
Retiring - Socially Bold



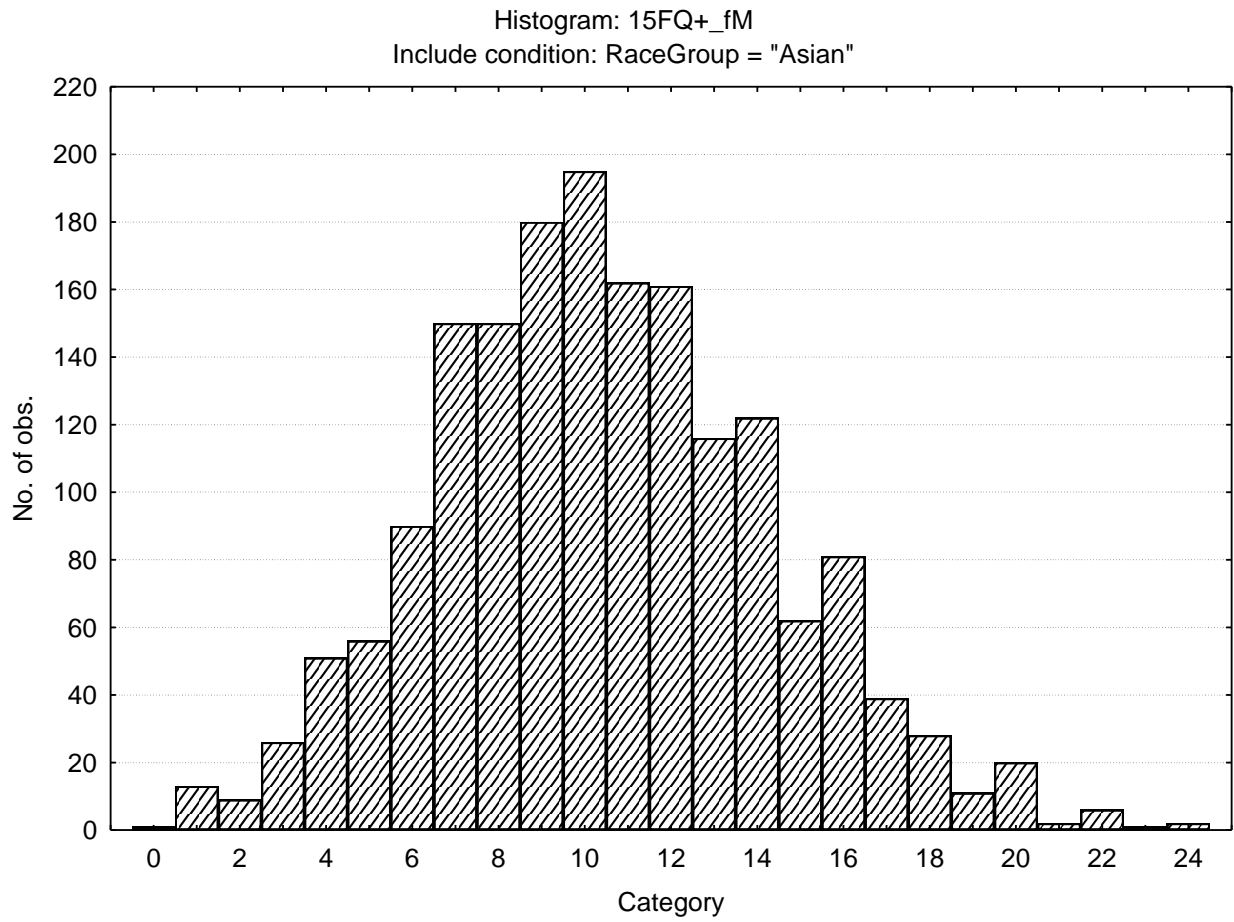
Tough minded – Tender minded



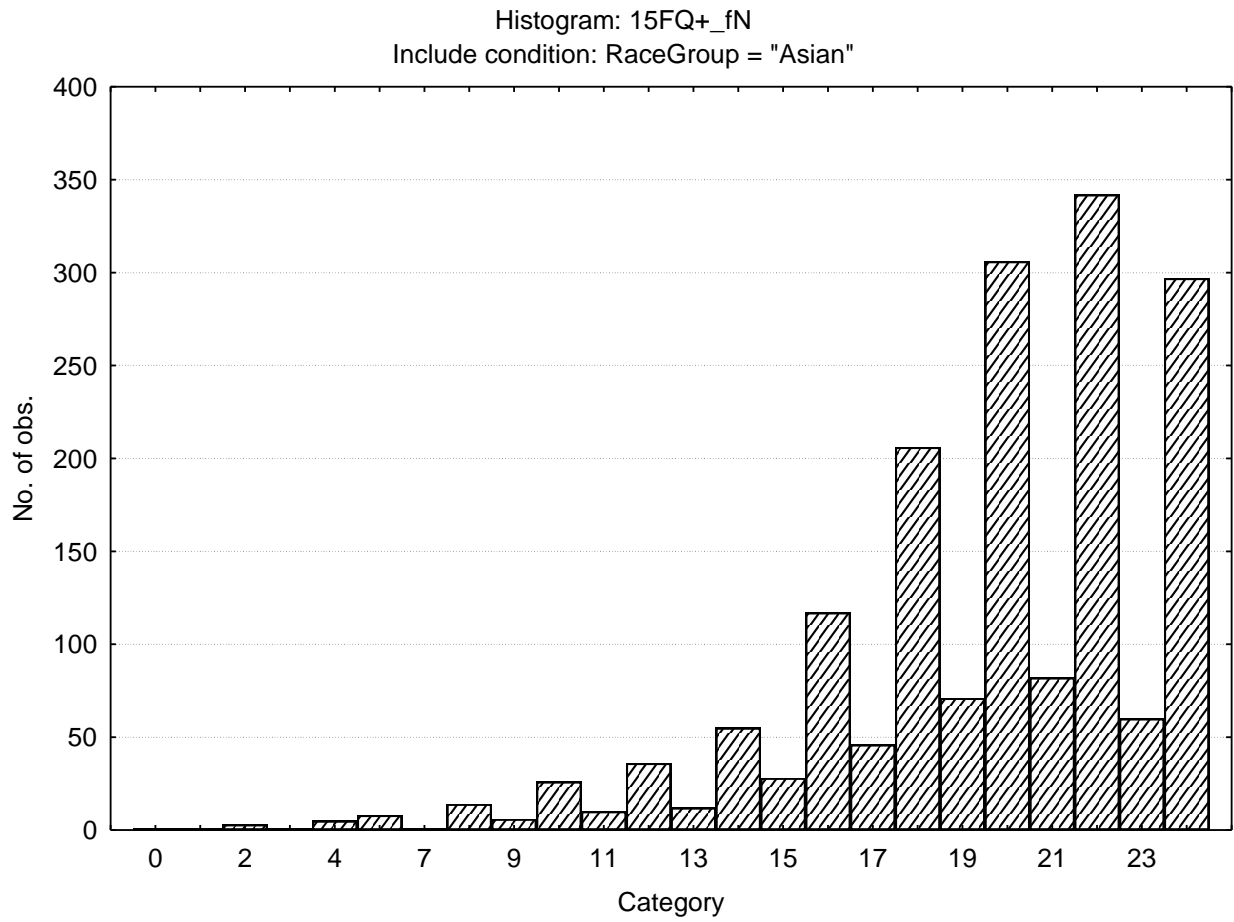
Trusting - Suspicious



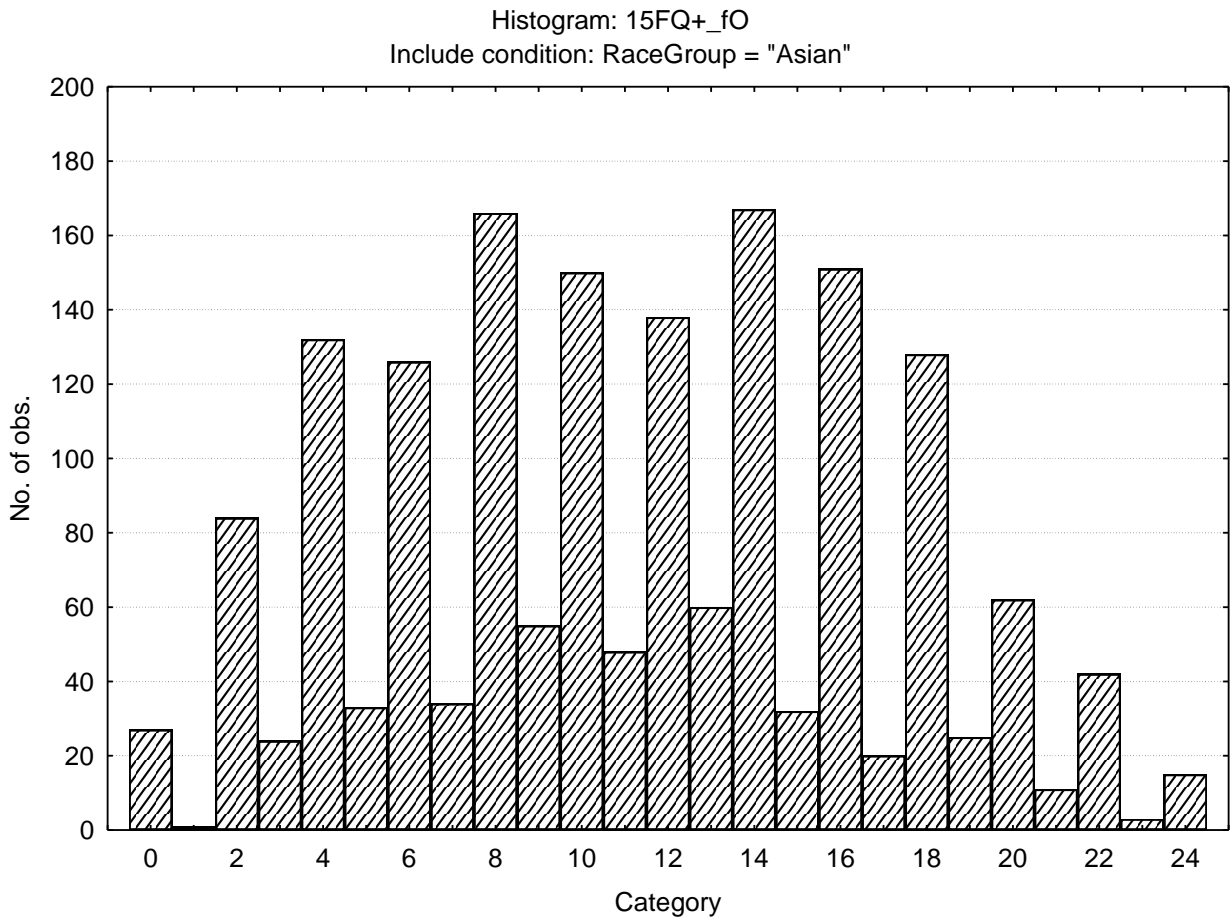
Concrete - Abstract



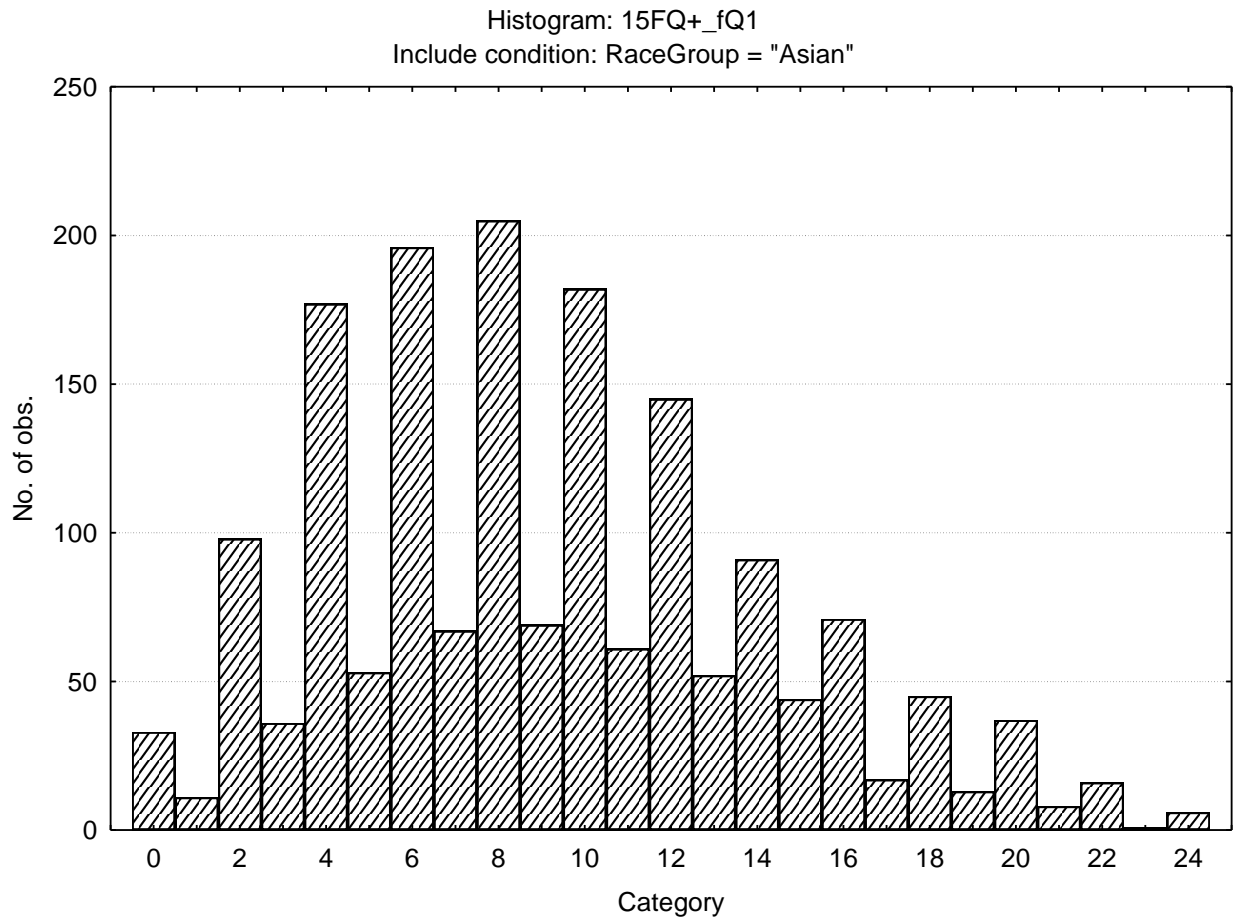
Direct - Restrained



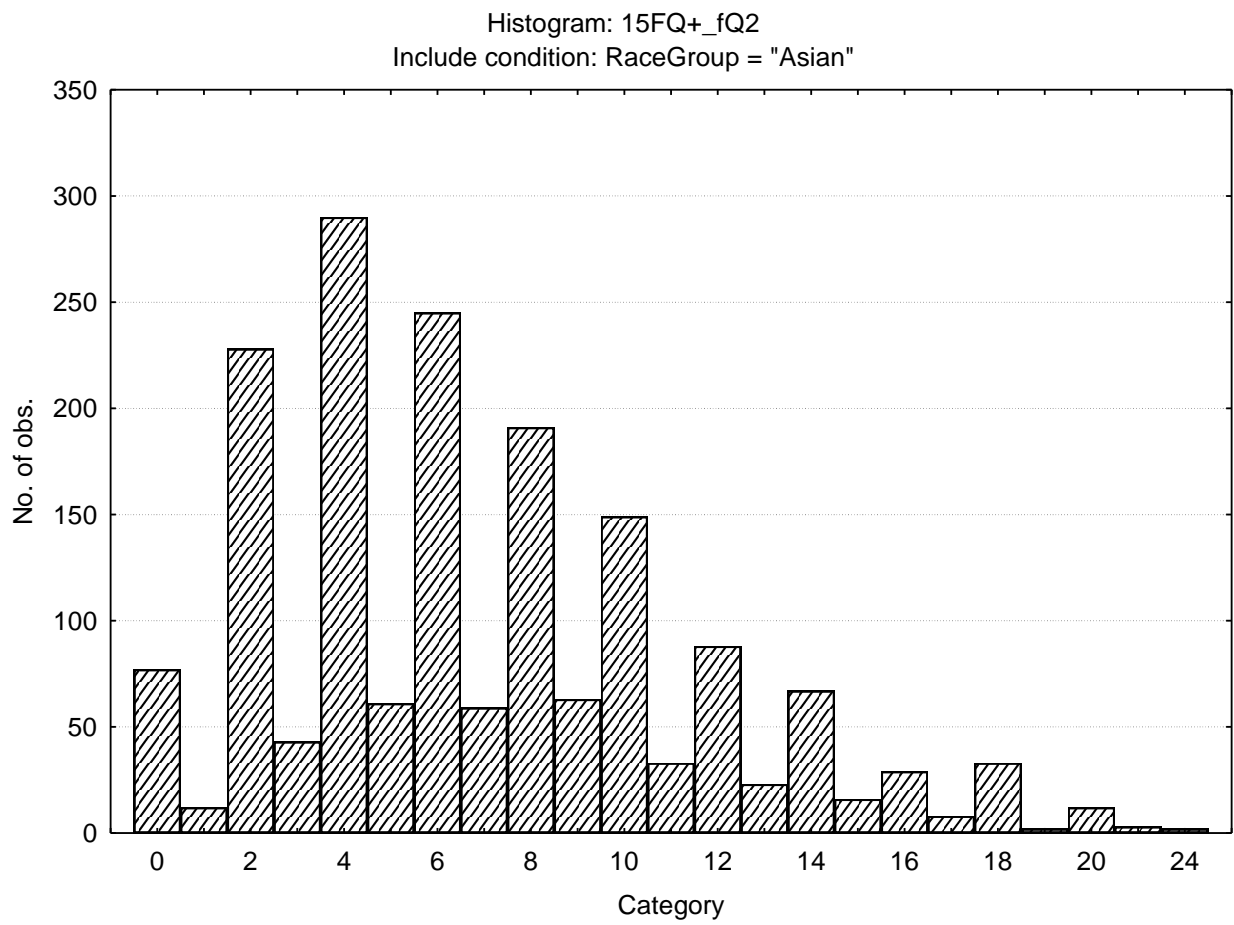
Self Assured - Apprehensive



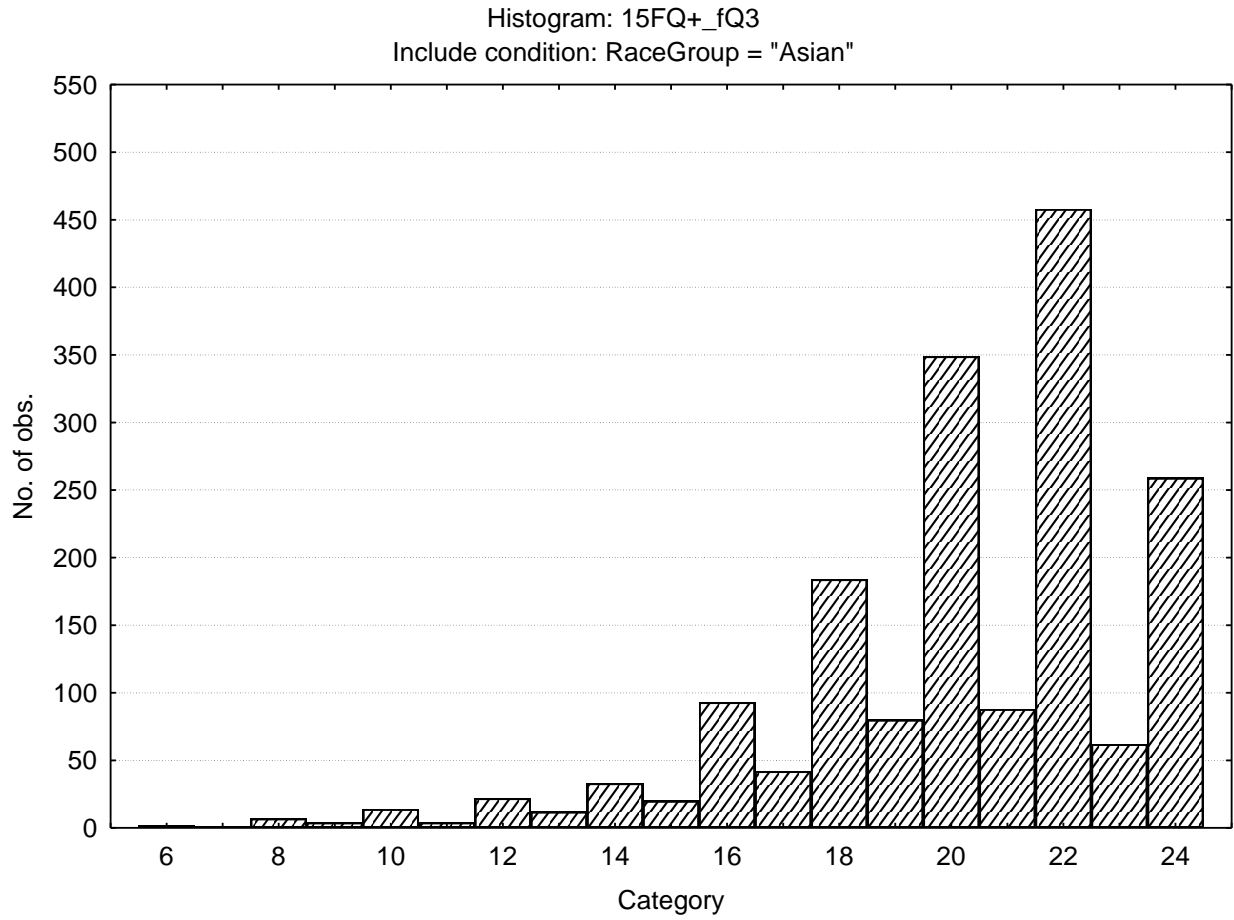
Conventional - Radical



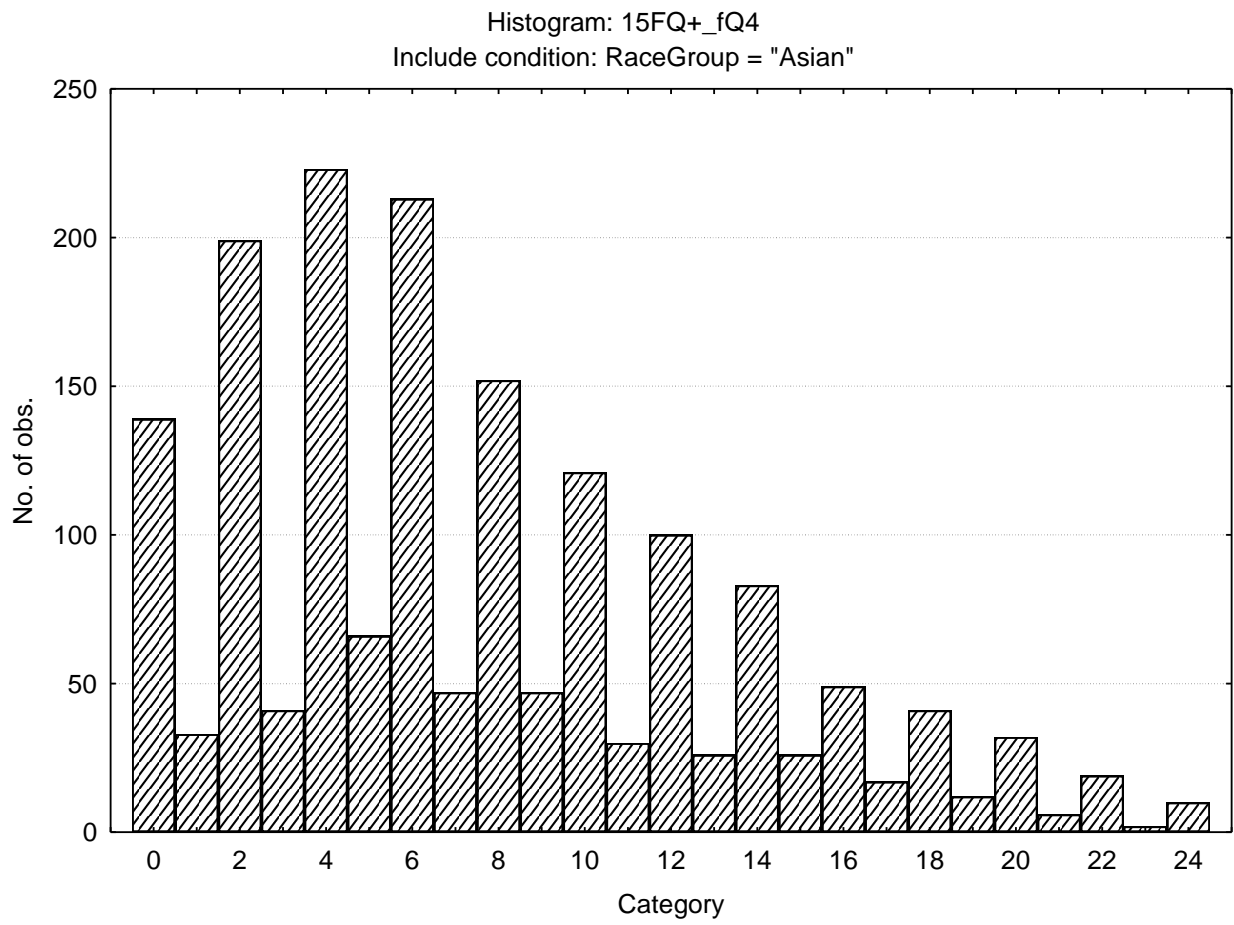
Group orientated – Self sufficient



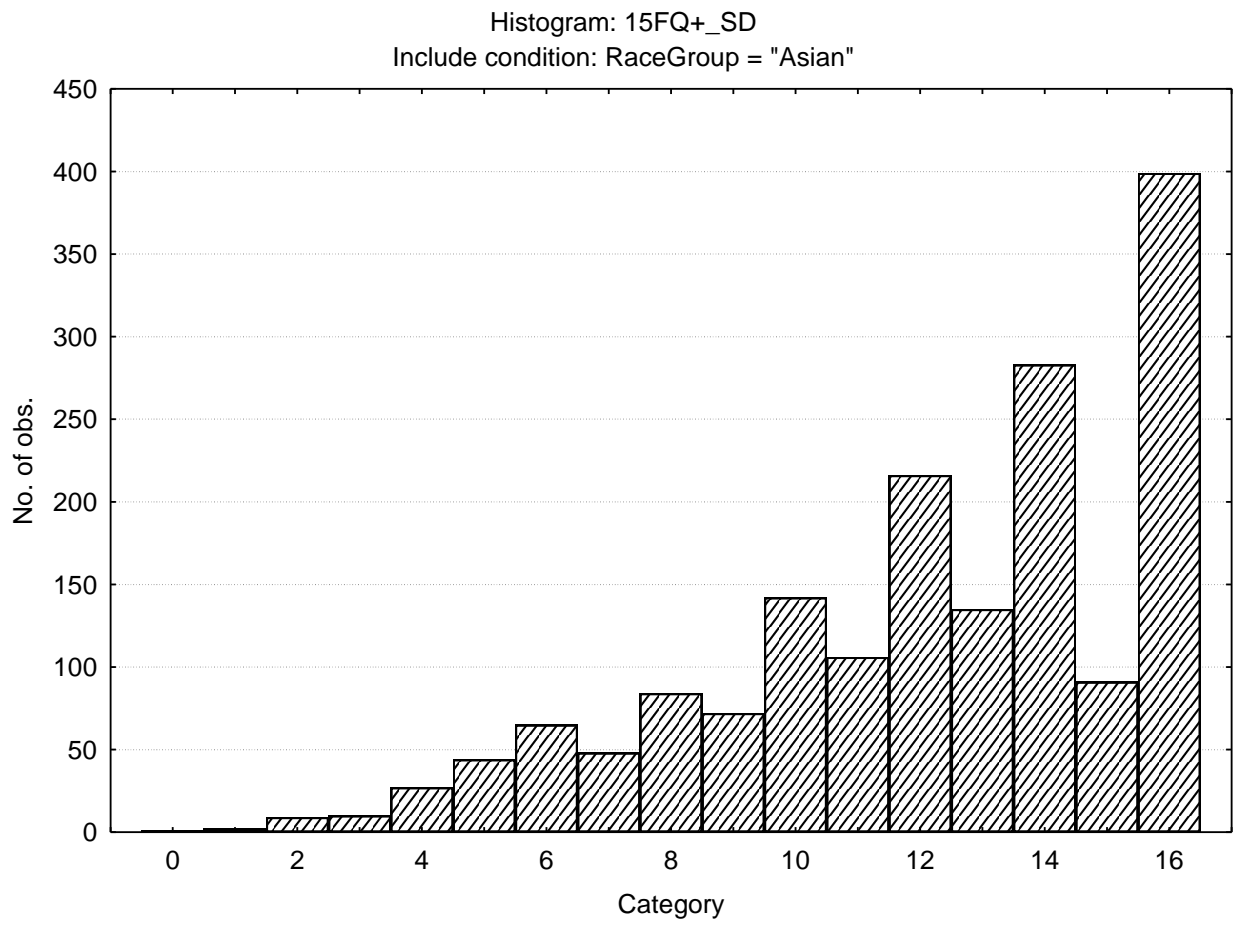
Informal – Self disciplined



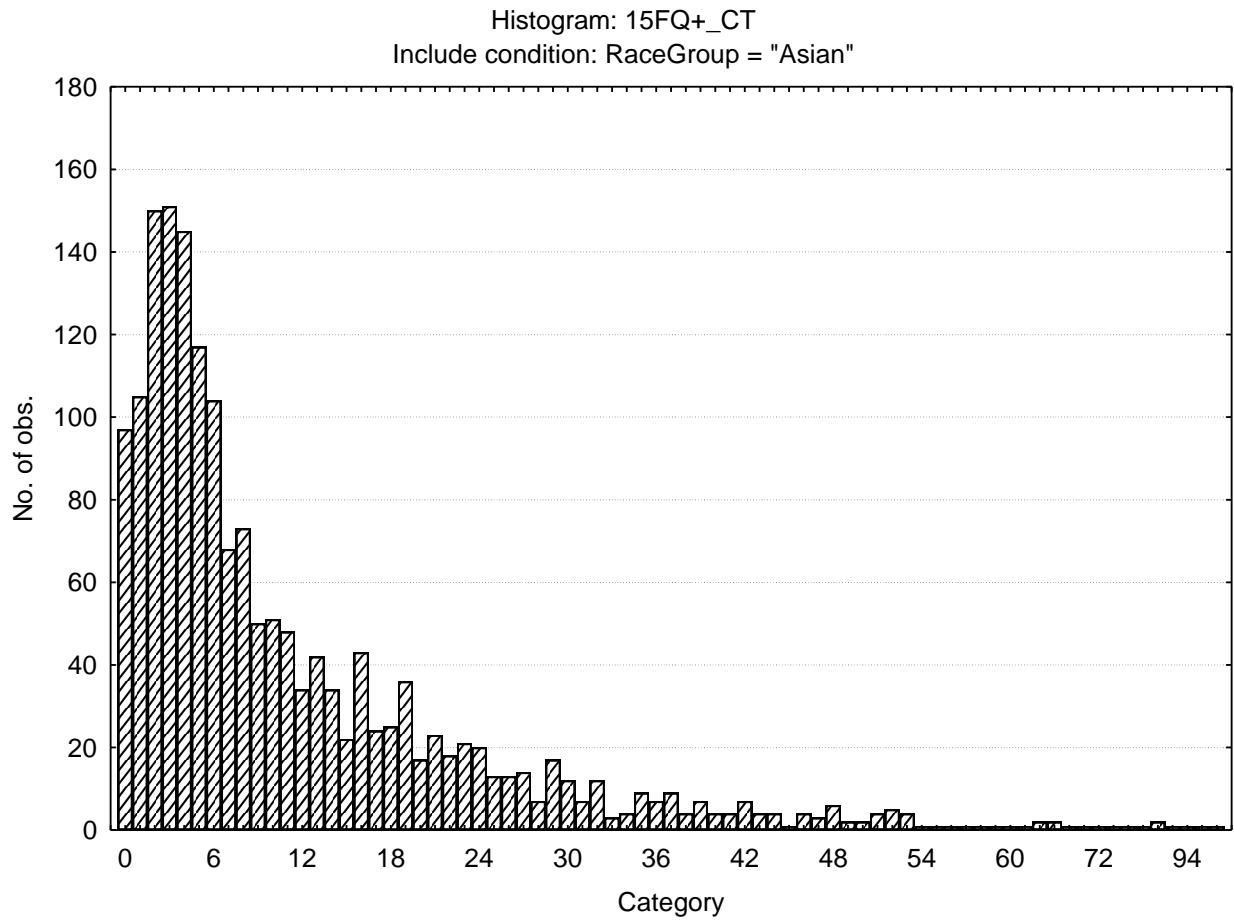
Composed - Tense driven



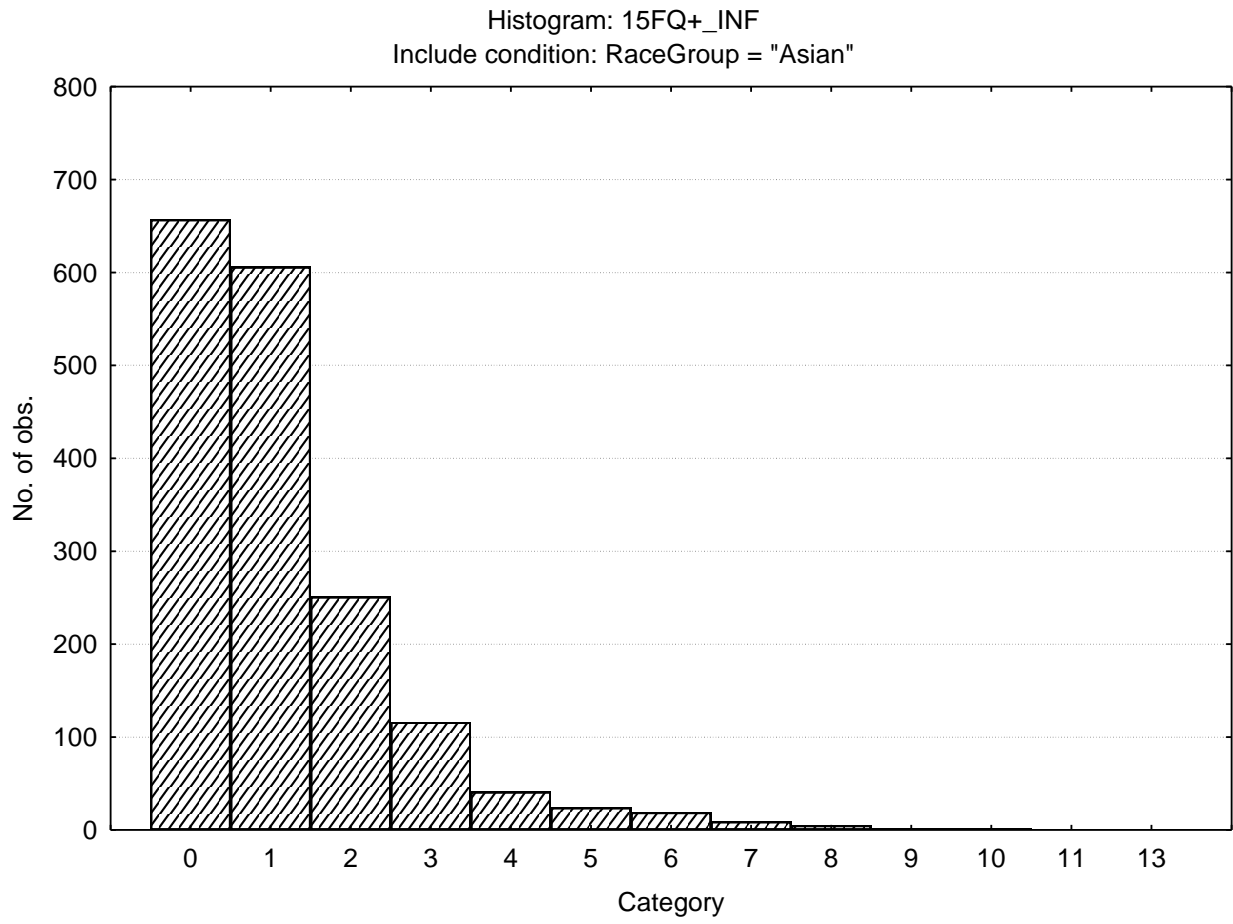
Social Desirability



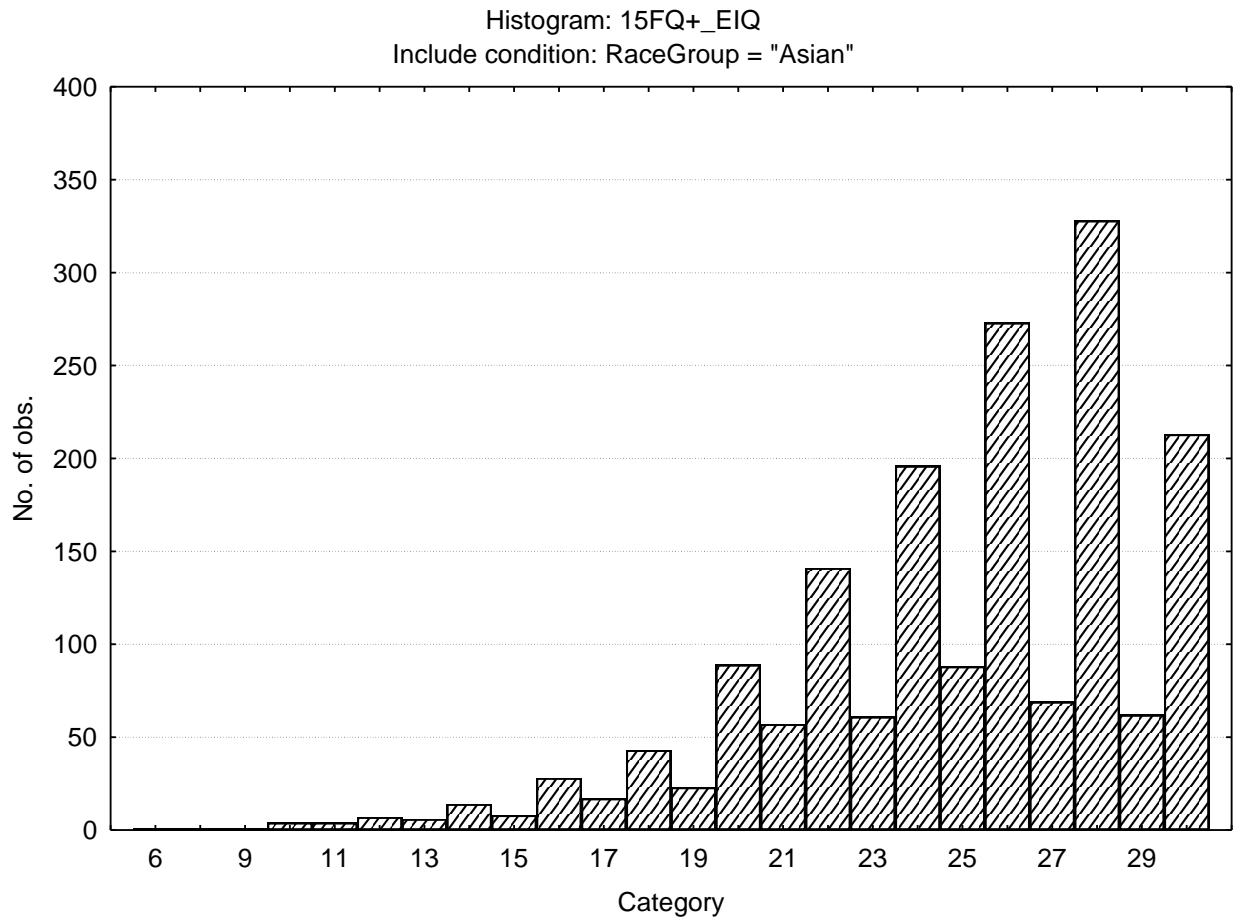
Central Tendency



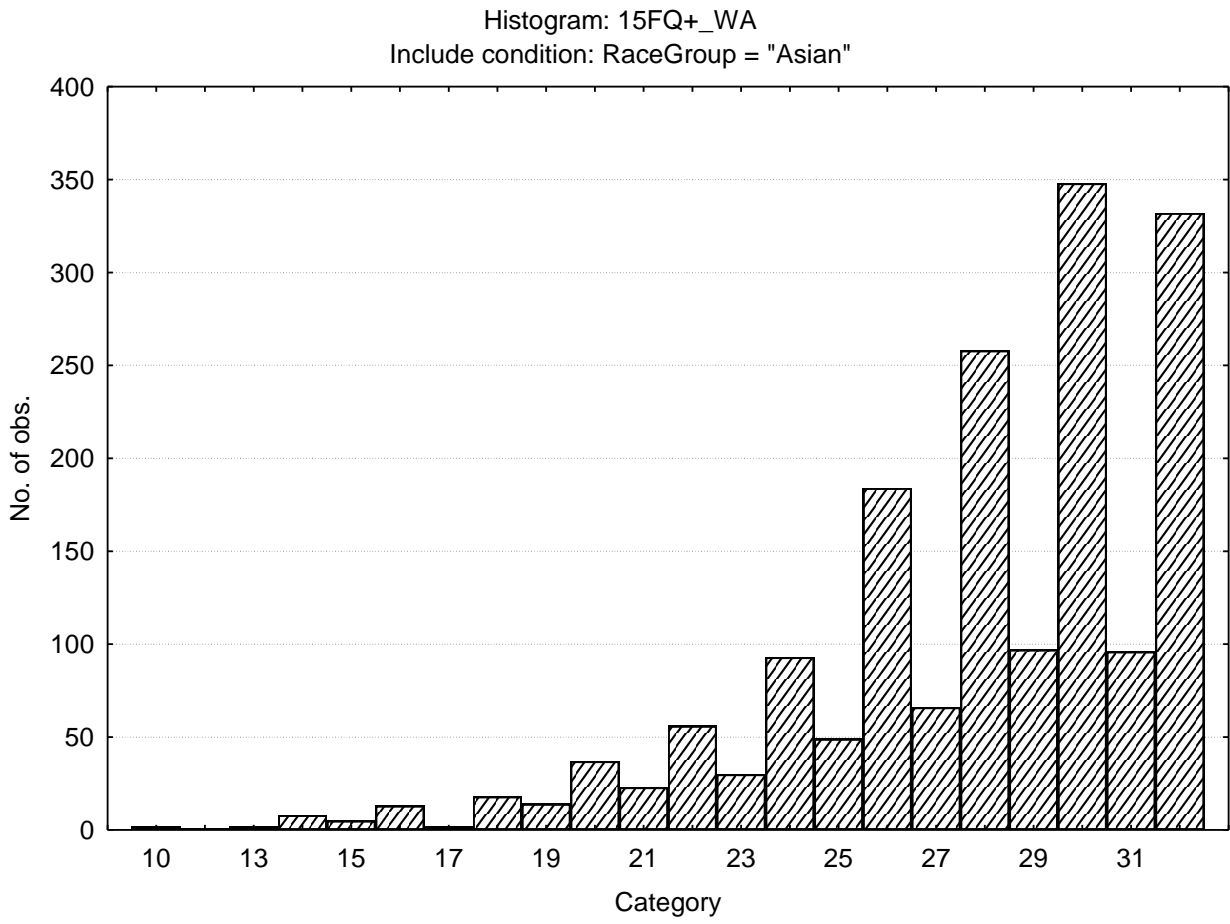
Infrequency



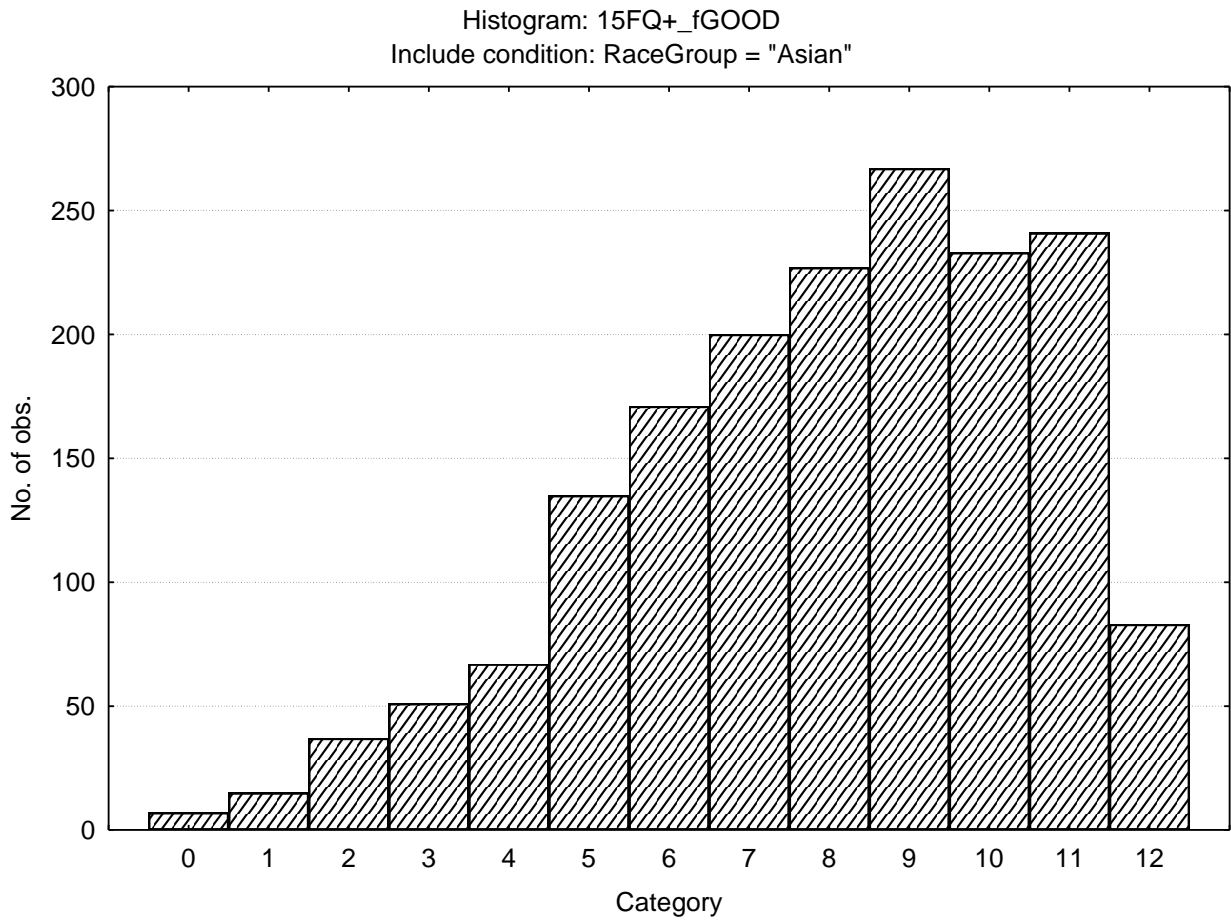
Emotional Intelligence



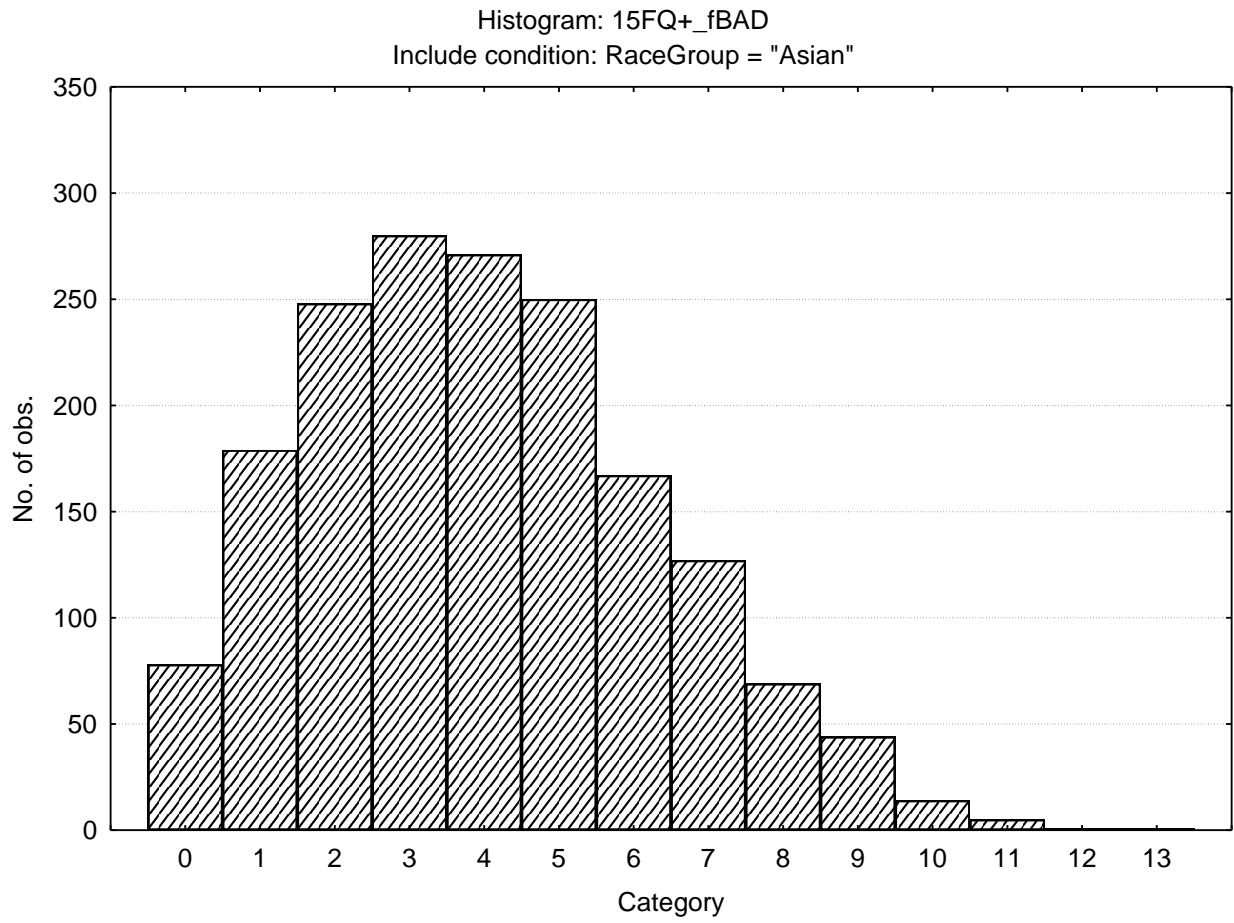
Work Attitude



Faking Good



Faking Bad



Sten Table

		<i>S10_1</i>	<i>S10_2</i>	<i>S10_3</i>	<i>S10_4</i>	<i>S10_5</i>	<i>S10_6</i>	<i>S10_7</i>	<i>S10_8</i>	<i>S10_9</i>	<i>S10_10</i>
15FQ+_fA	<i>Distant aloof - empathic</i>	2-12	13-14	15-16	17-17	18-19	20-21	22-22	23-24		
15FQ+_B	<i>Intellectance</i>	0-13	14-15	16-17	18-18	19-20	21-22	23-24			
15FQ+_fC	<i>Affected by feelings - emotionally stable</i>	0-8	9-11	12-13	14-15	16-17	18-19	20-22	23-24		
15FQ+_fE	<i>Accommodating - Dominant</i>	0-7	8-9	10-12	13-14	15-16	17-18	19-21	22-23	24-24	
15FQ+_fF	<i>Sober serious - Enthusiastic</i>	0-5	6-8	9-10	11-13	14-15	16-18	19-21	22-23	24-24	
15FQ+_fG	<i>Expedient - Conscientious</i>	2-12	13-14	15-16	17-18	19-20	21-22	23-23	24-24		
15FQ+_fH	<i>Retiring - Socially bold</i>	0-4	5-7	8-10	11-13	14-16	17-19	20-21	22-24		
15FQ+_fI	<i>Tough Minded - Tender minded</i>	0-3	4-6	7-9	10-11	12-14	15-17	18-19	20-22	23-24	
15FQ+_fL	<i>Trusting - Suspicious</i>	0--1	0-1	2-3	4-6	7-8	9-11	12-14	15-16	17-19	20-24
15FQ+_fM	<i>Concrete - Abstract</i>	0-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-24
15FQ+_fN	<i>Direct - Restrained</i>	0-11	12-13	14-15	16-17	18-19	20-21	22-23	24-24		
15FQ+_fO	<i>Self-assured - Apprehensive</i>	0-0	1-2	3-5	6-8	9-11	12-13	14-16	17-19	20-22	23-24
15FQ+_fQ1	<i>Conventional - Radical</i>	0--1	0-1	2-4	5-6	7-9	10-11	12-14	15-16	17-19	20-24

		<i>S10_1</i>	<i>S10_2</i>	<i>S10_3</i>	<i>S10_4</i>	<i>S10_5</i>	<i>S10_6</i>	<i>S10_7</i>	<i>S10_8</i>	<i>S10_9</i>	<i>S10_10</i>
15FQ+_fQ2	<i>Group - orientated - Self-sufficient</i>	0--1	0-0	1-2	3-4	5-6	7-9	10-11	12-13	14-15	16-24
15FQ+_fQ3	<i>Informal- self disciplined</i>	6-14	15-15	16-17	18-18	19-20	21-21	22-23	24-24		
15FQ+_fQ4	<i>Composed - tense driven</i>	0--1	0-0	1-2	3-4	5-7	8-10	11-13	14-15	16-18	19-24
15FQ+_SD	<i>Social desirability</i>	0-5	6-6	7-8	9-10	11-12	13-13	14-15	16-16		
15FQ+_CT	<i>Central Tendency</i>	0--1	0-0	1-1	2-4	5-11	12-18	19-24	25-31	32-37	38-125
15FQ+_INF	<i>Infrequency</i>	0--1	0-0	1-1	2-2	3-3	4-4	5-5	6-6	7-7	8-13
15FQ+_EIQ	<i>Derived score: Emotional Intelligence</i>	6-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30		
15FQ+_WA	<i>Derived score: Work attitude</i>	10-20	21-22	23-24	25-25	26-27	28-29	30-31	32-32		
15FQ+_fGOOD	<i>Faking good</i>	0-2	3-4	5-5	6-6	7-7	8-9	10-10	11-11	12-12	
15FQ+_fBAD	<i>Faking bad</i>	0--1	0-0	1-1	2-2	3-3	4-5	6-6	7-7	8-8	9-13

15FQPlus Norm Group: SA General Population updated 2010

Sample composition

The sample consisted of South Africans tested by Psytech SA and collaborators in the period leading up to January 2010

Frequency table: Sex

	Count	Cumulative Count	Percent	Cumulative Percent
F	9389	9389	38.17132	38.1713
M	14980	24369	60.90174	99.0731
Missing	228	24597	0.92694	100.0000

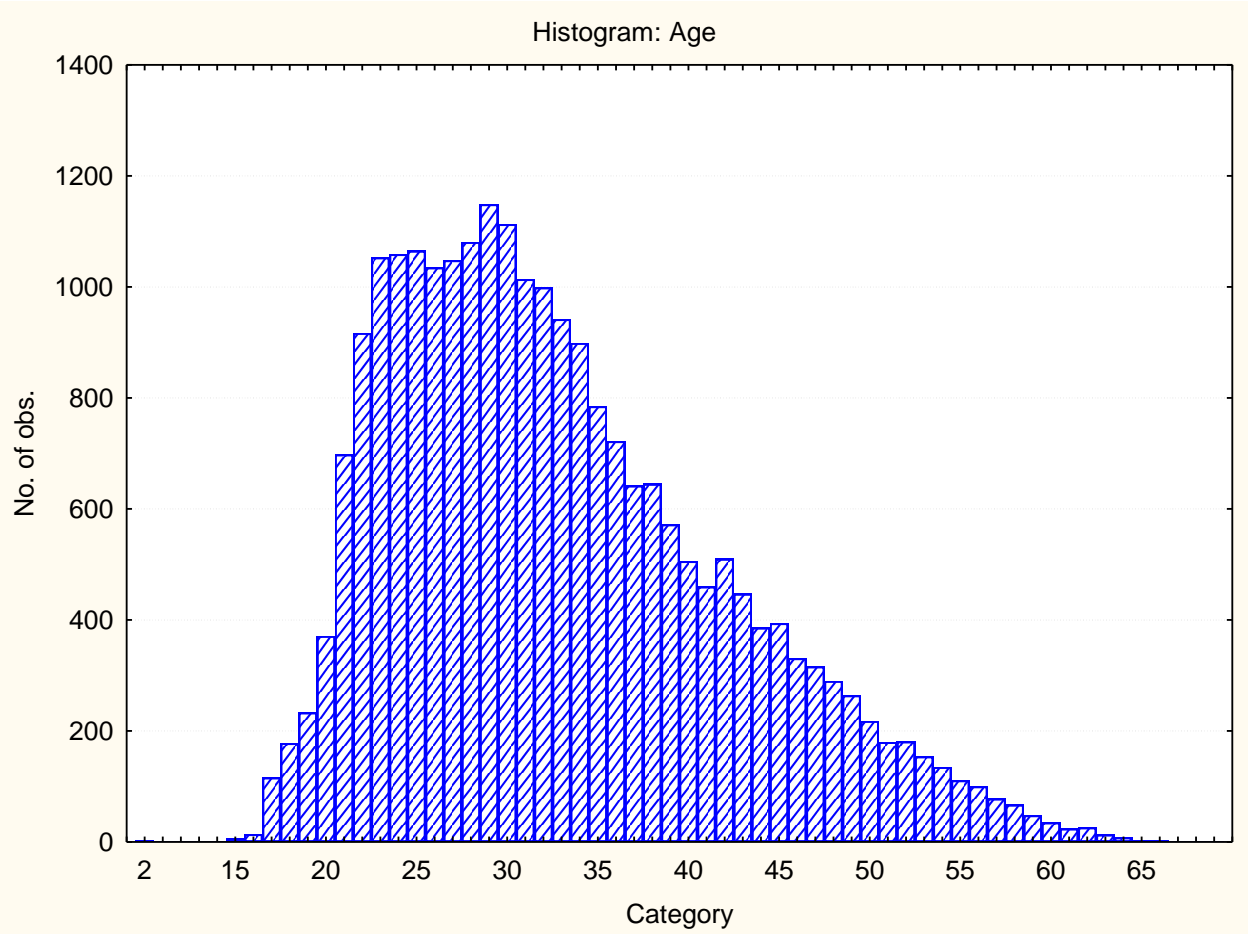
Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	3858	3858	15.68484	15.6848
Degree	2249	6107	9.14339	24.8282
Post Graduate	1927	8034	7.83429	32.6625
Technikon	1744	9778	7.09030	39.7528
University diploma	1174	10952	4.77294	44.5258
Grade 10 or 11	376	11328	1.52864	46.0544
Vocational Training	487	11815	1.97992	48.0343
Diploma	255	12070	1.03671	49.0710
Certificate	155	12225	0.63016	49.7012
Missing	12372	24597	50.29882	100.0000

Category	Frequency table: Language			
	Count	Cumulative Count	Percent	Cumulative Percent
English	5102	5102	20.74237	20.7424
Afrikaans	2857	7959	11.61524	32.3576
isiZulu	1589	9548	6.46014	38.8177
isiXhosa	1048	10596	4.26068	43.0784
Sesotho	752	11348	3.05728	46.1357
Setswana	740	12088	3.00850	49.1442
Sepedi	298	12386	1.21153	50.3557
Xitsonga	184	12570	0.74806	51.1038
Tshivenda	146	12716	0.59357	51.6974
siSwati	103	12819	0.41875	52.1161
isiNdebele	56	12875	0.22767	52.3438
Missing	11722	24597	47.65622	100.0000

Category	Frequency table: Language Group			
	Count	Cumulative Count	Percent	Cumulative Percent
Indigenous	4145	4145	16.85165	16.8516
Afrikaans	2857	7002	11.61524	28.4669
English	5102	12104	20.74237	49.2093
Missing	12493	24597	50.79075	100.0000

Category	Frequency table: Race Group			
	Count	Cumulative Count	Percent	Cumulative Percent
African	5803	5803	23.59231	23.5923
European	5002	10805	20.33581	43.9281
Coloured	1124	11929	4.56966	48.4978
Asian	1734	13663	7.04964	55.5474
Missing	10934	24597	44.45258	100.0000

Variable	Descriptive Statistics: Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	32.80917	9.172097	2.000000	72.00000	23654	943



Descriptive statistics on 15 Factor Questionnaire Plus scales

Variable		Descriptive Statistics					
		Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
15FQ+_fA	<i>Distant aloof - empathic</i>	18.82892	3.66514	0.00	24.0000	24597	0
15FQ+_B	<i>Intellectance</i>	19.70907	4.01142	0.00	24.0000	24597	0
15FQ+_fC	<i>Affected by feelings - emotionally stable</i>	17.43631	4.60889	0.00	24.0000	24597	0
15FQ+_fE	<i>Accommodating - Dominant</i>	16.53006	4.30584	0.00	24.0000	24597	0
15FQ+_fF	<i>Sober serious - Enthusiastic</i>	14.45567	5.44309	0.00	24.0000	24597	0
15FQ+_fG	<i>Expedient - Conscientious</i>	19.53104	4.41389	0.00	24.0000	24597	0
15FQ+_fH	<i>Retiring - Socially bold</i>	15.50864	5.90297	0.00	24.0000	24597	0
15FQ+_fI	<i>Tough Minded - Tender minded</i>	14.53234	5.05418	0.00	24.0000	24597	0
15FQ+_fL	<i>Trusting - Suspicious</i>	9.41155	4.96129	0.00	24.0000	24597	0
15FQ+_fM	<i>Concrete - Abstract</i>	10.32020	3.96063	0.00	24.0000	24597	0
15FQ+_fN	<i>Direct - Restrained</i>	19.34374	4.20419	0.00	24.0000	24597	0
15FQ+_fO	<i>Self-assured - Apprehensive</i>	12.14116	5.44726	0.00	24.0000	24597	0
15FQ+_fQ1	<i>Conventional - Radical</i>	8.88657	4.80536	0.00	24.0000	24597	0
15FQ+_fQ2	<i>Group - orientated - Self-sufficient</i>	7.61422	4.89561	0.00	24.0000	24597	0
15FQ+_fQ3	<i>Informal- self disciplined</i>	20.32476	3.16704	0.00	24.0000	24597	0
15FQ+_fQ4	<i>Composed - tense driven</i>	8.83128	5.49807	0.00	24.0000	24597	0
15FQ+_SD	<i>Social desirability</i>	10.91784	3.69573	0.00	16.0000	24597	0
15FQ+_CT	<i>Central Tendency</i>	12.31455	13.95184	0.00	174.0000	24597	0
15FQ+_INF	<i>Infrequency</i>	1.43513	1.66212	0.00	22.0000	24597	0
15FQ+_EIQ	<i>Derived score: Emotional Intelligence</i>	23.77879	4.42982	0.00	30.0000	24597	0
15FQ+_WA	<i>Derived score: Work attitude</i>	27.25747	4.21610	0.00	32.0000	24597	0
15FQ+_fGOOD	<i>Faking good</i>	7.46530	2.62652	0.00	12.0000	24597	0
15FQ+_fBAD	<i>Faking bad</i>	4.37907	2.40968	0.00	13.0000	24597	0

Sten table

		S10_1	S10_2	S10_3	S10_4	S10_5	S10_6	S10_7	S10_8	S10_9	S10_10
15FQ+_fA	<i>Distant aloof - empathic</i>	0-11	12-13	14-15	16-16	17-18	19-20	21-22	23-24		
15FQ+_B	<i>Intellectance</i>	0-11	12-13	14-15	16-17	18-19	20-21	22-23	24-24		
15FQ+_fC	<i>Affected by feelings - emotionally stable</i>	0-8	9-10	11-12	13-15	16-17	18-19	20-22	23-24		
15FQ+_fE	<i>Accommodating - Dominant</i>	0-7	8-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	
15FQ+_fF	<i>Sober serious - Enthusiastic</i>	0-3	4-6	7-9	10-11	12-14	15-17	18-19	20-22	23-24	
15FQ+_fG	<i>Expedient - Conscientious</i>	0-10	11-12	13-15	16-17	18-19	20-21	22-23	24-24		
15FQ+_fH	<i>Retiring - Socially bold</i>	0-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24		
15FQ+_fI	<i>Tough Minded - Tender minded</i>	0-4	5-6	7-9	10-12	13-14	15-17	18-19	20-22	23-24	
15FQ+_fL	<i>Trusting - Suspicious</i>	0--1	0-1	2-4	5-6	7-9	10-11	12-14	15-16	17-19	20-24
15FQ+_fM	<i>Concrete - Abstract</i>	0-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-24
15FQ+_fN	<i>Direct - Restrained</i>	0-10	11-13	14-15	16-17	18-19	20-21	22-23	24-24		
15FQ+_fO	<i>Self-assured - Apprehensive</i>	0-1	2-3	4-6	7-9	10-12	13-14	15-17	18-20	21-23	24-24
15FQ+_fQ1	<i>Conventional - Radical</i>	0--1	0-1	2-4	5-6	7-8	9-11	12-13	14-16	17-18	19-24
15FQ+_fQ2	<i>Group - orientated - Self-sufficient</i>	0--1	0-0	1-2	3-5	6-7	8-10	11-12	13-14	15-17	18-24
15FQ+_fQ3	<i>Informal- self disciplined</i>	0-13	14-15	16-17	18-18	19-20	21-21	22-23	24-24		
15FQ+_fQ4	<i>Composed - tense driven</i>	0--1	0-0	1-3	4-6	7-8	9-11	12-14	15-17	18-19	20-24
15FQ+_SD	<i>Social desirability</i>	0-3	4-5	6-7	8-9	10-10	11-12	13-14	15-16		
15FQ+_CT	<i>Central Tendency</i>	0--1	0-0	1-1	2-5	6-12	13-19	20-26	27-33	34-40	41-174
15FQ+_INF	<i>Infrequency</i>	0--1	0-0	1-1	2-2	3-3	4-4	5-5	6-6	7-7	8-22
15FQ+_EIQ	<i>Derived score: Emotional Intelligence</i>	0-14	15-17	18-19	20-21	22-23	24-25	26-28	29-30		
15FQ+_WA	<i>Derived score: Work attitude</i>	0-18	19-20	21-23	24-25	26-27	28-29	30-31	32-32		
15FQ+_fGOOD	<i>Faking good</i>	0-2	3-3	4-4	5-6	7-7	8-8	9-10	11-11	12-12	
15FQ+_fBAD	<i>Faking bad</i>	0--1	0-0	1-1	2-3	4-4	5-5	6-6	7-7	8-9	10-13

Fifteen Factor Questionnaire (15FQ+)

Norm Group: SA Aggregate Population, Updated 2016

Norm Type:

Standard Deviation Norm

Composition of the Sample

Compiled from raw data on 20374 respondents submitted by various clients as well as collected by Psytech SA and collaborators, via GeneSys for Windows, in the period up to June 2015.

Gender Composition of the Sample

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	7866	7866	38,60803	38,6080
M	12279	20145	60,26799	98,8760
U	229	20374	1,12398	100,0000
Missing	0	20374	0,00000	100,0000

Educational Composition of the Sample

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	4406	4406	21,62560	21,6256
Tertiary	5926	10332	29,08609	50,7117
Post Graduate	2169	12501	10,64592	61,3576
< Matric	406	12907	1,99274	63,3503
Unknown	103	13010	0,50555	63,8559
Other	9	13019	0,04417	63,9001
Missing	7355	20374	36,09993	100,0000

It should be noted that a large number of respondents did not give their educational level. Of the remainder, the majority had a tertiary level of education.

Language Composition of the Sample

Category	Frequency table: Language			
	Count	Cumulative Count	Percent	Cumulative Percent
isiZulu	1426	1426	6,99912	6,9991
Afrikaans	2999	4425	14,71974	21,7189
Setswana	660	5085	3,23942	24,9583
English	5473	10558	26,86267	51,8209
Sesotho	664	11222	3,25906	55,0800
isiXhosa	886	12108	4,34868	59,4287
Sepedi	590	12698	2,89585	62,3245
Xitsonga	192	12890	0,94238	63,2669
Other	273	13163	1,33994	64,6069
Unknown	209	13372	1,02582	65,6327
Tshivenda	149	13521	0,73132	66,3640
siSwati	112	13633	0,54972	66,9137
isiNdebele	55	13688	0,26995	67,1837
Missing	6686	20374	32,81633	100,0000

Language Group Composition of the Sample

Category	Frequency table: Language Group			
	Count	Cumulative Count	Percent	Cumulative Percent
Indigenous	4734	4734	23,23550	23,2355
Afrikaans	2999	7733	14,71974	37,9552
English	5473	13206	26,86267	64,8179
Missing	7168	20374	35,18209	100,0000

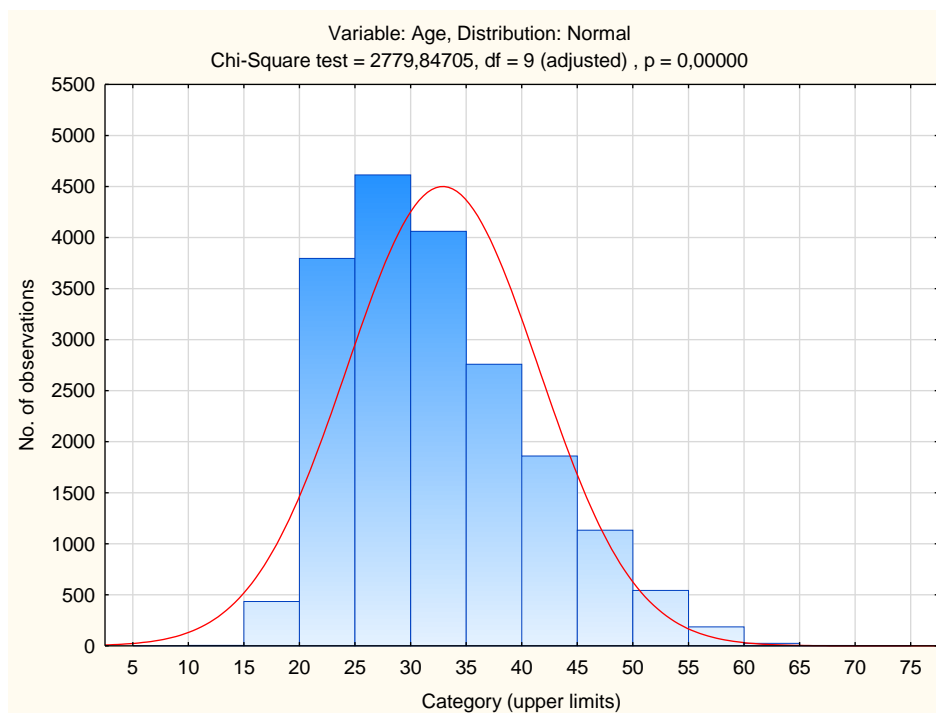
Racial Composition of the Sample

Category	Frequency table: Race			
	Count	Cumulative Count	Percent	Cumulative Percent
African	5783	5783	28,38422	28,3842
European	5365	11148	26,33258	54,7168
Coloured	1125	12273	5,52174	60,2385
Asian	1762	14035	8,64828	68,8868
Indian	44	14079	0,21596	69,1028
Other	118	14197	0,57917	69,6819
Unknown	28	14225	0,13743	69,8194
Chinese	3	14228	0,01472	69,8341
Missing	6146	20374	30,16590	100,0000

It should be noted that, for a large number of persons, no race information was available.

Age Composition and Distribution of the Sample

Variable	Descriptive Statistics: Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	32,90089	8,609117	15,00000	68,00000	19423	954



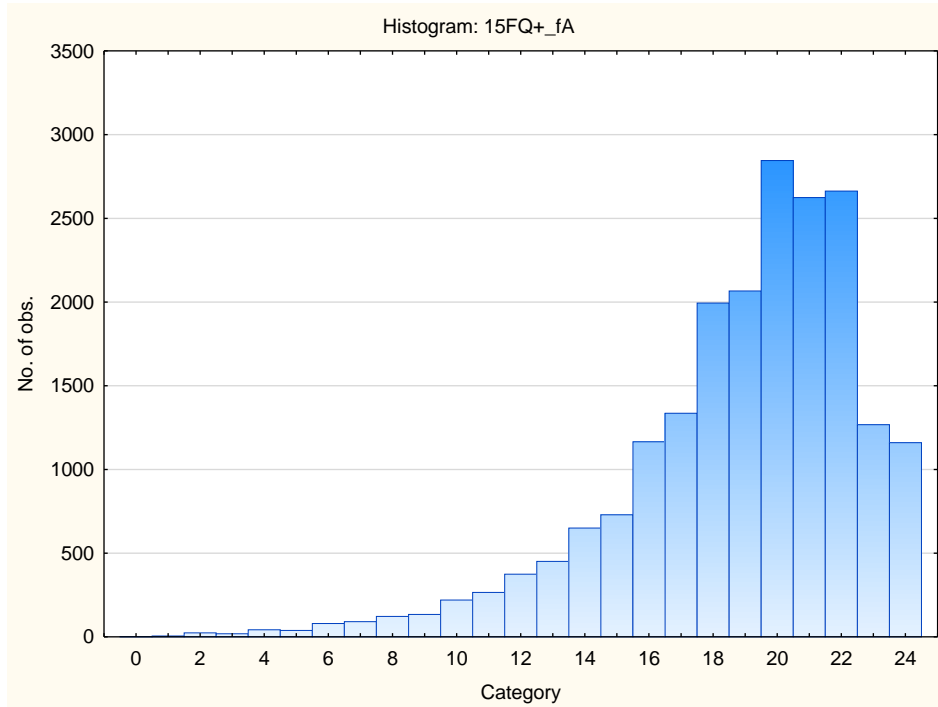
It is clear from the frequency distribution that most of the respondents were in their twenties and early thirties.

Descriptive Statistics on 15FQ+ Scales

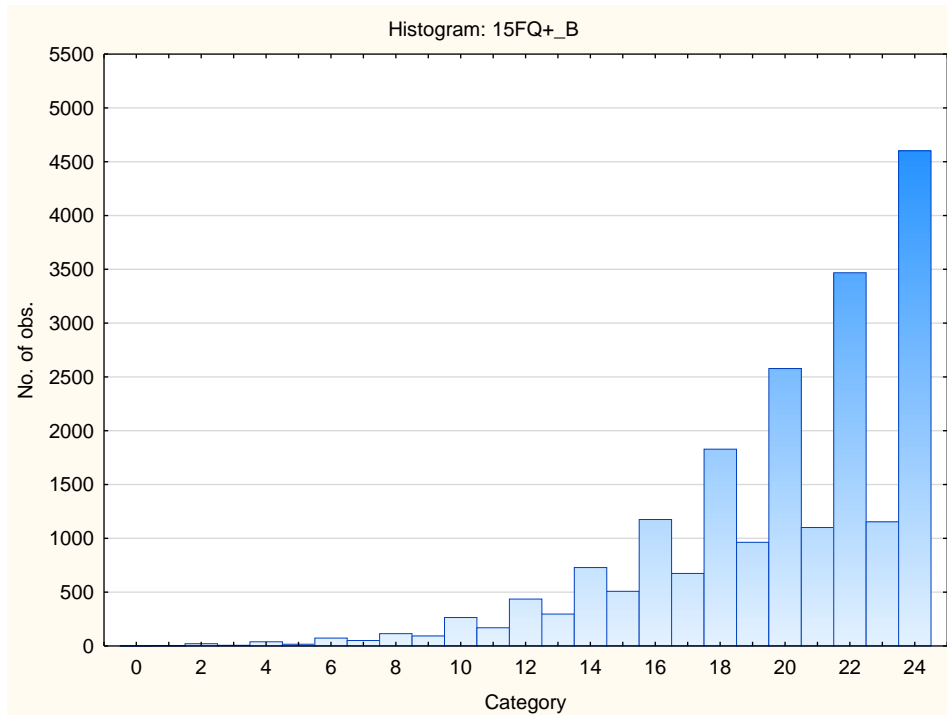
Scale	Scale description	Sample size	Mean	Std.Dev.
fA	Distant Aloof - Empathic	20374	18,82041	3,75584
B	Intellectance	20374	19,81810	4,01926
fC	Affected by feelings - Emotionally Stable	20374	17,40066	4,68599
fE	Accommodating - Dominant	20374	16,71753	4,34940
fF	Sober serious - Enthusiastic	20374	14,72548	5,48044
fG	Expedient - Conscientious	20374	19,38534	4,51568
fH	Retiring – Socially-bold	20374	15,64833	5,92437
fI	Hard-headed – Tender-minded	20374	14,59326	5,08550
fL	Trusting - Suspicious	20374	9,26961	5,03216
fM	Concrete - Abstract	20374	10,45725	4,07189
fN	Direct - Restrained	20374	19,11407	4,34391
fO	Confident – Self-doubting	20374	12,04138	5,50010
fQ1	Conventional - Radical	20374	9,15142	4,89442
fQ2	Group-orientated - Self-sufficient	20374	7,61176	4,94828
fQ3	Informal – Self-disciplined	20374	20,19122	3,30601
fQ4	Composed – Tense-driven	20374	9,08609	5,60140
SD	Social Desirability	20374	10,62840	3,74606
CT	Central Tendency	20374	12,30578	13,83408
INF	Infrequency	20374	1,44277	1,67816
EIQ	Derived Score: Emotional Intelligence	20374	23,66202	4,54542
WA	Derived Score: Work Attitude	20374	27,06322	4,38044
fGOOD	Faking Good	20374	7,39472	2,66013
fBAD	Faking Bad	20374	4,41430	2,42352

Frequency Distributions for 15FQ+ Scales

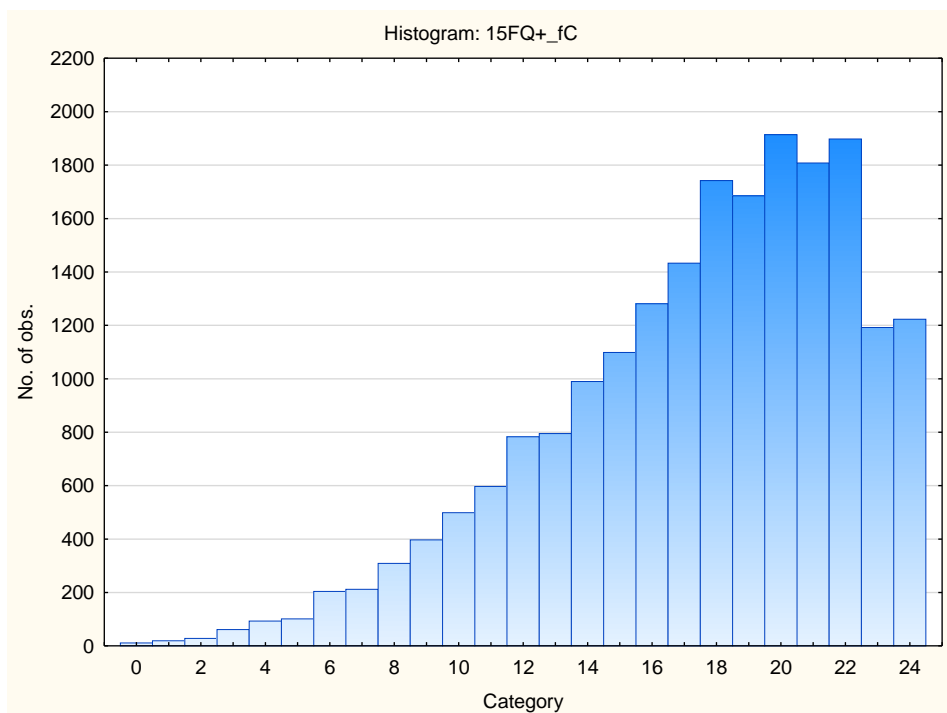
Distant Aloof – Empathic



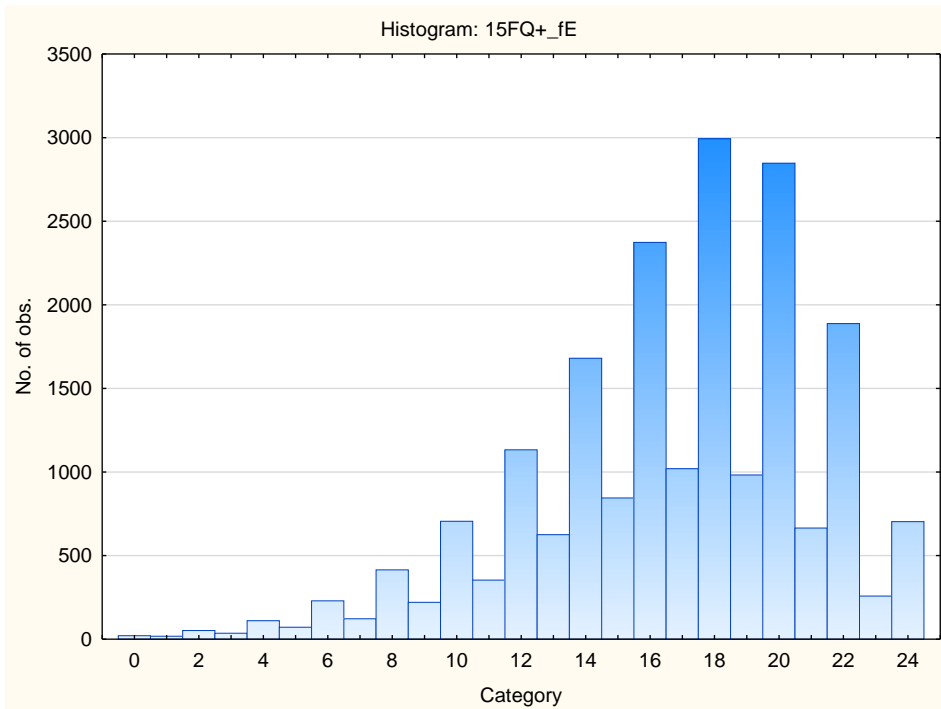
Intellectance



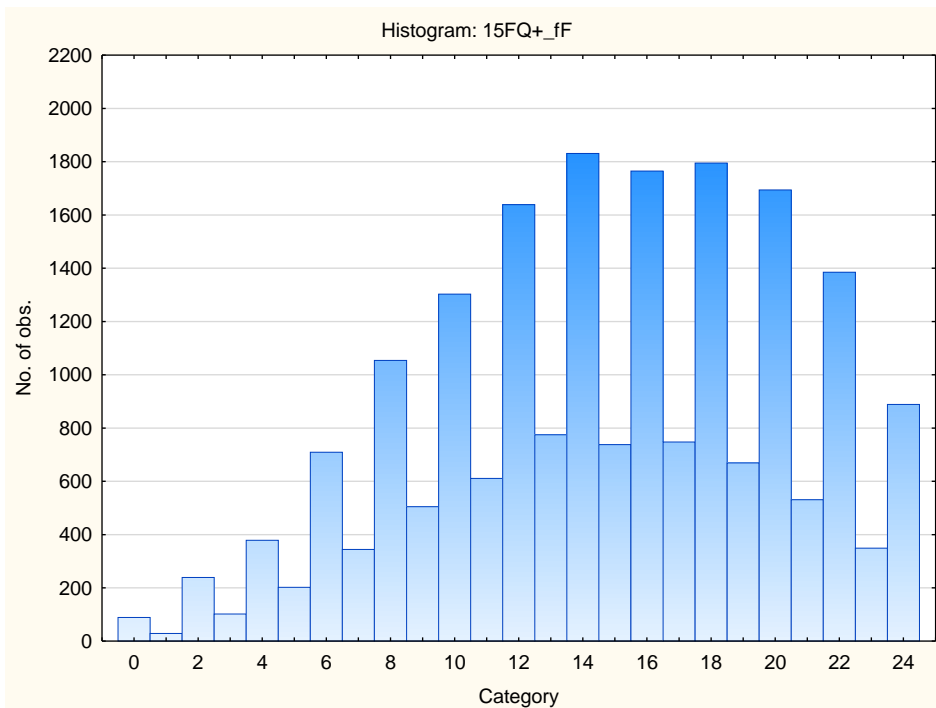
Affected by Feelings - Emotionally Stable



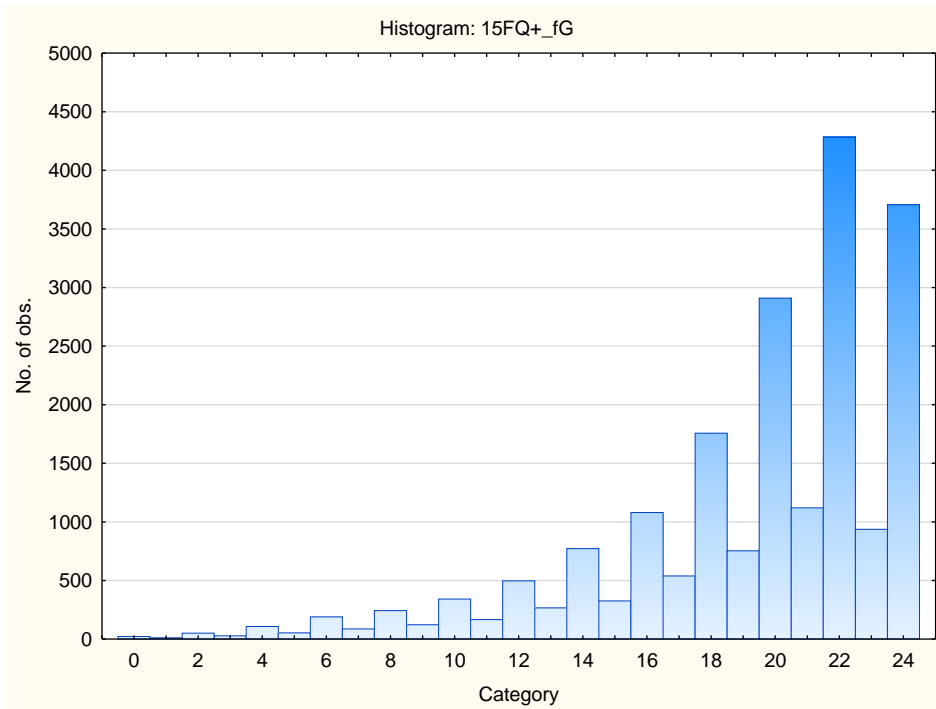
Accommodating – Dominant



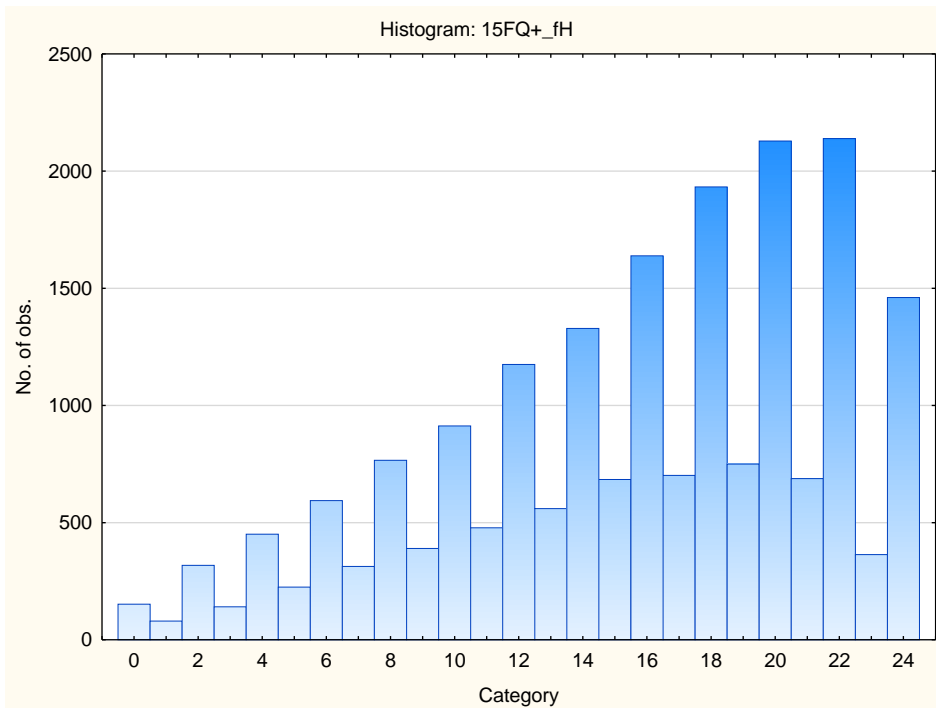
Sober Serious – Enthusiastic



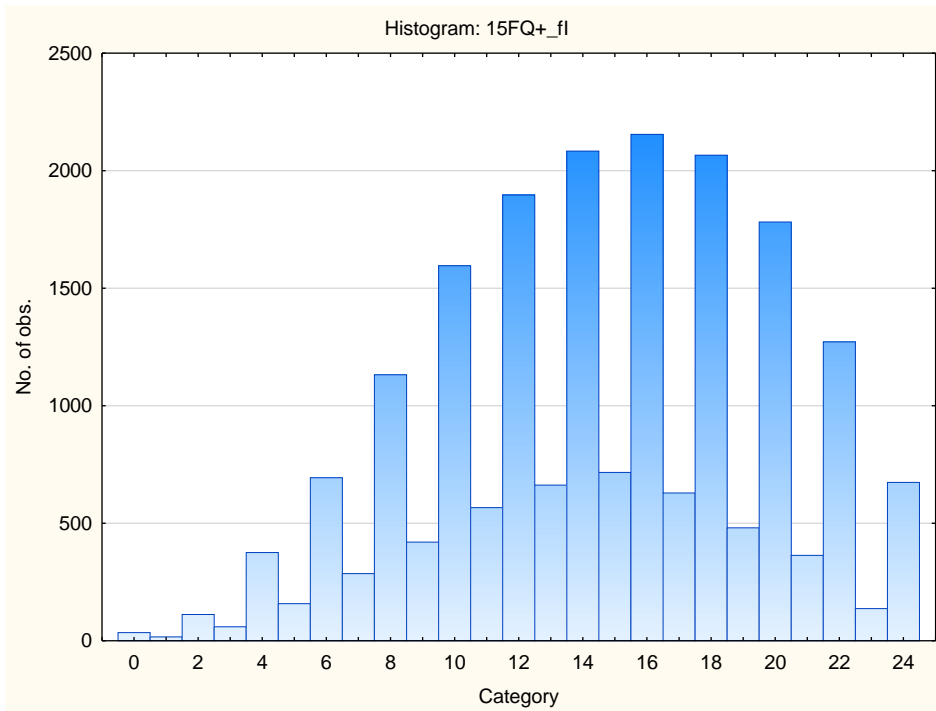
Expedient – Conscientious



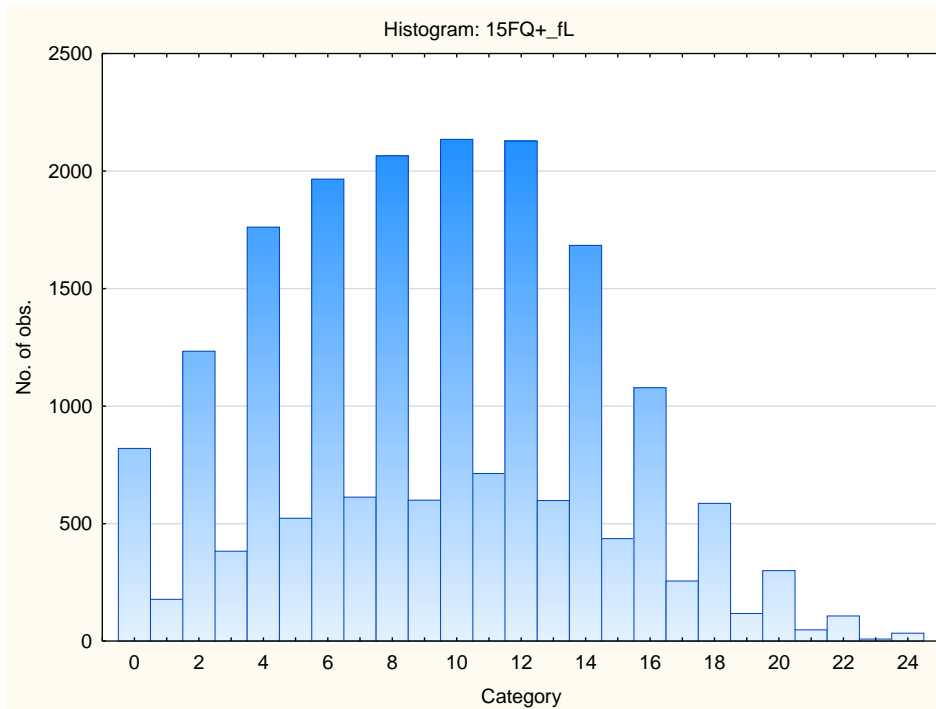
Retiring – Socially-bold



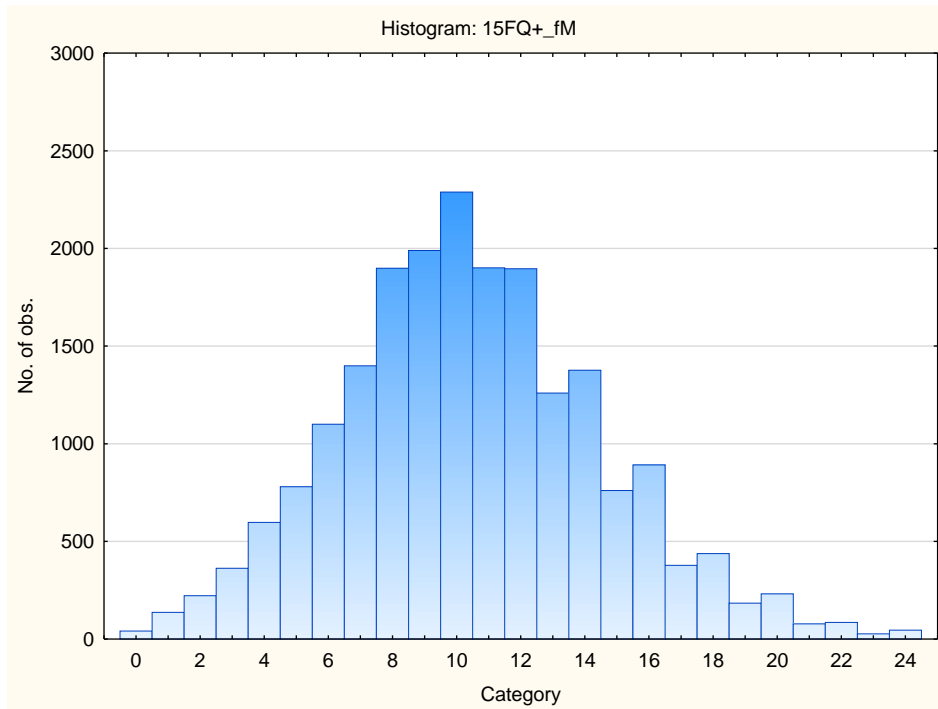
Hard-headed – Tender-minded



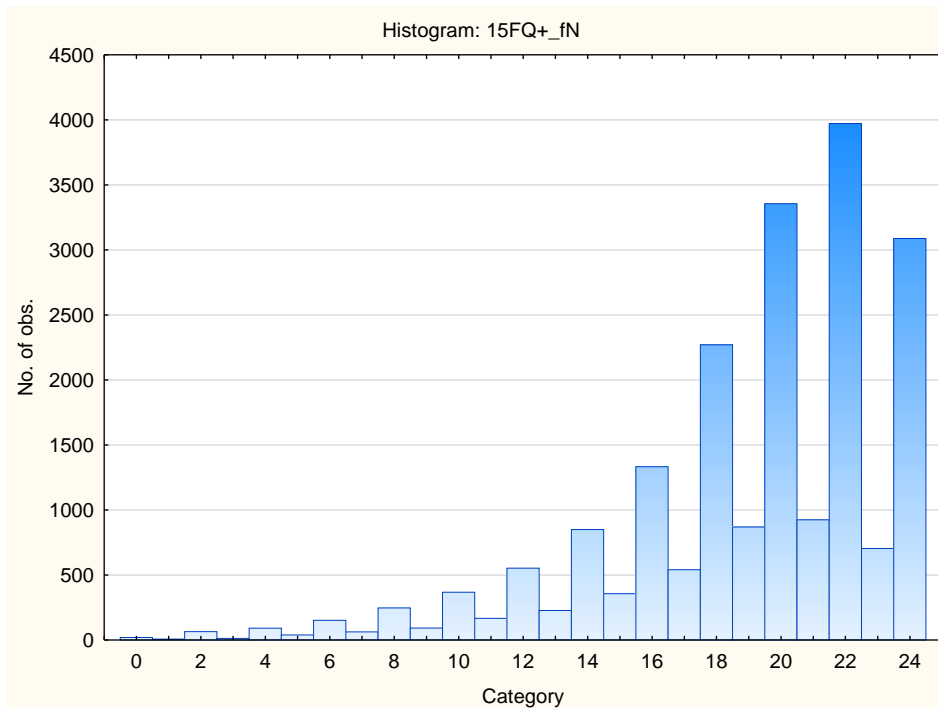
Trusting – Suspicious



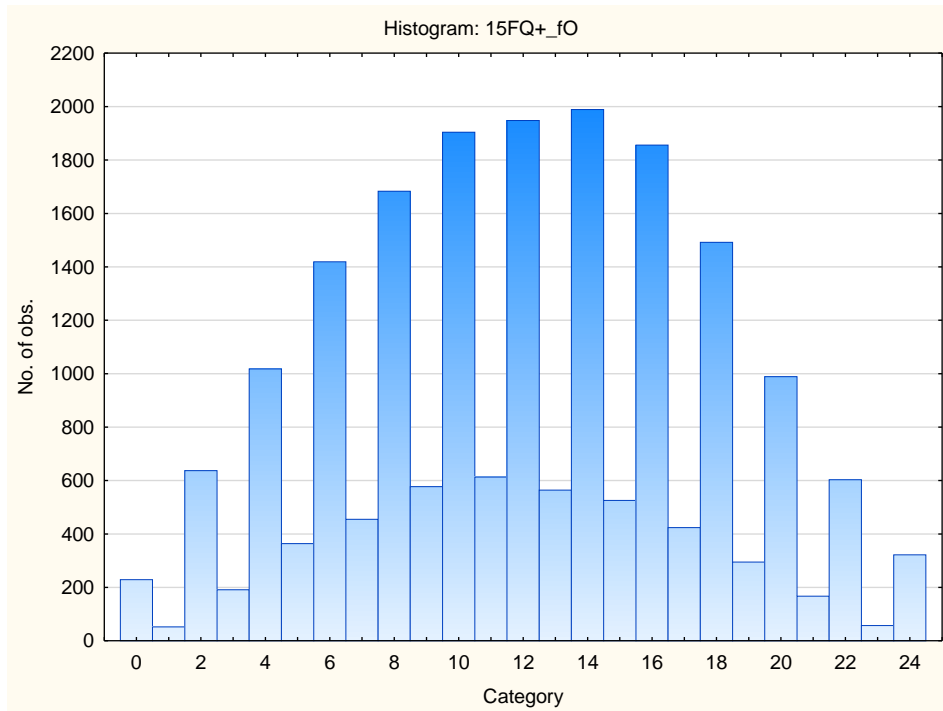
Concrete – Abstract



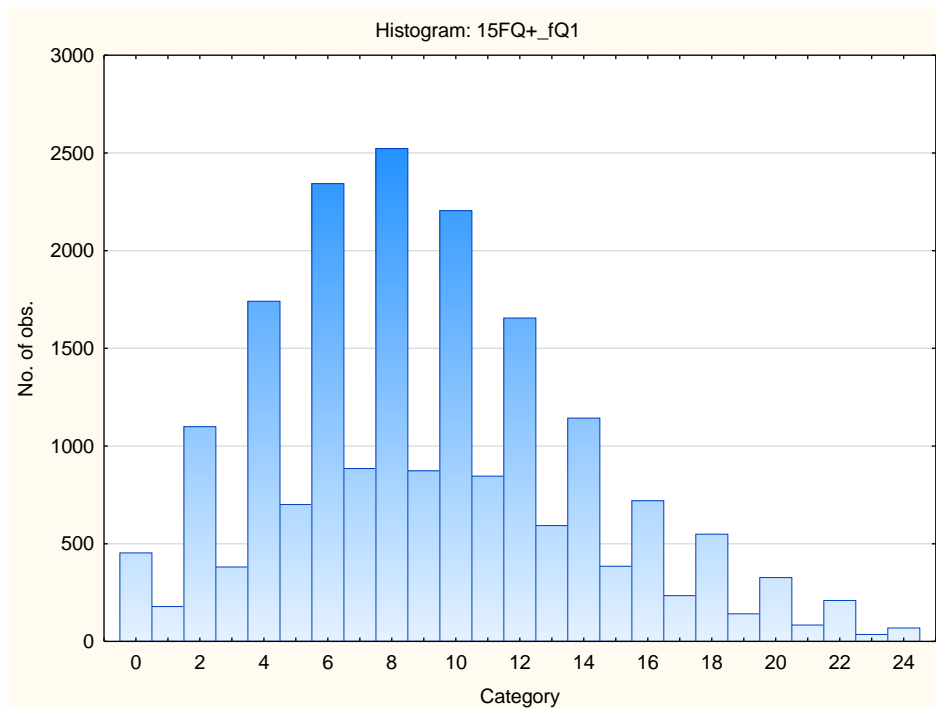
Direct – Restrained



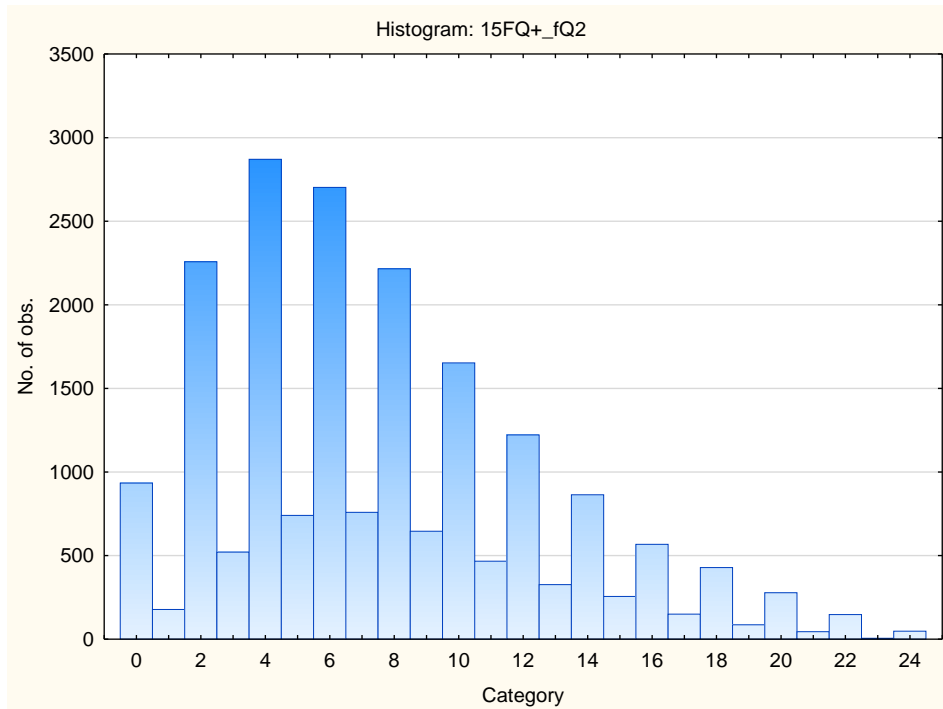
Confident - Self-doubting



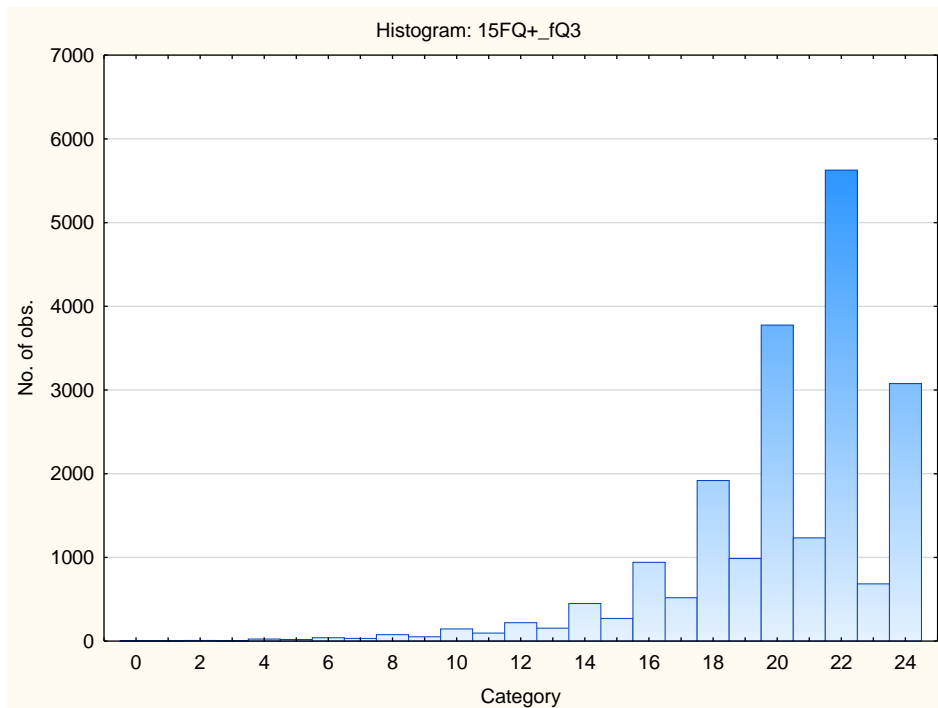
Conventional – Radical



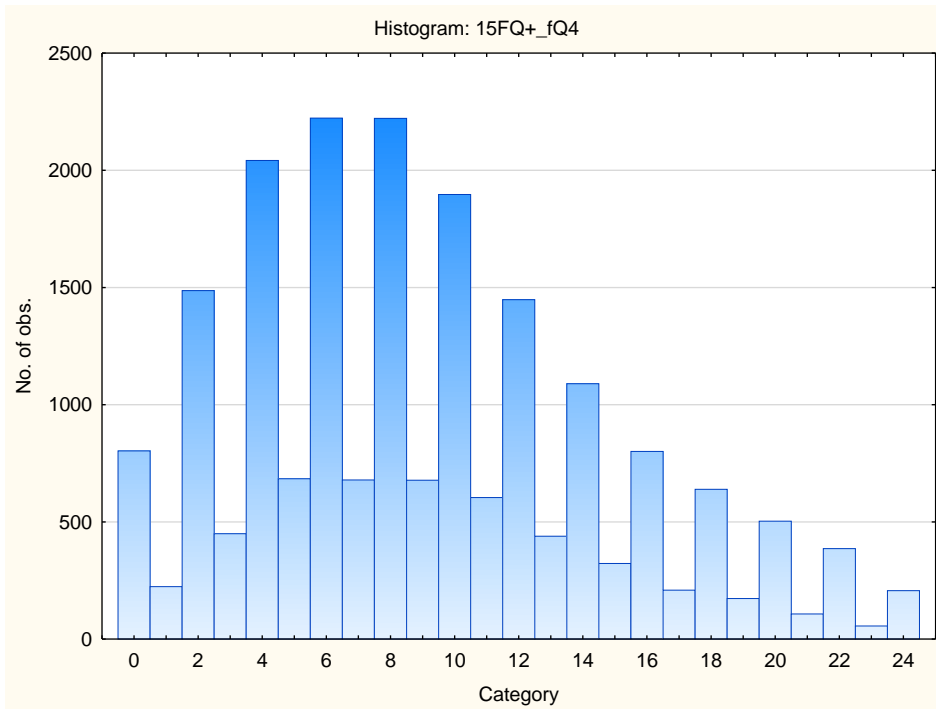
Group-orientated - Self-sufficient



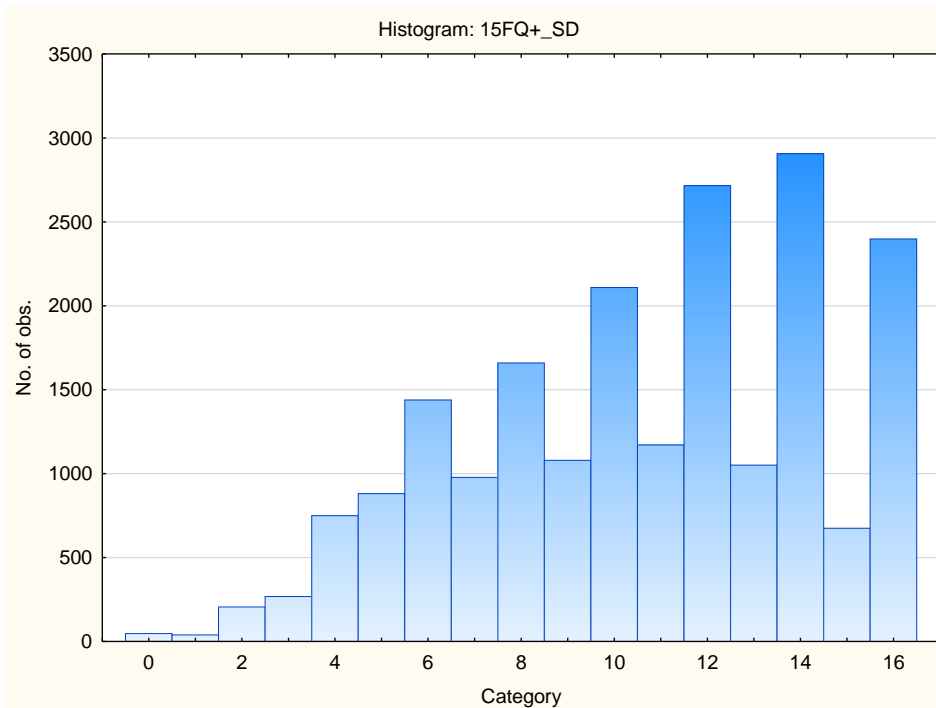
Informal- Self-disciplined



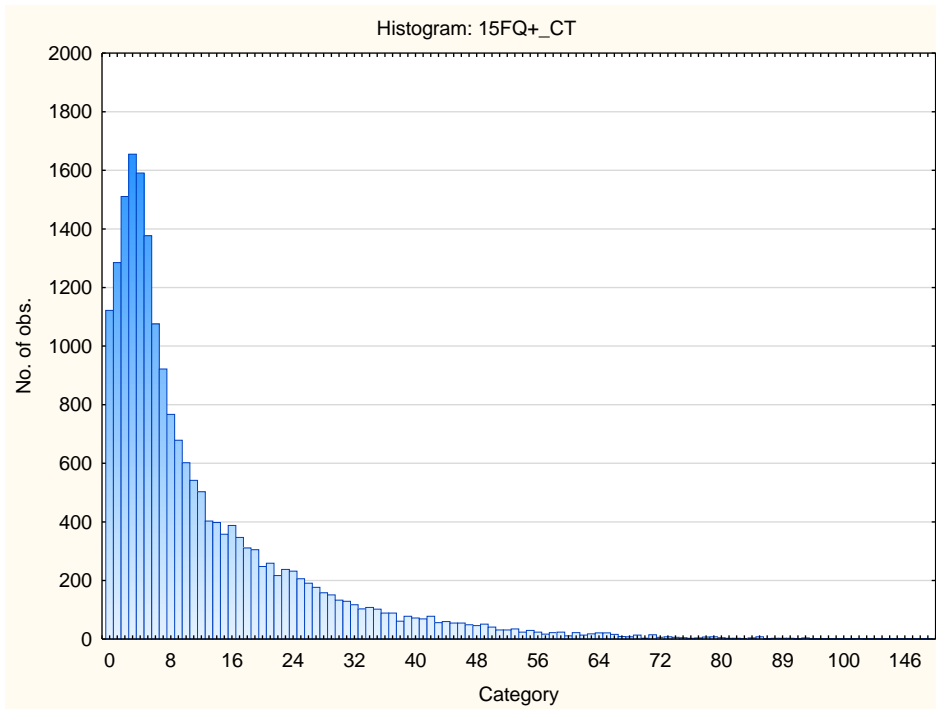
Composed – Tense-driven



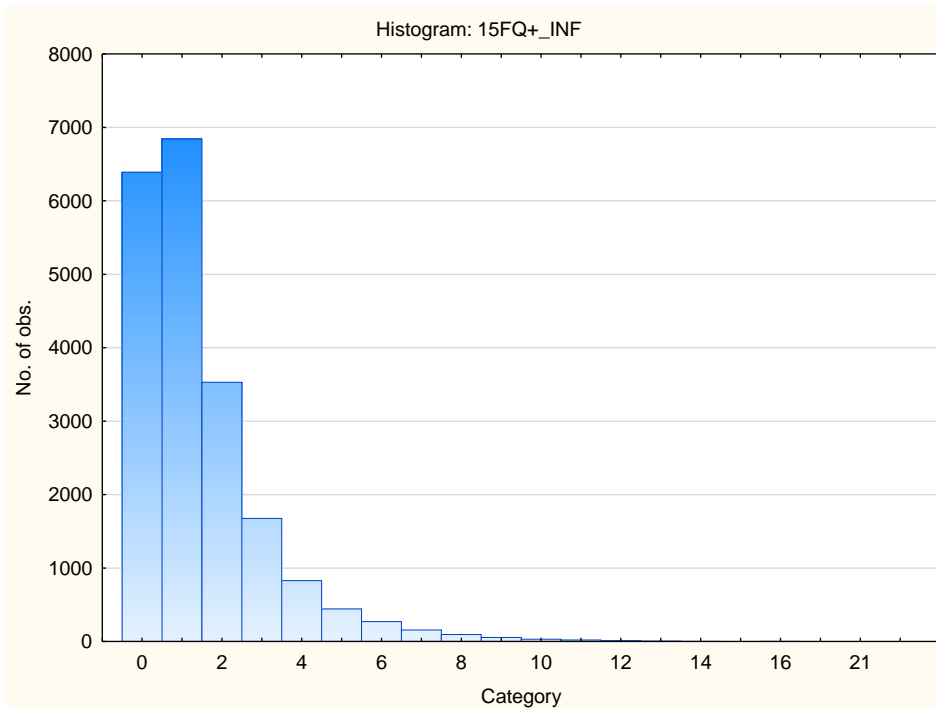
Social Desirability



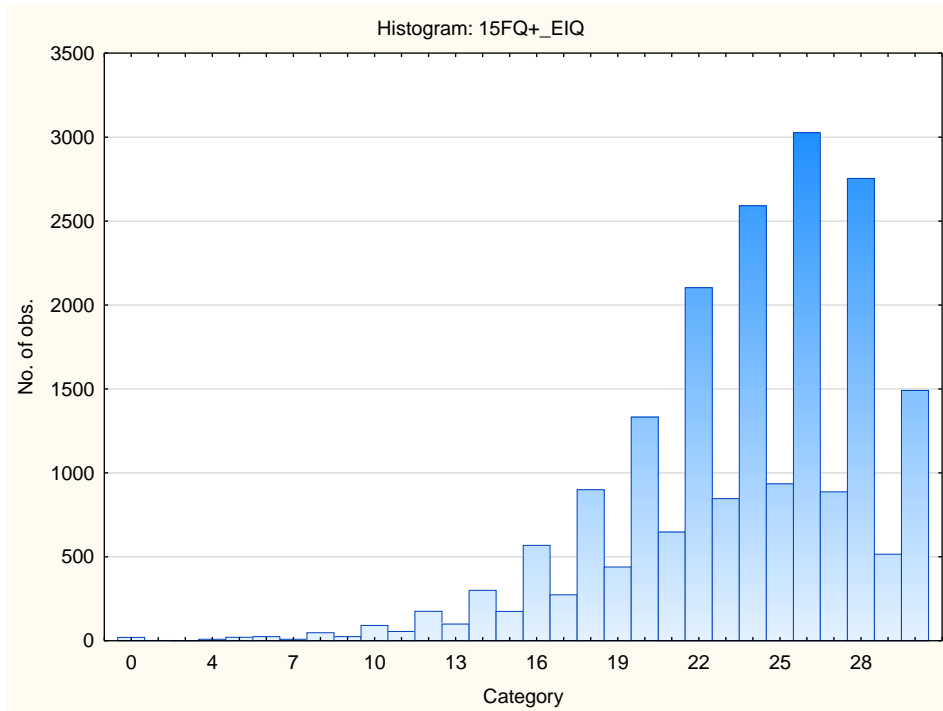
Central Tendency



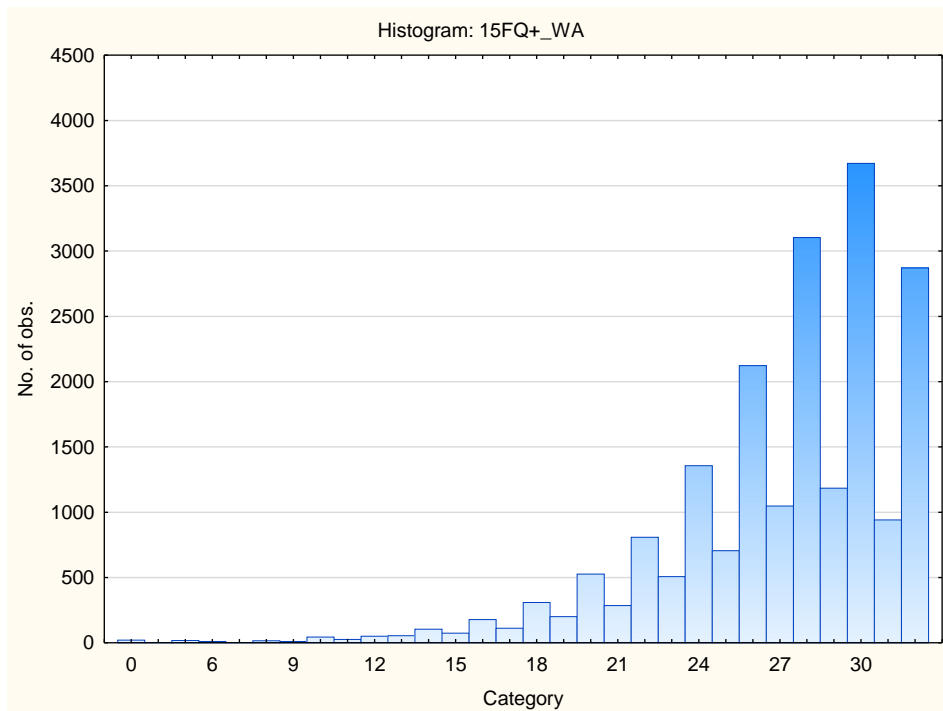
Infrequency



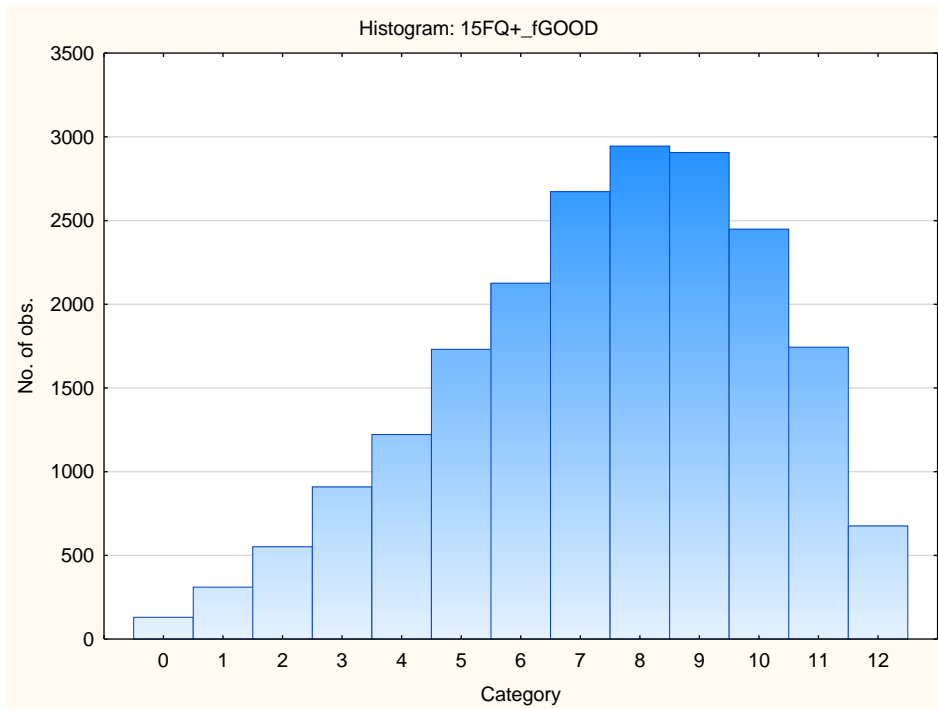
Derived Score: Emotional Intelligence



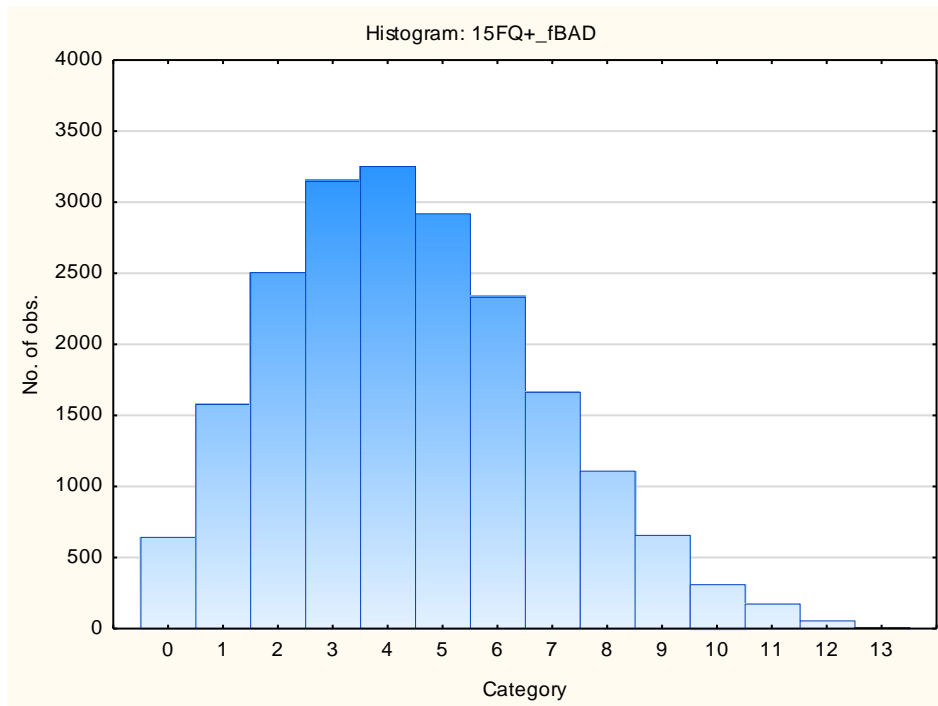
Derived Score: Work Attitude



Faking Good



Faking Bad



Sten Table

Scale Abbreviation	Scale Name	Raw Scores for Sten Categories									
		1	2	3	4	5	6	7	8	9	10
fA	Distant Aloof - Empathic	0-11	12-13	14-15	16-16	17-18	19-20	21-22	23-24		
B	Intellectance	0-11	12-13	14-15	16-17	18-19	20-21	22-23	24-24		
fC	Affected by Feelings - Emotionally Stable	0-8	9-10	11-12	13-15	16-17	18-19	20-22	23-24		
fE	Accommodating – Dominant	0-8	9-10	11-12	13-14	15-16	17-18	19-21	22-23	24-24	
fF	Sober serious - Enthusiastic	0-3	4-6	7-9	10-11	12-14	15-17	18-20	21-22	23-24	
fG	Expedient – Conscientious	0-10	11-12	13-14	15-17	18-19	20-21	22-23	24-24		
fH	Retiring – Socially-bold	0-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24		
fI	Hard-headed – Tender-minded	0-4	5-6	7-9	10-12	13-14	15-17	18-19	20-22	23-24	
fL	Trusting - Suspicious	0--1	0-1	2-4	5-6	7-9	10-11	12-14	15-16	17-19	20-24
fM	Concrete - Abstract	0-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-24
fN	Direct - Restrained	0-10	11-12	13-14	15-16	17-19	20-21	22-23	24-24		
fO	Confident – Self-doubting	0-1	2-3	4-6	7-9	10-12	13-14	15-17	18-20	21-23	24-24
fQ1	Conventional - Radical	0--1	0-1	2-4	5-6	7-9	10-11	12-14	15-16	17-18	19-24
fQ2	Group-orientated - Self-sufficient	0--1	0-0	1-2	3-5	6-7	8-10	11-12	13-15	16-17	18-24
fQ3	Informal - Self-disciplined	0-13	14-15	16-16	17-18	19-20	21-21	22-23	24-24		
fQ4	Composed – Tense-driven	0--1	0-0	1-3	4-6	7-9	10-11	12-14	15-17	18-20	21-24
SD	Social Desirability	0-3	4-5	6-6	7-8	9-10	11-12	13-14	15-16		
CT	Central Tendency	0--1	0-0	1-1	2-5	6-12	13-19	20-26	27-33	34-39	40-174
INF	Infrequency	0--1	0-0	1-1	2-2	3-3	4-4	5-5	6-6	7-7	8-22
EQ	Derived Score: Emotional Intelligence	0-14	15-16	17-19	20-21	22-23	24-25	26-28	29-30		
WA	Derived Score: Work Attitude	0-18	19-20	21-22	23-24	25-27	28-29	30-31	32-32		
fGOOD	Faking Good	0-2	3-3	4-4	5-6	7-7	8-8	9-10	11-11	12-12	
fBAD	Faking Bad	0--1	0-0	1-1	2-3	4-4	5-5	6-6	7-8	9-9	10-13

Fifteen Factor Questionnaire (15FQ+)

Norm group: SA Afrikaans speakers updated 2016

Norm Type

Standard deviation norm

Composition of the Sample

The sample consisted of 2999 Afrikaans speaking South Africans tested by Psytech SA and collaborators in the period up to February 2016

Gender Composition of the Sample

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	1098	1098	36,61220	36,6122
M	1893	2991	63,12104	99,7332
U	8	2999	0,26676	100,0000
Missing	0	2999	0,00000	100,0000

Educational Composition of the Sample

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	1049	1049	34,97833	34,9783
Tertiary	1048	2097	34,94498	69,9233
Post Graduate	463	2560	15,43848	85,3618
< Matric	131	2691	4,36812	89,7299
Unknown	20	2711	0,66689	90,3968
Other	4	2715	0,13338	90,5302
Missing	284	2999	9,46982	100,0000

Language Composition of the Sample

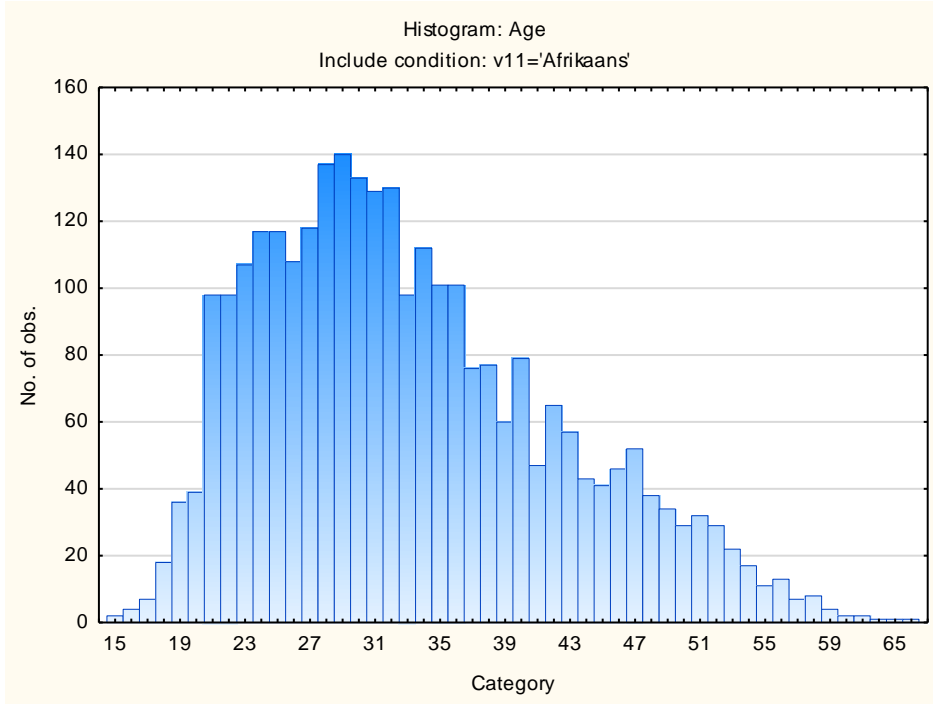
Category	Frequency table: Language			
	Count	Cumulative Count	Percent	Cumulative Percent
Afrikaans	2999	2999	100,0000	100,0000
Missing	0	2999	0,0000	100,0000

Racial Composition of the Sample

Category	Frequency table: Race			
	Count	Cumulative Count	Percent	Cumulative Percent
African	69	69	2,30077	2,3008
European	2567	2636	85,59520	87,8960
Coloured	288	2924	9,60320	97,4992
Asian	5	2929	0,16672	97,6659
Other	33	2962	1,10037	98,7663
Unknown	3	2965	0,10003	98,8663
Missing	34	2999	1,13371	100,0000

Age Composition and Distribution of the Sample

Variable	Descriptive Statistics: Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	33,17053	9,156249	15,00000	67,00000	2844	155

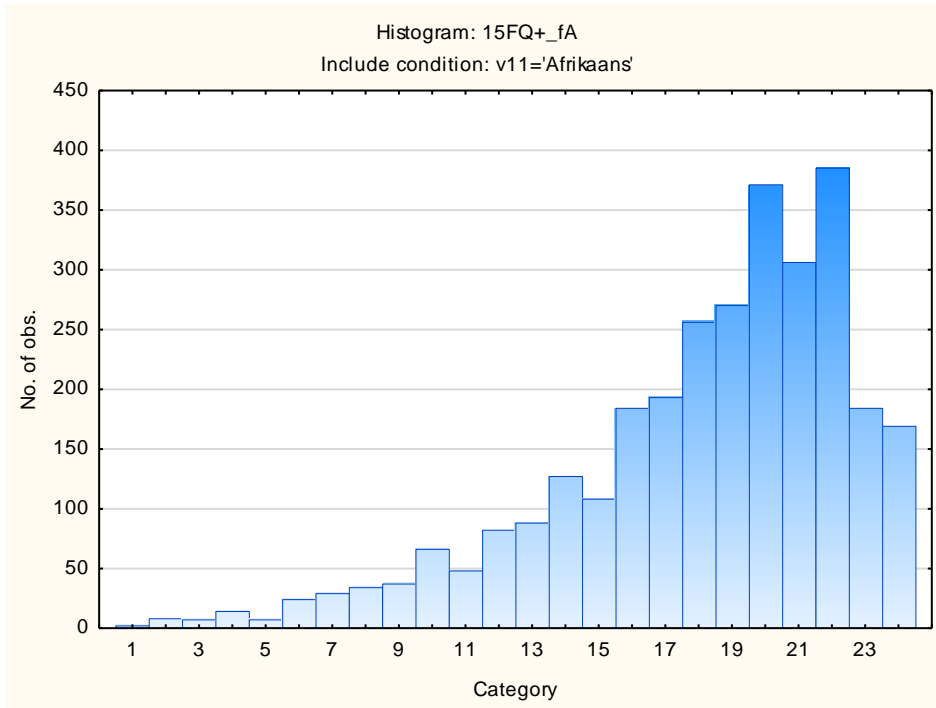


Descriptive Statistics on 15FQ+ Scales

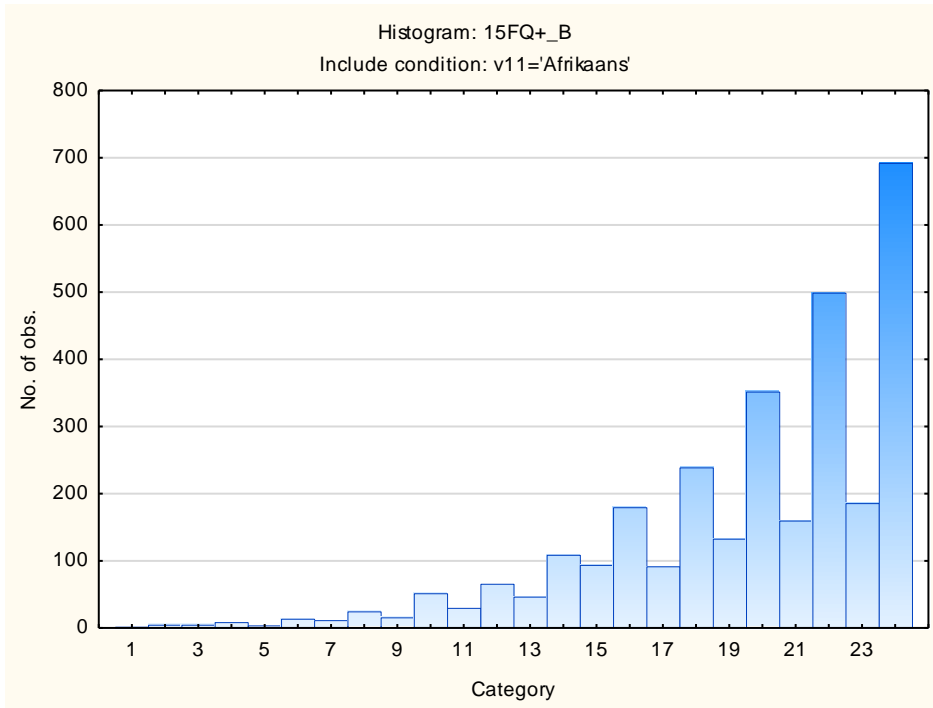
Scale	Scale description	Sample size	Mean	Std.Dev.
fA	Distant Aloof - Empathic	2999	18,12704	4,41564
B	Intellectance	2999	19,68023	4,26844
fC	Affected by feelings - Emotionally Stable	2999	16,79160	5,18416
fE	Accommodating - Dominant	2999	16,42614	4,93282
fF	Sober serious - Enthusiastic	2999	13,98433	5,85078
fG	Expedient - Conscientious	2999	18,82161	4,89031
fH	Retiring – Socially-bold	2999	14,17172	6,50300
fI	Hard-headed – Tender-minded	2999	14,08069	5,38939
fL	Trusting - Suspicious	2999	9,29843	5,19968
fM	Concrete - Abstract	2999	10,25809	4,49224
fN	Direct - Restrained	2999	18,26342	4,88664
fO	Confident – Self-doubting	2999	13,02101	5,88883
fQ1	Conventional - Radical	2999	8,77059	5,05045
fQ2	Group-orientated - Self-sufficient	2999	8,86762	5,63353
fQ3	Informal – Self-disciplined	2999	20,47482	3,29634
fQ4	Composed – Tense-driven	2999	11,08169	6,12688
SD	Social Desirability	2999	9,85695	3,62215
CT	Central Tendency	2999	12,45649	13,98307
INF	Infrequency	2999	1,50950	1,68772
EIQ	Derived Score: Emotional Intelligence	2999	22,58520	5,09640
WA	Derived Score: Work Attitude	2999	27,05302	4,34965
fGOOD	Faking Good	2999	6,55585	2,80120
fBAD	Faking Bad	2999	4,81027	2,61602

Frequency Distributions for 15FQ+ Scales

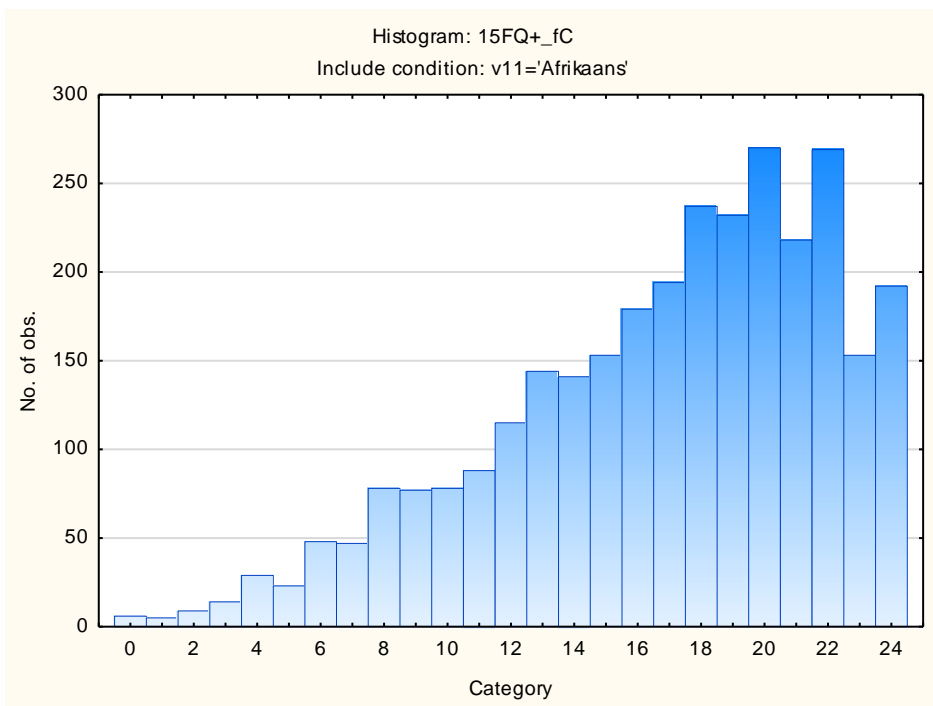
Distant Aloof – Empathic



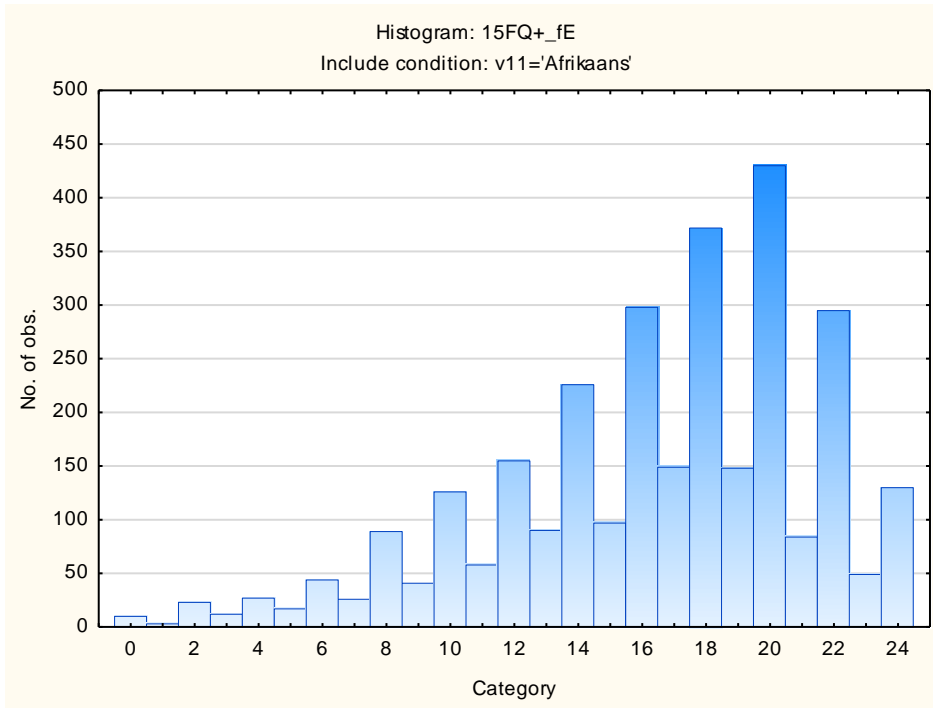
Intellectance



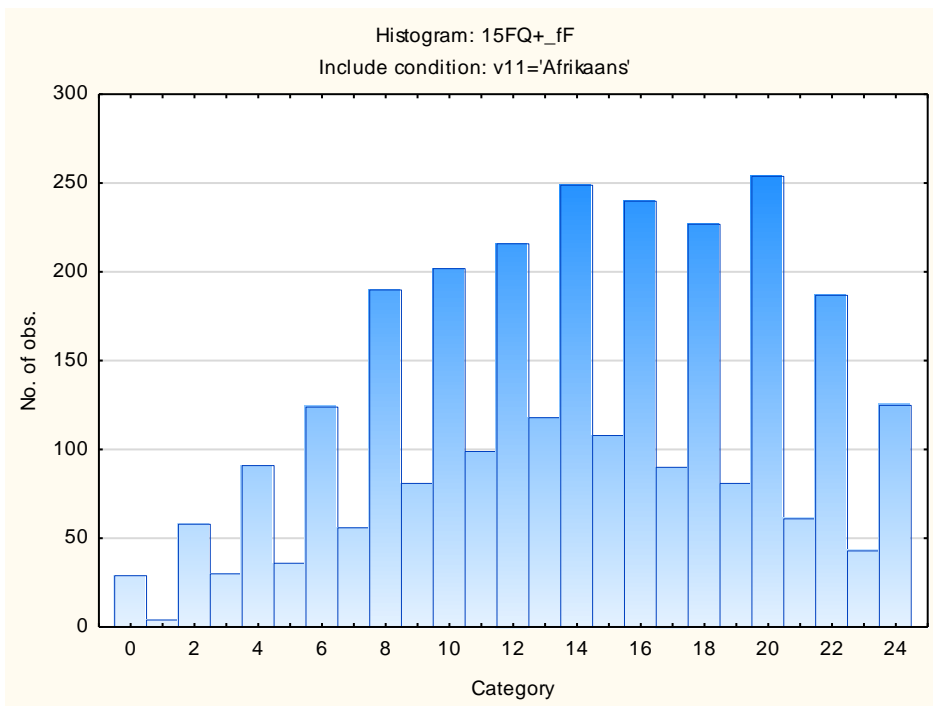
Affected by Feelings - Emotionally Stable



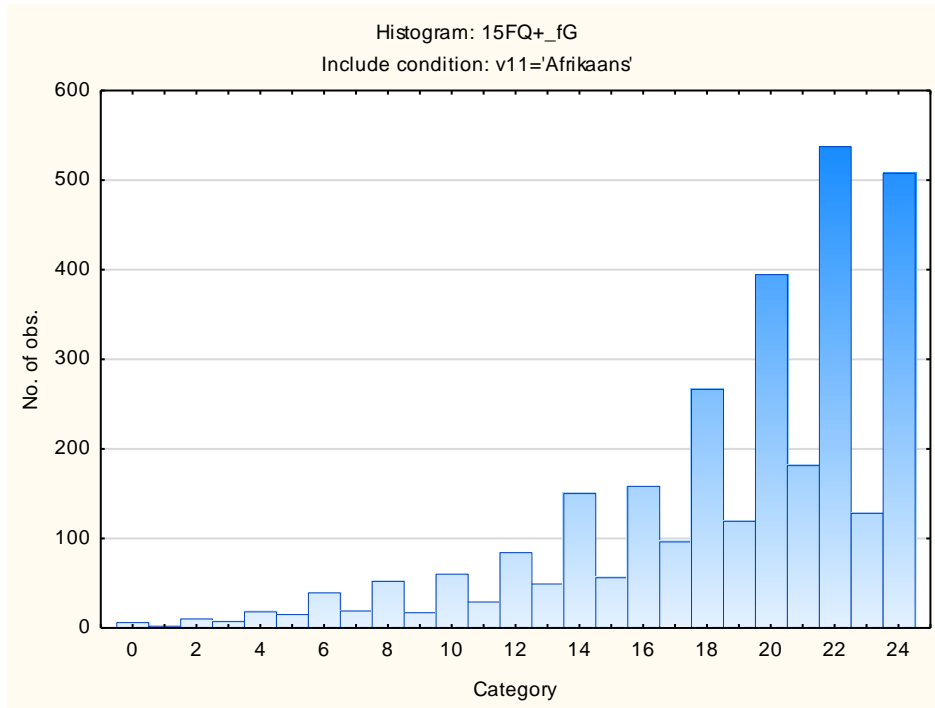
Accommodating – Dominant



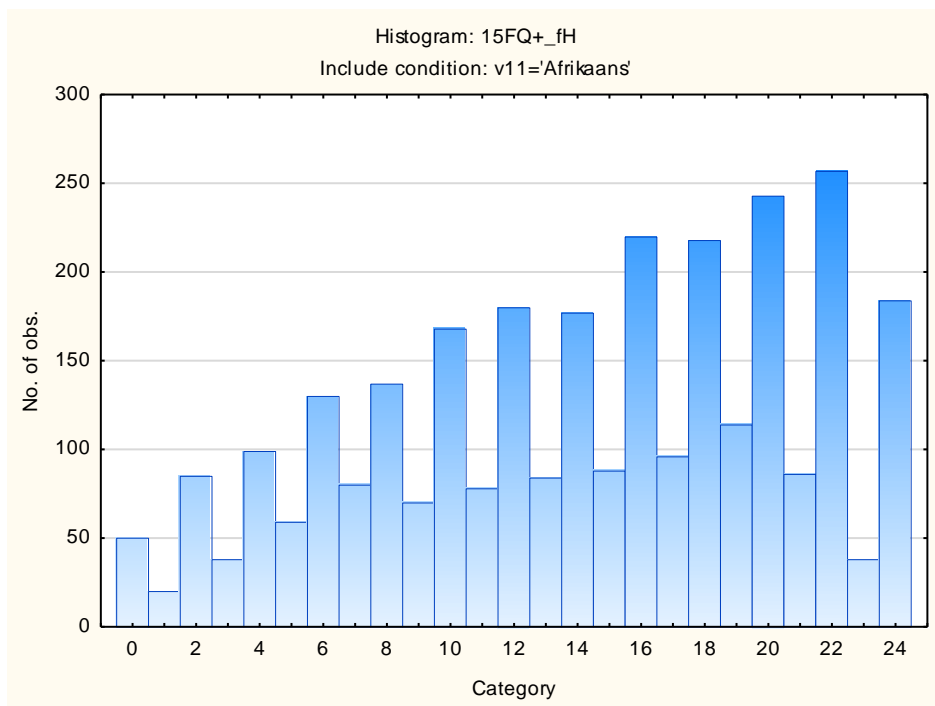
Sober Serious – Enthusiastic



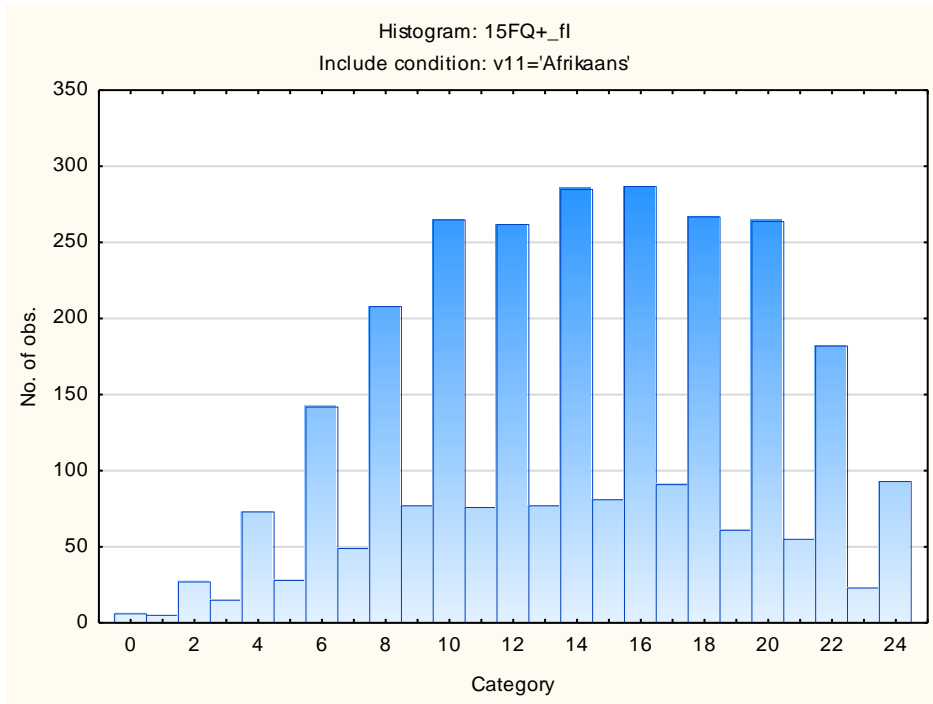
Expedient – Conscientious



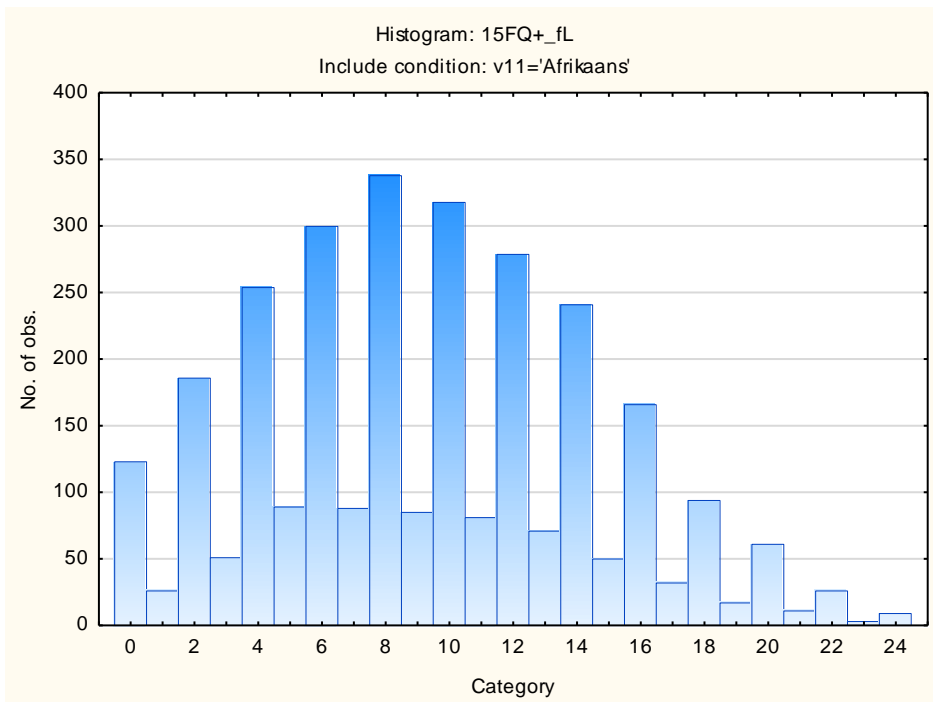
Retiring – Socially-bold



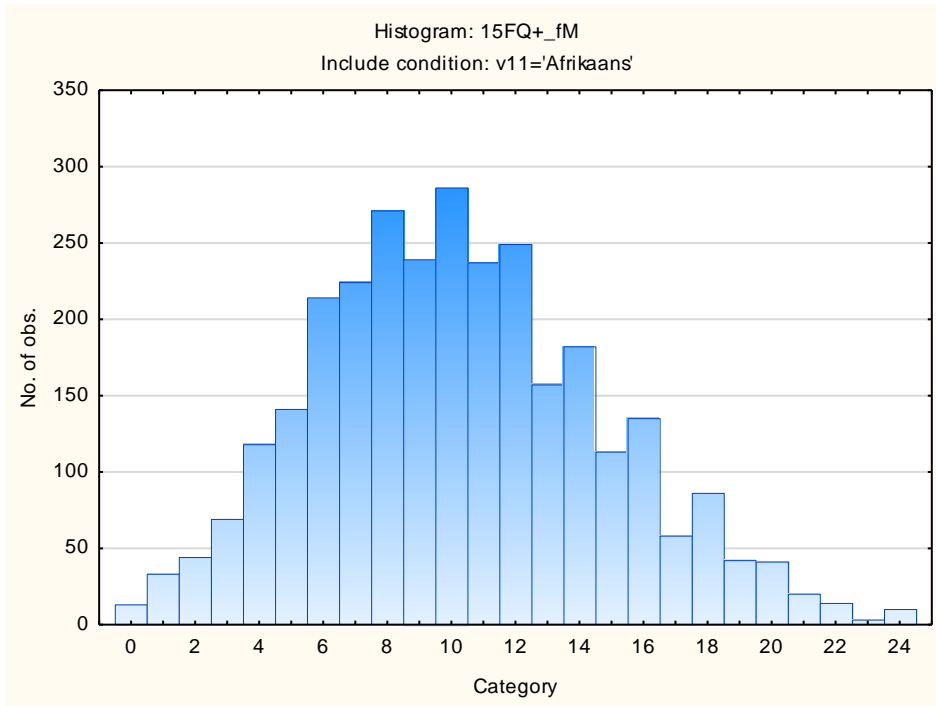
Hard-headed – Tender-minded



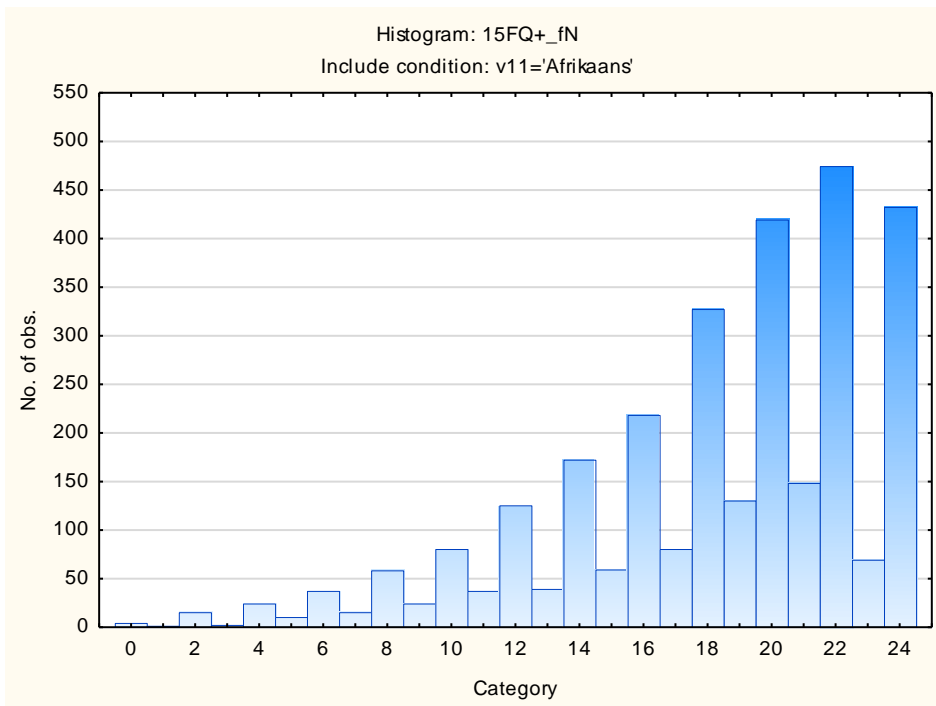
Trusting – Suspicious



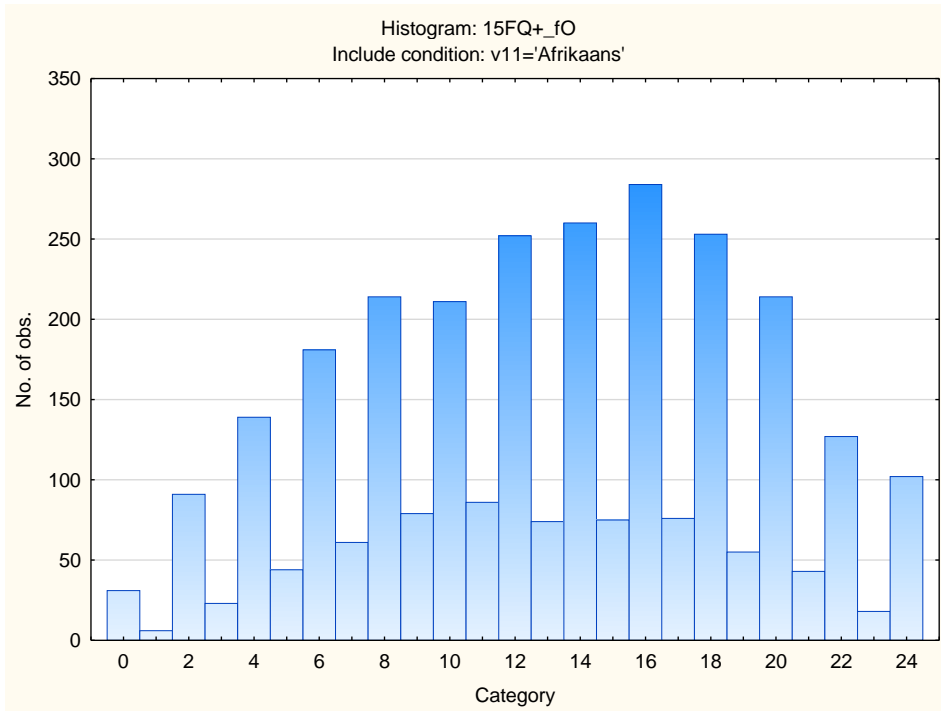
Concrete – Abstract



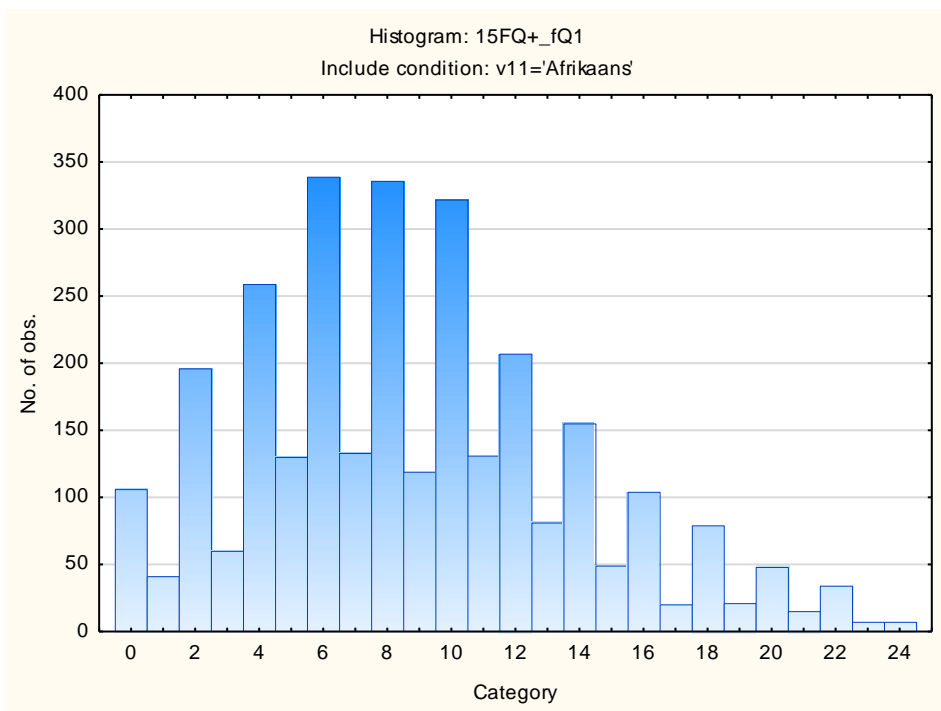
Direct – Restrained



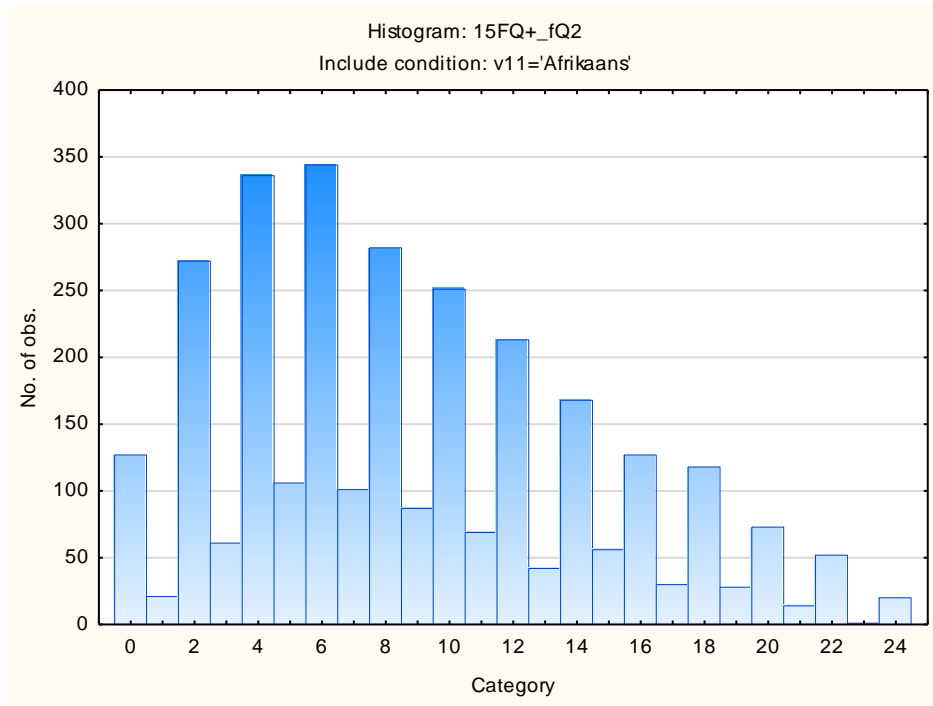
Confident - Self-doubting



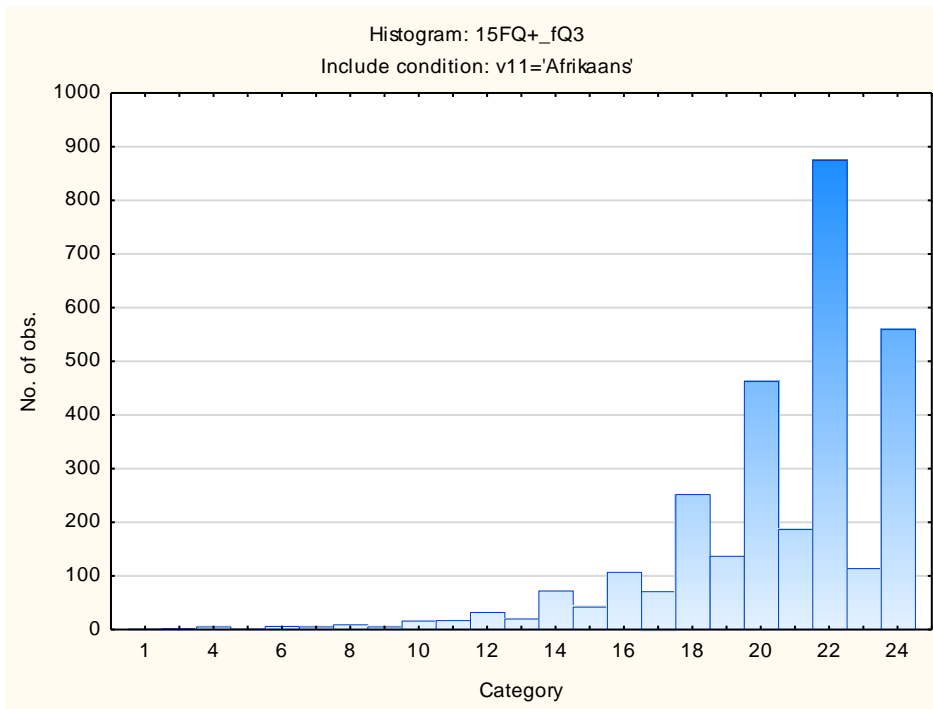
Conventional – Radical



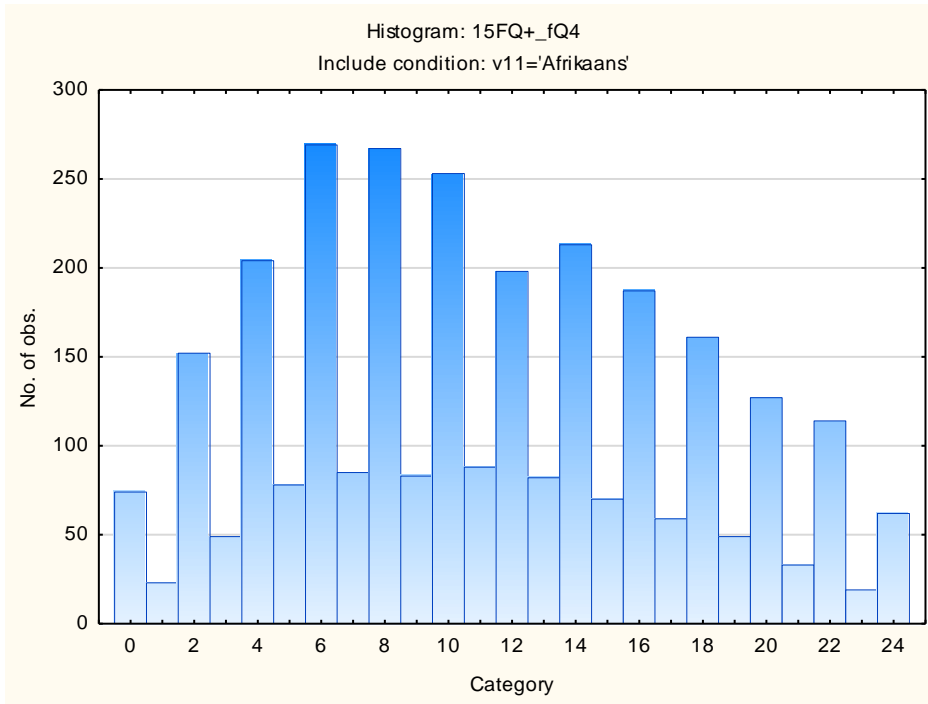
Group-orientated - Self-sufficient



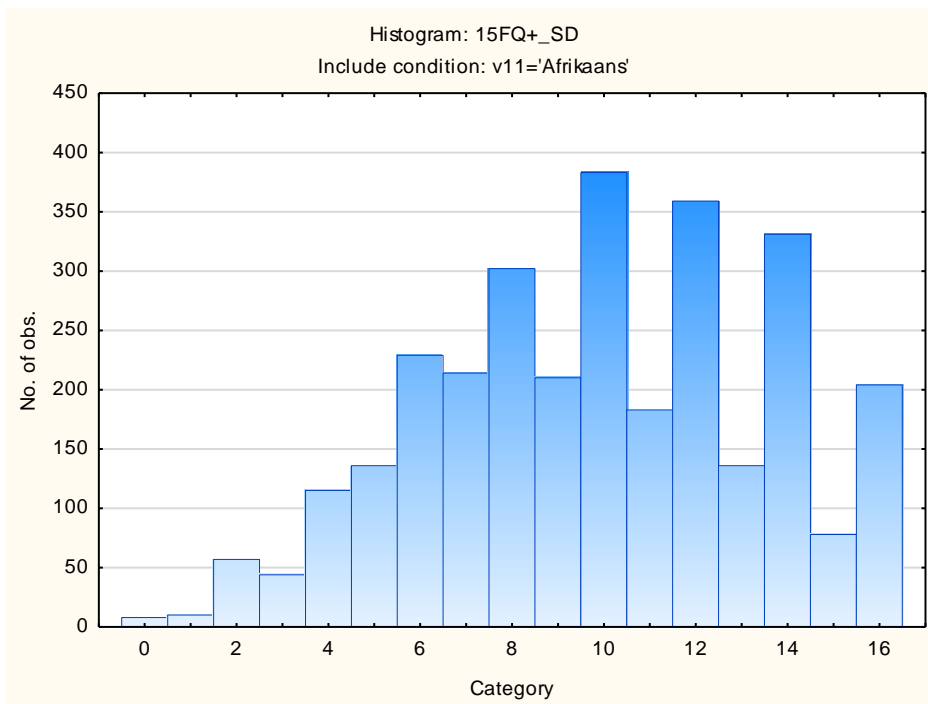
Informal- Self-disciplined



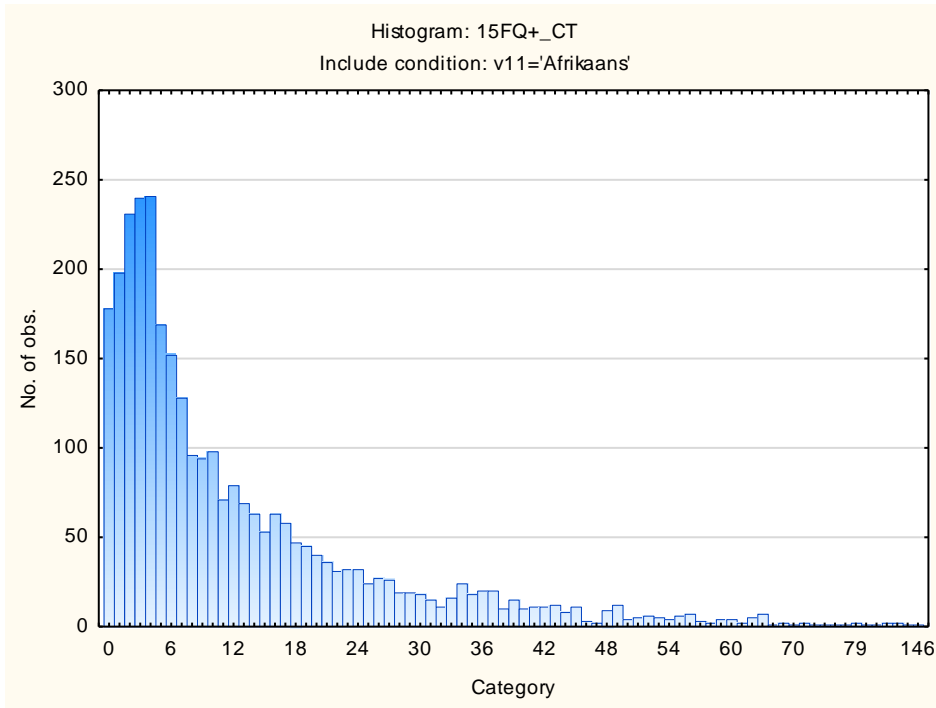
Composed – Tense-driven



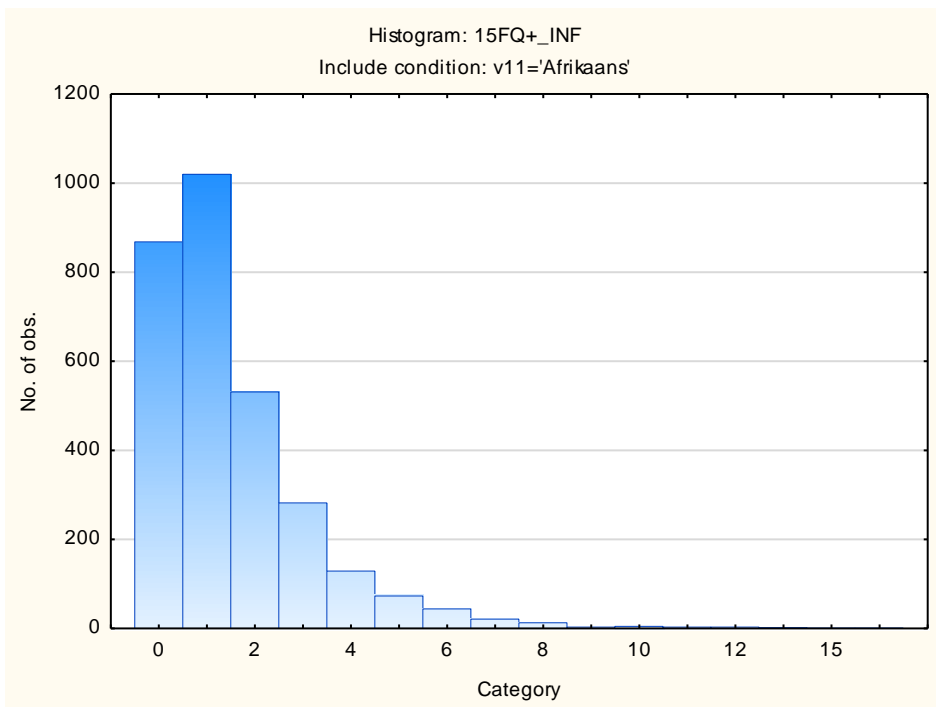
Social Desirability



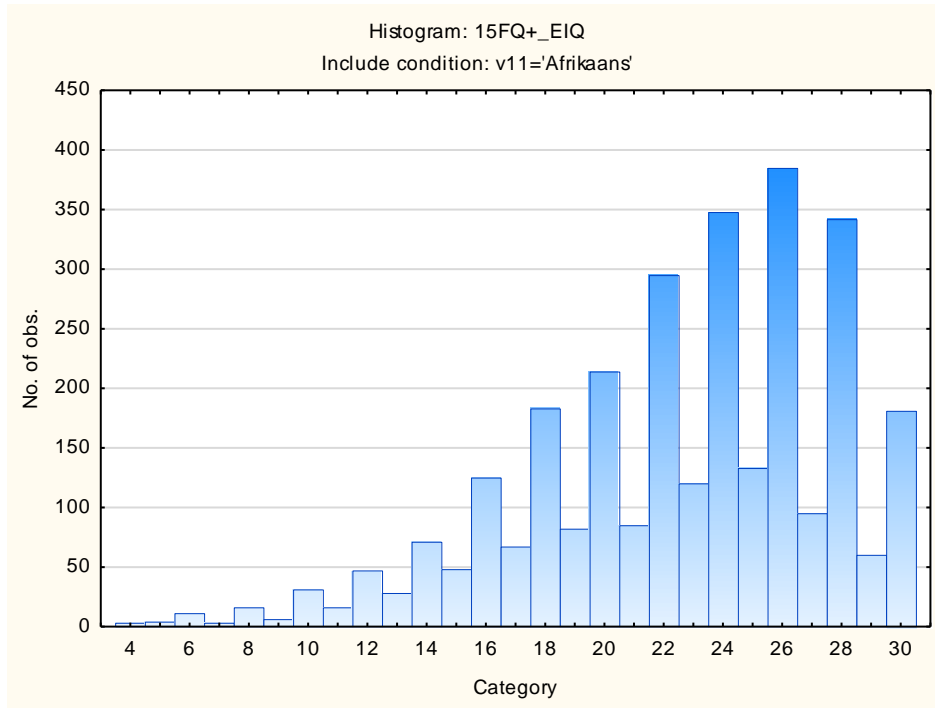
Central Tendency



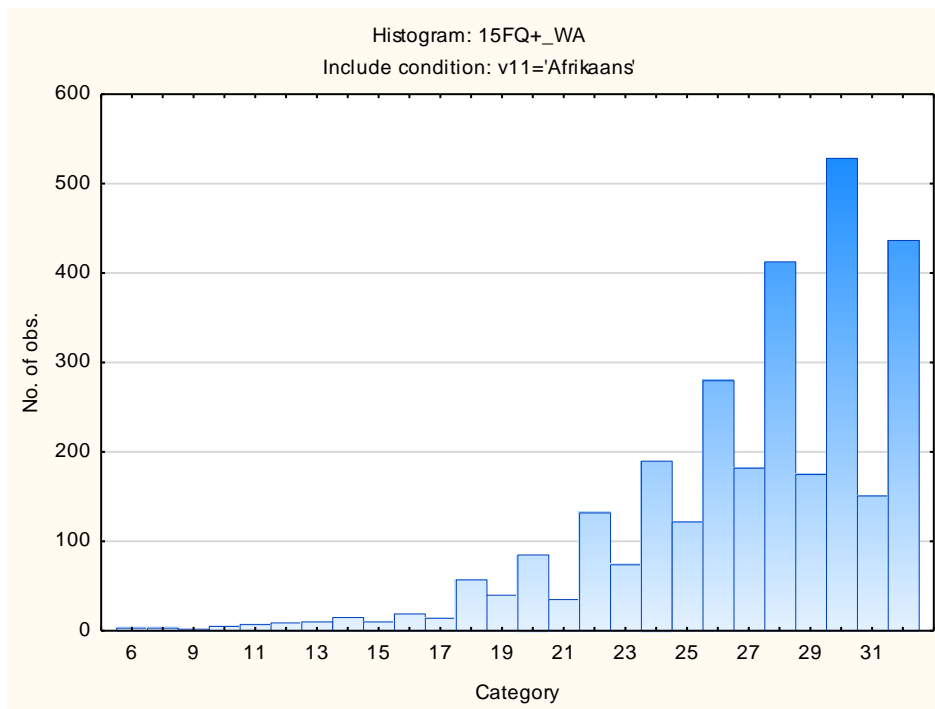
Infrequency



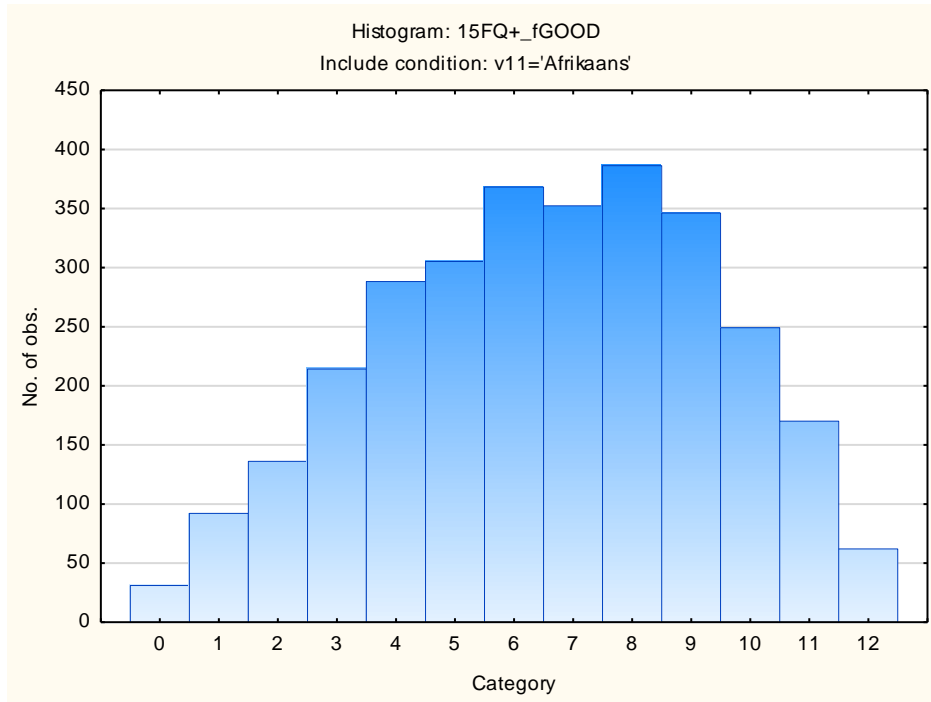
Derived Score: Emotional Intelligence



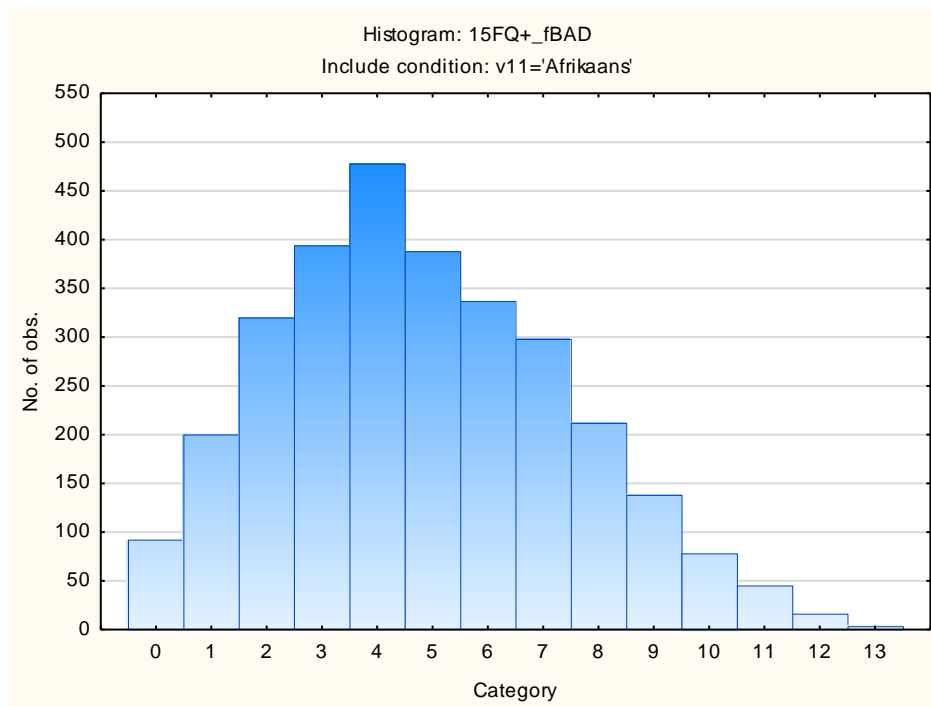
Derived Score: Work Attitude



Faking Good



Faking Bad



Sten Table

Scale Abbreviation	Scale Name	Raw Scores for Sten Categories									
		1	2	3	4	5	6	7	8	9	10
fA	Distant Aloof - Empathic	1-9	10-11	12-13	14-15	16-18	19-20	21-22	23-24		
B	Intellectance	1-11	12-13	14-15	16-17	18-19	20-21	22-23	24-24		
fC	Affected by Feelings - Emotionally Stable	0-6	7-9	10-11	12-14	15-16	17-19	20-21	22-24		
fE	Accommodating – Dominant	0-6	7-9	10-11	12-13	14-16	17-18	19-21	22-23	24-24	
fF	Sober serious - Enthusiastic	0-2	3-5	6-8	9-11	12-13	14-16	17-19	20-22	23-24	
fG	Expedient – Conscientious	0-9	10-11	12-13	14-16	17-18	19-21	22-23	24-24		
fH	Retiring – Socially-bold	0-1	2-4	5-7	8-10	11-14	15-17	18-20	21-23	24-24	
fI	Hard-headed – Tender-minded	0-3	4-5	6-8	9-11	12-14	15-16	17-19	20-22	23-24	
fL	Trusting - Suspicious	0-1	0-1	2-4	5-6	7-9	10-11	12-14	15-17	18-19	20-24
fM	Concrete - Abstract	0-1	2-3	4-5	6-8	9-10	11-12	13-14	15-16	17-19	20-24
fN	Direct - Restrained	0-8	9-10	11-13	14-15	16-18	19-20	21-23	24-24		
fO	Confident – Self-doubting	0-1	2-4	5-7	8-10	11-13	14-15	16-18	19-21	22-24	
fQ1	Conventional - Radical	0-1	0-1	2-3	4-6	7-8	9-11	12-13	14-16	17-18	19-24
fQ2	Group-orientated - Self-sufficient	0-1	0-0	1-3	4-6	7-8	9-11	12-14	15-17	18-20	21-24
fQ3	Informal - Self-disciplined	1-13	14-15	16-17	18-18	19-20	21-22	23-23	24-24		
fQ4	Composed – Tense-driven	0-1	0-1	2-4	5-8	9-11	12-14	15-17	18-20	21-23	24-24
SD	Social Desirability	0-2	3-4	5-6	7-8	9-9	10-11	12-13	14-15	16-16	
CT	Central Tendency	0-1	0-0	1-1	2-5	6-12	13-19	20-26	27-33	34-40	41-146
INF	Infrequency	0-1	0-0	1-1	2-2	3-3	4-4	5-5	6-6	7-7	8-16
EIQ	Derived Score: Emotional Intelligence	4-12	13-14	15-17	18-20	21-22	23-25	26-27	28-30		
WA	Derived Score: Work Attitude	6-18	19-20	21-22	23-24	25-27	28-29	30-31	32-32		
fGOOD	Faking Good	0-0	1-2	3-3	4-5	6-6	7-7	8-9	10-10	11-12	
fBAD	Faking Bad	0-1	0-0	1-2	3-3	4-4	5-6	7-7	8-8	9-10	11-13

Fifteen Factor Questionnaire (15FQ+)

Norm Group: SA English Speakers, Updated 2016

Norm Type

Standard deviation norm

Composition of the Sample

The sample consisted of 5473 English speaking South Africans tested by Psytech SA and collaborators, via GeneSys for Windows, in the period up to February 2015.

Gender Composition of the Sample

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	2206	2206	40,30696	40,3070
M	3249	5455	59,36415	99,6711
U	18	5473	0,32889	100,0000
Missing	0	5473	0,00000	100,0000

Educational Composition of the Sample

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	1841	1841	33,63786	33,6379
Tertiary	2177	4018	39,77709	73,4149
Post Graduate	884	4902	16,15202	89,5670
< Matric	141	5043	2,57628	92,1432
Unknown	11	5054	0,20099	92,3442
Other	1	5055	0,01827	92,3625
Missing	418	5473	7,63749	100,0000

Language Composition of the Sample

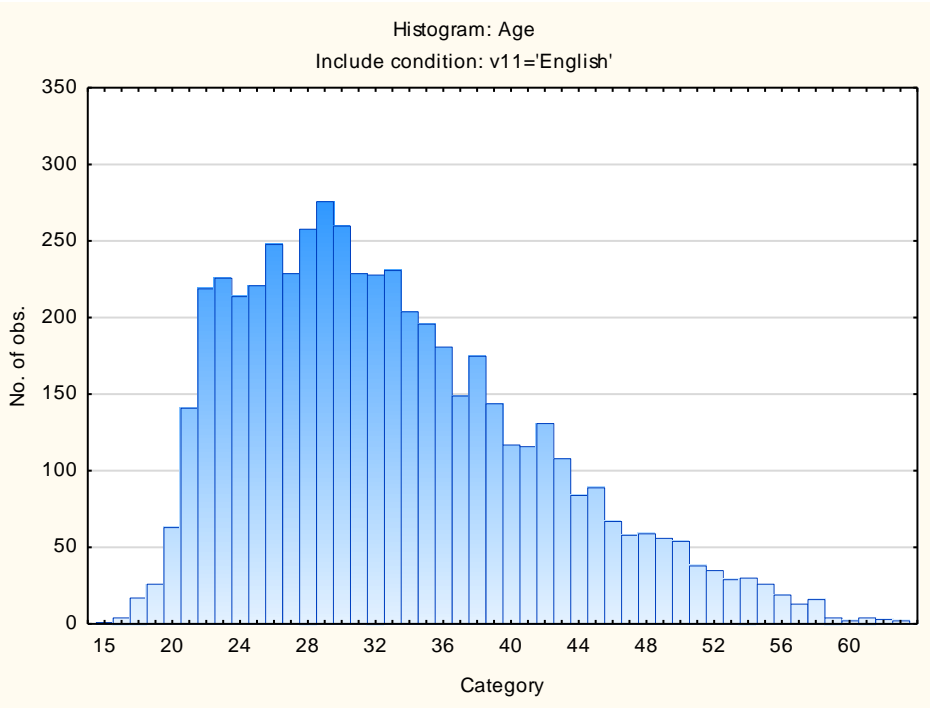
Category	Frequency table: Language			
	Count	Cumulative Count	Percent	Cumulative Percent
English	5473	5473	100,0000	100,0000
Missing	0	5473	0,0000	100,0000

Racial Composition of the Sample

Category	Frequency table: Race			
	Count	Cumulative Count	Percent	Cumulative Percent
African	421	421	7,69231	7,6923
European	2487	2908	45,44126	53,1336
Coloured	760	3668	13,88635	67,0199
Asian	1627	5295	29,72775	96,7477
Indian	38	5333	0,69432	97,4420
Other	72	5405	1,31555	98,7575
Unknown	3	5408	0,05481	98,8124
Chinese	3	5411	0,05481	98,8672
Missing	62	5473	1,13283	100,0000

Age Composition of the Sample

Variable	Descriptive Statistics: Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	33,00113	8,645587	15,00000	63,00000	5300	173

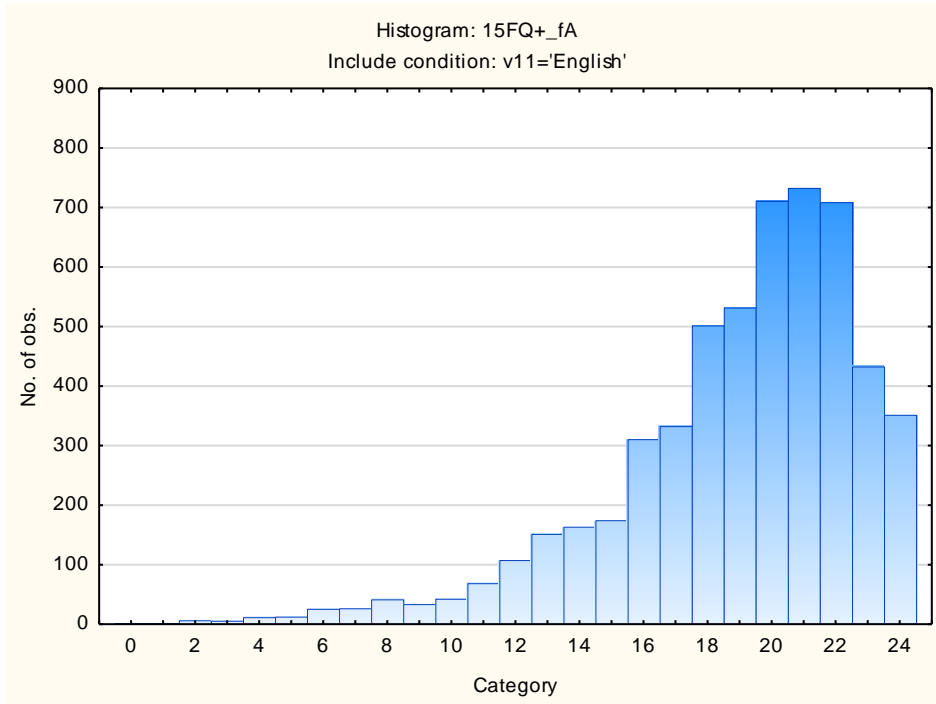


Descriptive statistics on 15FQPlus scale raw scores

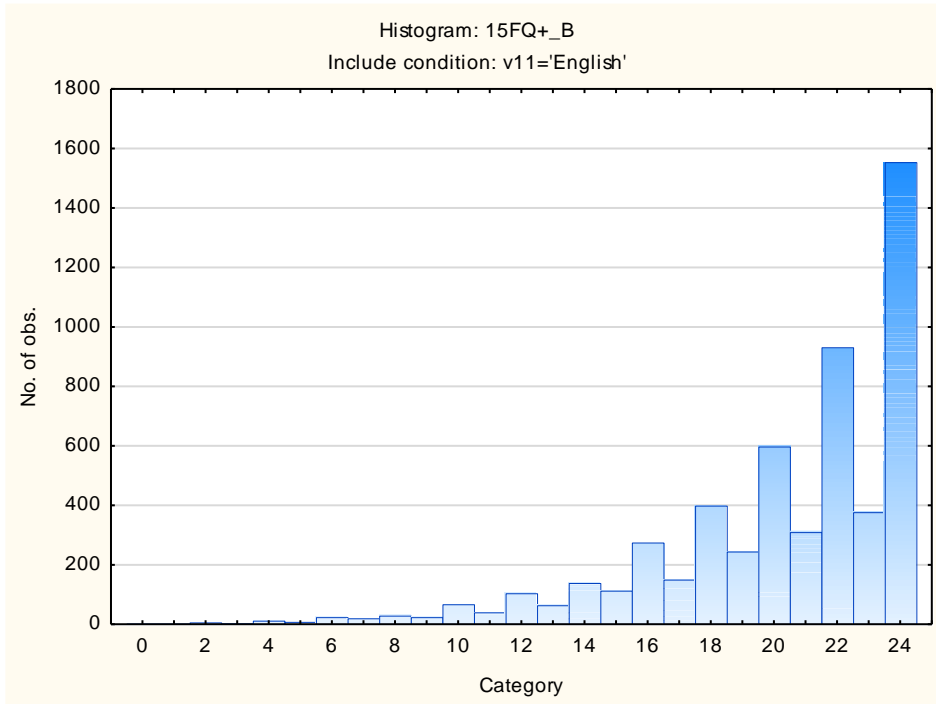
Scale	Scale description	Sample size	Mean	Std.Dev.
fA	Distant Aloof - Empathic	5473	18,93203	3,83168
B	Intellectance	5473	20,30440	4,01989
fC	Affected by feelings - Emotionally Stable	5473	17,42664	4,76534
fE	Accommodating - Dominant	5473	16,65174	4,52636
fF	Sober serious - Enthusiastic	5473	15,60369	5,40534
fG	Expedient - Conscientious	5473	19,33473	4,60098
fH	Retiring – Socially-bold	5473	15,42408	6,15561
fI	Hard-headed – Tender-minded	5473	14,60972	5,23159
fL	Trusting - Suspicious	5473	8,33674	5,05247
fM	Concrete - Abstract	5473	10,47835	4,30714
fN	Direct - Restrained	5473	18,68208	4,59895
fO	Confident – Self-doubting	5473	11,86205	5,77643
fQ1	Conventional - Radical	5473	9,02905	5,18591
fQ2	Group-orientated - Self-sufficient	5473	7,66618	5,00904
fQ3	Informal – Self-disciplined	5473	20,00987	3,44928
fQ4	Composed – Tense-driven	5473	9,24338	5,96410
SD	Social Desirability	5473	10,99635	3,60980
CT	Central Tendency	5473	11,89640	12,96633
INF	Infrequency	5473	1,24520	1,46118
EIQ	Derived Score: Emotional Intelligence	5473	23,71771	4,71836
WA	Derived Score: Work Attitude	5473	27,18673	4,42562
fGOOD	Faking Good	5473	7,36086	2,71893
fBAD	Faking Bad	5473	4,41769	2,51418

Frequency distributions on 15FQPlus scale raw scores

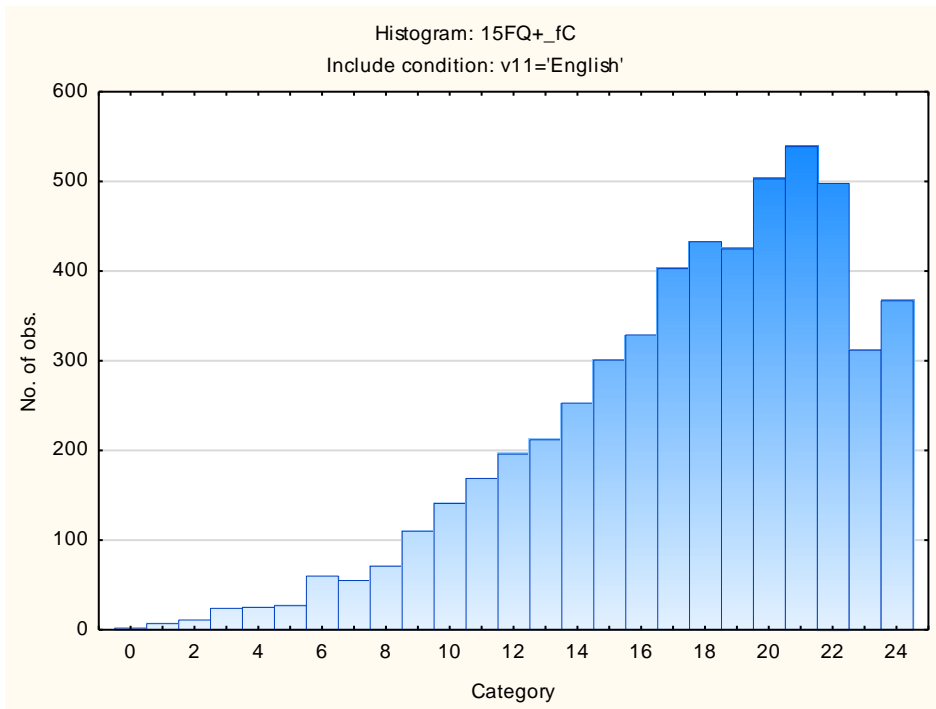
Distant Aloof – Empathic



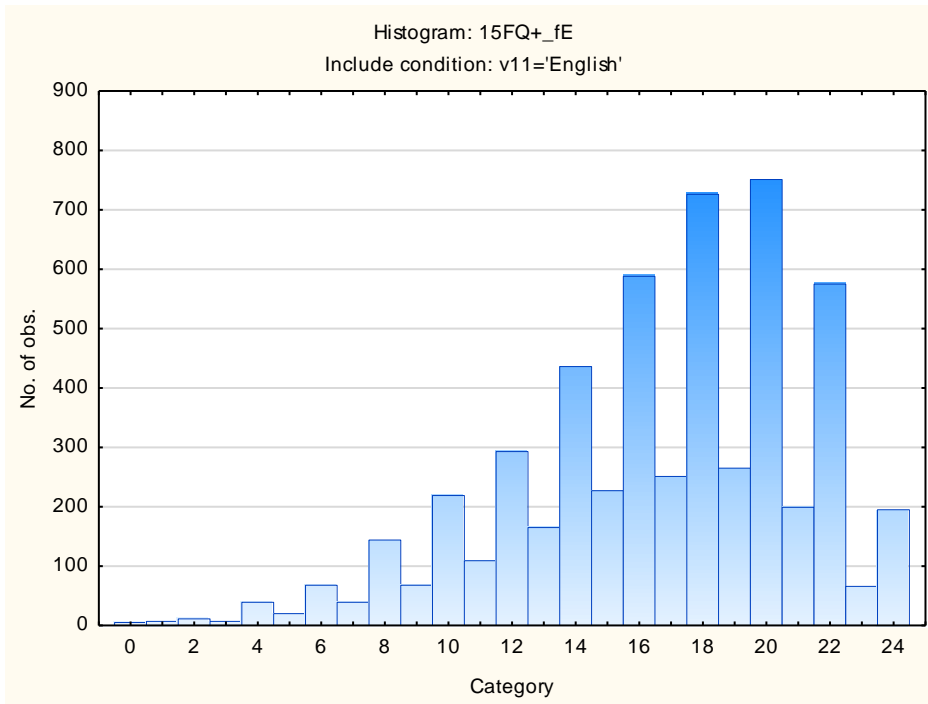
Intellectance



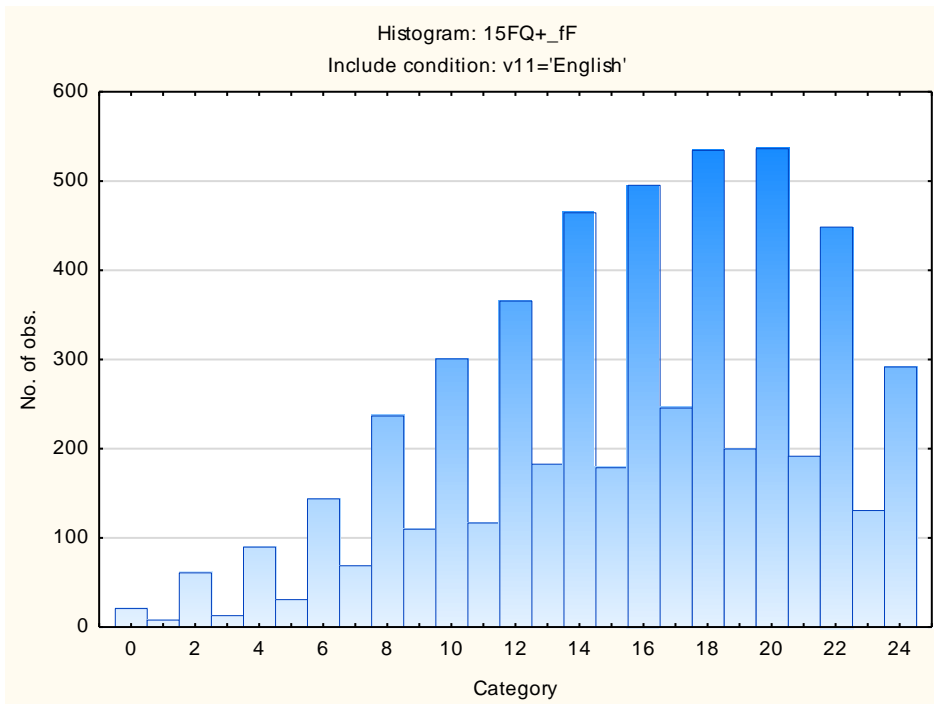
Affected by Feelings - Emotionally Stable



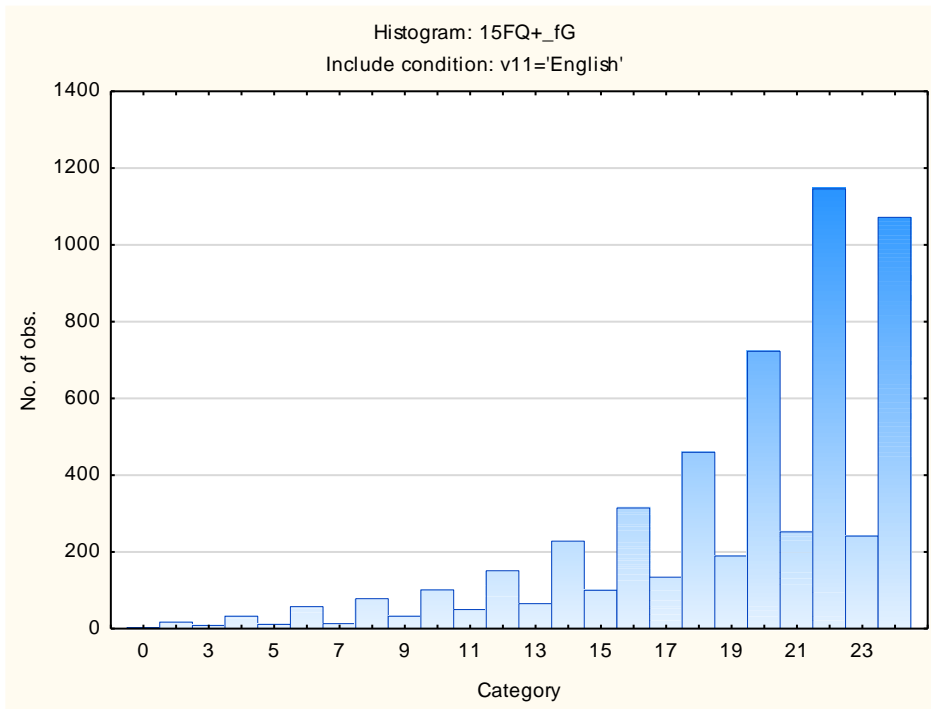
Accommodating – Dominant



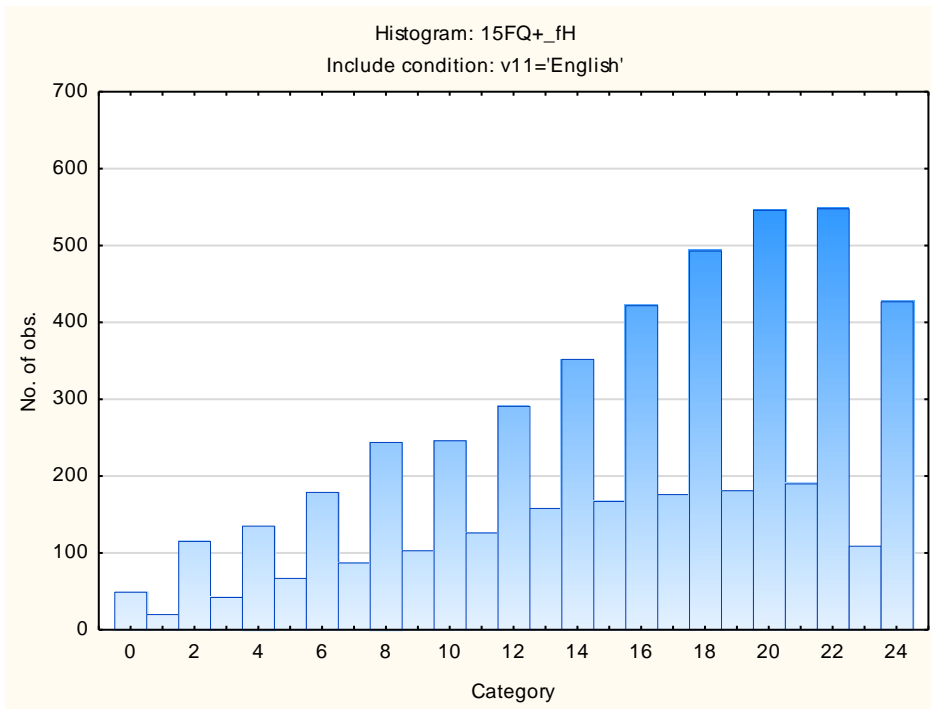
Sober Serious – Enthusiastic



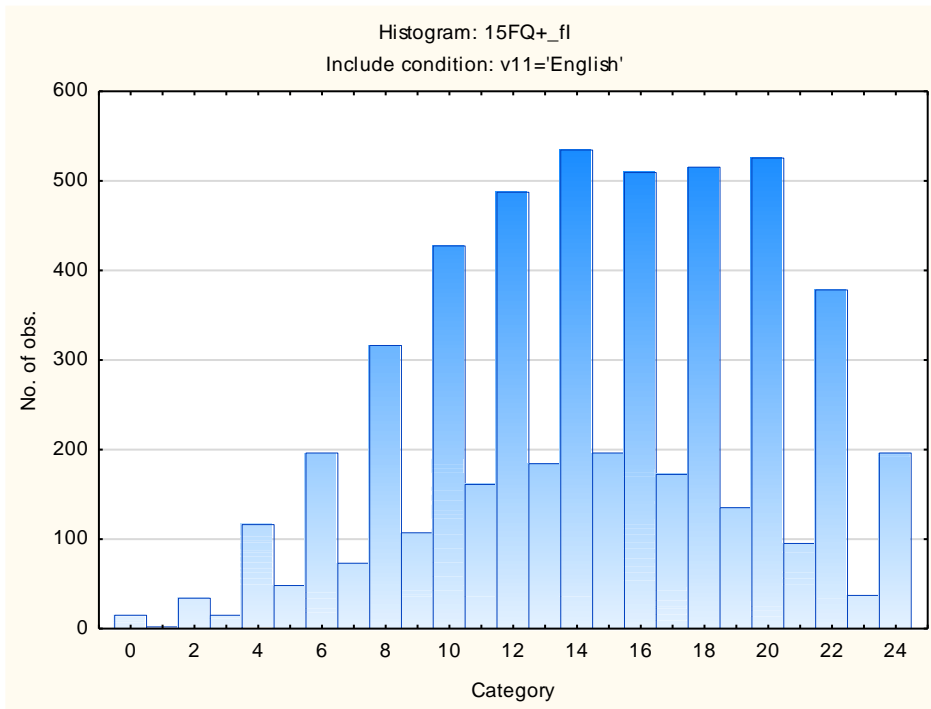
Expedient – Conscientious



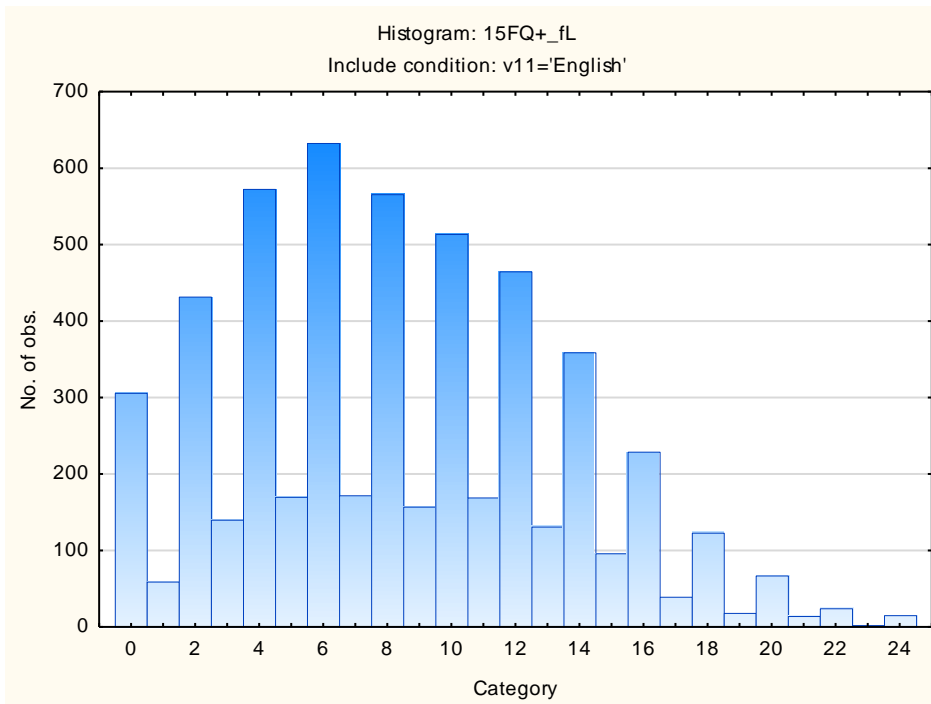
Retiring – Socially-bold



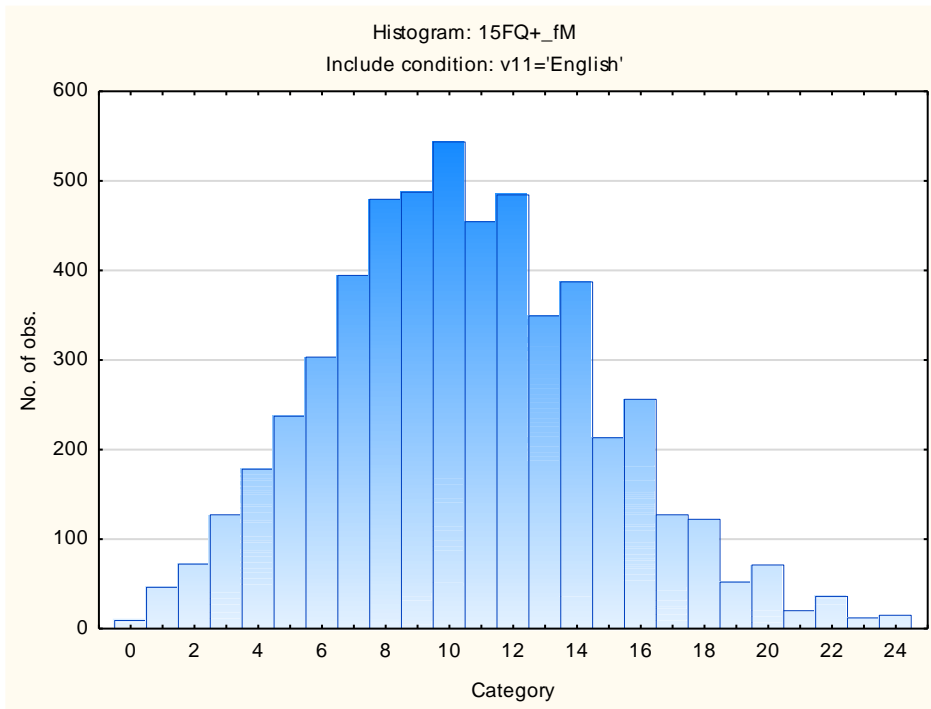
Hard-headed – Tender-minded



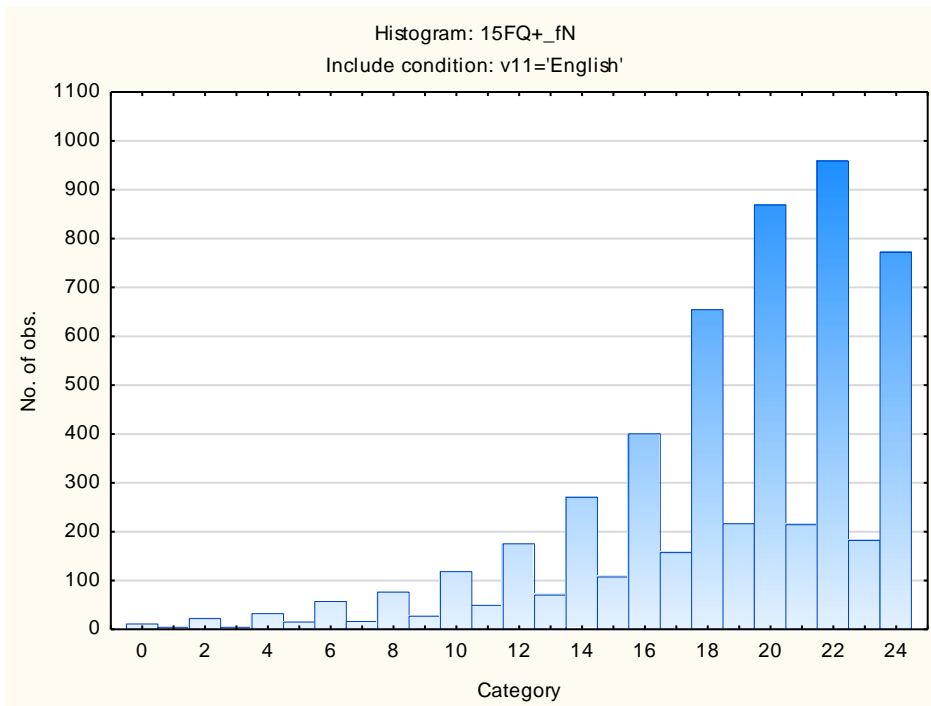
Trusting – Suspicious



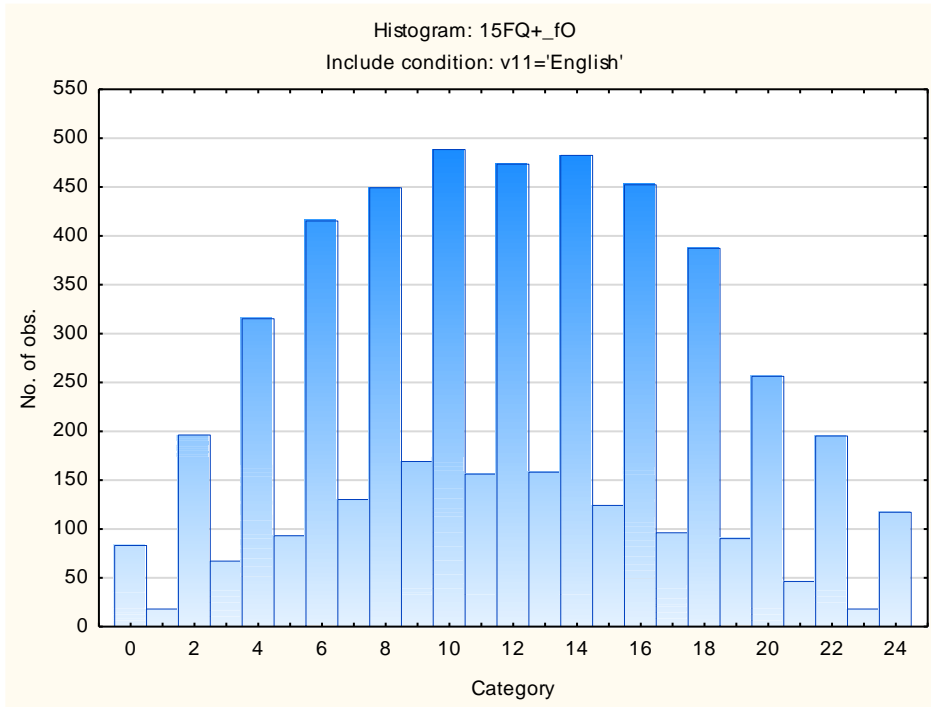
Concrete – Abstract



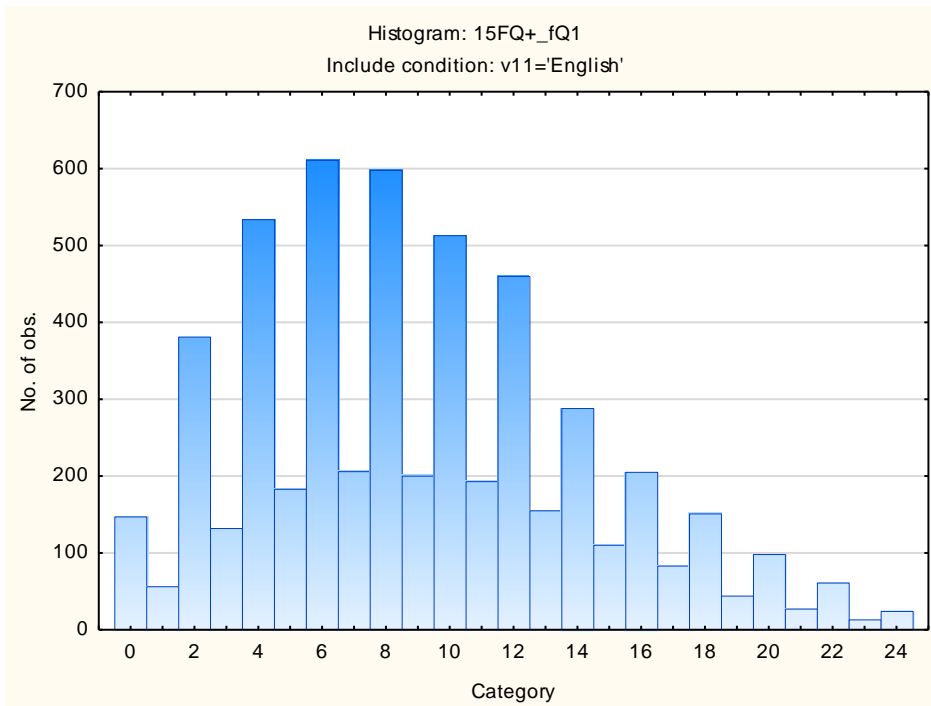
Direct – Restrained



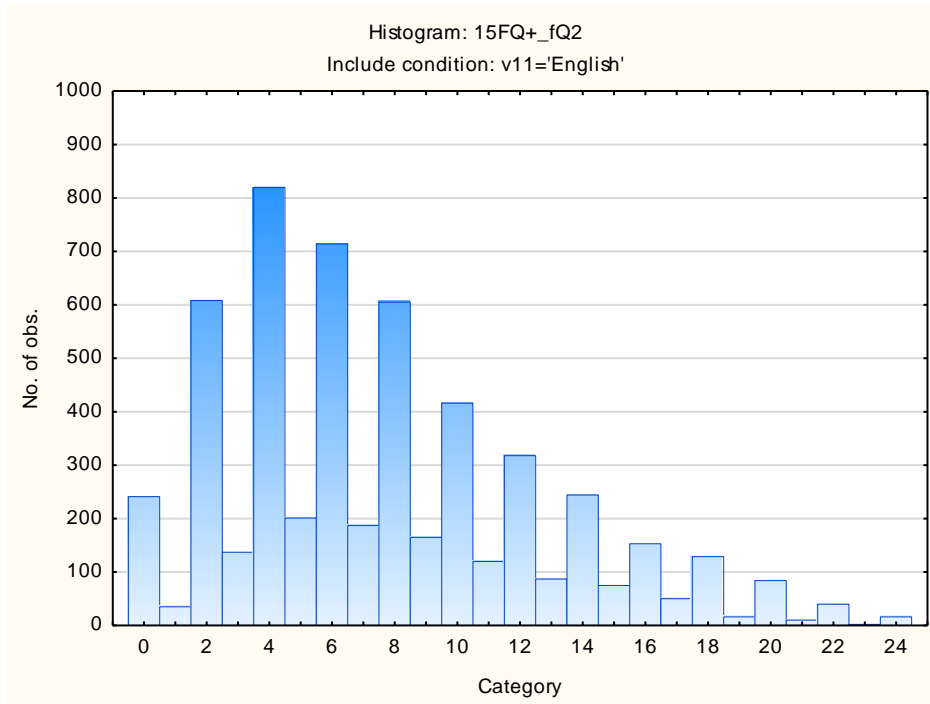
Confident - Self-doubting



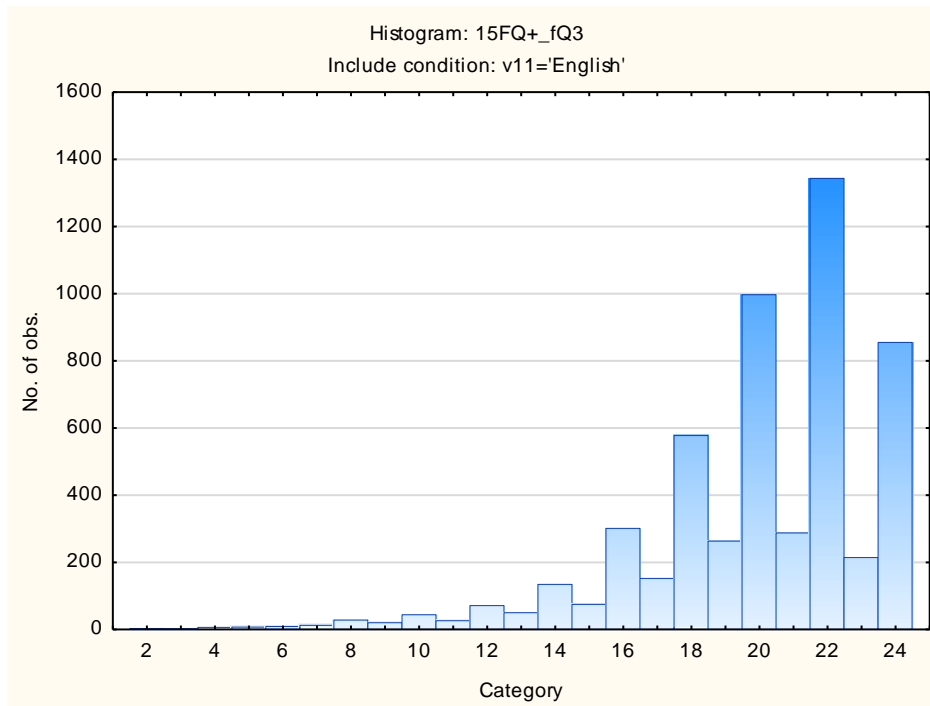
Conventional – Radical



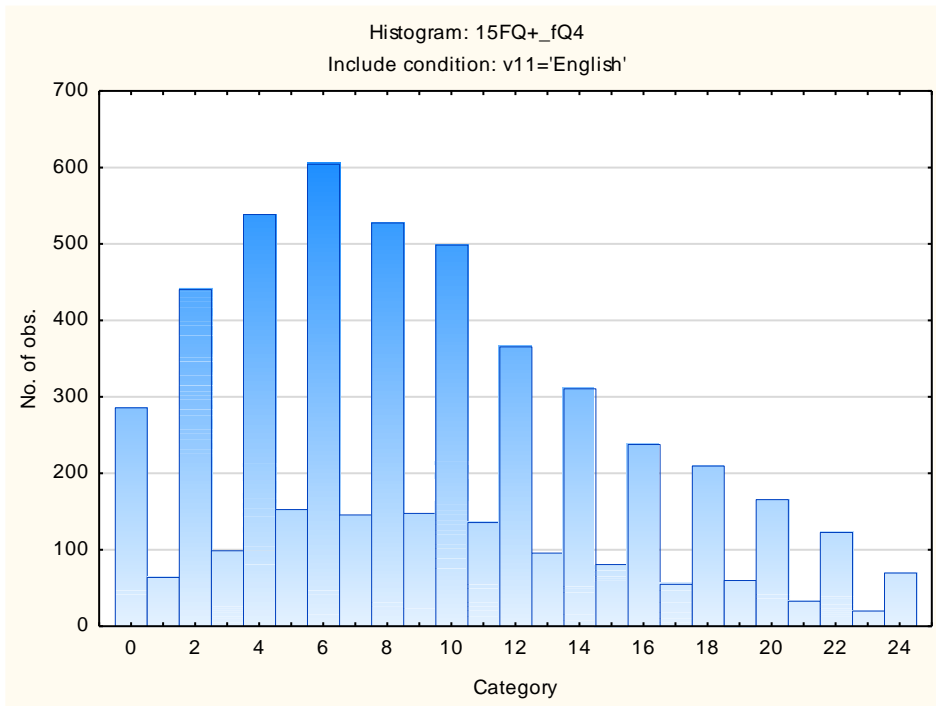
Group-orientated – Self-sufficient



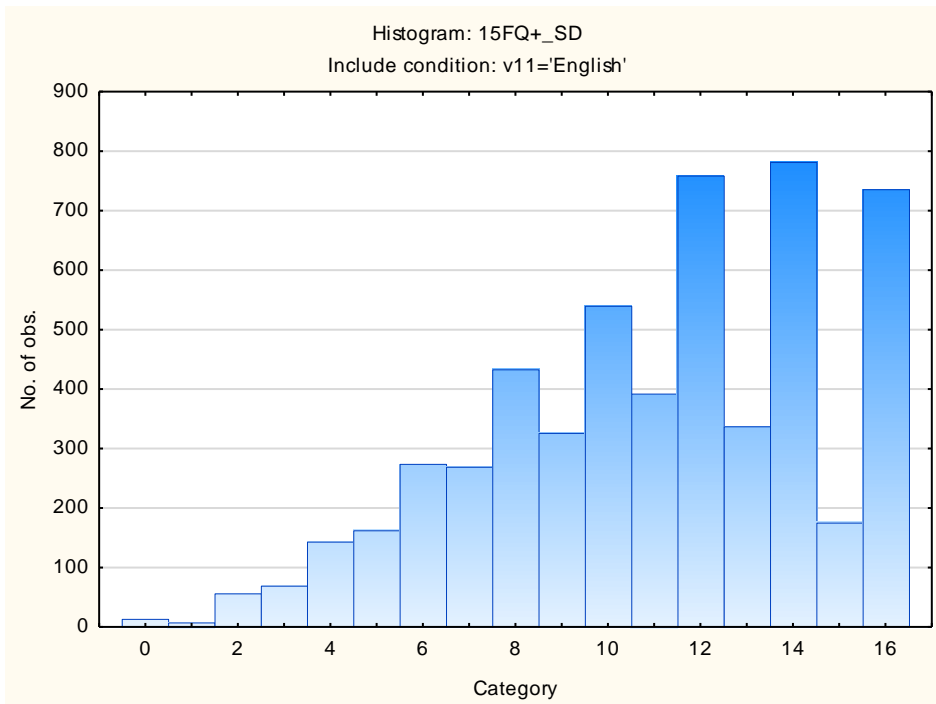
Informal – Self-disciplined



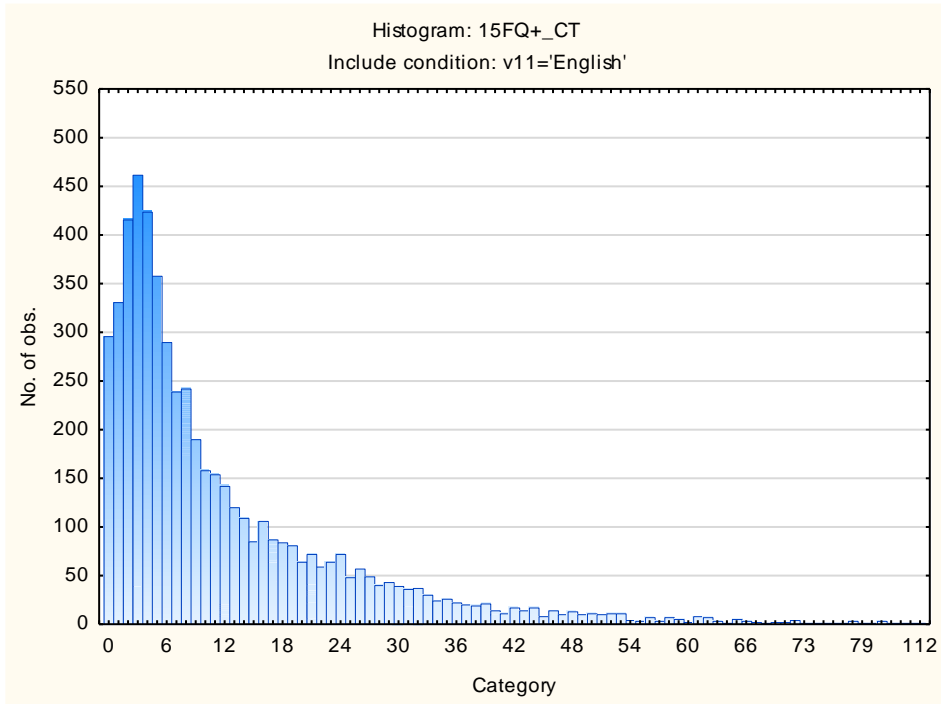
Composed – Tense-driven



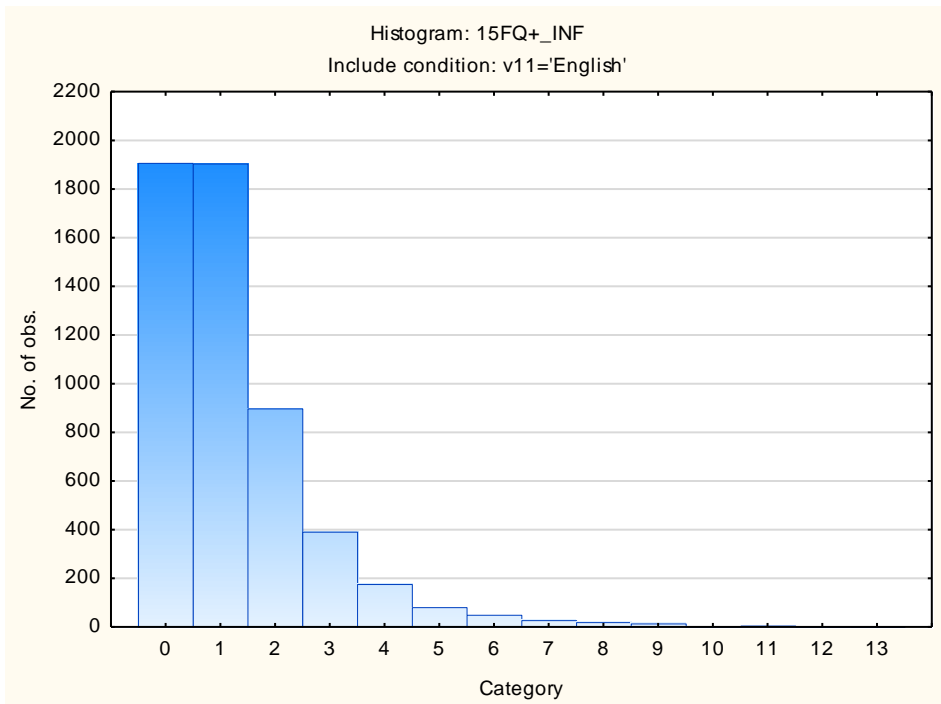
Social Desirability



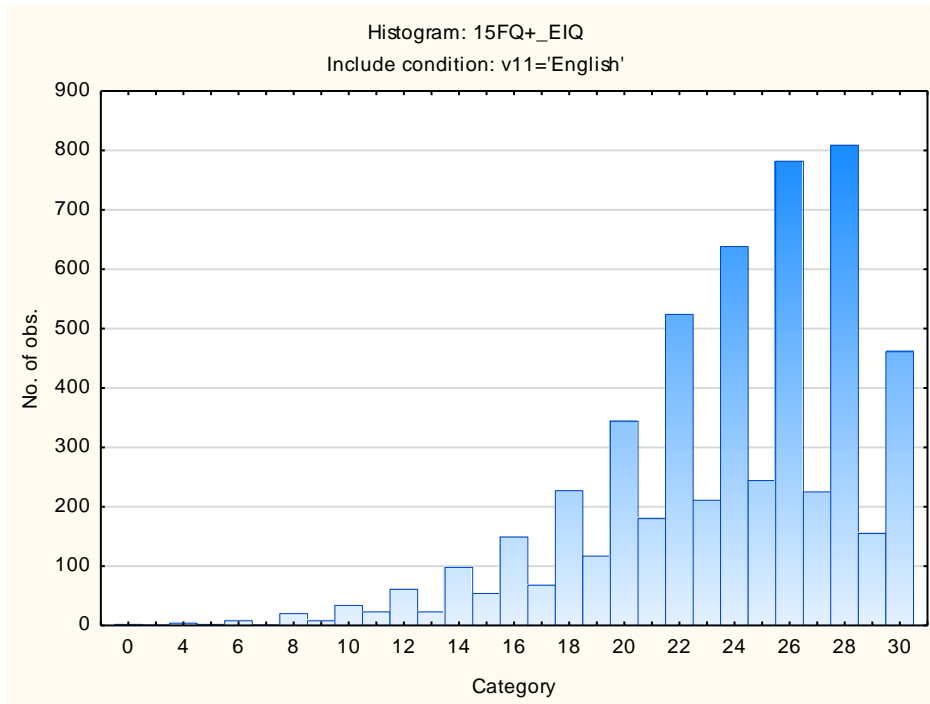
Central Tendency



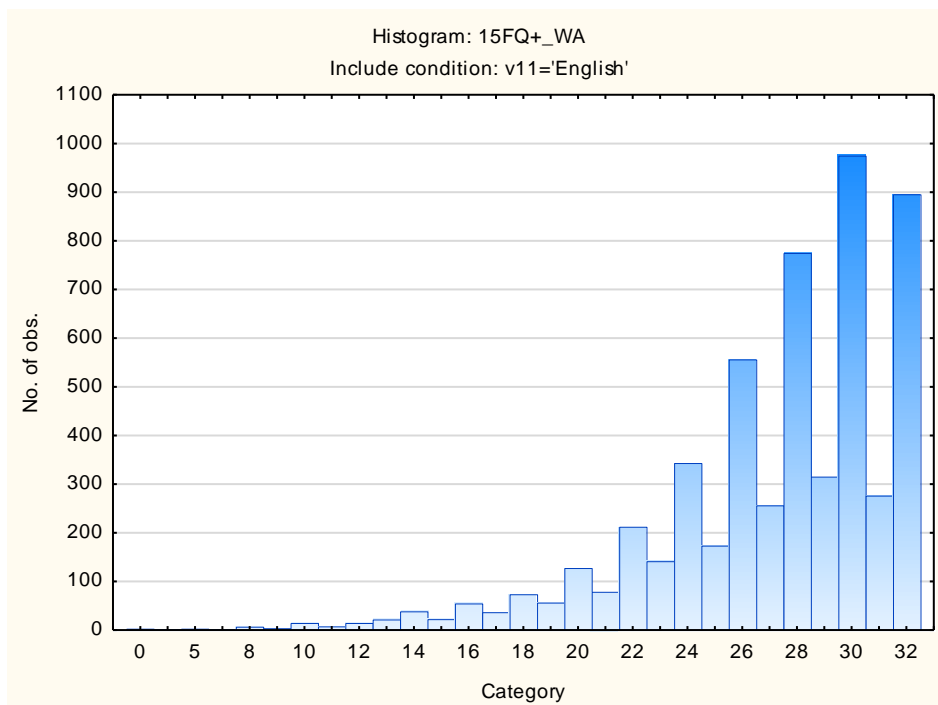
Infrequency



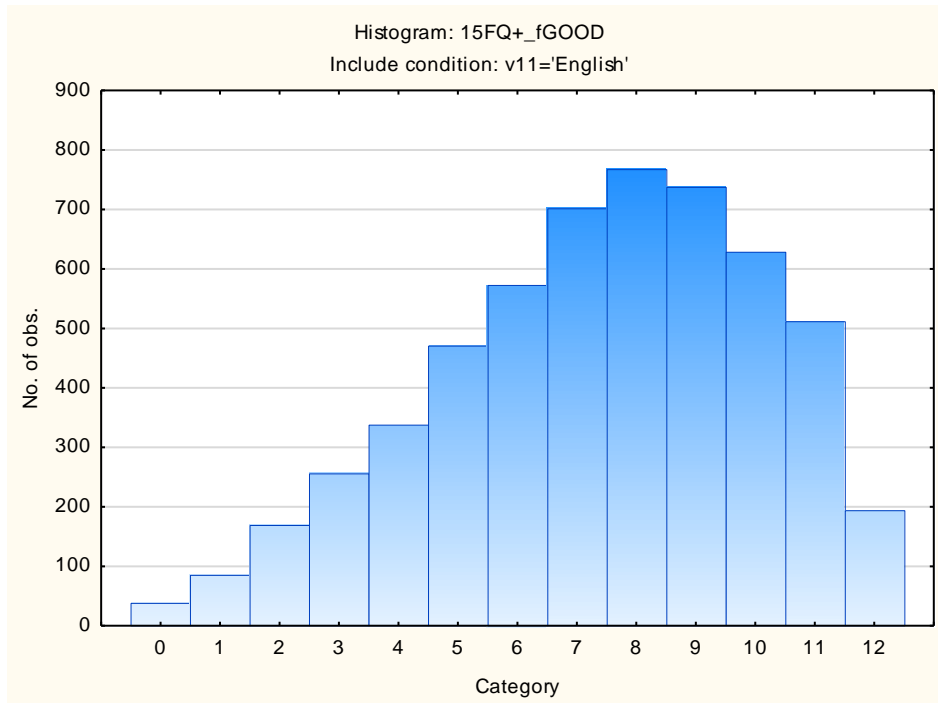
Derived Score: Emotional Intelligence



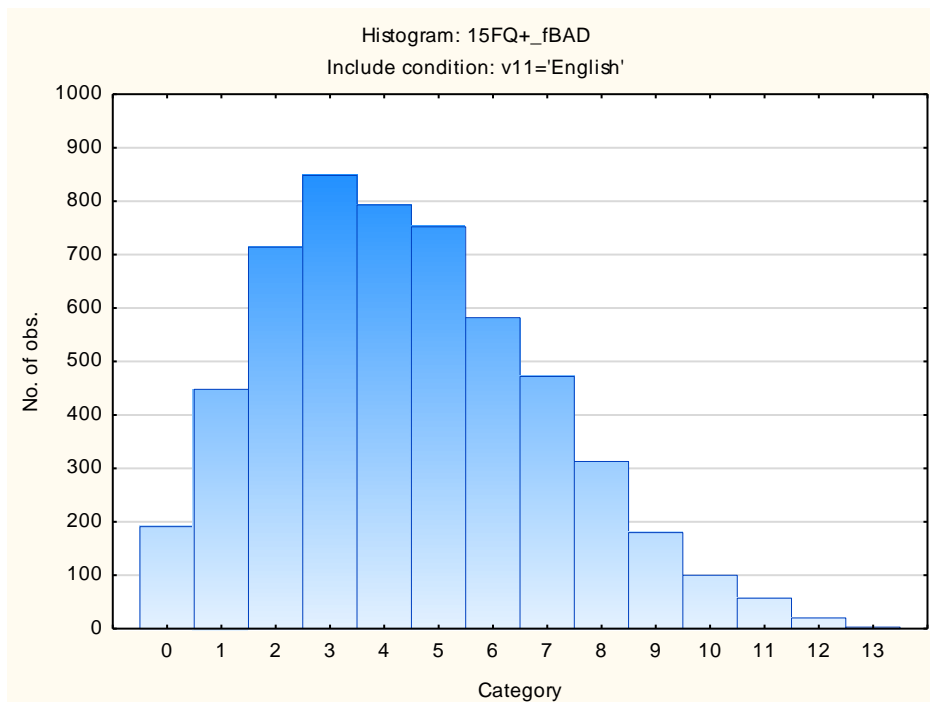
Derived Score: Work Attitude



Faking Good



Faking Bad



Sten Table

Scale Abbreviation	Scale Name	Raw Scores for Sten Categories									
		1	2	3	4	5	6	7	8	9	10
fA	Distant Aloof - Empathic	0-11	12-13	14-15	16-17	18-18	19-20	21-22	23-24		
B	Intellectance	0-12	13-14	15-16	17-18	19-20	21-22	23-24			
fC	Affected by Feelings - Emotionally Stable	0-7	8-10	11-12	13-15	16-17	18-19	20-22	23-24		
fE	Accommodating – Dominant	0-7	8-9	10-12	13-14	15-16	17-18	19-21	22-23	24-24	
fF	Sober serious - Enthusiastic	0-4	5-7	8-10	11-12	13-15	16-18	19-21	22-23	24-24	
fG	Expedient – Conscientious	0-10	11-12	13-14	15-17	18-19	20-21	22-23	24-24		
fH	Retiring – Socially-bold	0-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24		
fI	Hard-headed – Tender-minded	0-4	5-6	7-9	10-11	12-14	15-17	18-19	20-22	23-24	
fL	Trusting - Suspicious	0--1	0-0	1-3	4-5	6-8	9-10	11-13	14-15	16-18	19-24
fM	Concrete - Abstract	0-1	2-4	5-6	7-8	9-10	11-12	13-14	15-16	17-19	20-24
fN	Direct - Restrained	0-9	10-11	12-14	15-16	17-18	19-20	21-23	24-24		
fO	Confident – Self-doubting	0-0	1-3	4-6	7-8	9-11	12-14	15-17	18-20	21-23	24-24
fQ1	Conventional - Radical	0--1	0-1	2-3	4-6	7-9	10-11	12-14	15-16	17-19	20-24
fQ2	Group-orientated - Self-sufficient	0--1	0-0	1-2	3-5	6-7	8-10	11-12	13-15	16-17	18-24
fQ3	Informal - Self-disciplined	2-13	14-14	15-16	17-18	19-20	21-21	22-23	24-24		
fQ4	Composed – Tense-driven	0--1	0-0	1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24
SD	Social Desirability	0-3	4-5	6-7	8-9	10-10	11-12	13-14	15-16		
CT	Central Tendency	0--1	0-0	1-1	2-5	6-11	12-18	19-24	25-31	32-37	38-112
INF	Infrequency	0--1	0-0	1-1	2-2	3-3	4-4	5-5	6-6	7-7	8-13
EQ	Derived Score: Emotional Intelligence	0-14	15-16	17-18	19-21	22-23	24-26	27-28	29-30		
WA	Derived Score: Work Attitude	0-18	19-20	21-22	23-24	25-27	28-29	30-31	32-32		
fGOOD	Faking Good	0-1	2-3	4-4	5-6	7-7	8-8	9-10	11-11	12-12	
fBAD	Faking Bad	0--1	0-0	1-1	2-3	4-4	5-5	6-6	7-8	9-9	10-13

Fifteen Factor Questionnaire (15FQ+)

Norm Group: SA Indigenous Language Speakers Updated 2016

Norm Type:

Standard Deviation Norm

Sample Composition

The sample consisted of 4734 Indigenous language speaking South Africans tested by Psytech SA and collaborators in the period up to February 2016

Gender Composition of the Sample

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	1971	1971	41,63498	41,6350
M	2752	4723	58,13266	99,7676
U	11	4734	0,23236	100,0000
Missing	0	4734	0,00000	100,0000

Educational Composition of the Sample

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	1286	1286	27,16519	27,1652
Tertiary	2341	3627	49,45078	76,6160
Post Graduate	684	4311	14,44867	91,0646
< Matric	111	4422	2,34474	93,4094
Unknown	28	4450	0,59147	94,0008
Other	4	4454	0,08450	94,0853
Missing	280	4734	5,91466	100,0000

Language Composition of the Sample

Category	Frequency table: Language			
	Count	Cumulative Count	Percent	Cumulative Percent
isiZulu	1426	1426	30,12252	30,1225
Setswana	660	2086	13,94170	44,0642
Sesotho	664	2750	14,02619	58,0904
isiXhosa	886	3636	18,71567	76,8061
Sepedi	590	4226	12,46303	89,2691
Xitsonga	192	4418	4,05577	93,3249
Tshivenda	149	4567	3,14744	96,4723
siSwati	112	4679	2,36586	98,8382
isiNdebele	55	4734	1,16181	100,0000
Missing	0	4734	0,00000	100,0000

Language Group Composition of the Sample

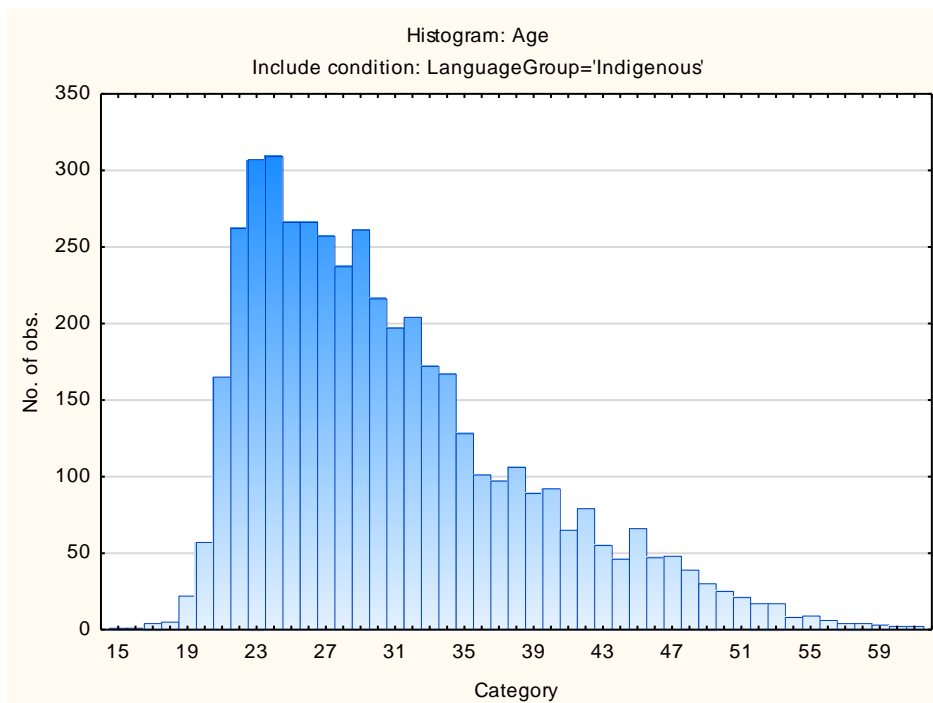
Category	Frequency table: Language Group			
	Count	Cumulative Count	Percent	Cumulative Percent
Indigenous	4734	4734	100,0000	100,0000
Missing	0	4734	0,0000	100,0000

Racial Composition of the Sample

Category	Frequency table: Race			
	Count	Cumulative Count	Percent	Cumulative Percent
African	4668	4668	98,60583	98,6058
European	21	4689	0,44360	99,0494
Coloured	14	4703	0,29573	99,3452
Asian	13	4716	0,27461	99,6198
Indian	1	4717	0,02112	99,6409
Unknown	7	4724	0,14787	99,7888
Missing	10	4734	0,21124	100,0000

Age Composition and Distribution of the Sample

Variable	Descriptive Statistics: Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	30,74378	7,864732	15,00000	62,00000	4582	152

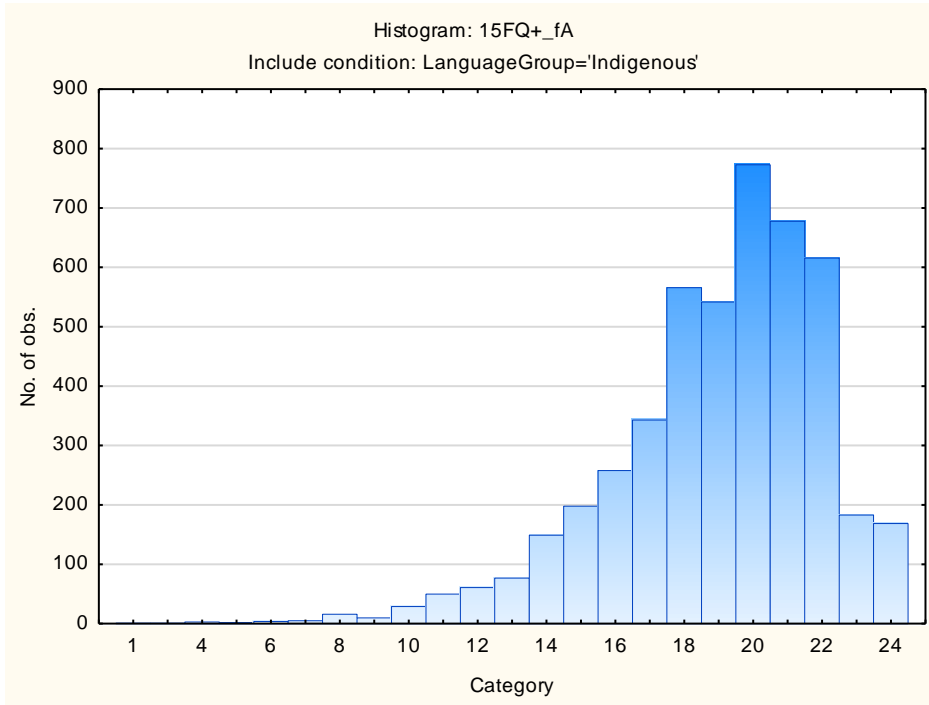


Descriptive Statistics on 15FQ+ Scales

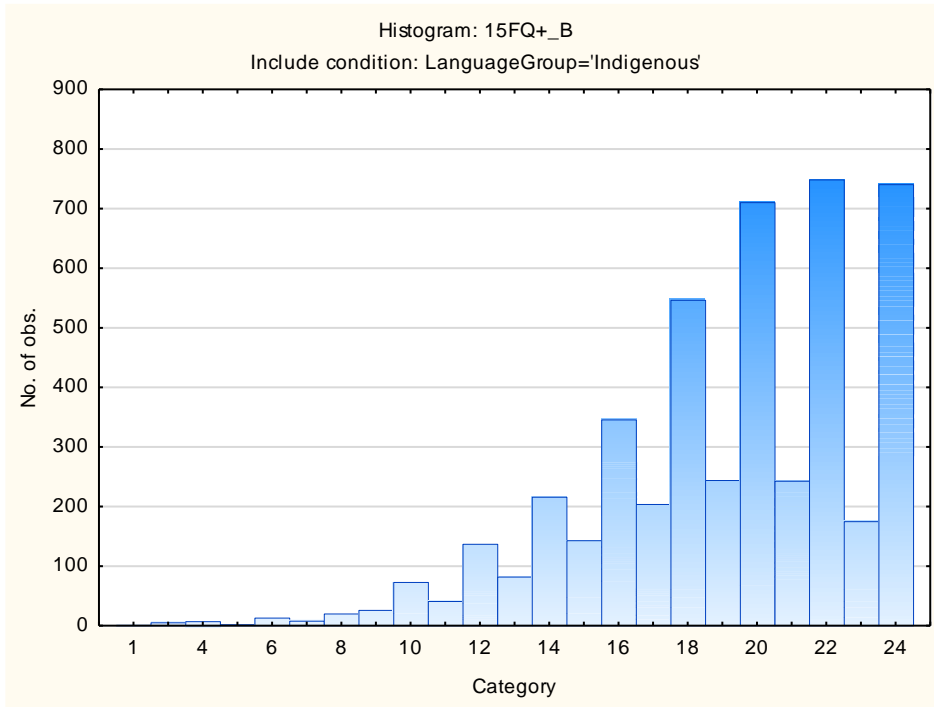
Scale	Scale description	Sample size	Mean	Std.Dev.
fA	Distant Aloof - Empathic	4734	18,98859	3,07053
B	Intellectance	4734	19,16624	3,90274
fC	Affected by feelings - Emotionally Stable	4734	17,25919	4,51789
fE	Accommodating - Dominant	4734	16,49725	3,85062
fF	Sober serious - Enthusiastic	4734	14,37516	5,25246
fG	Expedient - Conscientious	4734	19,90980	3,93912
fH	Retiring – Socially-bold	4734	16,55978	5,22404
fI	Hard-headed – Tender-minded	4734	14,94740	4,72779
fL	Trusting - Suspicious	4734	10,78285	4,58704
fM	Concrete - Abstract	4734	10,46768	3,35990
fN	Direct - Restrained	4734	20,25518	3,20969
fO	Confident – Self-doubting	4734	11,86608	4,85251
fQ1	Conventional - Radical	4734	9,35699	4,25846
fQ2	Group-orientated - Self-sufficient	4734	6,97930	4,34951
fQ3	Informal – Self-disciplined	4734	20,41593	2,81518
fQ4	Composed – Tense-driven	4734	7,81791	4,48080
SD	Social Desirability	4734	11,62864	3,34959
CT	Central Tendency	4734	11,47043	13,23098
INF	Infrequency	4734	1,55302	1,74185
EIQ	Derived Score: Emotional Intelligence	4734	24,05049	3,85373
WA	Derived Score: Work Attitude	4734	27,10879	3,91805
fGOOD	Faking Good	4734	7,88002	2,39029
fBAD	Faking Bad	4734	4,36312	2,22060

Frequency Distributions for 15FQ+ Scales

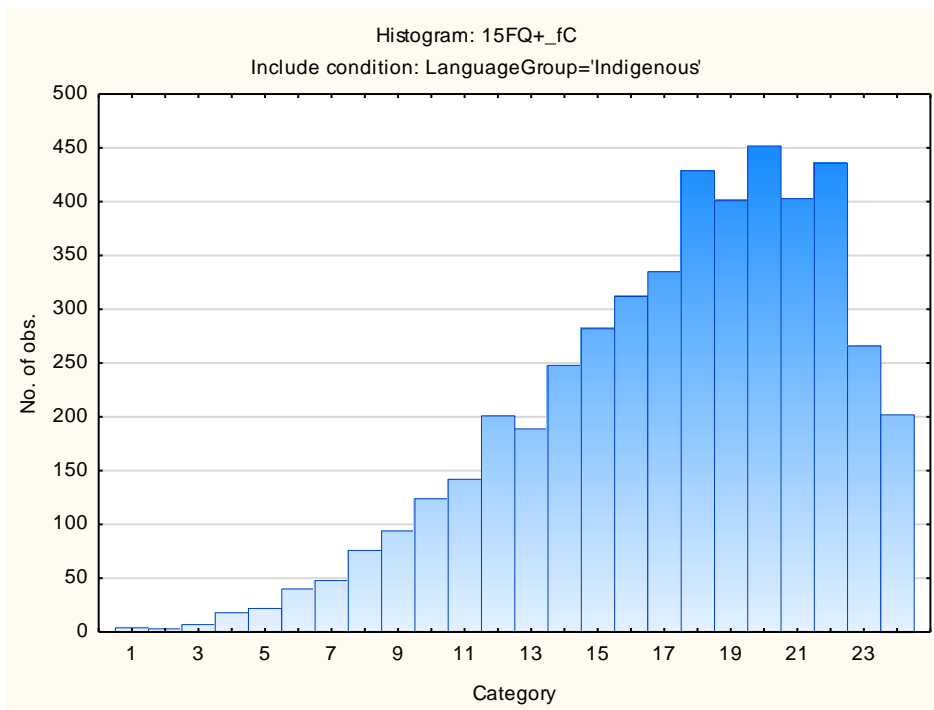
Distant Aloof – Empathic



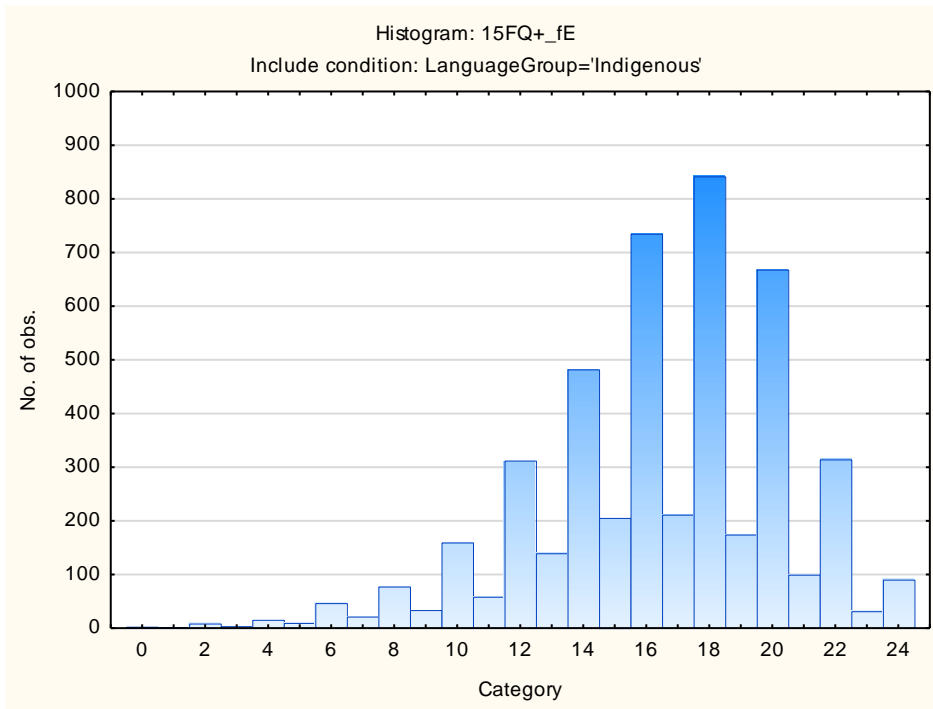
Intellectance



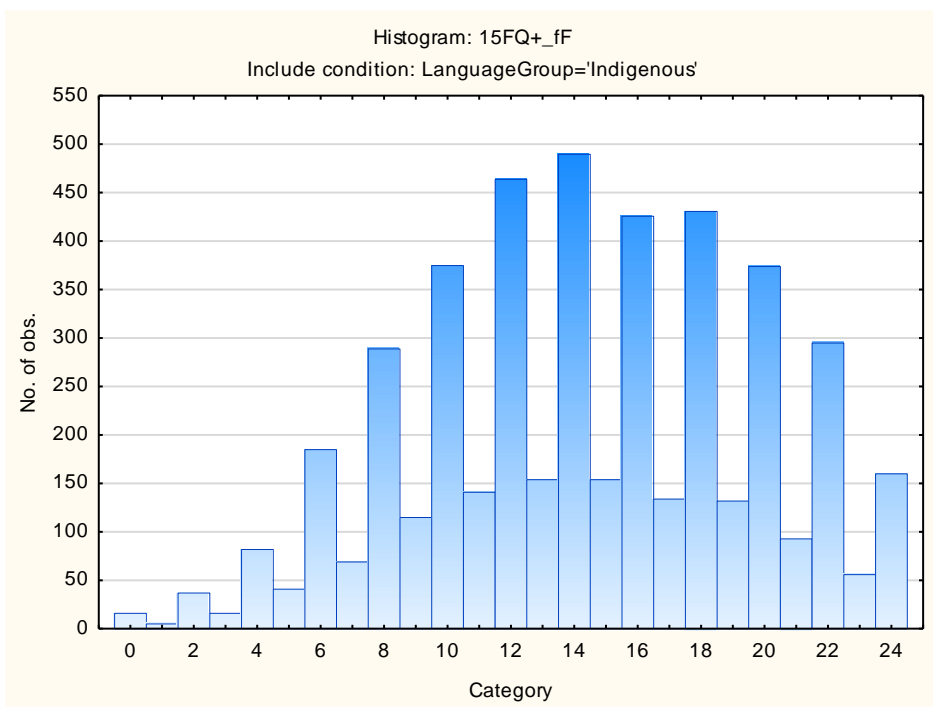
Affected by Feelings - Emotionally Stable



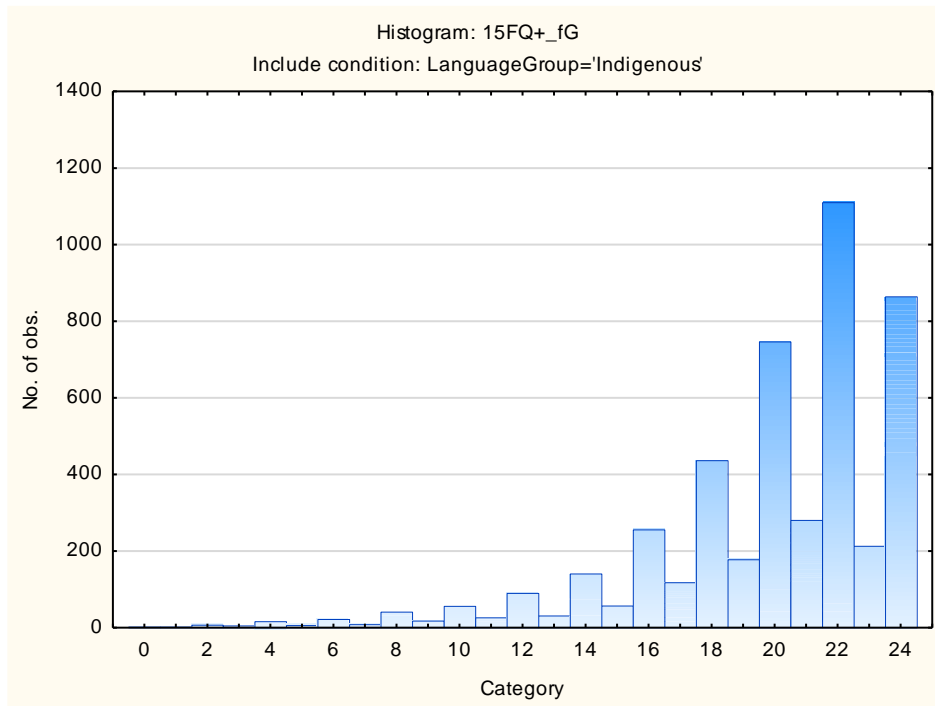
Accommodating – Dominant



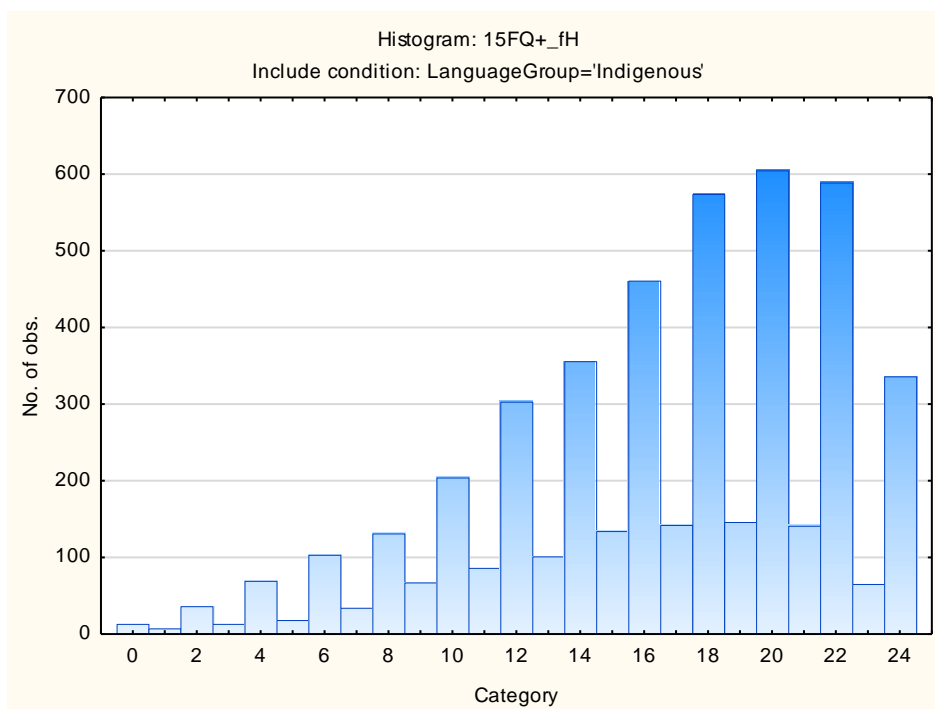
Sober Serious – Enthusiastic



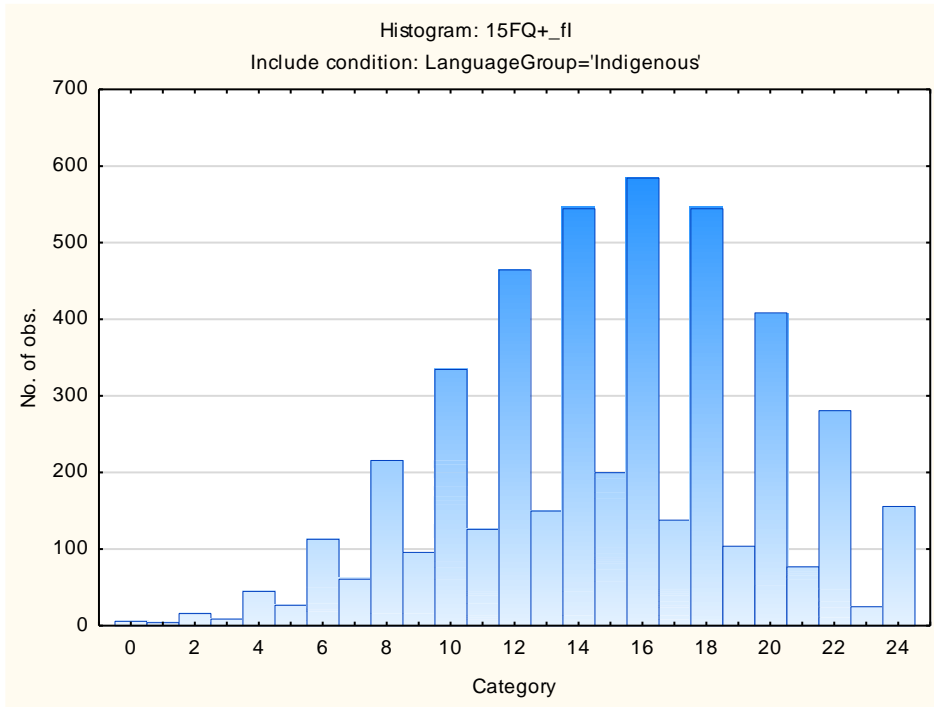
Expedient – Conscientious



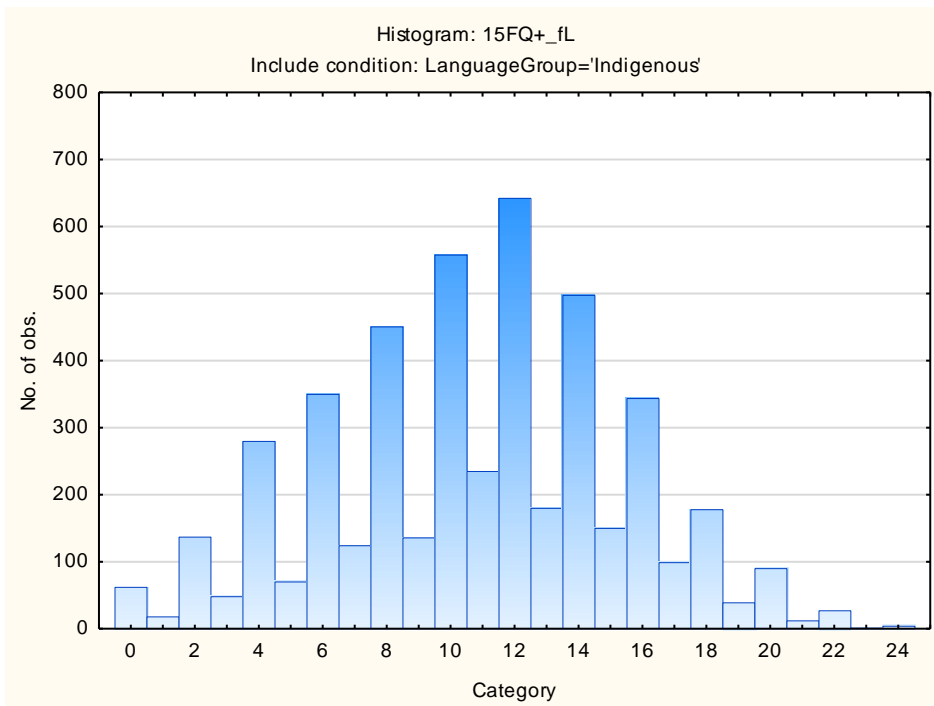
Retiring – Socially-bold



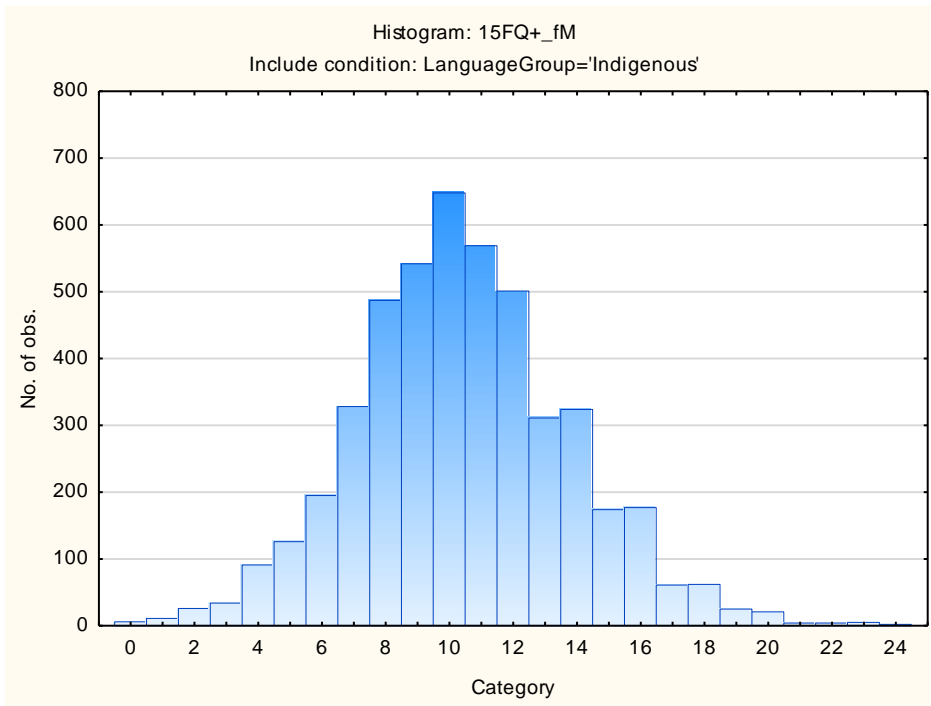
Hard Headed – Tender-minded



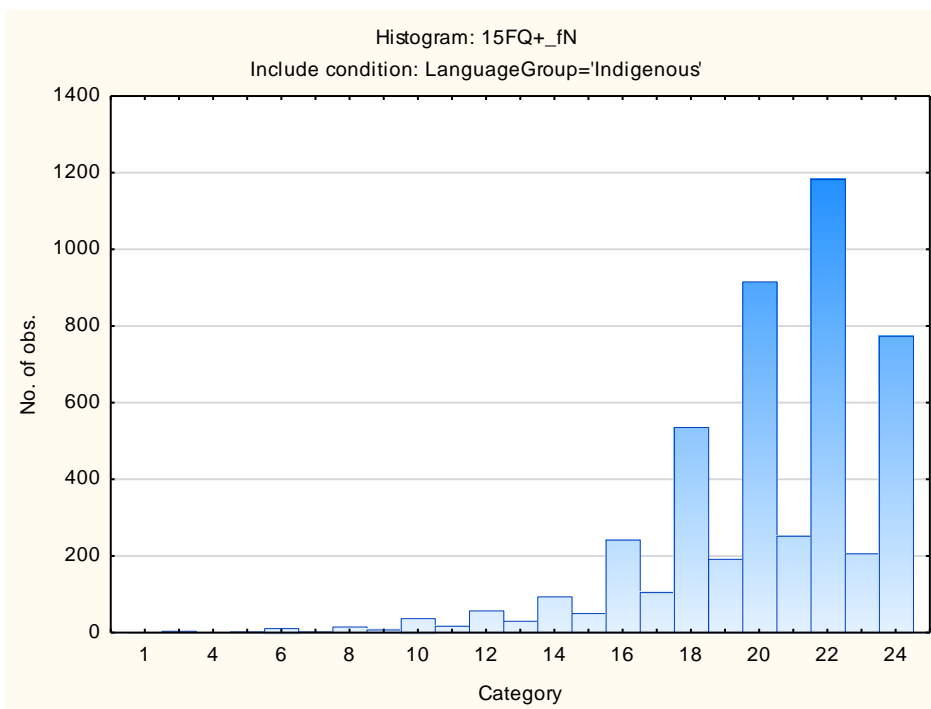
Trusting – Suspicious



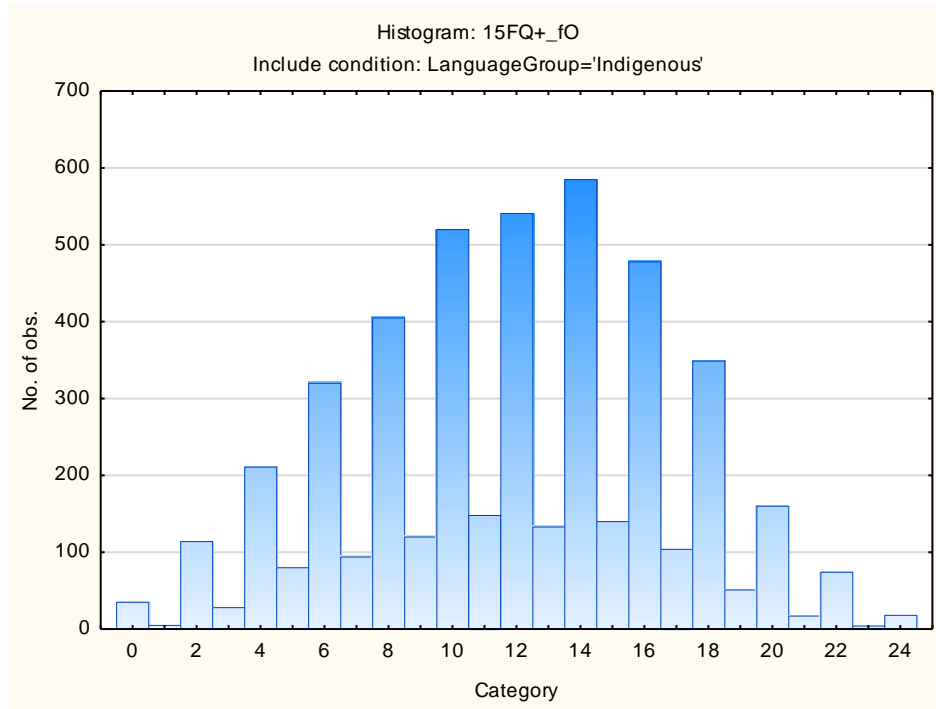
Concrete – Abstract



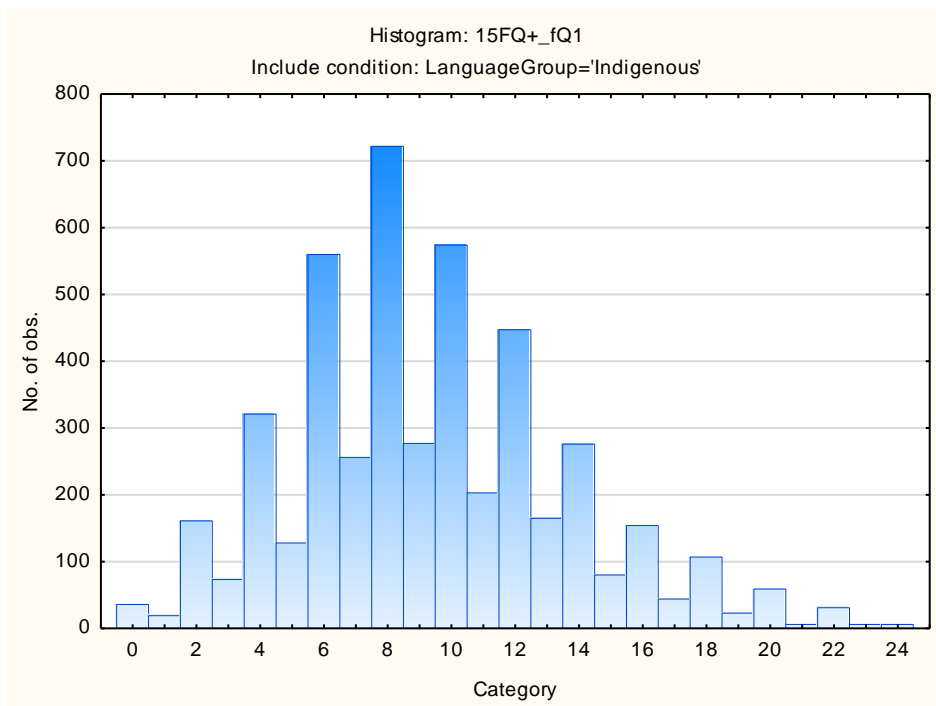
Direct – Restrained



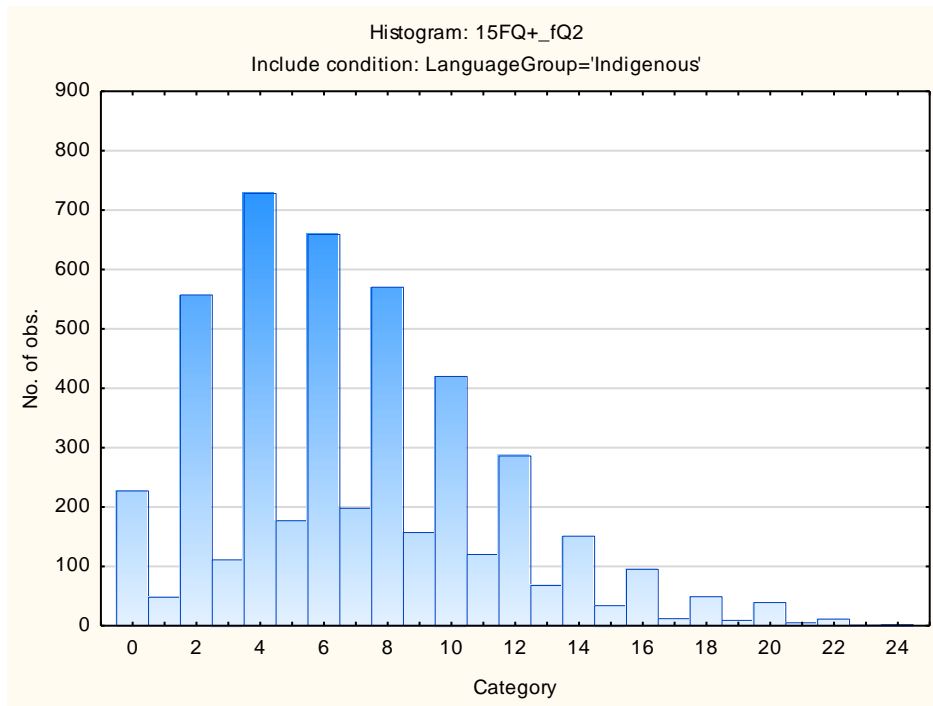
Confident - Self-doubting



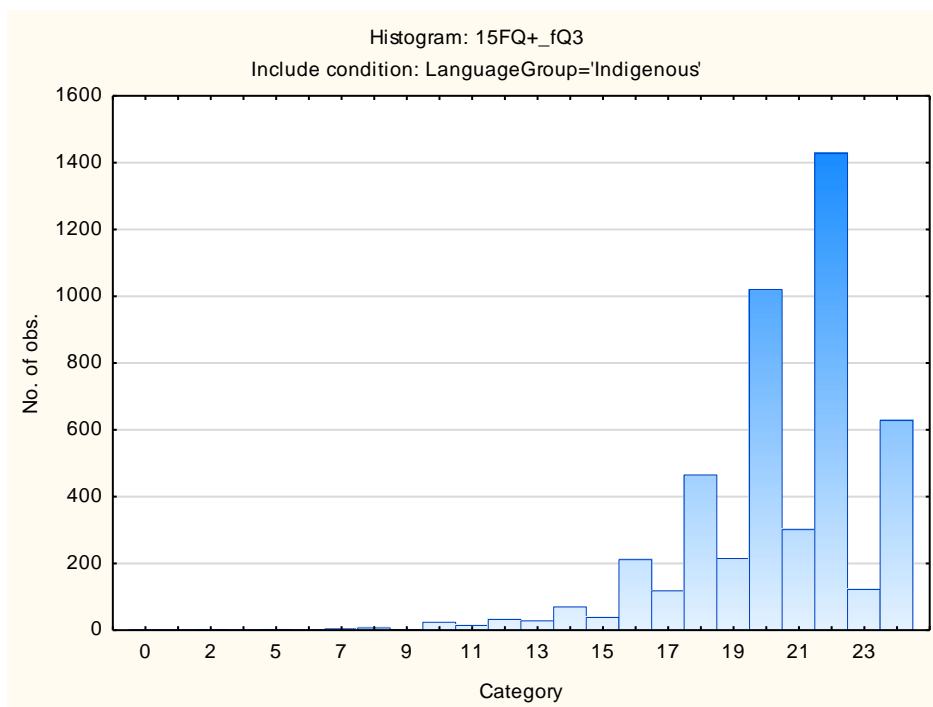
Conventional – Radical



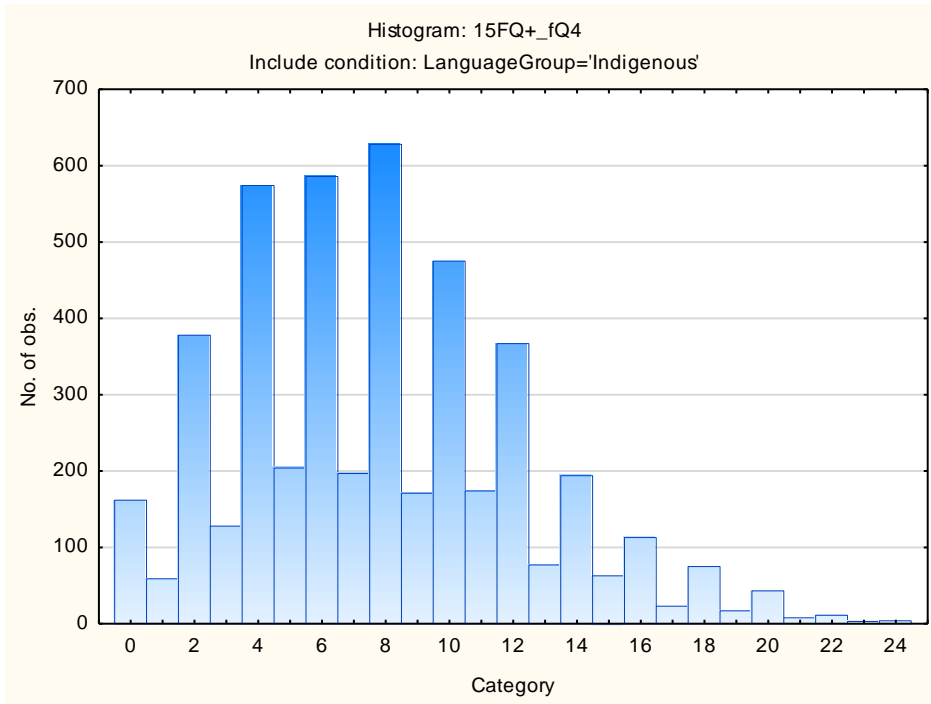
Group-orientated – Self-sufficient



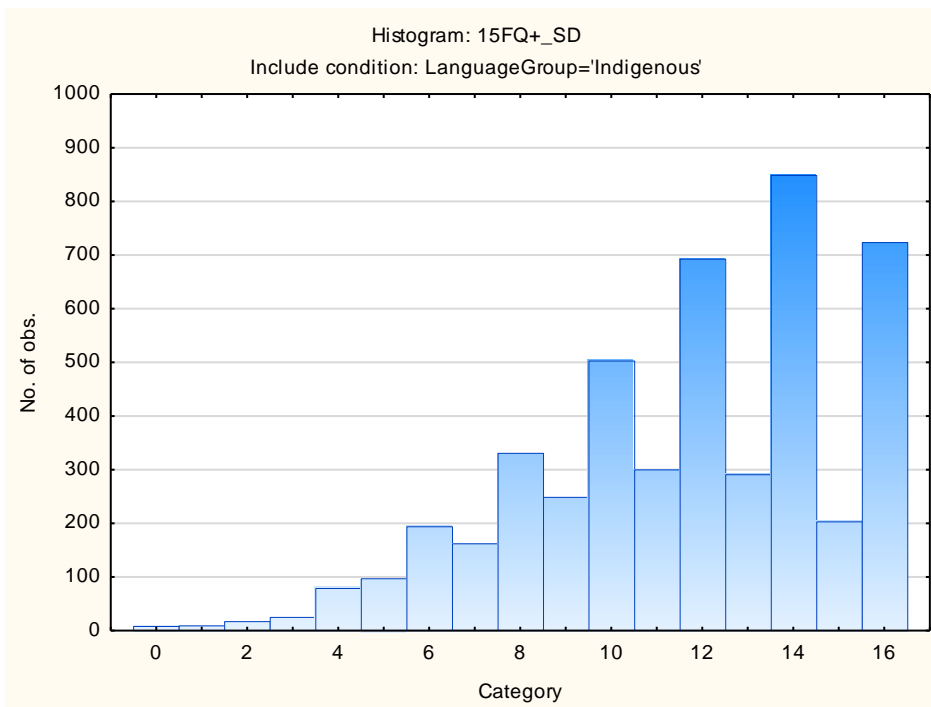
Informal – Self-disciplined



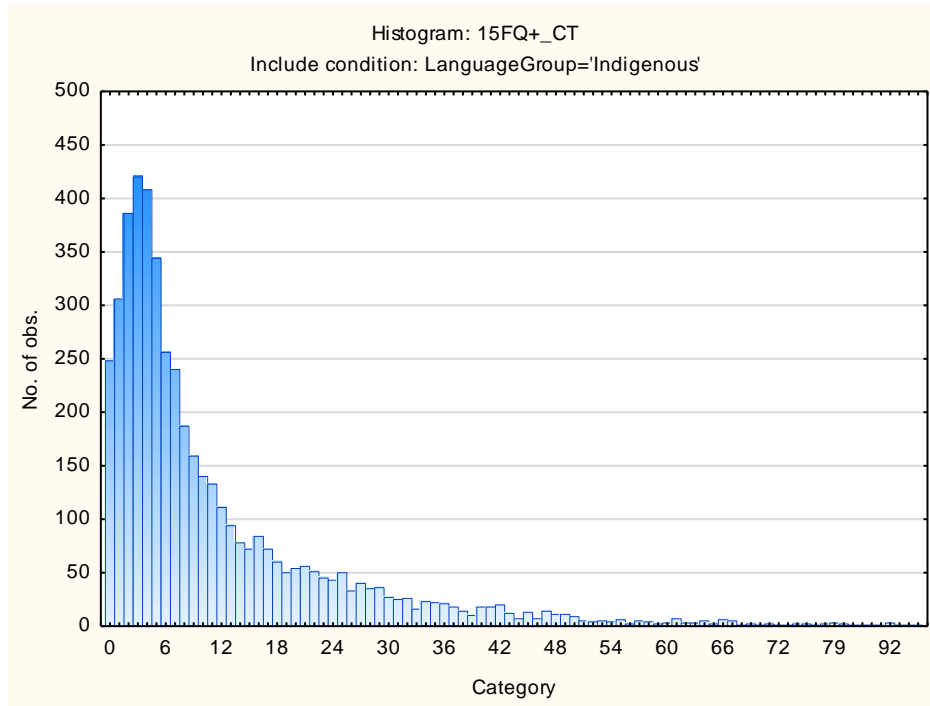
Composed – Tense-driven



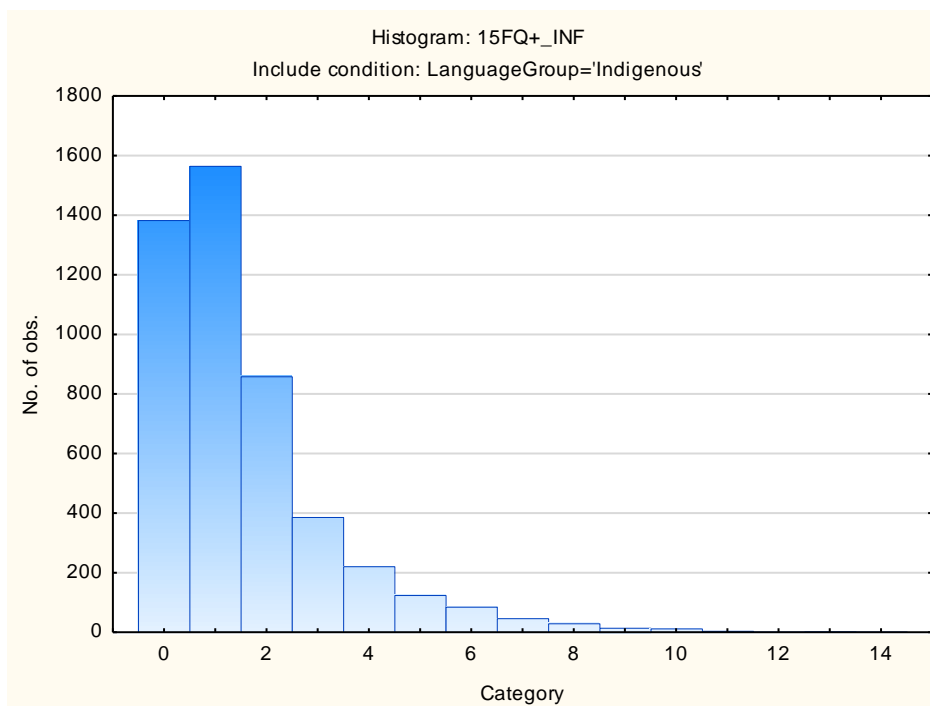
Social Desirability



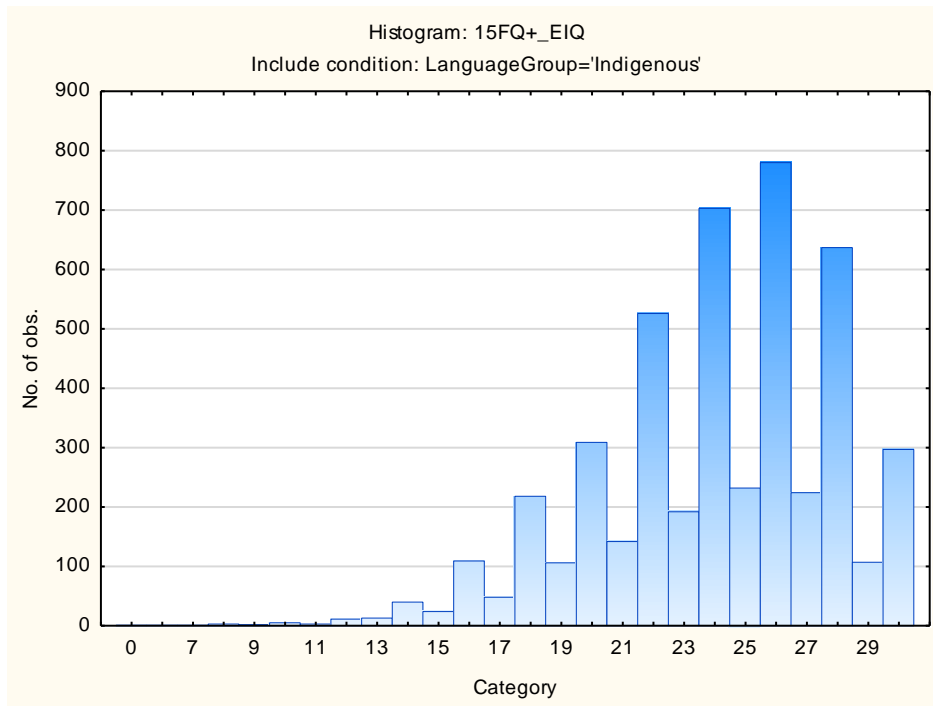
Central Tendency



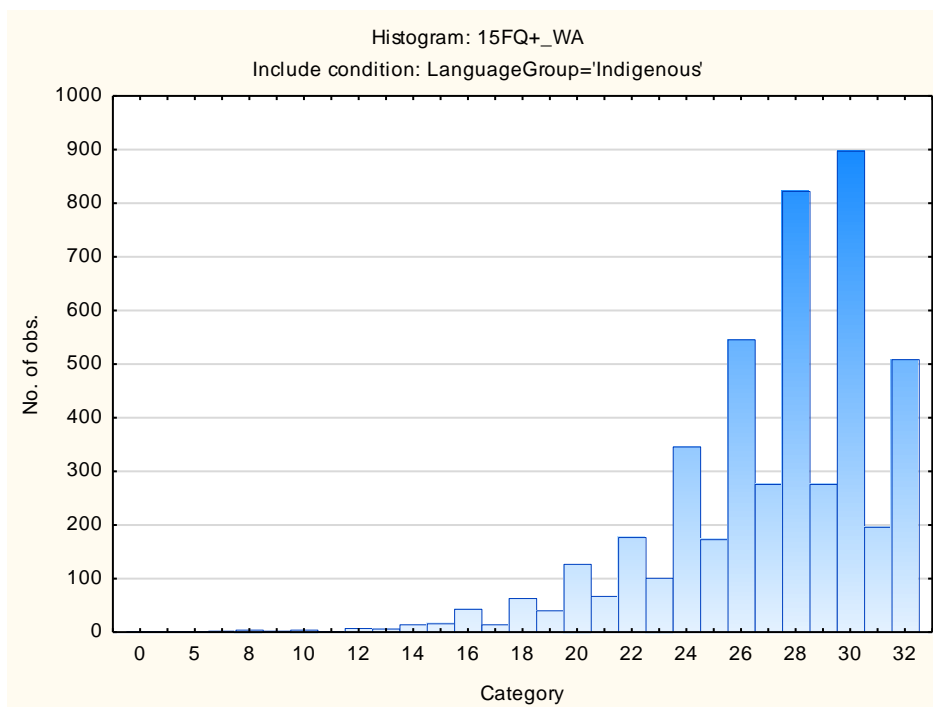
Infrequency



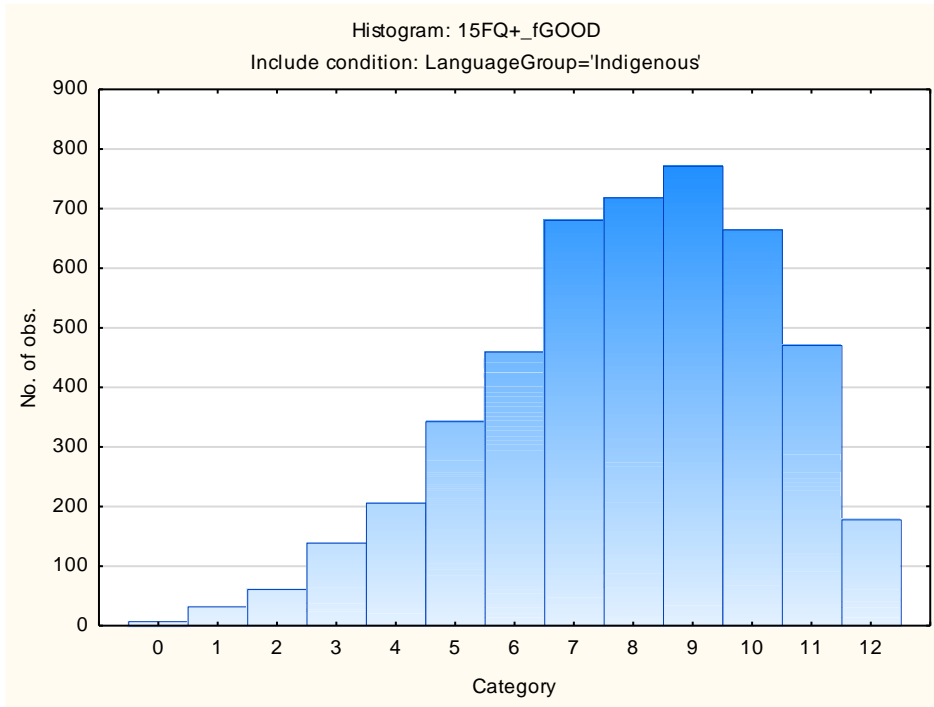
Derived Score: Emotional Intelligence



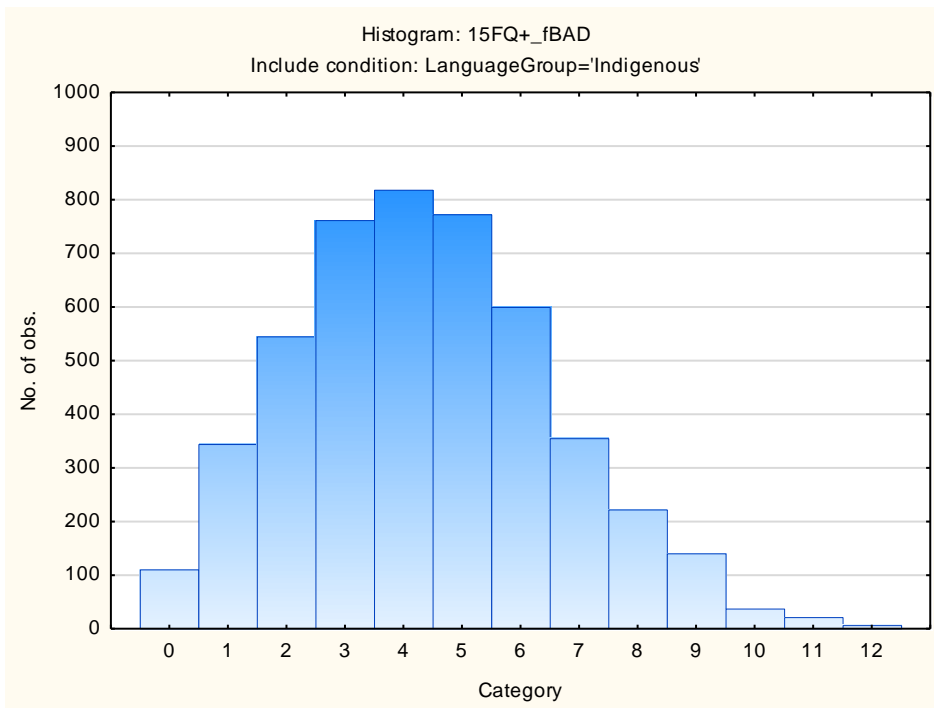
Work Attitude



Faking Good



Faking Bad



Sten Table

Scale Abbreviation	Scale Name	Raw Scores for Sten Categories									
		1	2	3	4	5	6	7	8	9	10
fA	Distant Aloof - Empathic	1-12	13-14	15-15	16-17	18-18	19-20	21-22	23-23	24-24	
B	Intellectance	1-11	12-13	14-15	16-17	18-19	20-21	22-23	24-24		
fC	Affected by Feelings - Emotionally Stable	1-8	9-10	11-12	13-15	16-17	18-19	20-21	22-24		
fE	Accommodating – Dominant	0-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	
fF	Sober serious - Enthusiastic	0-3	4-6	7-9	10-11	12-14	15-17	18-19	20-22	23-24	
fG	Expedient – Conscientious	0-12	13-14	15-15	16-17	18-19	20-21	22-23	24-24		
fH	Retiring – Socially-bold	0-6	7-8	9-11	12-13	14-16	17-19	20-21	22-24		
fI	Hard-headed – Tender-minded	0-5	6-7	8-10	11-12	13-14	15-17	18-19	20-22	23-24	
fL	Trusting - Suspicious	0-1	2-3	4-6	7-8	9-10	11-13	14-15	16-17	18-19	20-24
fM	Concrete - Abstract	0-3	4-5	6-7	8-8	9-10	11-12	13-13	14-15	16-17	18-24
fN	Direct - Restrained	1-13	14-15	16-17	18-18	19-20	21-21	22-23	24-24		
fO	Confident – Self-doubting	0-2	3-4	5-7	8-9	10-11	12-14	15-16	17-19	20-21	22-24
fQ1	Conventional - Radical	0-0	1-2	3-5	6-7	8-9	10-11	12-13	14-15	16-17	18-24
fQ2	Group-orientated - Self-sufficient	0-1	0-0	1-2	3-4	5-6	7-9	10-11	12-13	14-15	16-24
fQ3	Informal - Self-disciplined	0-14	15-16	17-17	18-19	20-20	21-21	22-23	24-24		
fQ4	Composed – Tense-driven	0-1	0-1	2-3	4-5	6-7	8-10	11-12	13-14	15-16	17-24
SD	Social Desirability	0-4	5-6	7-8	9-9	10-11	12-13	14-14	15-16		
CT	Central Tendency	0-1	0-0	1-1	2-4	5-11	12-18	19-24	25-31	32-37	38-103
INF	Infrequency	0-1	0-0	1-1	2-2	3-3	4-4	5-5	6-6	7-7	8-14
EIQ	Derived Score: Emotional Intelligence	0-16	17-18	19-20	21-22	23-24	25-25	26-27	28-29	30-30	
WA	Derived Score: Work Attitude	0-19	20-21	22-23	24-25	26-27	28-29	30-31	32-32		
fGOOD	Faking Good	0-3	4-4	5-5	6-6	7-7	8-9	10-10	11-11	12-12	
fBAD	Faking Bad	0-1	0-1	2-2	3-3	4-4	5-5	6-6	7-7	8-8	9-12

Fifteen Factor Questionnaire (15FQ+)

Norm Group: SA isiXhosa Speakers, Updated 2016

Norm Type:

Standard deviation norm

Composition of the Sample

The sample consisted of 886 isiXhosa speaking South Africans tested by Psytech SA and collaborators, via GeneSys for Windows, in the period up to June 2015.

Gender Composition of the sample

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	396	396	44,69526	44,6953
M	488	884	55,07901	99,7743
U	2	886	0,22573	100,0000
Missing	0	886	0,00000	100,0000

Educational Composition of the Sample

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	255	255	28,78104	28,7810
Tertiary	454	709	51,24153	80,0226
Post Graduate	118	827	13,31828	93,3409
< Matric	12	839	1,35440	94,6953
Unknown	5	844	0,56433	95,2596
Missing	42	886	4,74041	100,0000

Language Composition of the Sample

Category	Frequency table: Language			
	Count	Cumulative Count	Percent	Cumulative Percent
isiXhosa	886	886	100,0000	100,0000
Missing	0	886	0,0000	100,0000

Language Group Composition of the Sample

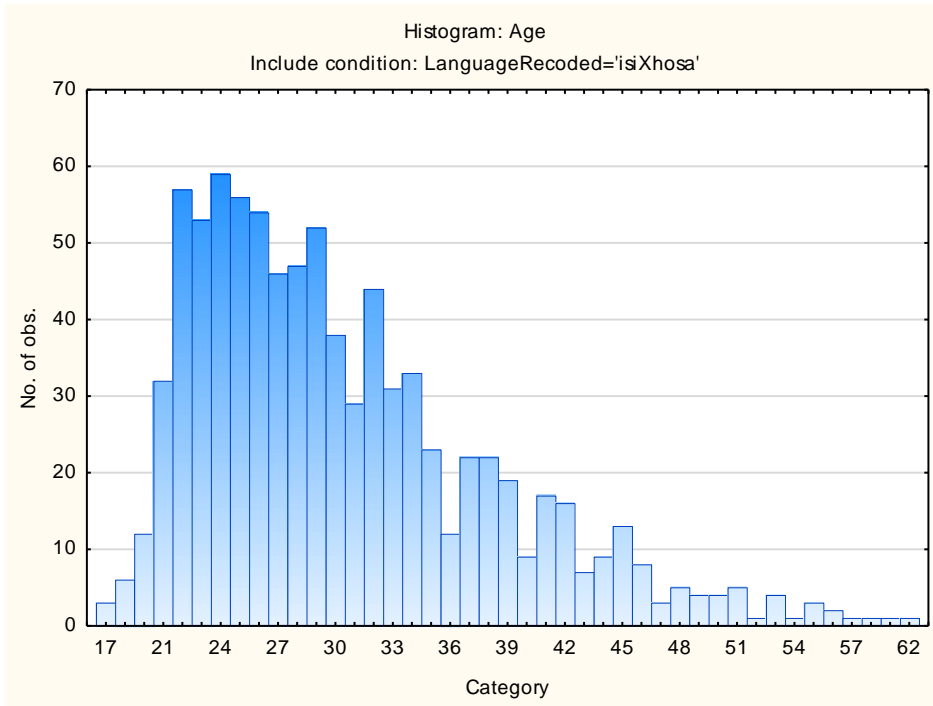
Category	Frequency table: Language Group			
	Count	Cumulative Count	Percent	Cumulative Percent
Indigenous	886	886	100,0000	100,0000
Missing	0	886	0,0000	100,0000

Racial Composition of the Sample

Category	Frequency table: Race			
	Count	Cumulative Count	Percent	Cumulative Percent
African	879	879	99,20993	99,2099
European	3	882	0,33860	99,5485
Coloured	1	883	0,11287	99,6614
Asian	2	885	0,22573	99,8871
Missing	1	886	0,11287	100,0000

Age Composition and Distribution of the Sample

Variable	Descriptive Statistics: Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	30,40462	7,834248	17,00000	62,00000	865	21

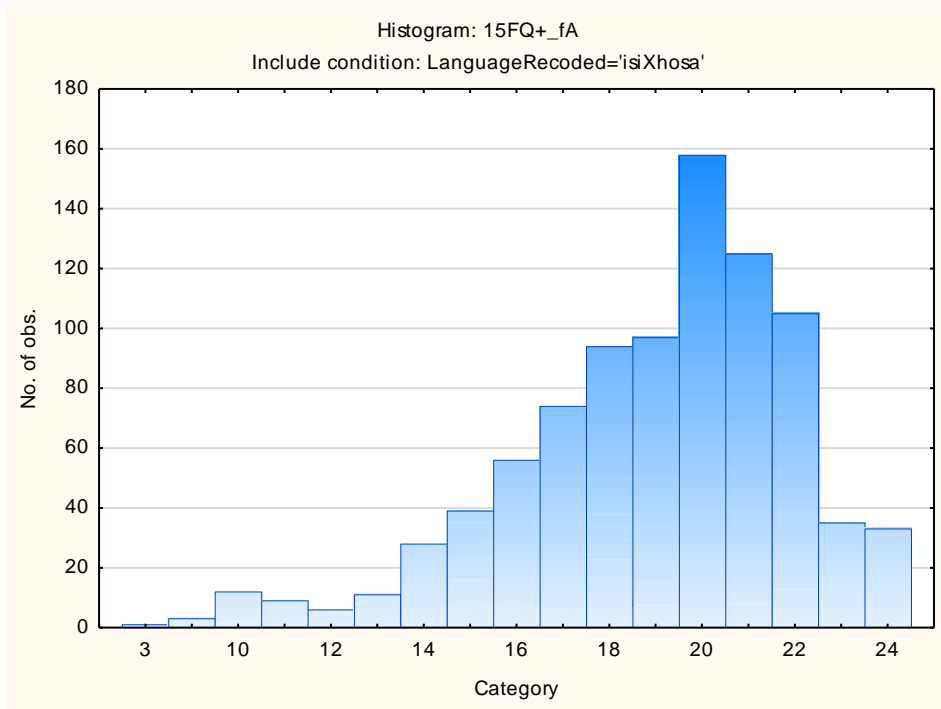


Descriptive Statistics on 15FQ+ Scales

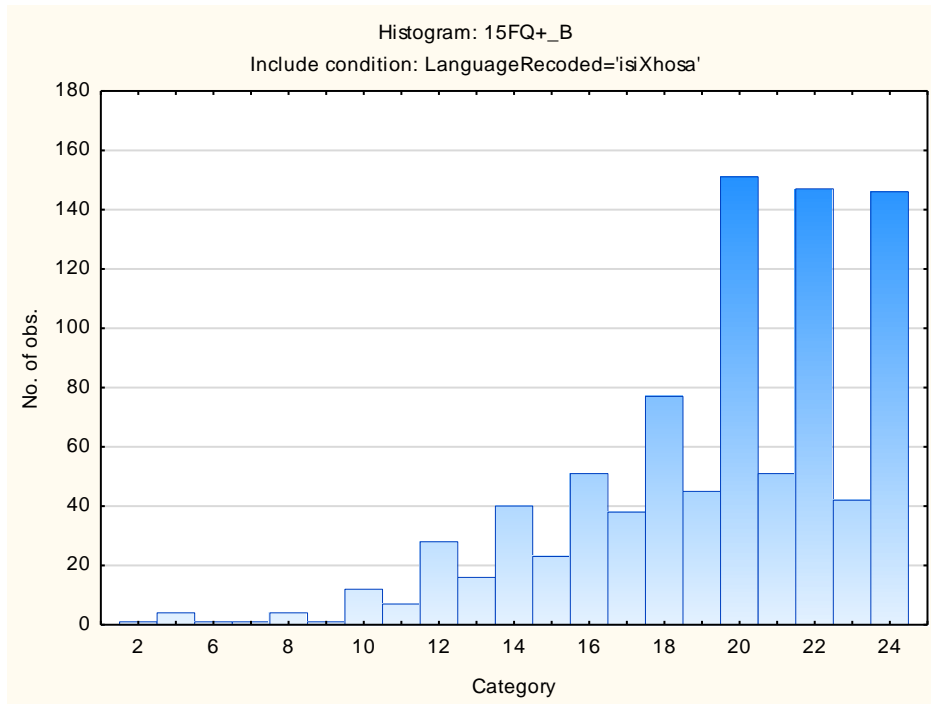
Scale	Scale description	Sample size	Mean	Std.Dev.
fA	Distant Aloof - Empathic	886	18,98307	3,01835
B	Intellectance	886	19,43115	3,88322
fC	Affected by feelings - Emotionally Stable	886	17,84650	4,11983
fE	Accommodating - Dominant	886	16,41535	3,87067
fF	Sober serious - Enthusiastic	886	14,52370	5,02435
fG	Expedient - Conscientious	886	19,93679	3,96374
fH	Retiring – Socially-bold	886	16,77088	5,12427
fI	Hard-headed – Tender-minded	886	14,83747	4,72983
fL	Trusting - Suspicious	886	10,58014	4,63051
fM	Concrete - Abstract	886	10,16704	3,39745
fN	Direct - Restrained	886	20,15688	3,24258
fO	Confident – Self-doubting	886	11,61851	4,77672
fQ1	Conventional - Radical	886	8,87133	4,32877
fQ2	Group-orientated - Self-sufficient	886	7,03160	4,27727
fQ3	Informal – Self-disciplined	886	20,38036	2,62341
fQ4	Composed – Tense-driven	886	7,59707	4,34542
SD	Social Desirability	886	11,87472	3,19093
CT	Central Tendency	886	12,05869	13,75964
INF	Infrequency	886	1,51016	1,76001
EIQ	Derived Score: Emotional Intelligence	886	24,50564	3,54494
WA	Derived Score: Work Attitude	886	27,36456	3,71092
fGOOD	Faking Good	886	7,98307	2,27409
fBAD	Faking Bad	886	4,21445	2,08553

Frequency Distributions for 15FQ+ Scales

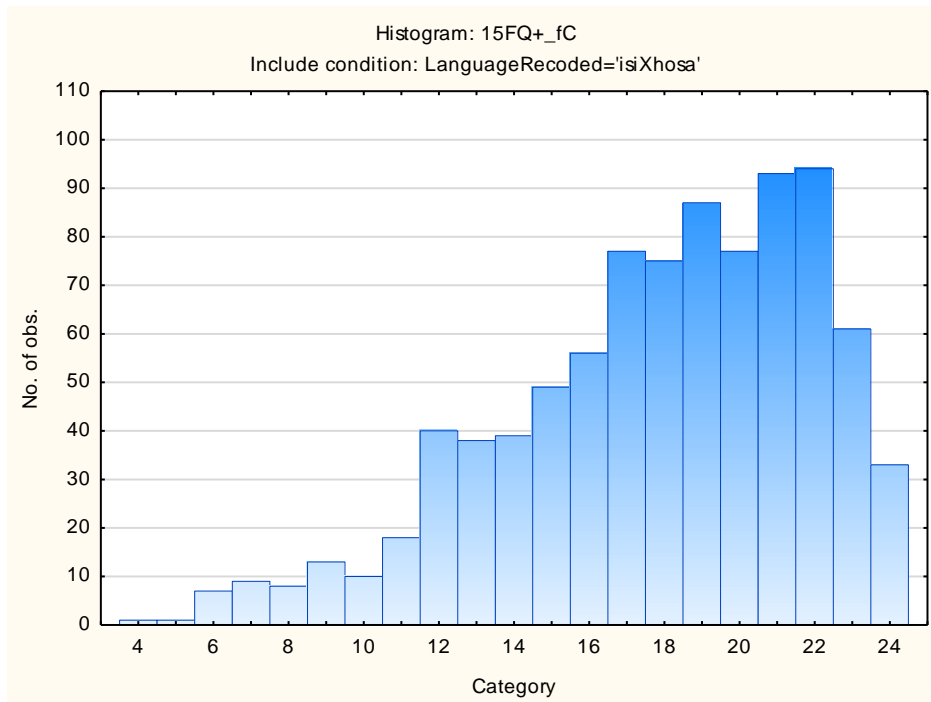
Distant Aloof – Empathic



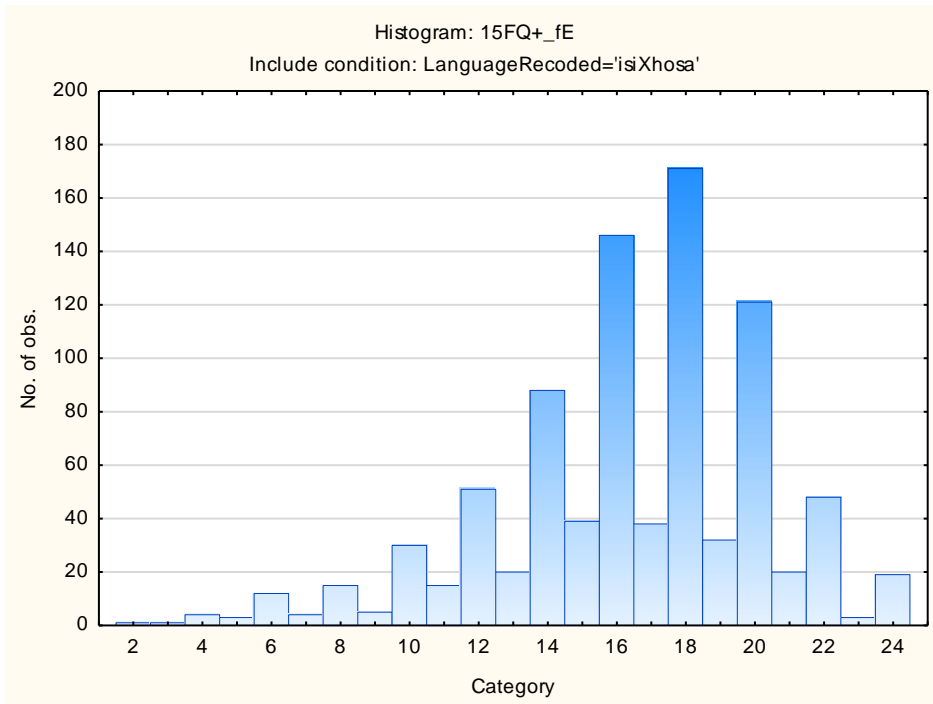
Intellectance



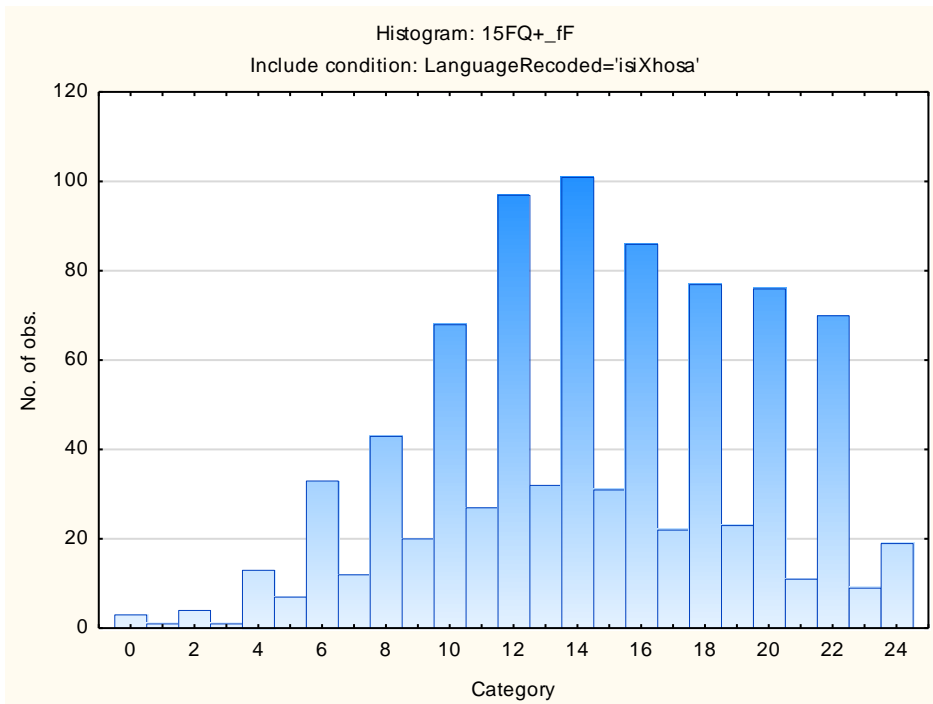
Affected by Feelings - Emotionally Stable



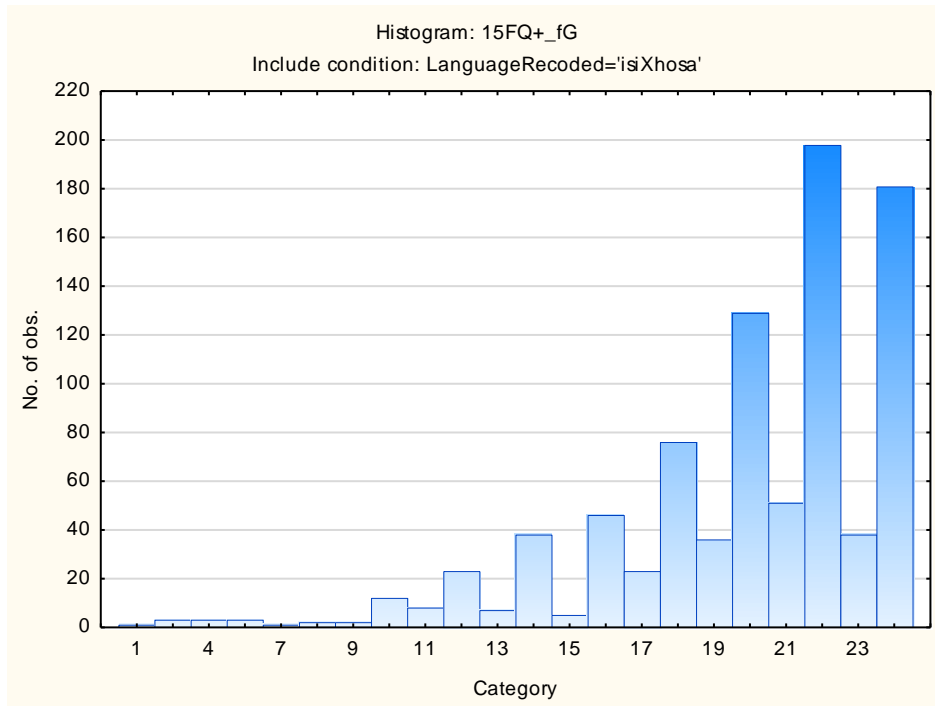
Accommodating – Dominant



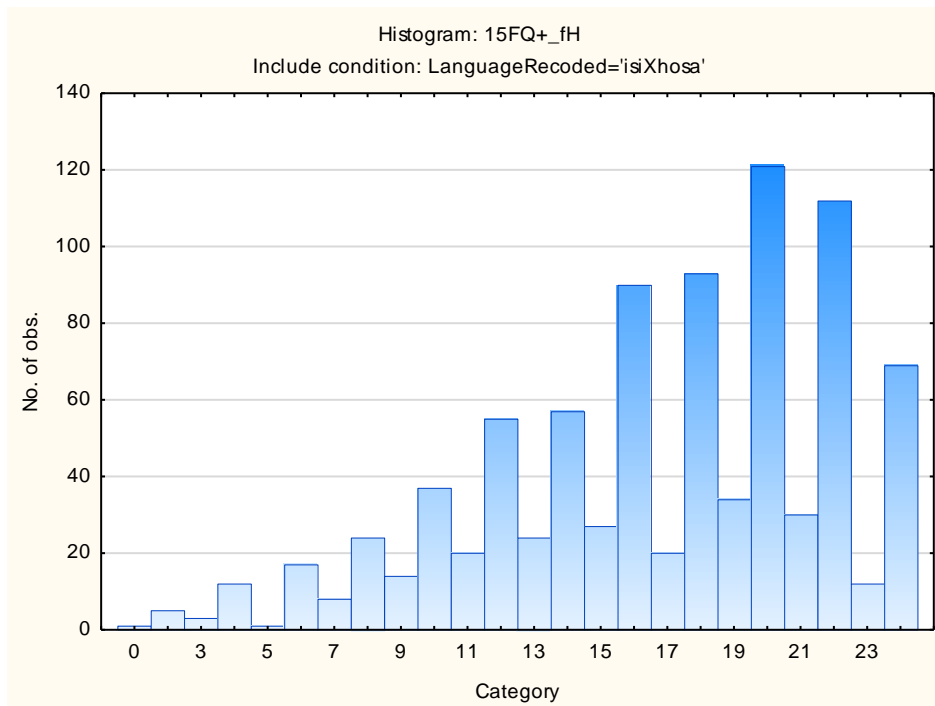
Sober Serious – Enthusiastic



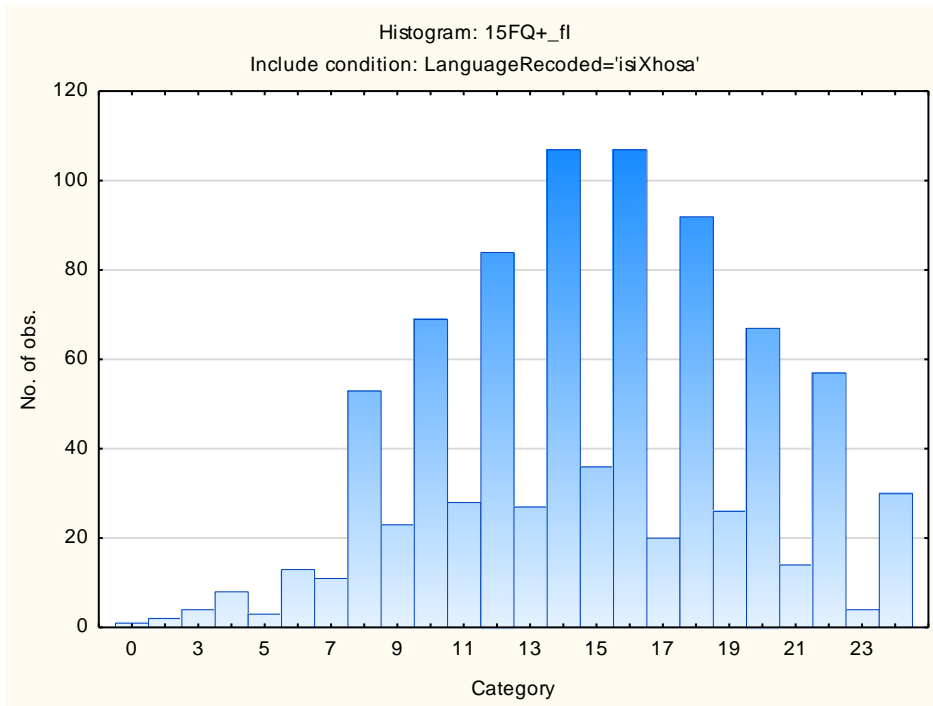
Expedient – Conscientious



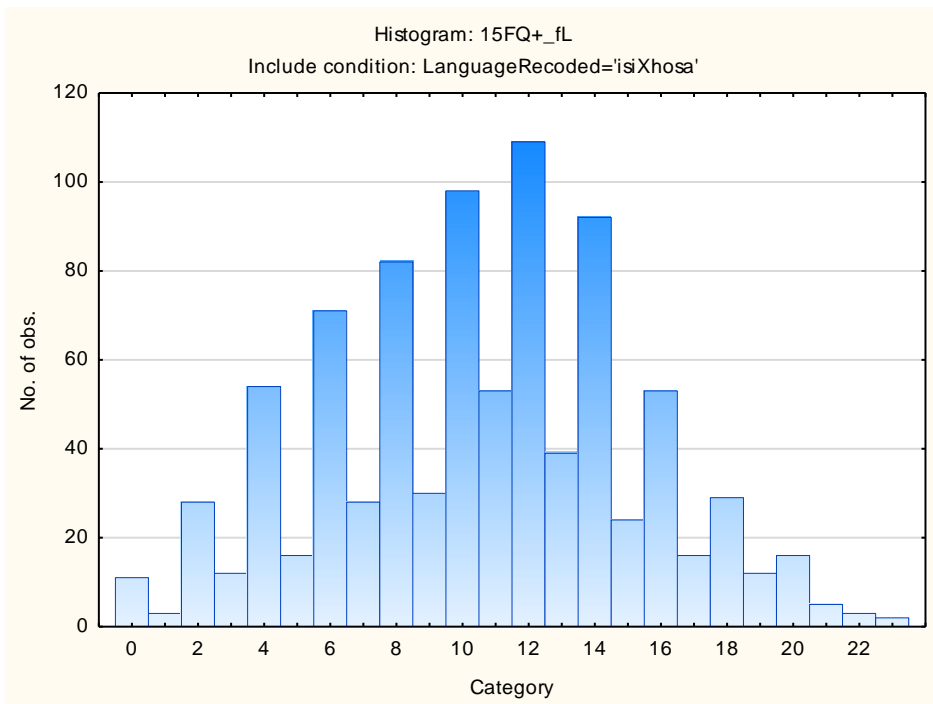
Retiring – Socially-bold



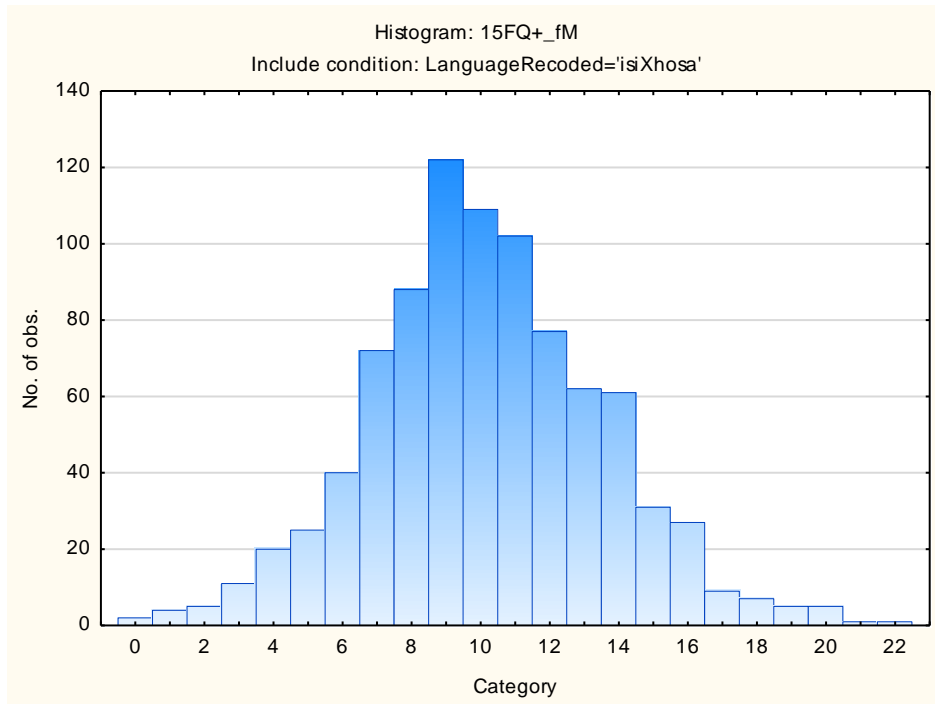
Hard-headed – Tender-minded



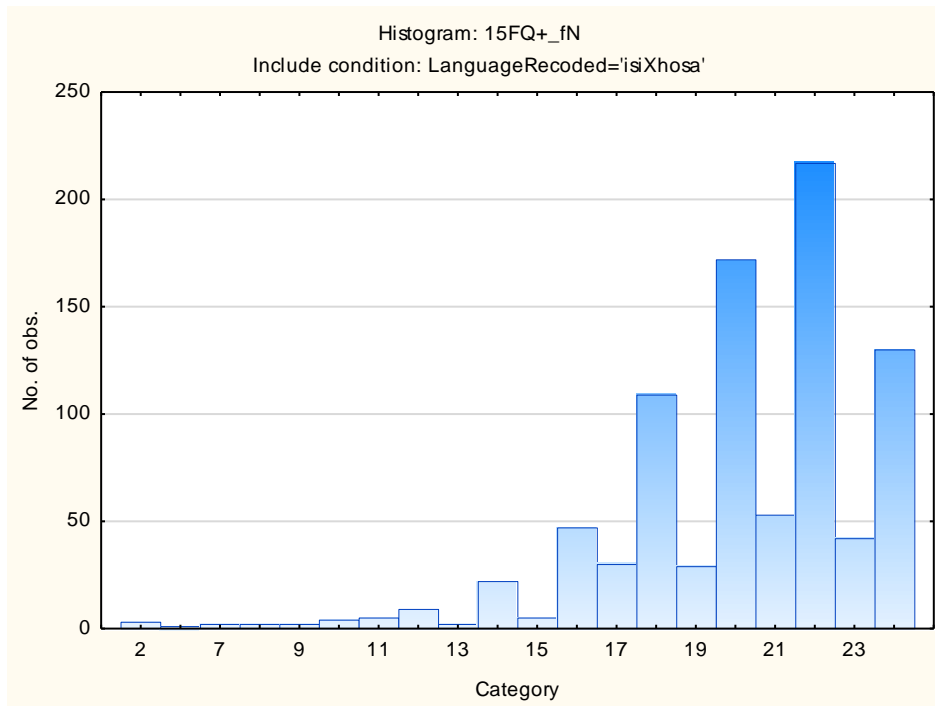
Trusting – Suspicious



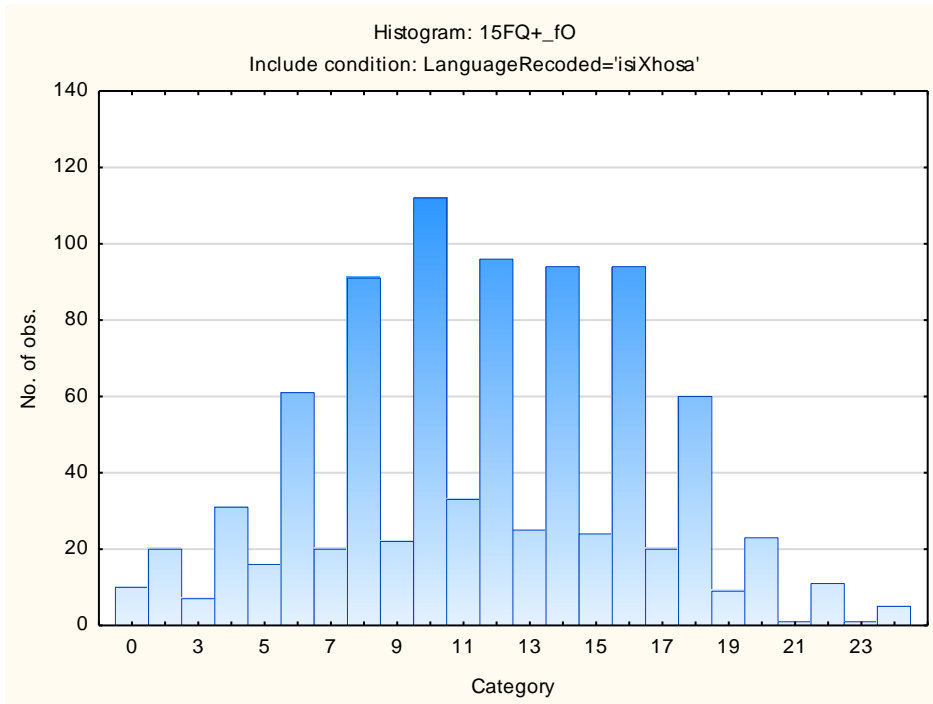
Concrete – Abstract



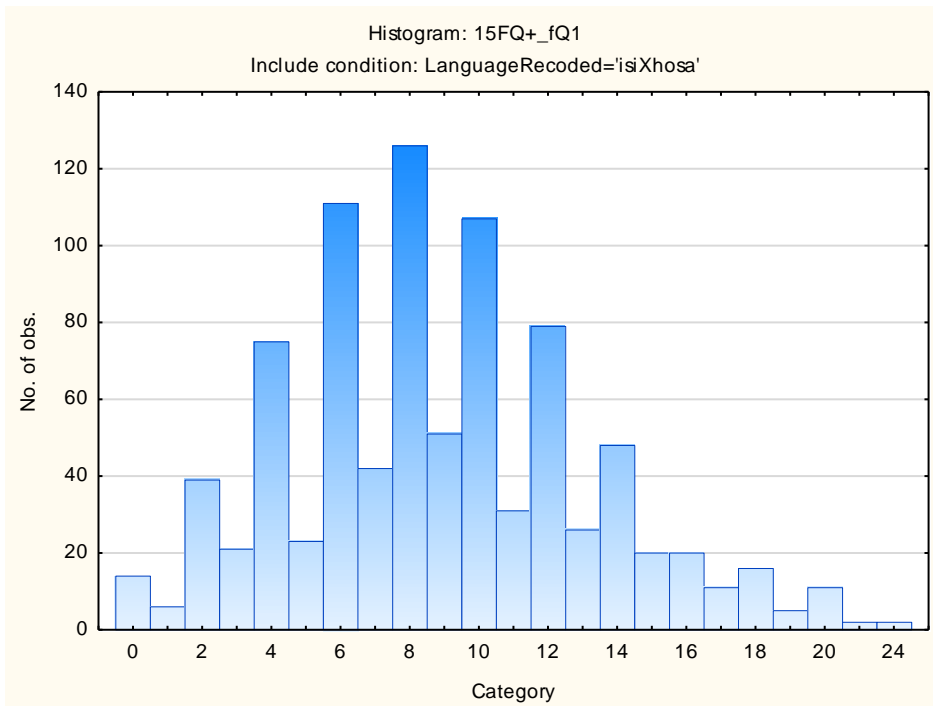
Direct – Restrained



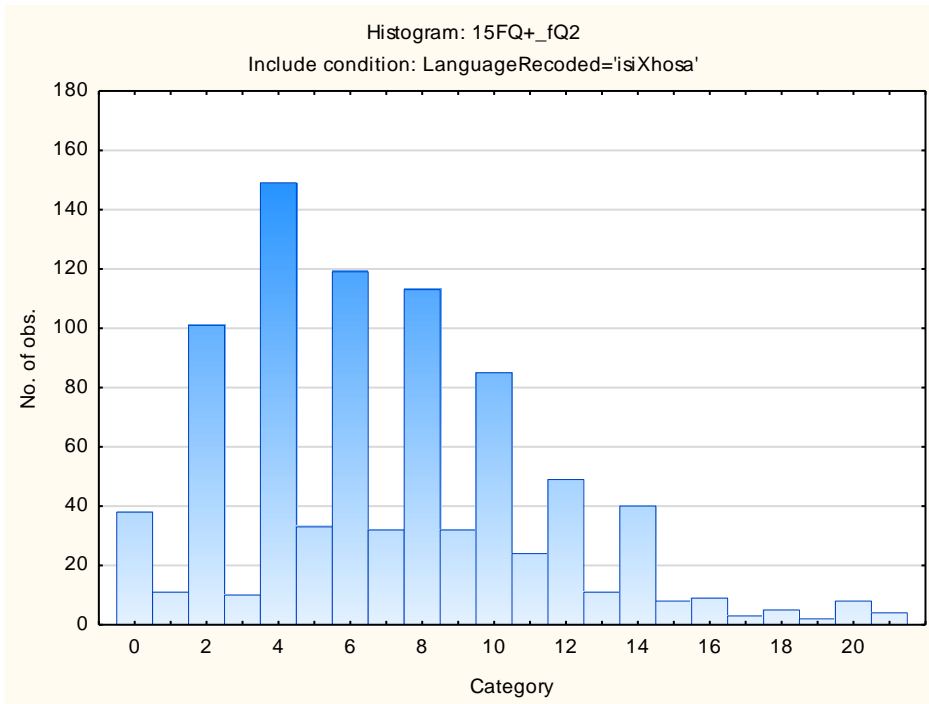
Confident - Self-doubting



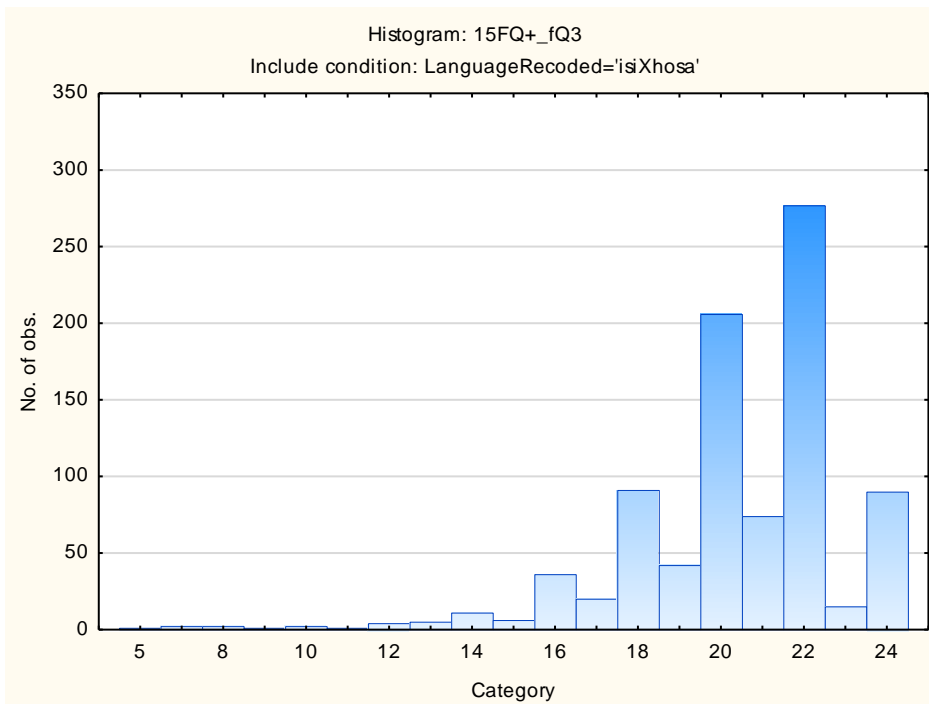
Conventional – Radical



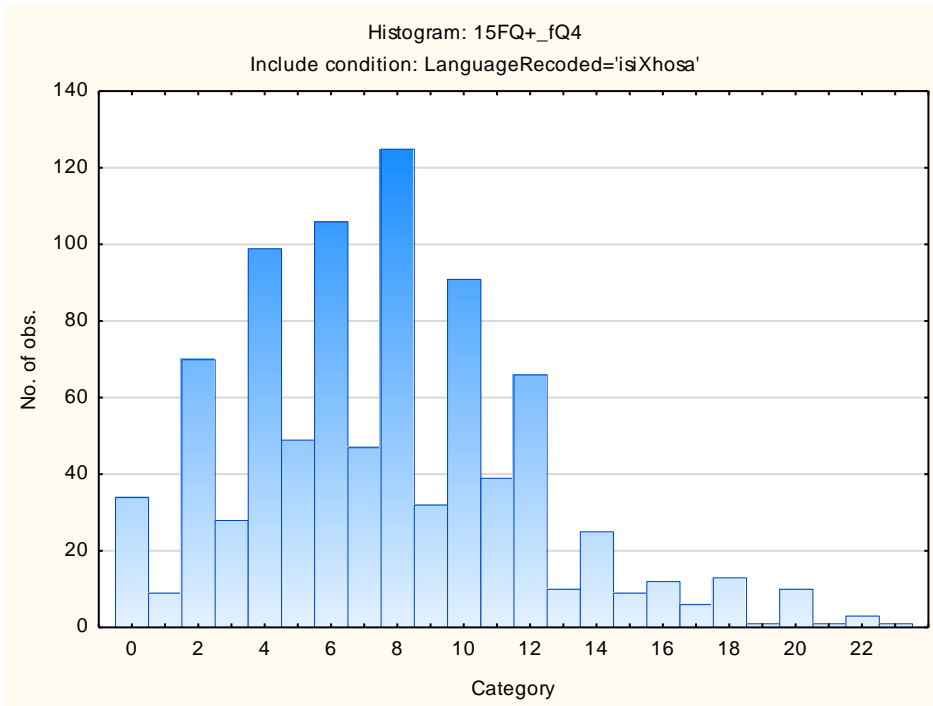
Group-orientated - Self-sufficient



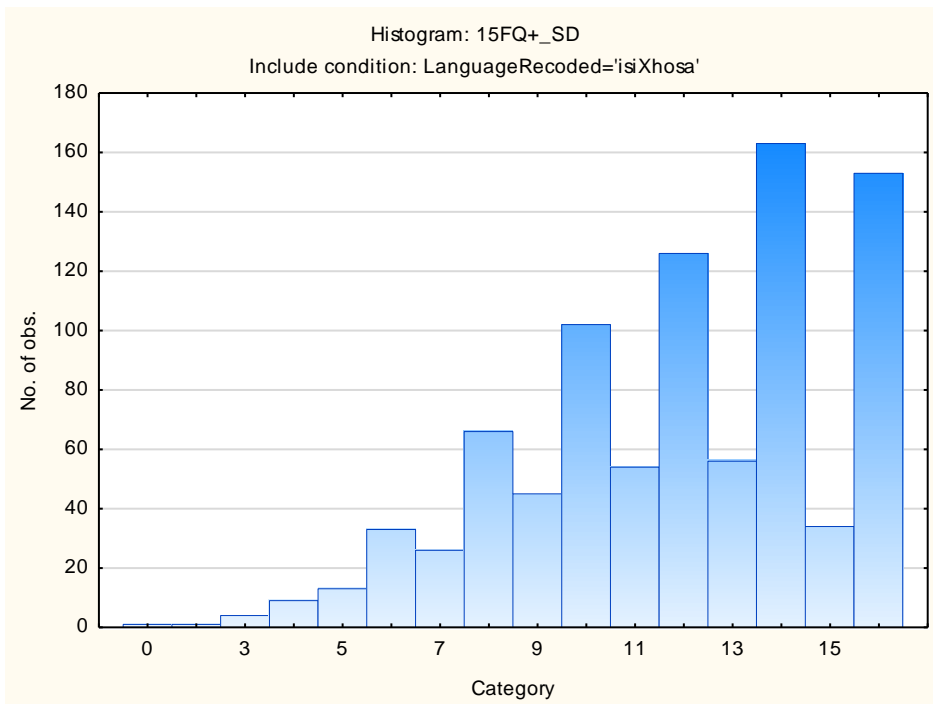
Informal- Self-disciplined



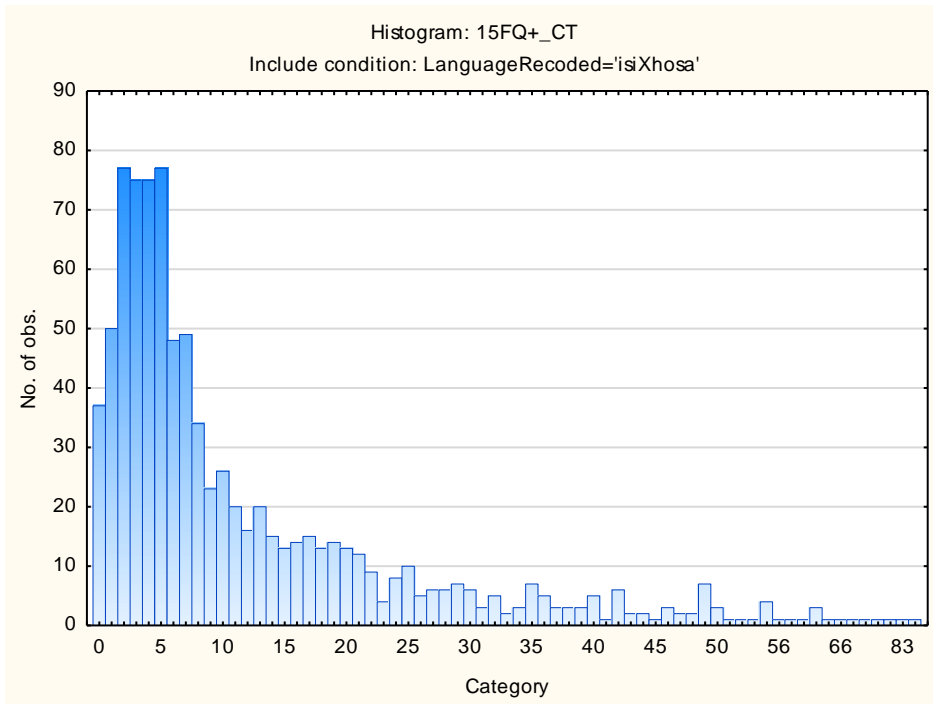
Composed – Tense-driven



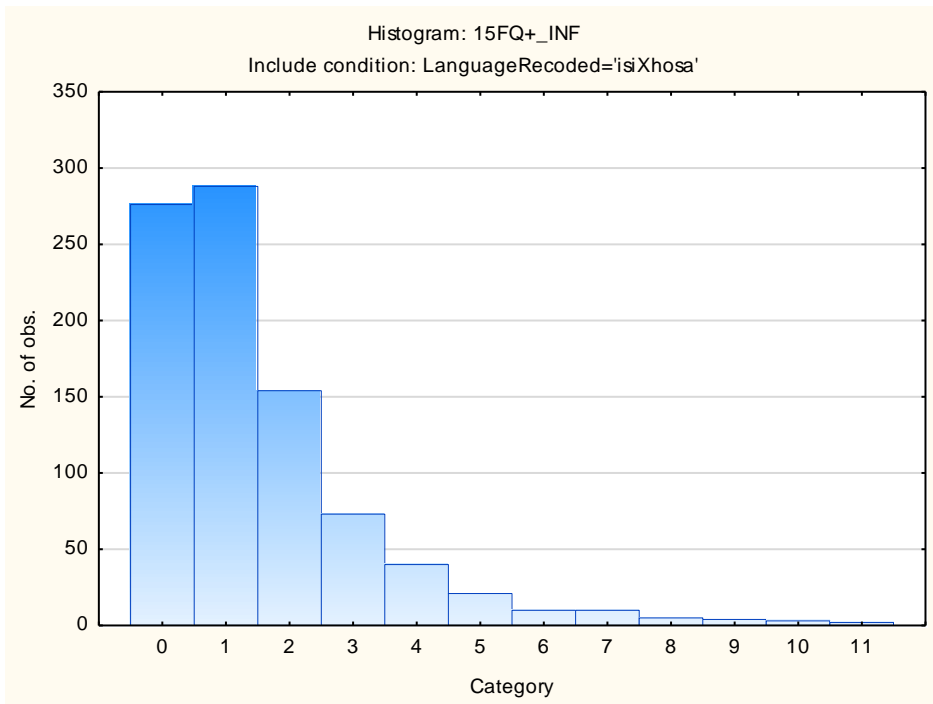
Social Desirability



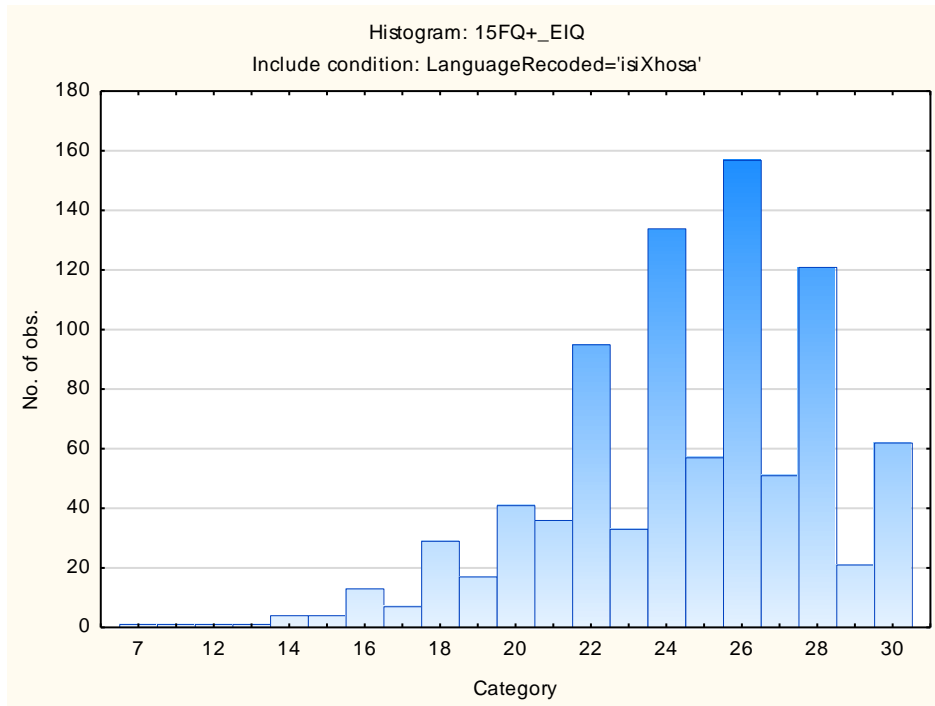
Central Tendency



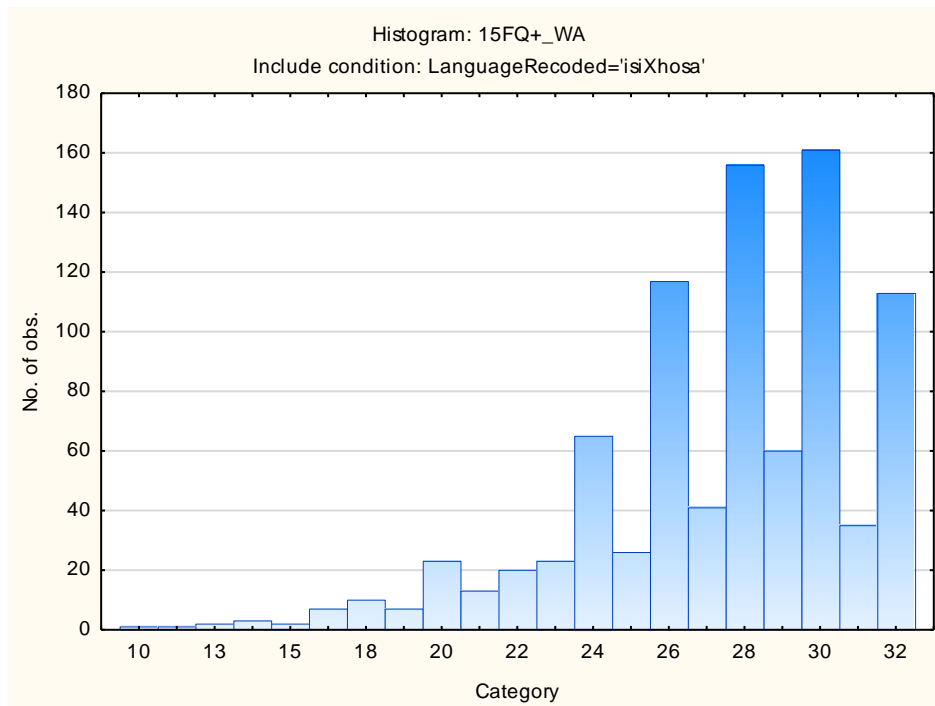
Infrequency



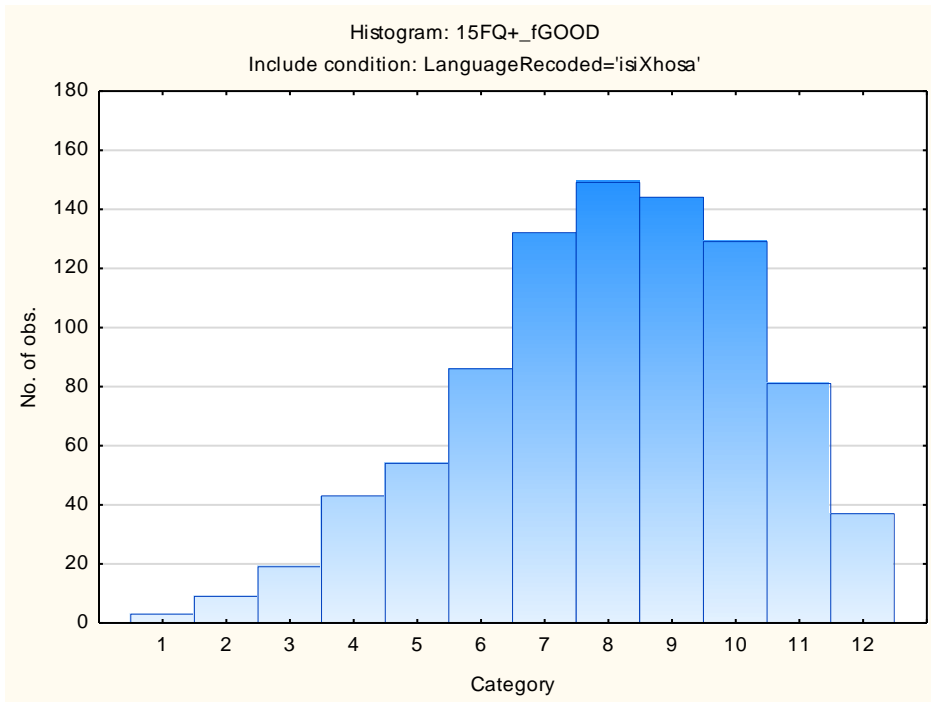
Derived Score: Emotional Intelligence



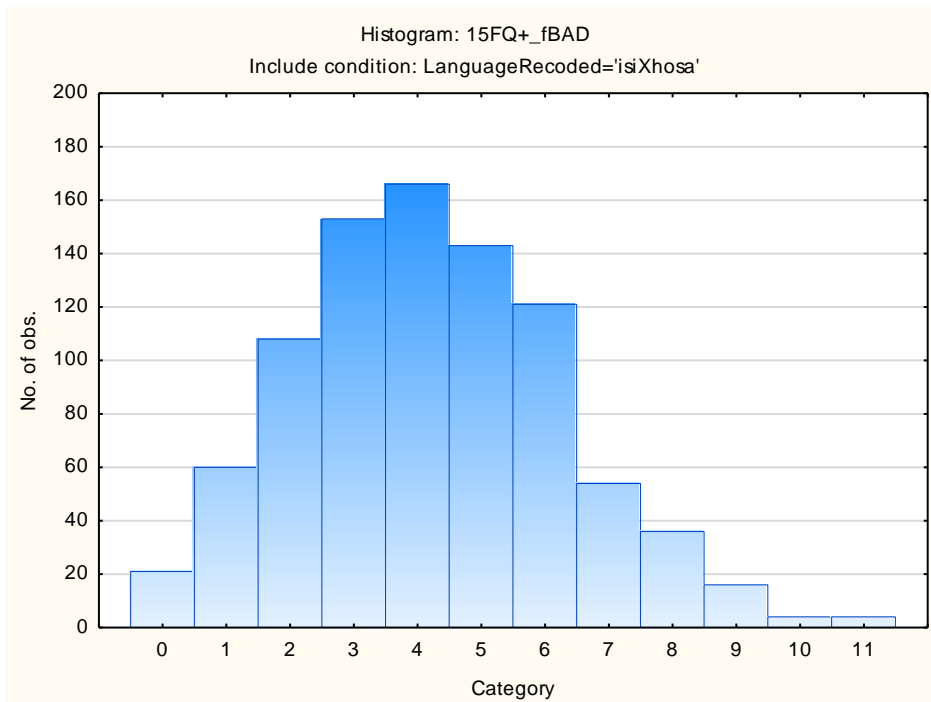
Derived Score: Work Attitude



Faking Good



Faking Bad



Sten Table

Scale Abbreviation	Scale Name	Raw Scores for Sten Categories									
		1	2	3	4	5	6	7	8	9	10
fA	Distant Aloof - Empathic	3-12	13-14	15-15	16-17	18-18	19-20	21-22	23-23	24-24	
B	Intellectance	2-11	12-13	14-15	16-17	18-19	20-21	22-23	24-24		
fC	Affected by Feelings - Emotionally Stable	4-9	10-11	12-13	14-15	16-17	18-19	20-21	22-24		
fE	Accommodating – Dominant	2-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	
fF	Sober serious - Enthusiastic	0-4	5-6	7-9	10-12	13-14	15-17	18-19	20-22	23-24	
fG	Expedient – Conscientious	1-12	13-13	14-15	16-17	18-19	20-21	22-23	24-24		
fH	Retiring – Socially-bold	0-6	7-9	10-11	12-14	15-16	17-19	20-21	22-24		
fI	Hard-headed – Tender-minded	0-5	6-7	8-10	11-12	13-14	15-17	18-19	20-21	22-24	
fL	Trusting - Suspicious	0-1	2-3	4-5	6-8	9-10	11-12	13-15	16-17	18-19	20-24
fM	Concrete - Abstract	0-3	4-5	6-6	7-8	9-10	11-11	12-13	14-15	16-16	17-22
fN	Direct - Restrained	2-13	14-15	16-16	17-18	19-20	21-21	22-23	24-24		
fO	Confident – Self-doubting	0-2	3-4	5-6	7-9	10-11	12-14	15-16	17-18	19-21	22-24
fQ1	Conventional - Radical	0-0	1-2	3-4	5-6	7-8	9-11	12-13	14-15	16-17	18-24
fQ2	Group-orientated - Self-sufficient	0-1	0-0	1-2	3-4	5-7	8-9	10-11	12-13	14-15	16-22
fQ3	Informal - Self-disciplined	5-15	16-16	17-17	18-19	20-20	21-21	22-23	24-24		
fQ4	Composed – Tense-driven	0-1	0-1	2-3	4-5	6-7	8-9	10-11	12-14	15-16	17-24
SD	Social Desirability	0-5	6-7	8-8	9-10	11-11	12-13	14-15	16-16		
CT	Central Tendency	0-1	0-0	1-1	2-5	6-12	13-18	19-25	26-32	33-39	40-92
INF	Infrequency	0-1	0-0	1-1	2-2	3-3	4-4	5-5	6-6	7-7	8-11
EQ	Derived Score: Emotional Intelligence	7-17	18-19	20-20	21-22	23-24	25-26	27-28	29-29	30-30	
WA	Derived Score: Work Attitude	10-19	20-21	22-23	24-25	26-27	28-29	30-31	32-32		
fGOOD	Faking Good	1-3	4-4	5-5	6-6	7-7	8-9	10-10	11-11	12-12	
fBAD	Faking Bad	0-0	1-1	2-2	3-3	4-4	5-5	6-6	7-7	8-8	9-11

Fifteen Factor Questionnaire (15FQ+)

Norm Group: SA isiZulu Speakers, Updated 2016

Norm Type:

Standard deviation norm

Composition of the Sample

The sample consisted of 1426 isiZulu speaking South Africans tested by Psytech SA and collaborators, via GeneSys for Windows, in the period up to June 2015.

Gender Composition of the Sample

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	576	576	40,39271	40,3927
M	848	1424	59,46704	99,8597
U	2	1426	0,14025	100,0000
Missing	0	1426	0,00000	100,0000

Educational Composition of the Sample

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	337	337	23,63254	23,6325
Tertiary	698	1035	48,94811	72,5806
Post Graduate	257	1292	18,02244	90,6031
< Matric	31	1323	2,17391	92,7770
Unknown	5	1328	0,35063	93,1276
Missing	98	1426	6,87237	100,0000

Language Composition of the Sample

Category	Frequency table: Language			
	Count	Cumulative Count	Percent	Cumulative Percent
isiZulu	1426	1426	100,0000	100,0000
Missing	0	1426	0,0000	100,0000

Language Group Composition of the Sample

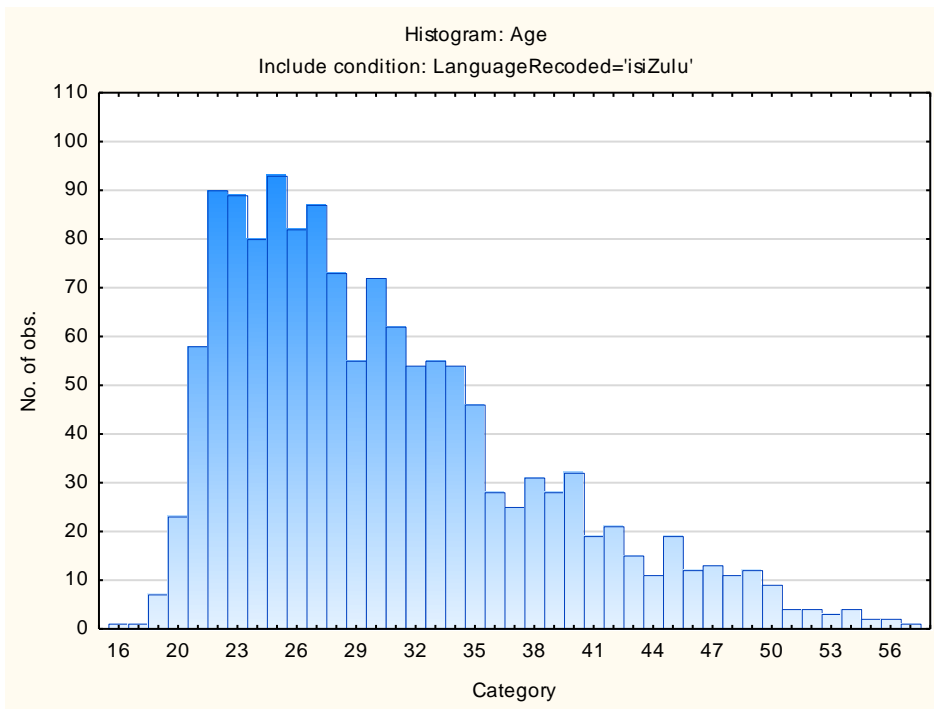
Category	Frequency table: Language Group			
	Count	Cumulative Count	Percent	Cumulative Percent
Indigenous	1426	1426	100,0000	100,0000
Missing	0	1426	0,0000	100,0000

Racial Composition of the Sample

Category	Frequency table: Race			
	Count	Cumulative Count	Percent	Cumulative Percent
African	1408	1408	98,73773	98,7377
European	5	1413	0,35063	99,0884
Coloured	3	1416	0,21038	99,2987
Asian	5	1421	0,35063	99,6494
Indian	1	1422	0,07013	99,7195
Unknown	2	1424	0,14025	99,8597
Missing	2	1426	0,14025	100,0000

Age Composition and Distribution of the Sample

Variable	Descriptive Statistics: Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	30,42651	7,677883	16,00000	58,00000	1388	38

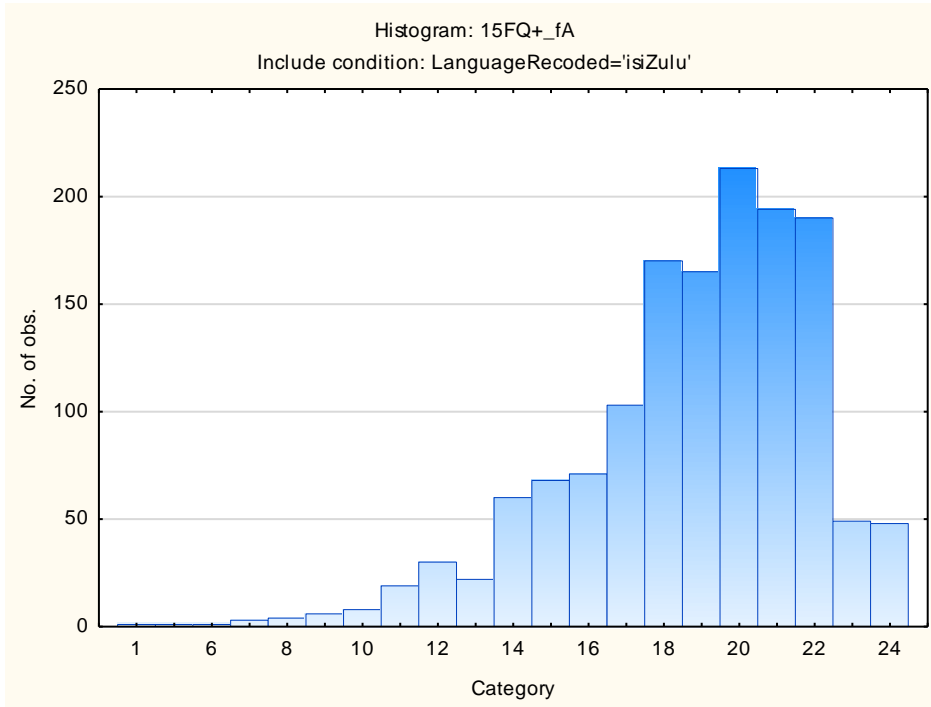


Descriptive Statistics on 15FQ+ Scales

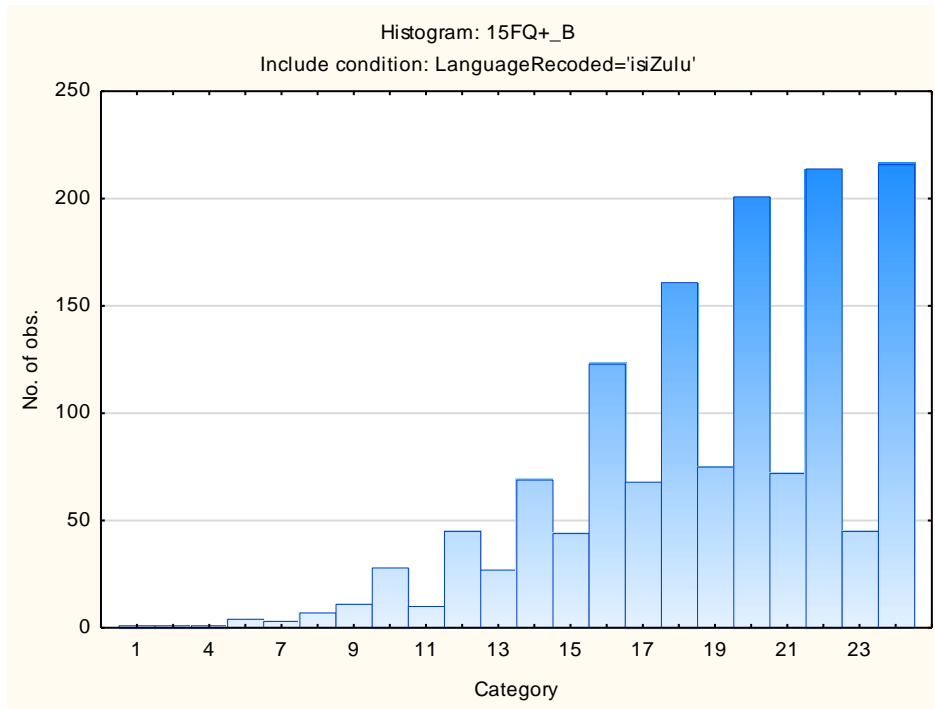
Scale	Scale description	Sample size	Mean	Std.Dev.
fA	Distant Aloof - Empathic	1426	18,78541	3,22124
B	Intellectance	1426	18,94811	3,97167
fC	Affected by feelings - Emotionally Stable	1426	17,39691	4,44943
fE	Accommodating - Dominant	1426	16,46704	3,91533
fF	Sober serious - Enthusiastic	1426	14,13464	5,21470
fG	Expedient - Conscientious	1426	19,89551	4,01571
fH	Retiring – Socially-bold	1426	16,51683	5,25318
fI	Hard-headed – Tender-minded	1426	14,82468	4,79504
fL	Trusting - Suspicious	1426	10,67181	4,69119
fM	Concrete - Abstract	1426	10,47125	3,36268
fN	Direct - Restrained	1426	20,29313	3,17440
fO	Confident – Self-doubting	1426	11,95933	4,83827
fQ1	Conventional - Radical	1426	9,41164	4,33552
fQ2	Group-orientated - Self-sufficient	1426	7,10659	4,42130
fQ3	Informal – Self-disciplined	1426	20,12623	3,00331
fQ4	Composed – Tense-driven	1426	7,91164	4,52958
SD	Social Desirability	1426	11,56942	3,41181
CT	Central Tendency	1426	11,53015	13,00006
INF	Infrequency	1426	1,57714	1,75119
EIQ	Derived Score: Emotional Intelligence	1426	23,95652	4,02303
WA	Derived Score: Work Attitude	1426	26,89832	4,14206
fGOOD	Faking Good	1426	7,84642	2,42435
fBAD	Faking Bad	1426	4,38780	2,23317

Frequency Distributions for 15FQ+ Scales

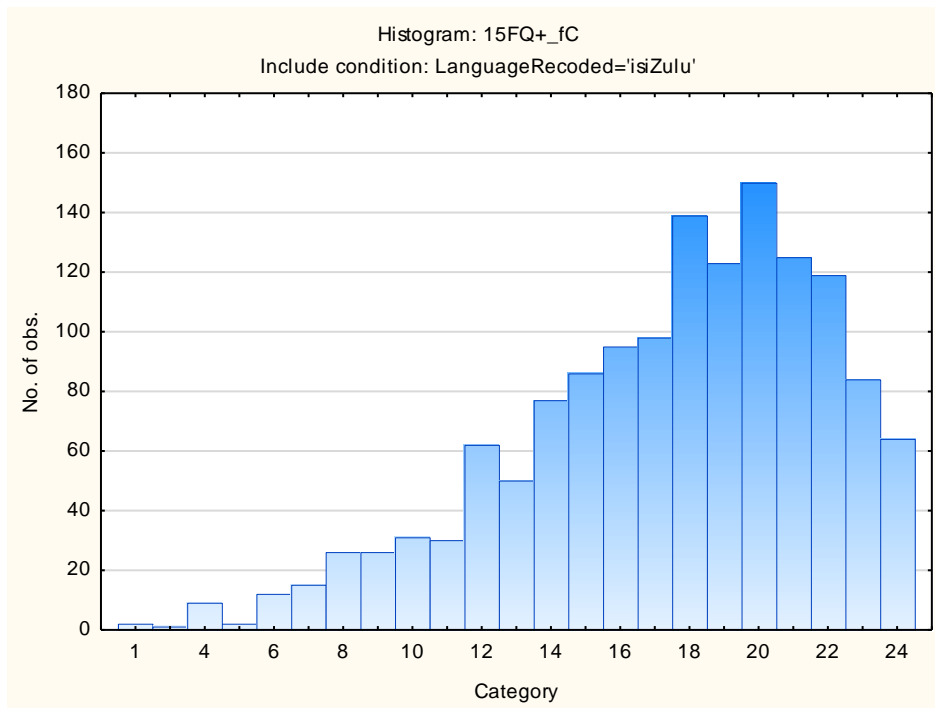
Distant Aloof – Empathic



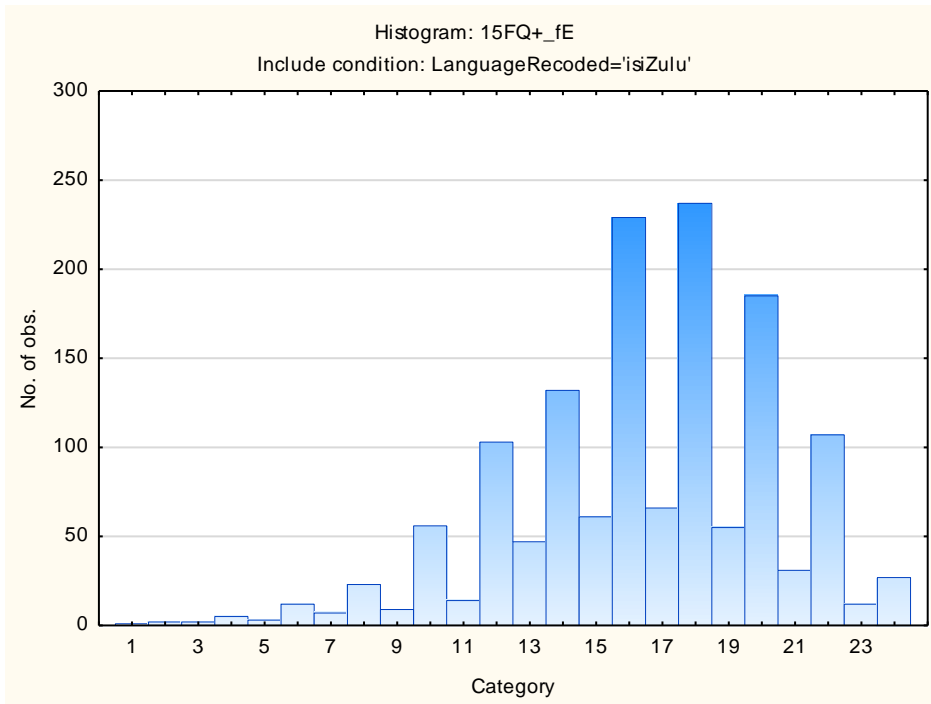
Intellectance



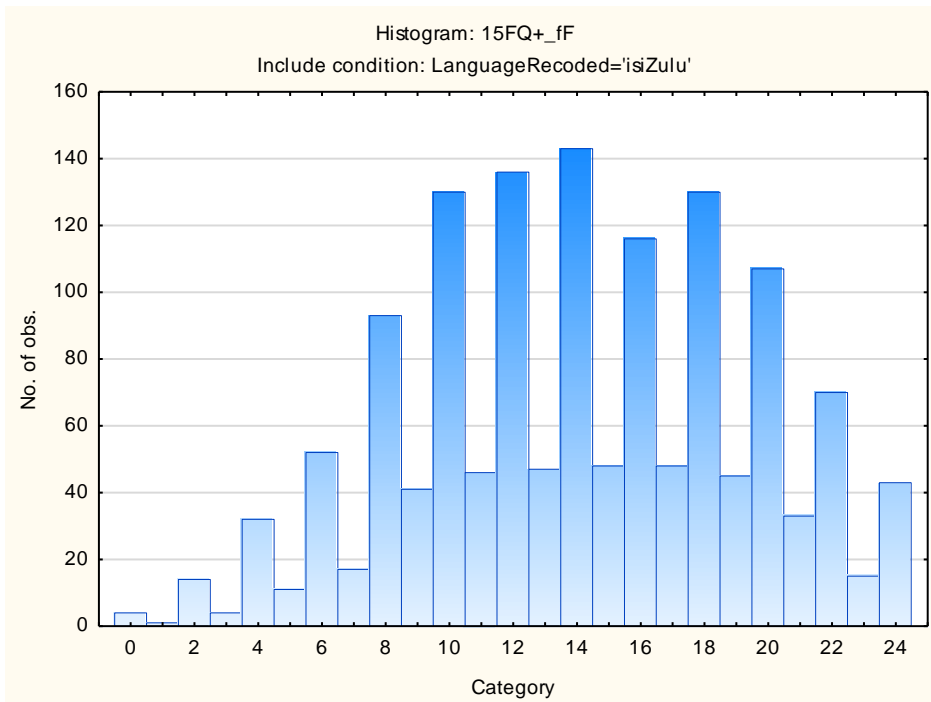
Affected by Feelings - Emotionally Stable



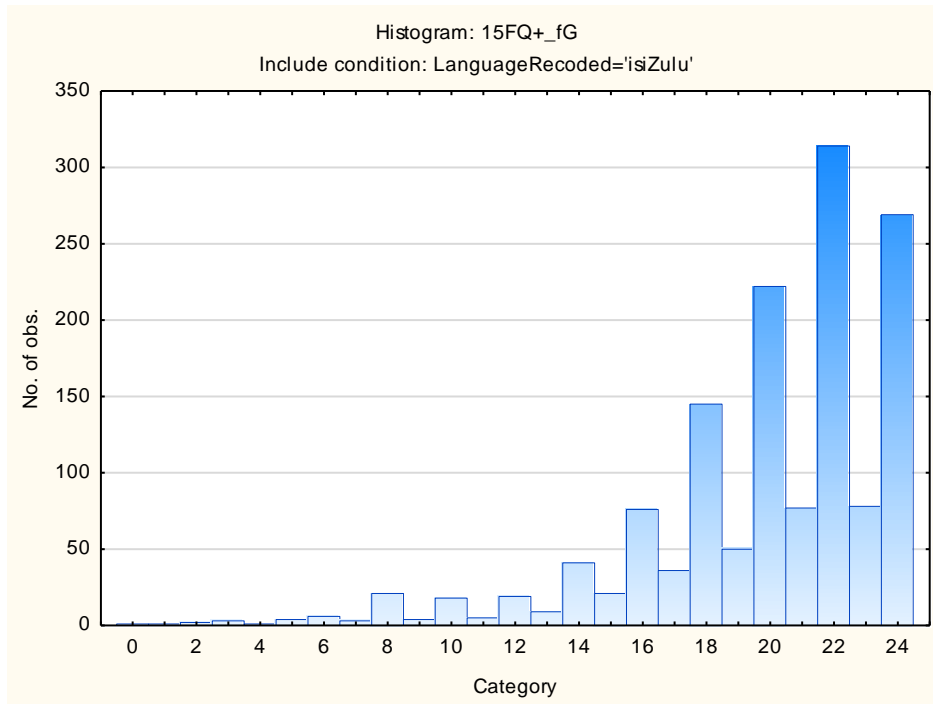
Accommodating – Dominant



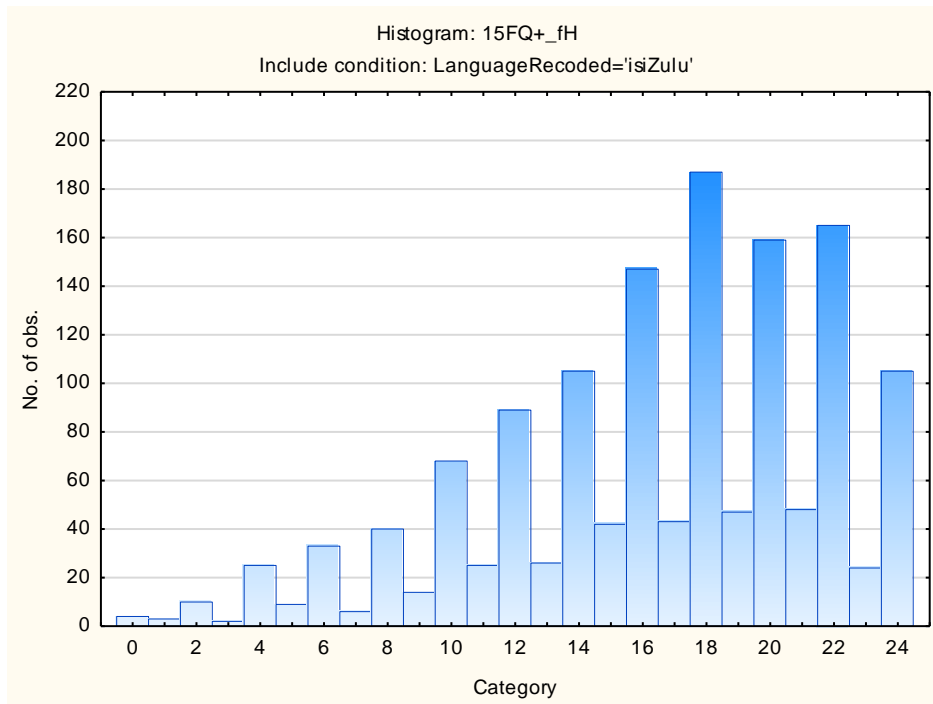
Sober Serious – Enthusiastic



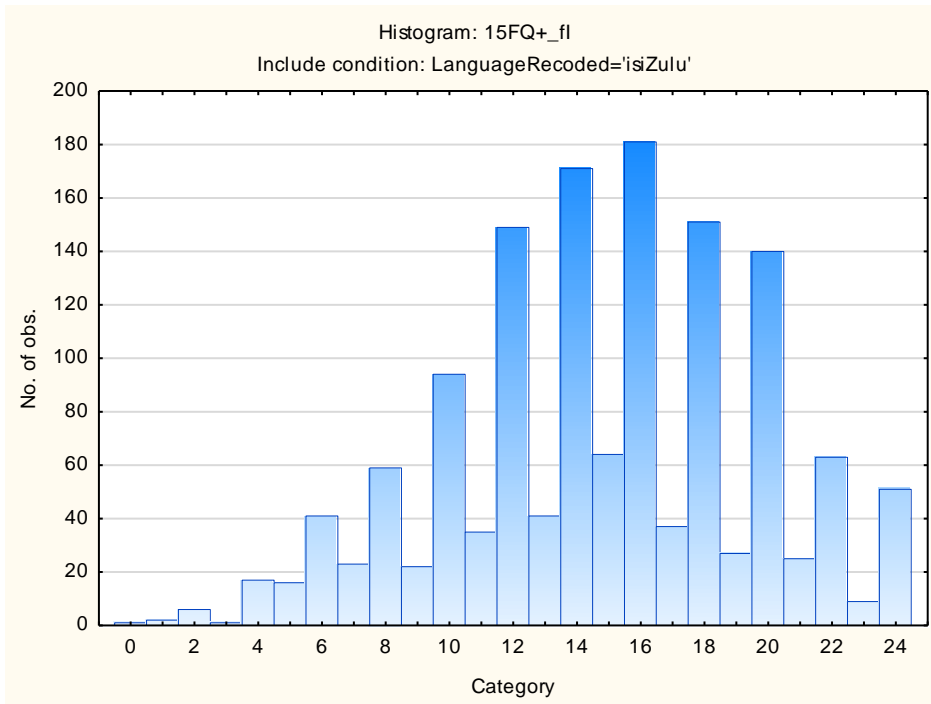
Expedient – Conscientious



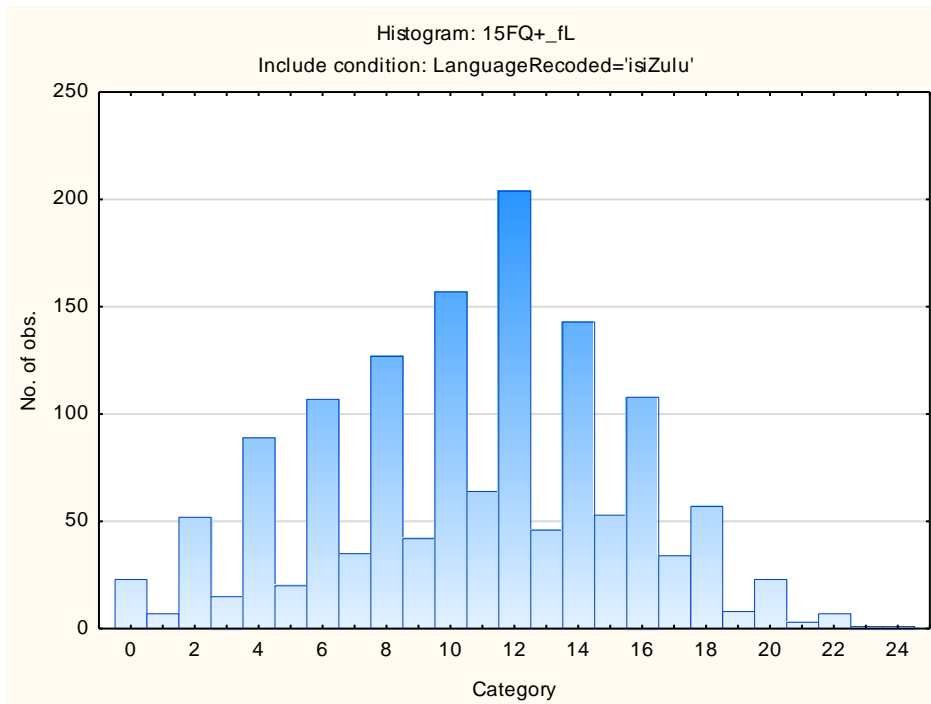
Retiring – Socially-bold



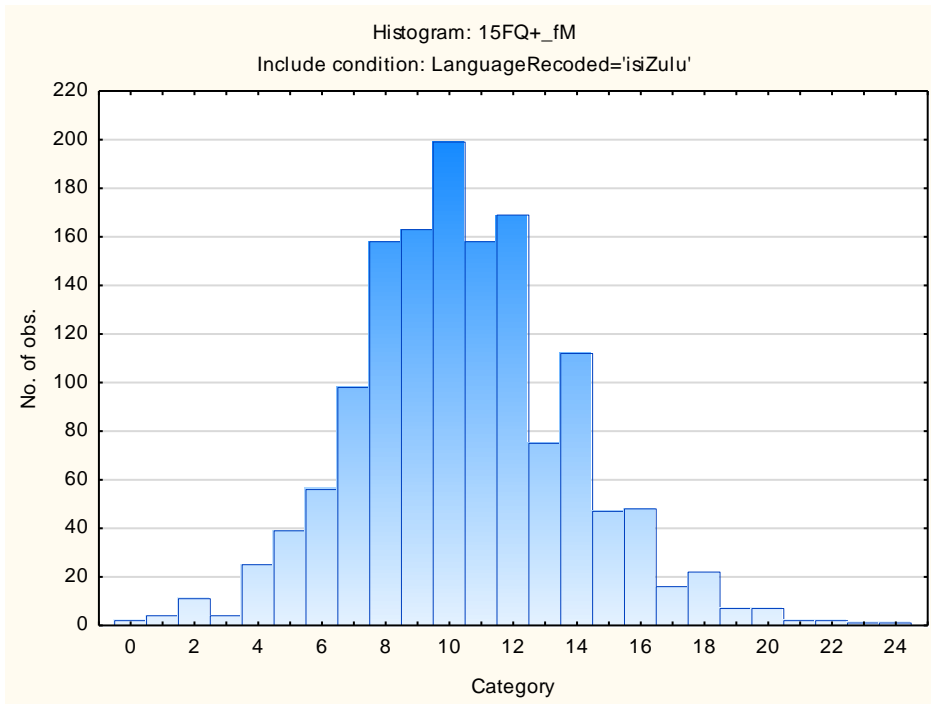
Hard-headed – Tender-minded



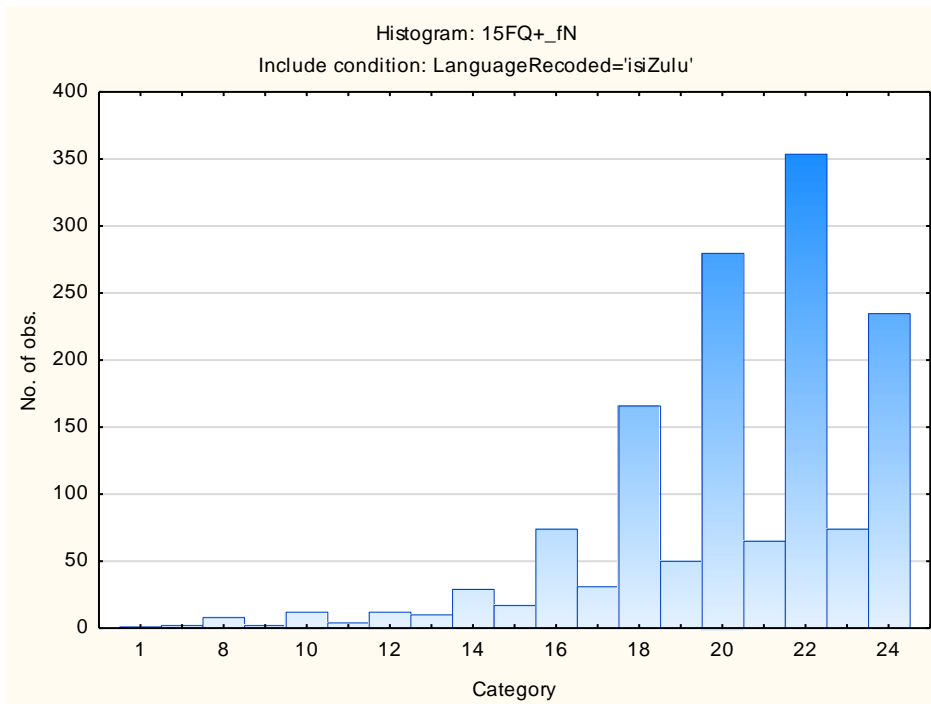
Trusting – Suspicious



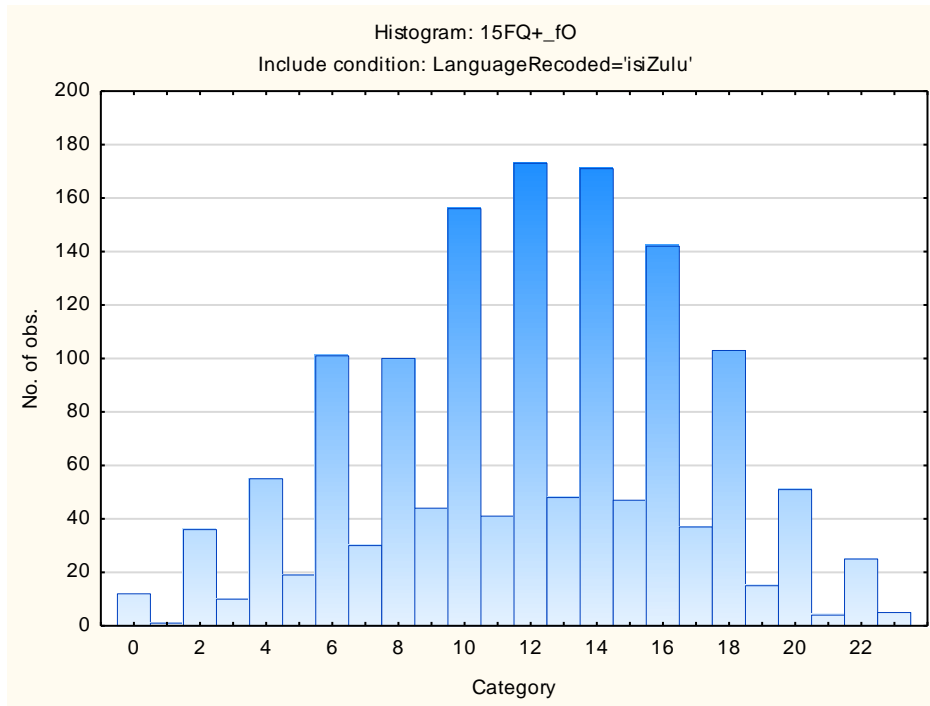
Concrete – Abstract



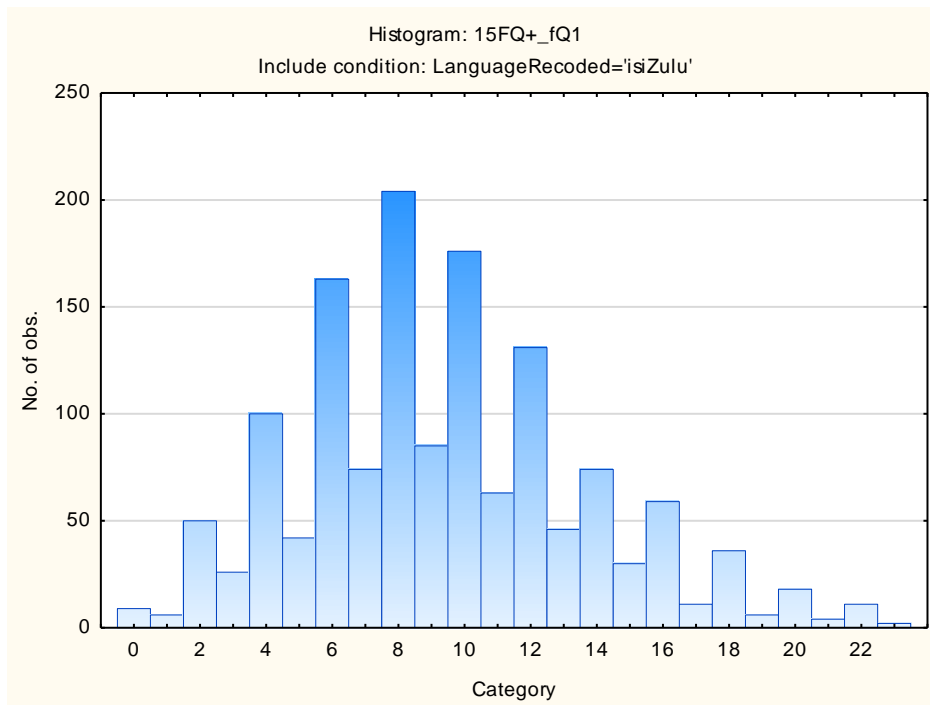
Direct – Restrained



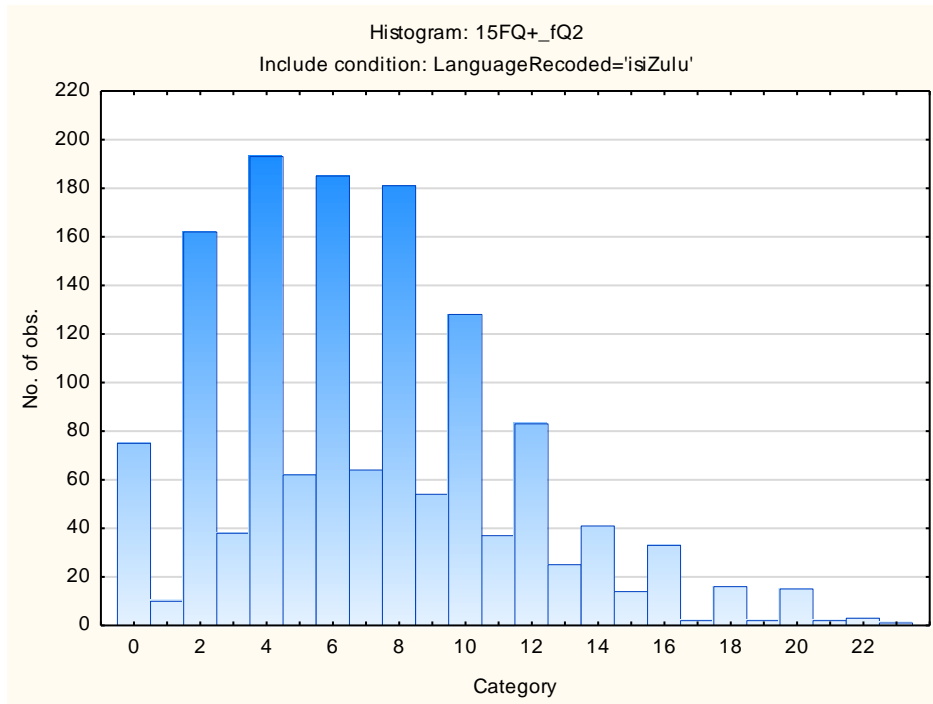
Confident - Self-doubting



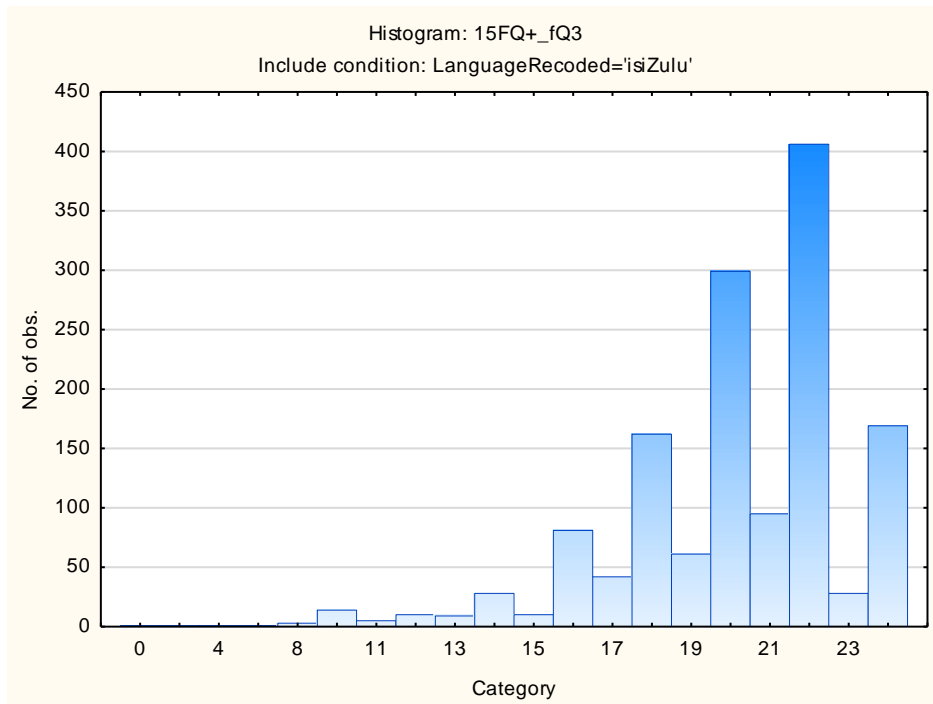
Conventional – Radical



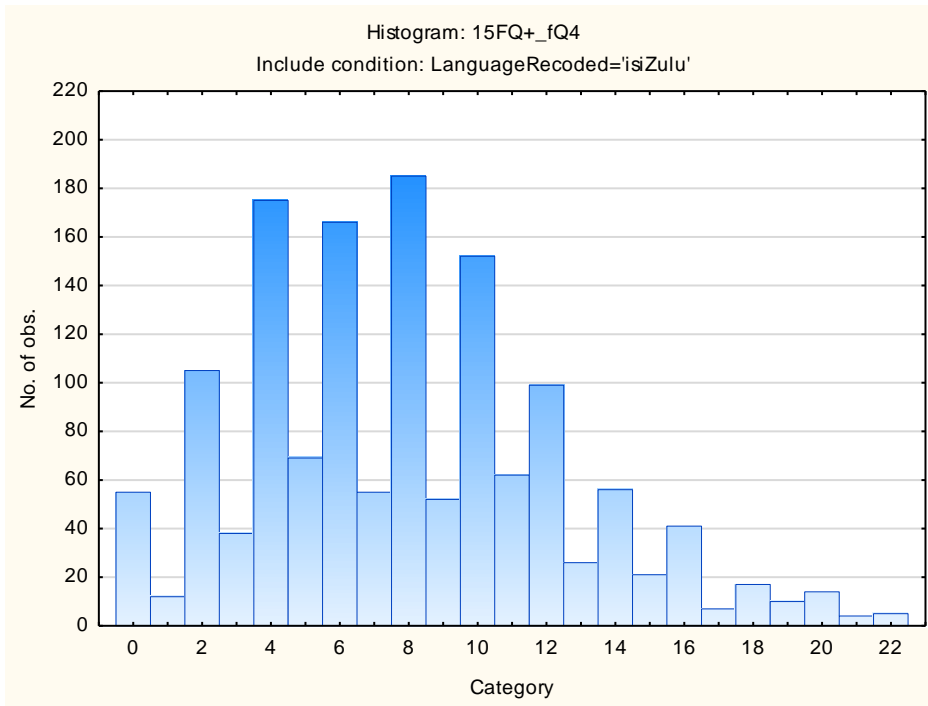
Group-orientated - Self-sufficient



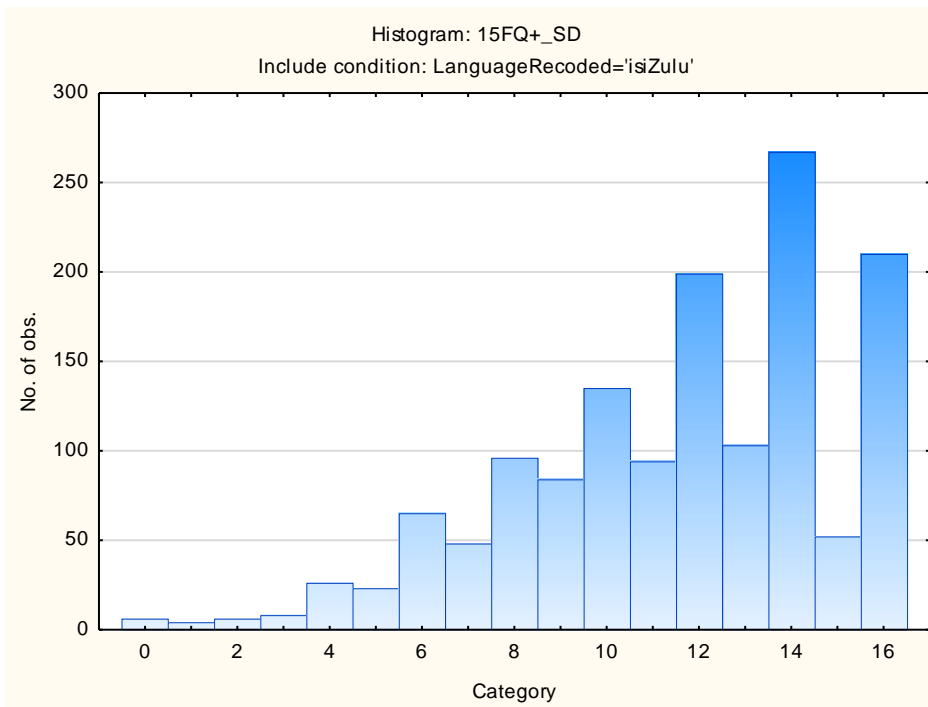
Informal- Self-disciplined



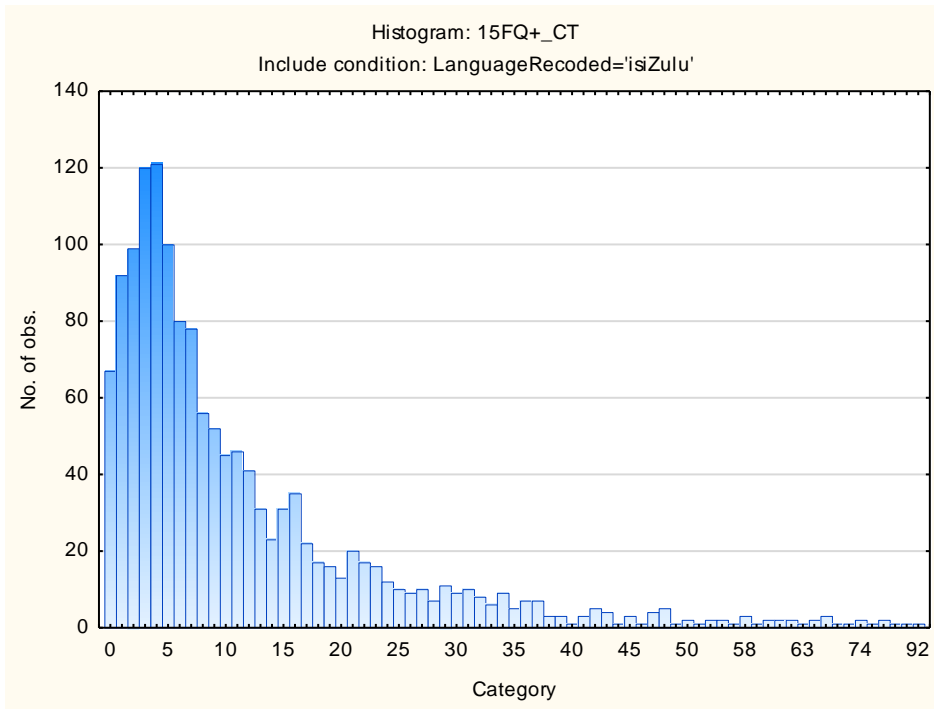
Composed – Tense-driven



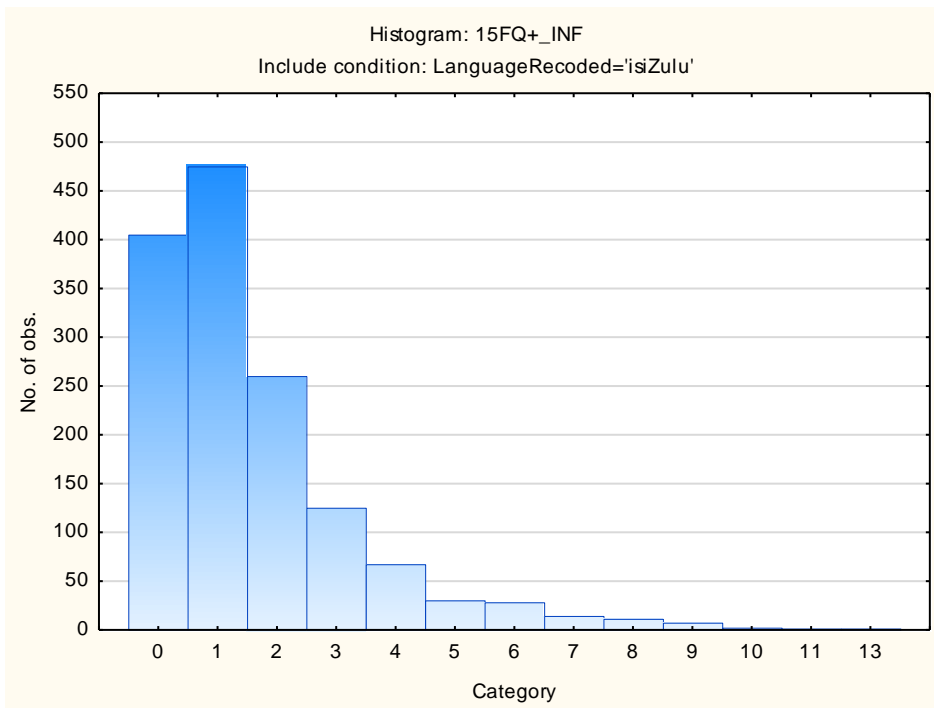
Social Desirability



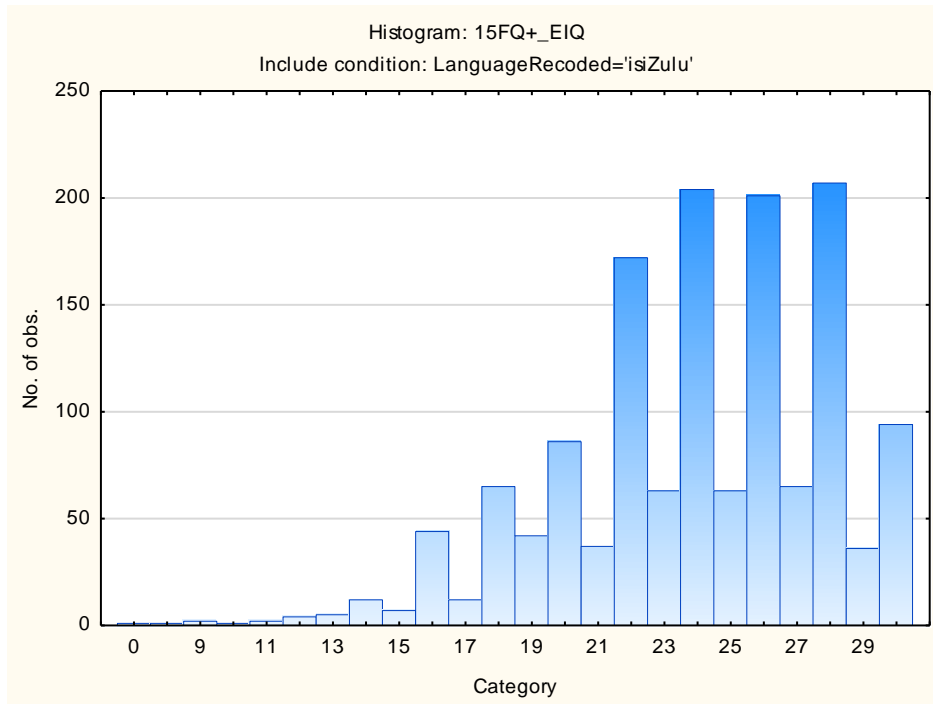
Central Tendency



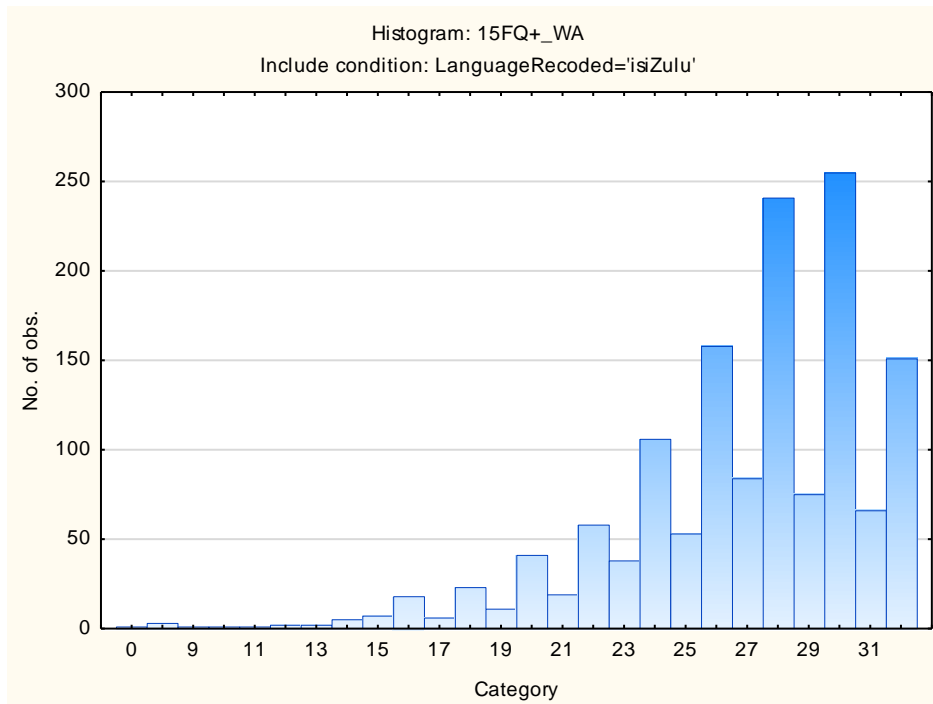
Infrequency



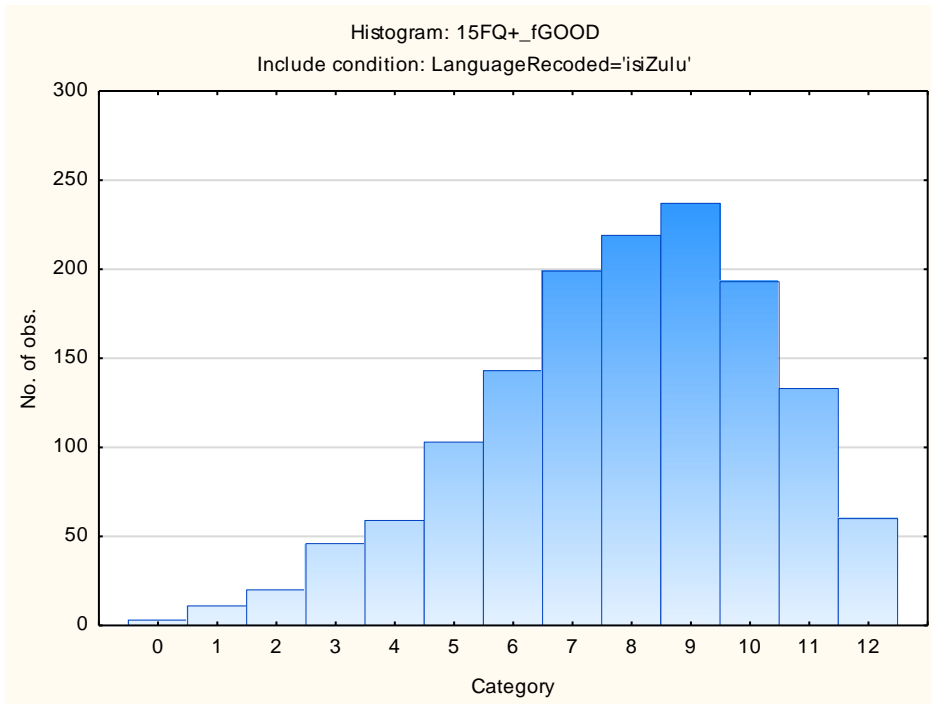
Derived Score: Emotional Intelligence



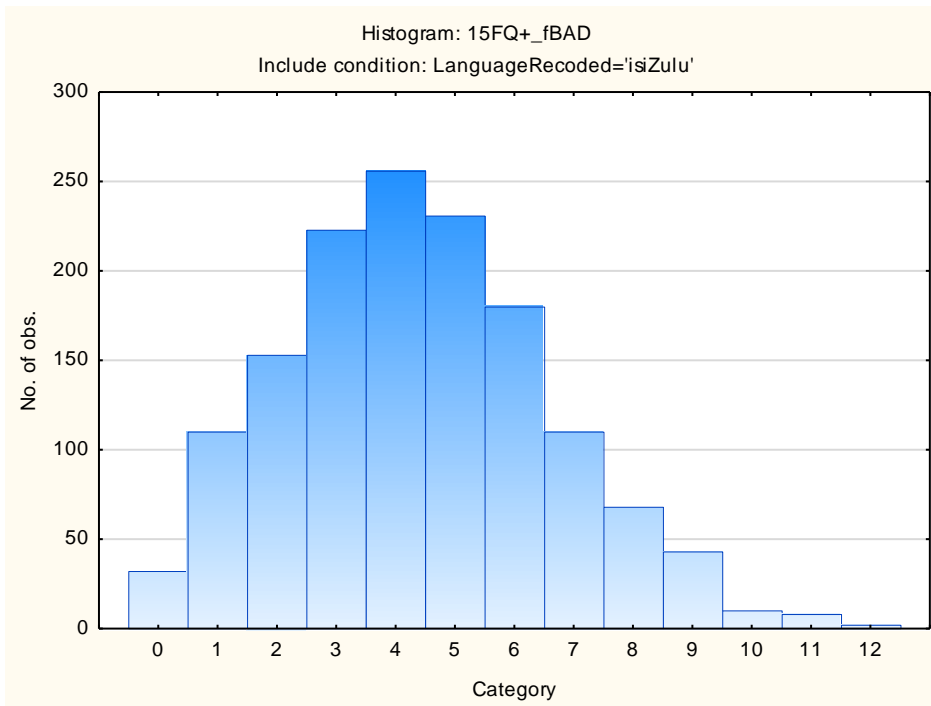
Derived Score: Work Attitude



Faking Good



Faking Bad



Sten Table

Scale Abbreviation	Scale Name	Raw Scores for Sten Categories									
		1	2	3	4	5	6	7	8	9	10
fA	Distant Aloof - Empathic	1-12	13-13	14-15	16-17	18-18	19-20	21-22	23-23	24-24	
B	Intellectance	1-11	12-12	13-14	15-16	17-18	19-20	21-22	23-24		
fC	Affected by Feelings - Emotionally Stable	1-8	9-10	11-12	13-15	16-17	18-19	20-21	22-24		
fE	Accommodating – Dominant	1-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	
fF	Sober serious - Enthusiastic	0-3	4-6	7-8	9-11	12-14	15-16	17-19	20-21	22-24	
fG	Expedient – Conscientious	0-11	12-13	14-15	16-17	18-19	20-21	22-23	24-24		
fH	Retiring – Socially-bold	0-6	7-8	9-11	12-13	14-16	17-19	20-21	22-24		
fI	Hard-headed – Tender-minded	0-5	6-7	8-10	11-12	13-14	15-17	18-19	20-22	23-24	
fL	Trusting - Suspicious	0-1	2-3	4-5	6-8	9-10	11-13	14-15	16-17	18-20	21-24
fM	Concrete - Abstract	0-3	4-5	6-7	8-8	9-10	11-12	13-13	14-15	16-17	18-24
fN	Direct - Restrained	1-13	14-15	16-17	18-18	19-20	21-21	22-23	24-24		
fO	Confident – Self-doubting	0-2	3-4	5-7	8-9	10-11	12-14	15-16	17-19	20-21	22-24
fQ1	Conventional - Radical	0-0	1-2	3-5	6-7	8-9	10-11	12-13	14-15	16-18	19-23
fQ2	Group-orientated - Self-sufficient	0--1	0-0	1-2	3-4	5-7	8-9	10-11	12-13	14-15	16-24
fQ3	Informal - Self-disciplined	0-14	15-15	16-17	18-18	19-20	21-21	22-23	24-24		
fQ4	Composed – Tense-driven	0--1	0-1	2-3	4-5	6-7	8-10	11-12	13-14	15-16	17-22
SD	Social Desirability	0-4	5-6	7-8	9-9	10-11	12-13	14-14	15-16		
CT	Central Tendency	0--1	0-0	1-1	2-5	6-11	12-18	19-24	25-31	32-37	38-92
INF	Infrequency	0--1	0-0	1-1	2-2	3-3	4-4	5-5	6-6	7-7	8-13
EQ	Derived Score: Emotional Intelligence	0-15	16-17	18-19	20-21	22-23	24-25	26-27	28-29	30-30	
WA	Derived Score: Work Attitude	0-18	19-20	21-22	23-24	25-26	27-28	29-31	32-32		
fGOOD	Faking Good	0-2	3-4	5-5	6-6	7-7	8-9	10-10	11-11	12-12	
fBAD	Faking Bad	0--1	0-1	2-2	3-3	4-4	5-5	6-6	7-7	8-8	9-12

Fifteen Factor Questionnaire (15FQ+)

Norm Group: SA Sepedi Speakers, Updated 2016

Norm Type:

Standard deviation norm

Composition of the Sample

The sample consisted of 590 Sepedi speaking South Africans tested by Psytech SA and collaborators, via GeneSys for Windows, in the period up to June 2015.

Gender composition of the sample

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	258	258	43,72881	43,7288
M	330	588	55,93220	99,6610
U	2	590	0,33898	100,0000
Missing	0	590	0,00000	100,0000

Educational Composition of the Sample

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	224	224	37,96610	37,9661
Tertiary	229	453	38,81356	76,7797
Post Graduate	54	507	9,15254	85,9322
< Matric	33	540	5,59322	91,5254
Unknown	15	555	2,54237	94,0678
Other	2	557	0,33898	94,4068
Missing	33	590	5,59322	100,0000

Language composition of the sample

Category	Frequency table: Language			
	Count	Cumulative Count	Percent	Cumulative Percent
Sepedi	590	590	100,0000	100,0000
Missing	0	590	0,0000	100,0000

Language Group Composition of the Sample

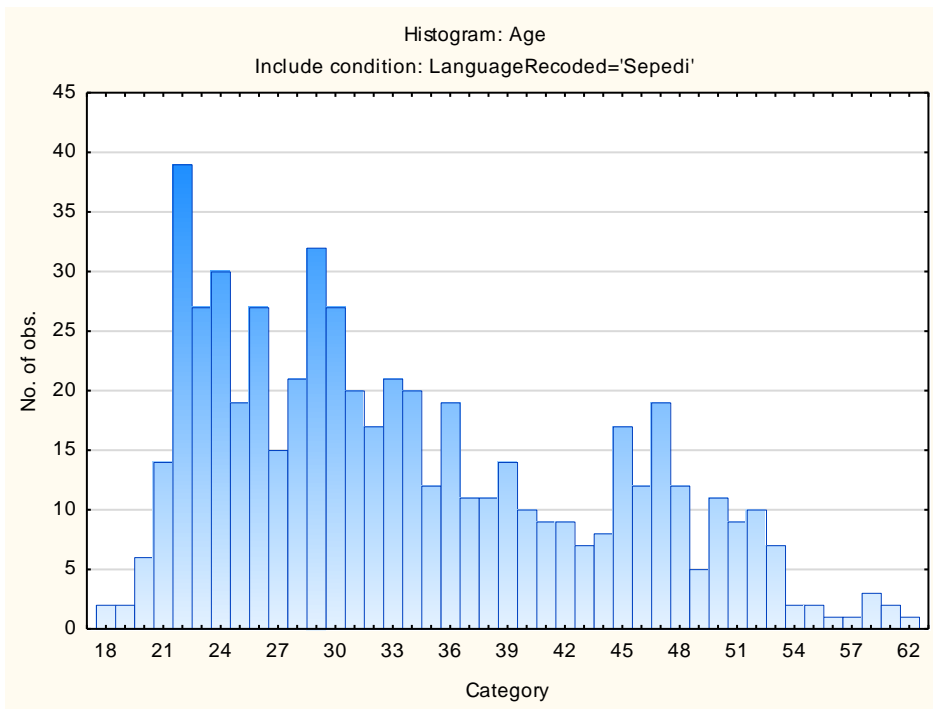
Category	Frequency table: Language Group			
	Count	Cumulative Count	Percent	Cumulative Percent
Indigenous	590	590	100,0000	100,0000
Missing	0	590	0,0000	100,0000

Racial composition of the sample

Category	Frequency table: Race			
	Count	Cumulative Count	Percent	Cumulative Percent
African	570	570	96,61017	96,6102
European	6	576	1,01695	97,6271
Coloured	5	581	0,84746	98,4746
Asian	4	585	0,67797	99,1525
Unknown	5	590	0,84746	100,0000
Missing	0	590	0,00000	100,0000

Age Composition and Distribution of the Sample

Variable	Descriptive Statistics: Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	33,78863	9,819714	18,00000	62,00000	563	27

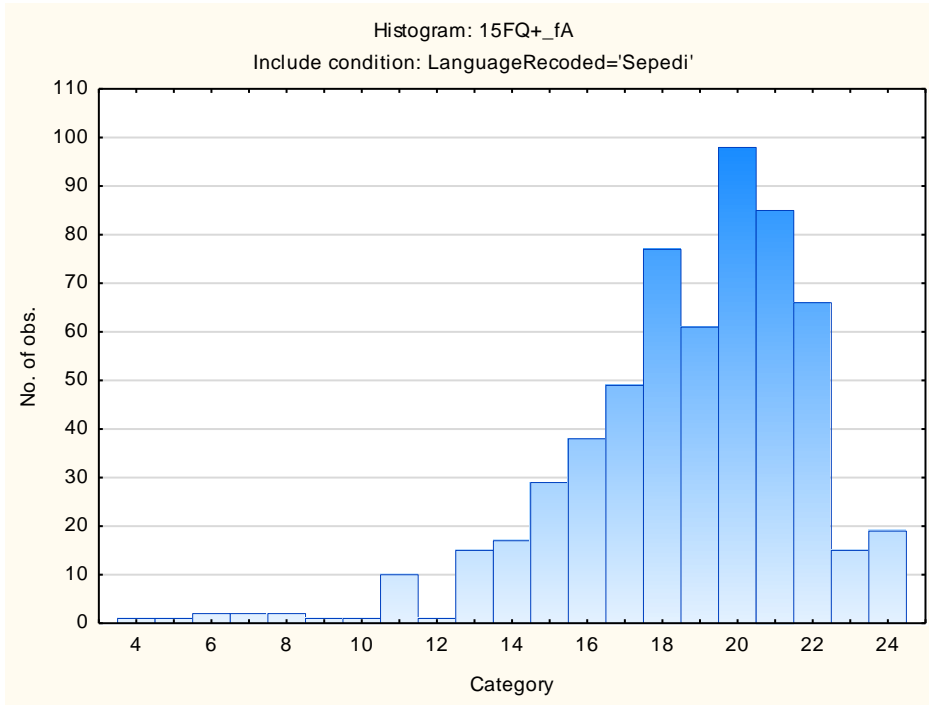


Descriptive statistics on 15FQ+ scales

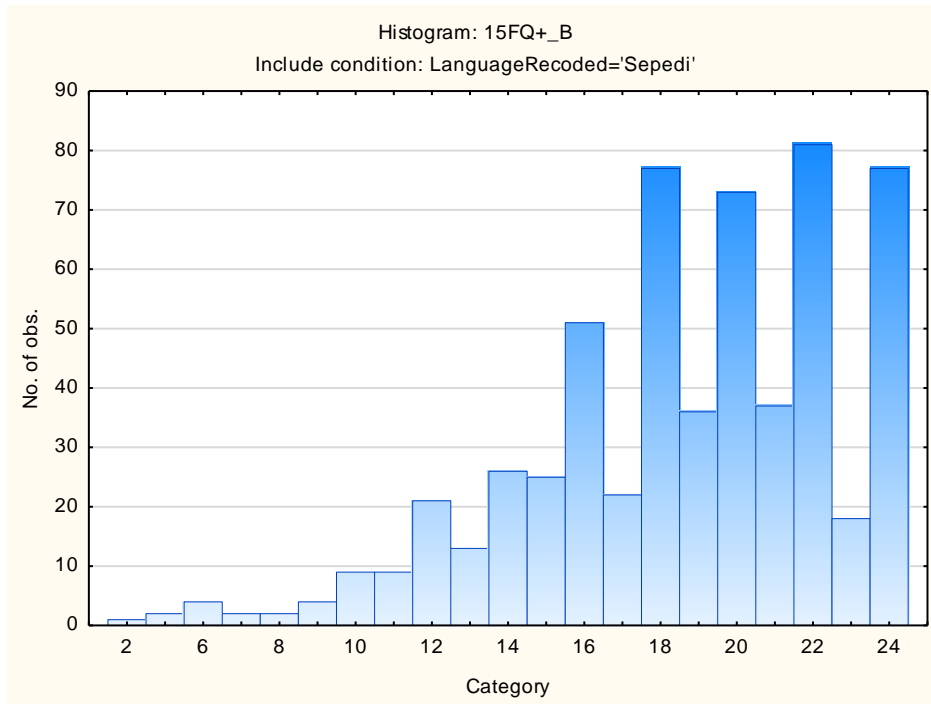
Scale	Scale description	Sample size	Mean	Std.Dev.
fA	Distant Aloof - Empathic	590	18,71864	3,16584
B	Intellectance	590	18,62712	4,10018
fC	Affected by feelings - Emotionally Stable	590	16,35593	4,80472
fE	Accommodating - Dominant	590	16,14915	3,77393
fF	Sober serious - Enthusiastic	590	13,47119	5,35037
fG	Expedient - Conscientious	590	20,33559	3,30137
fH	Retiring – Socially-bold	590	15,97458	5,30538
fI	Hard-headed – Tender-minded	590	15,02712	4,31635
fL	Trusting - Suspicious	590	11,48475	4,52410
fM	Concrete - Abstract	590	10,37119	3,05238
fN	Direct - Restrained	590	20,35763	3,11836
fO	Confident – Self-doubting	590	12,25254	4,82343
fQ1	Conventional - Radical	590	9,01864	3,73821
fQ2	Group-orientated - Self-sufficient	590	7,32712	4,48311
fQ3	Informal – Self-disciplined	590	21,03220	2,49427
fQ4	Composed – Tense-driven	590	8,44915	4,51633
SD	Social Desirability	590	11,48814	3,37307
CT	Central Tendency	590	12,43729	13,48061
INF	Infrequency	590	1,74576	1,81292
EIQ	Derived Score: Emotional Intelligence	590	23,43559	4,11529
WA	Derived Score: Work Attitude	590	27,22034	3,66078
fGOOD	Faking Good	590	7,51695	2,50681
fBAD	Faking Bad	590	4,57288	2,31125

Frequency Distributions for 15FQ+ Scales

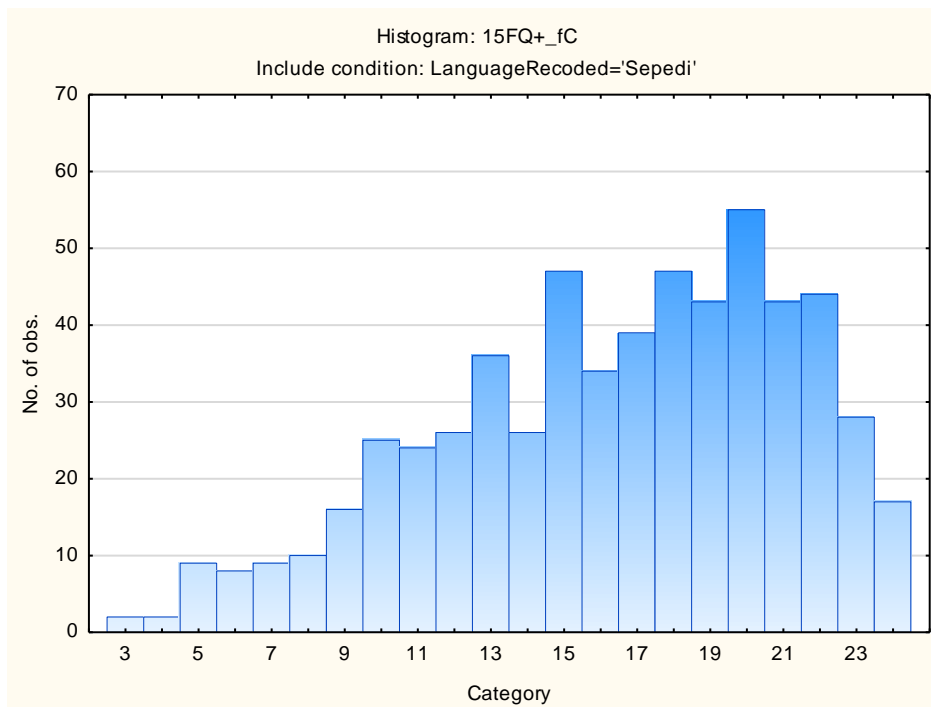
Distant Aloof – Empathic



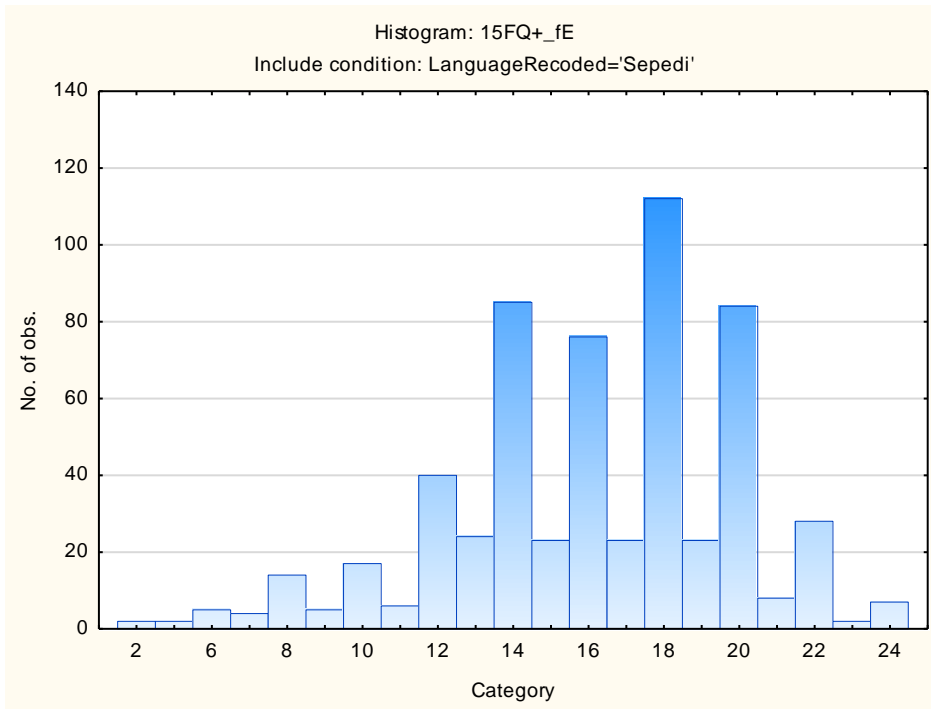
Intellectance



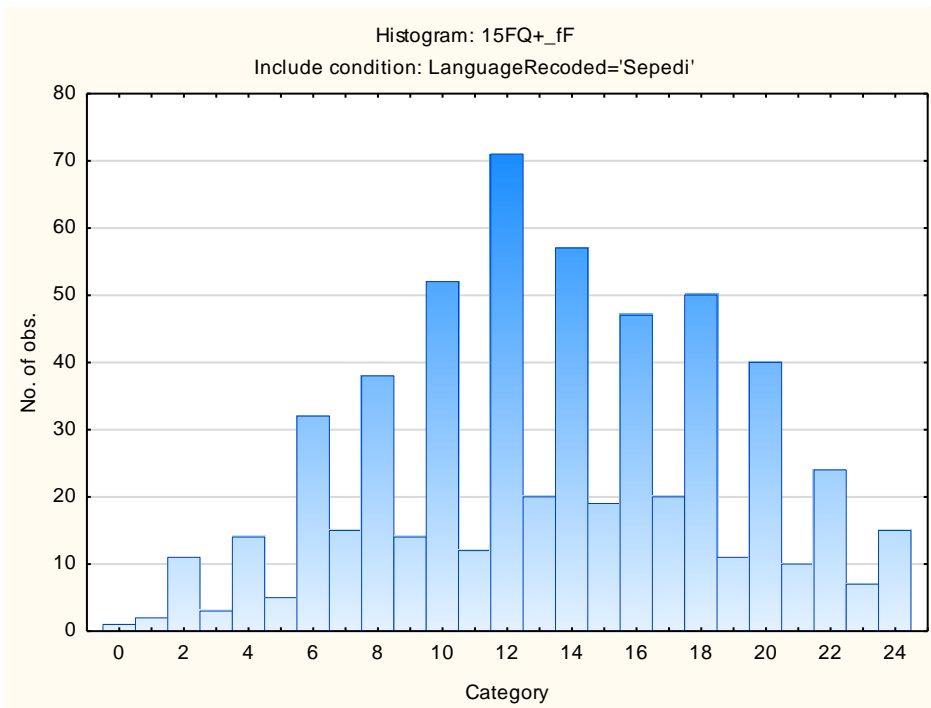
Affected by Feelings - Emotionally Stable



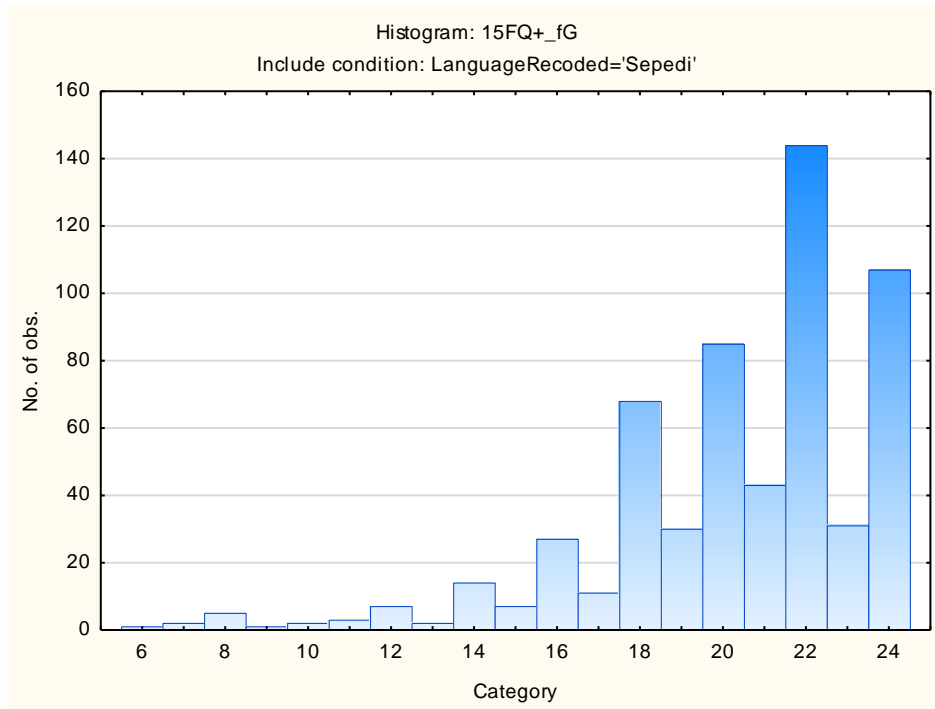
Accommodating – Dominant



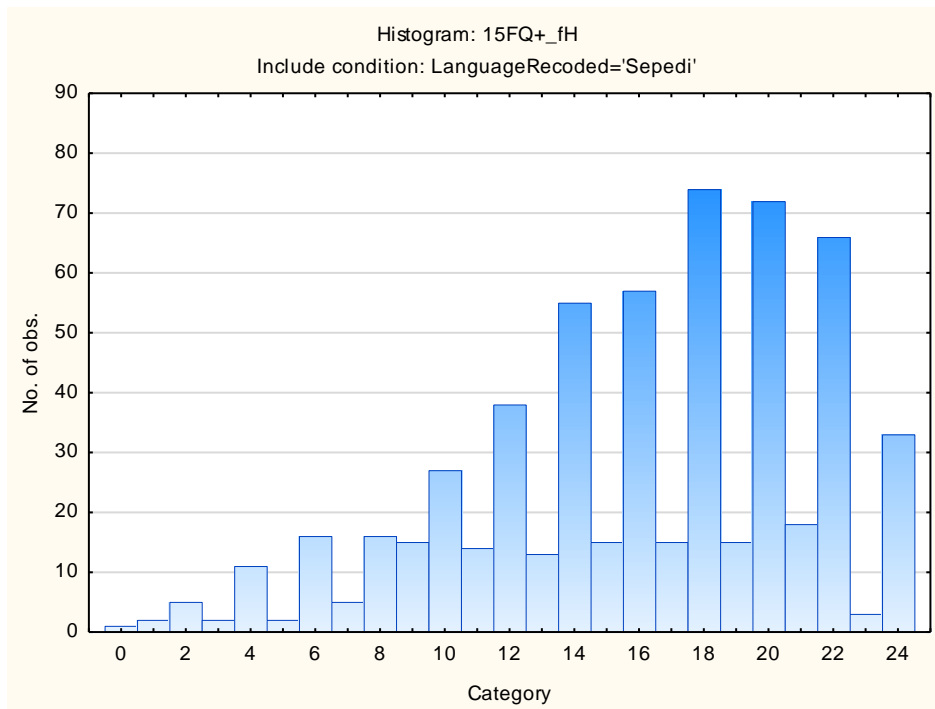
Sober Serious – Enthusiastic



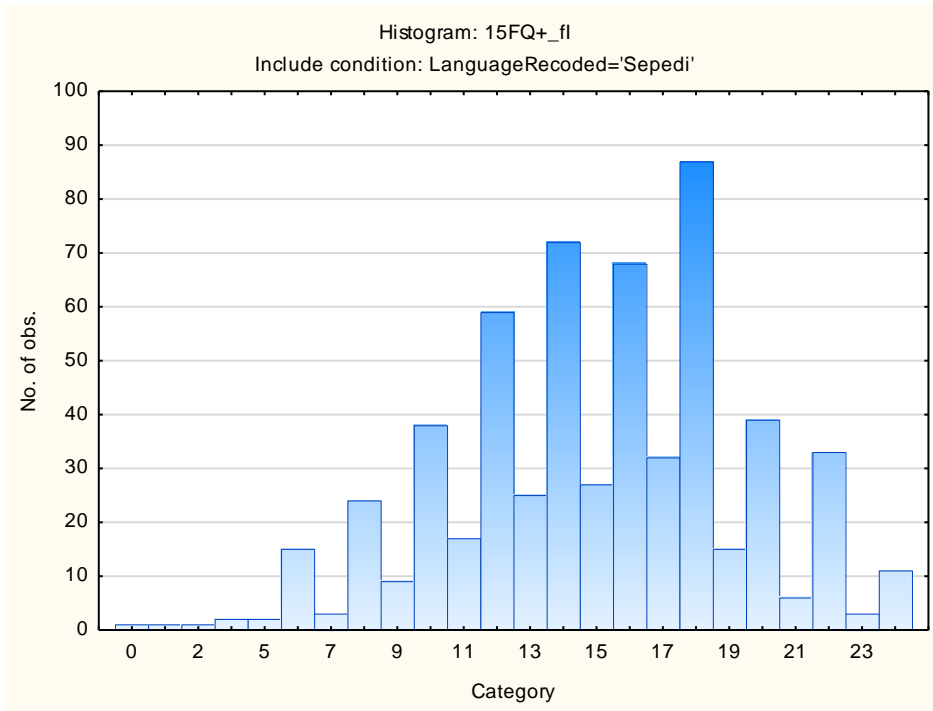
Expedient – Conscientious



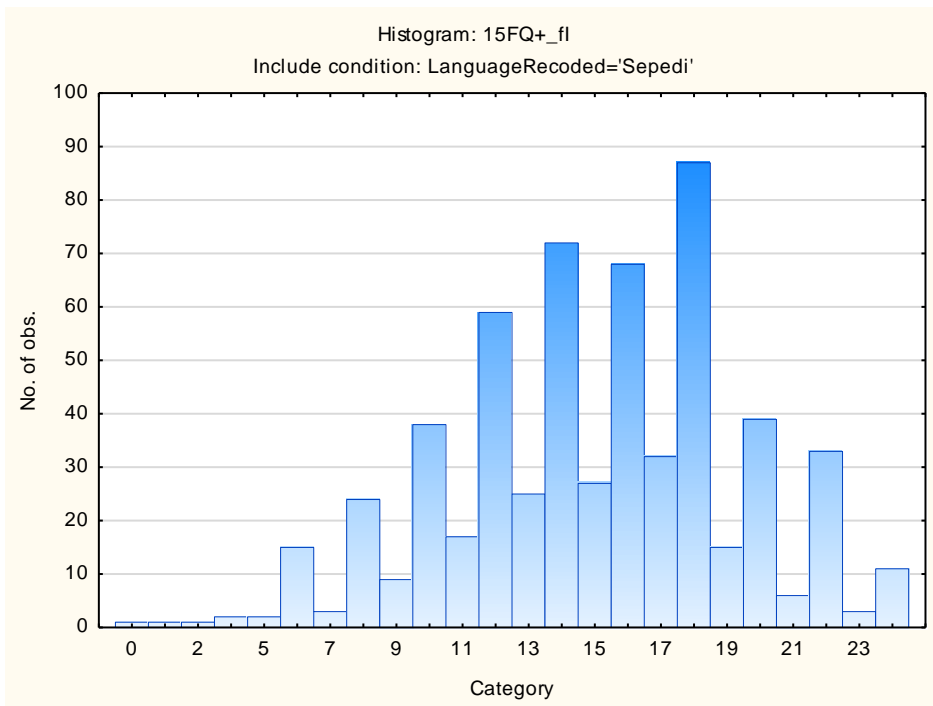
Retiring – Socially-bold



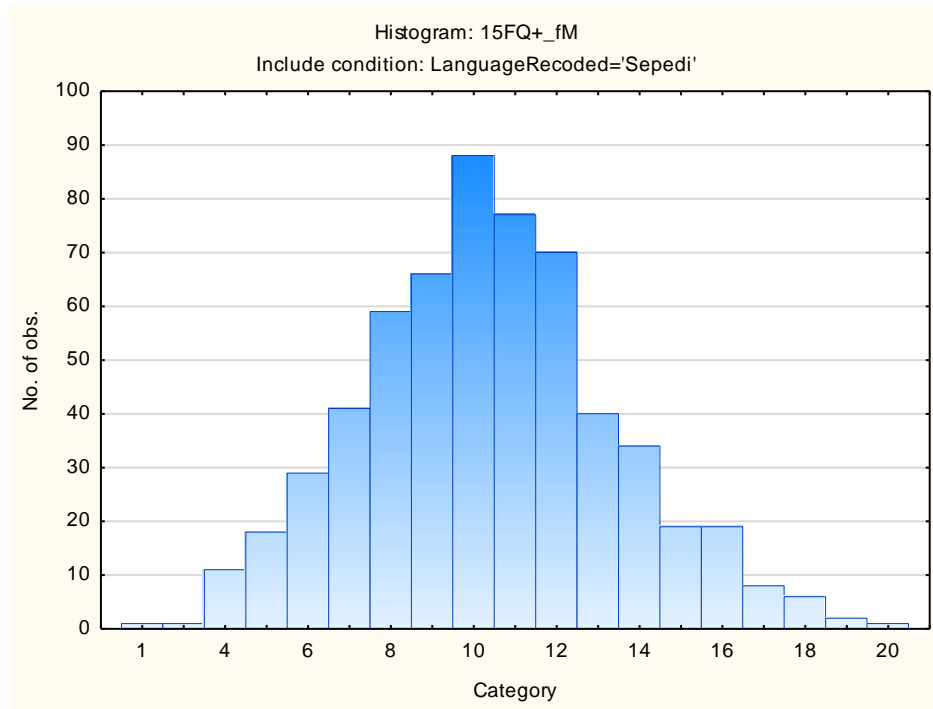
Hard-headed – Tender-minded



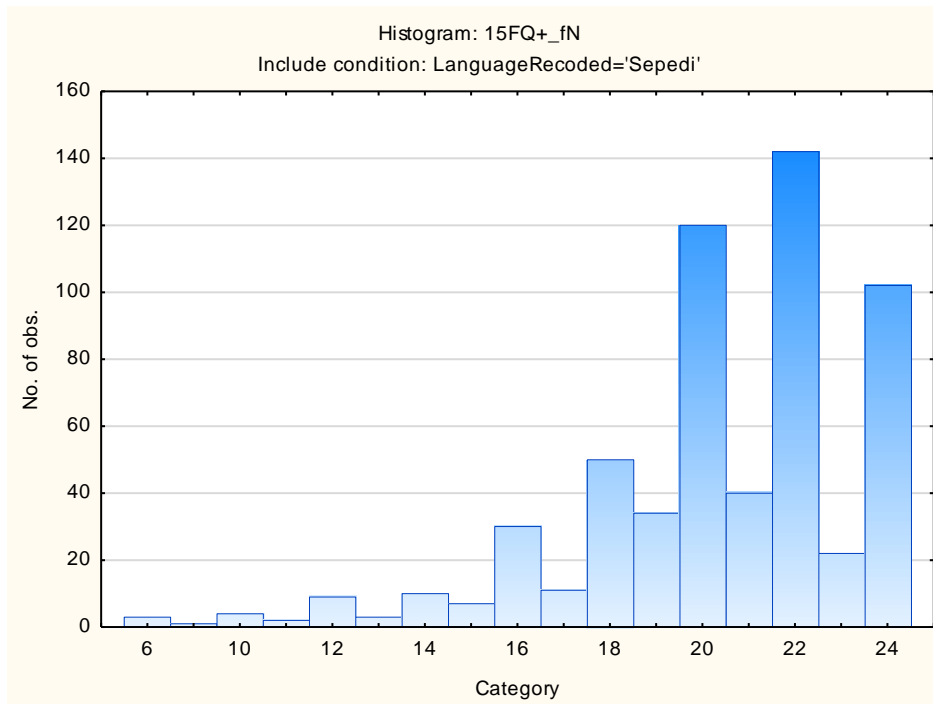
Trusting – Suspicious



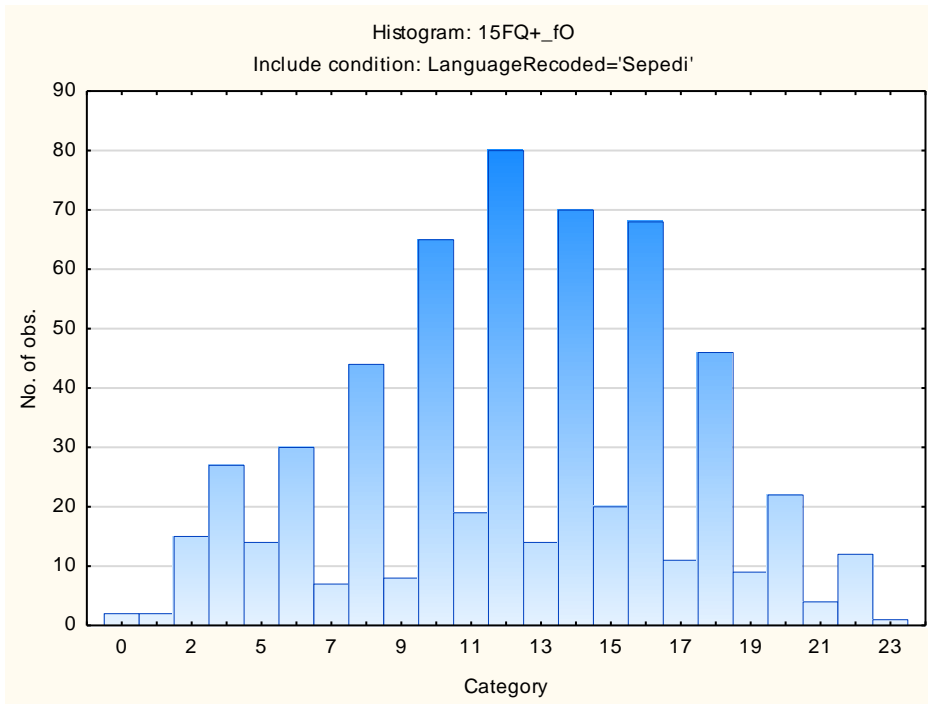
Concrete – Abstract



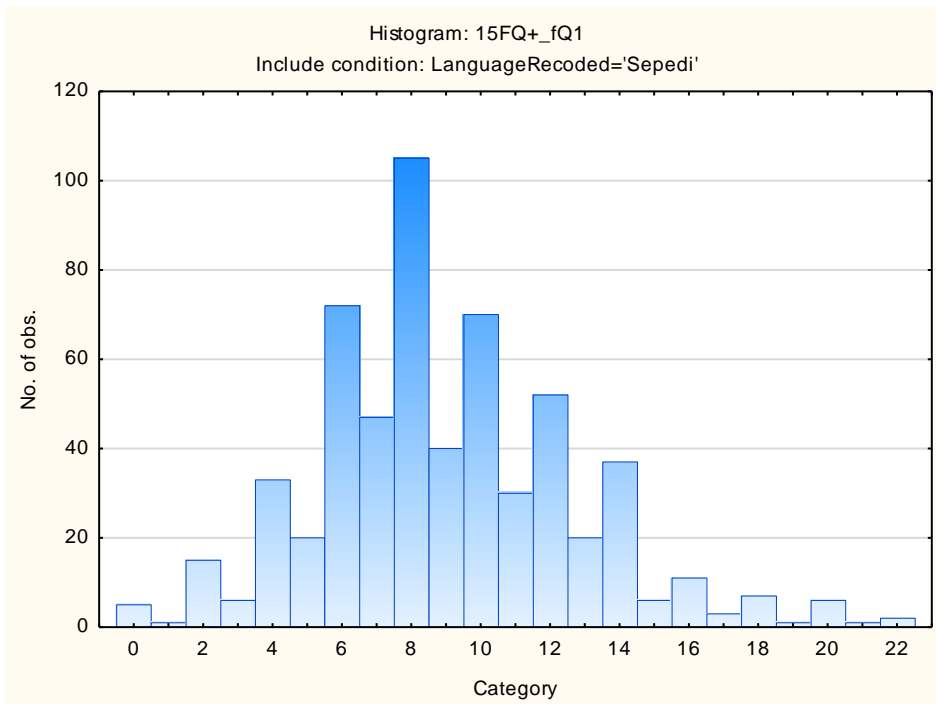
Direct – Restrained



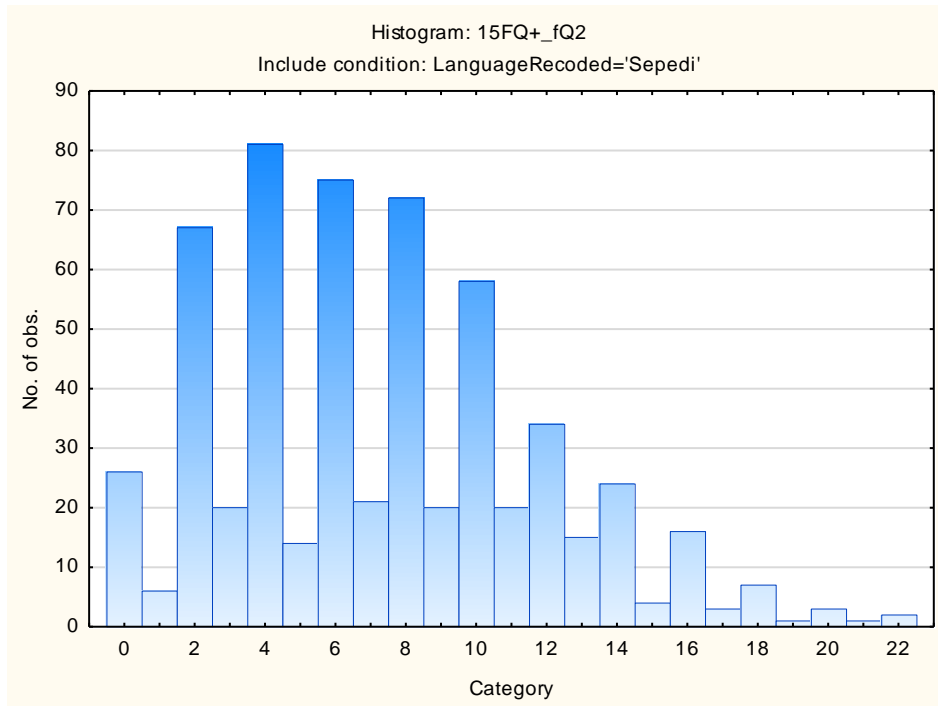
Confident - Self-doubting



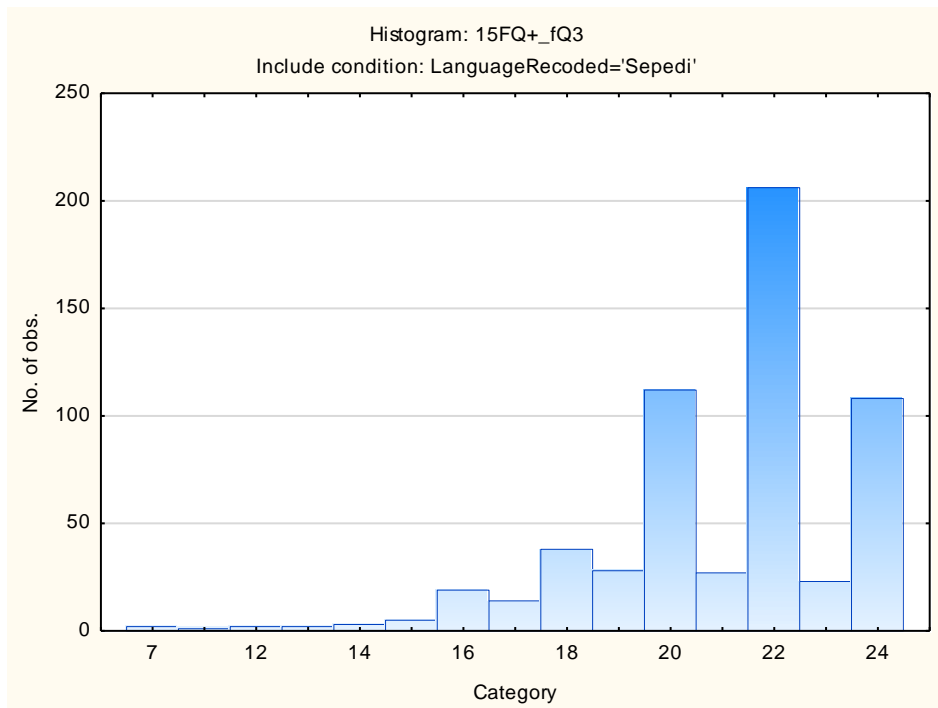
Conventional – Radical



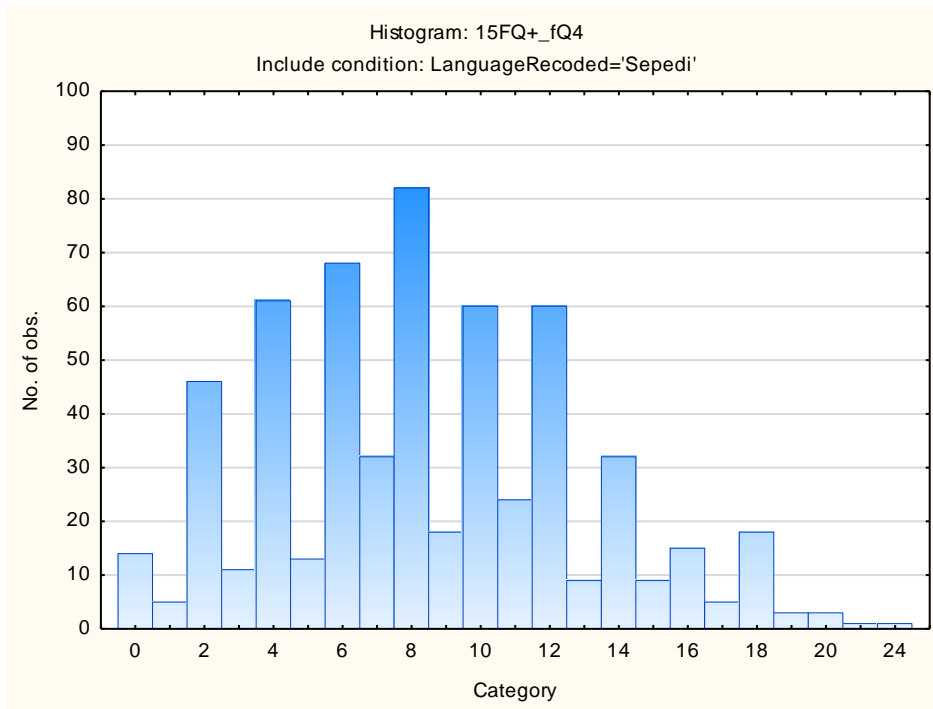
Group-orientated - Self-sufficient



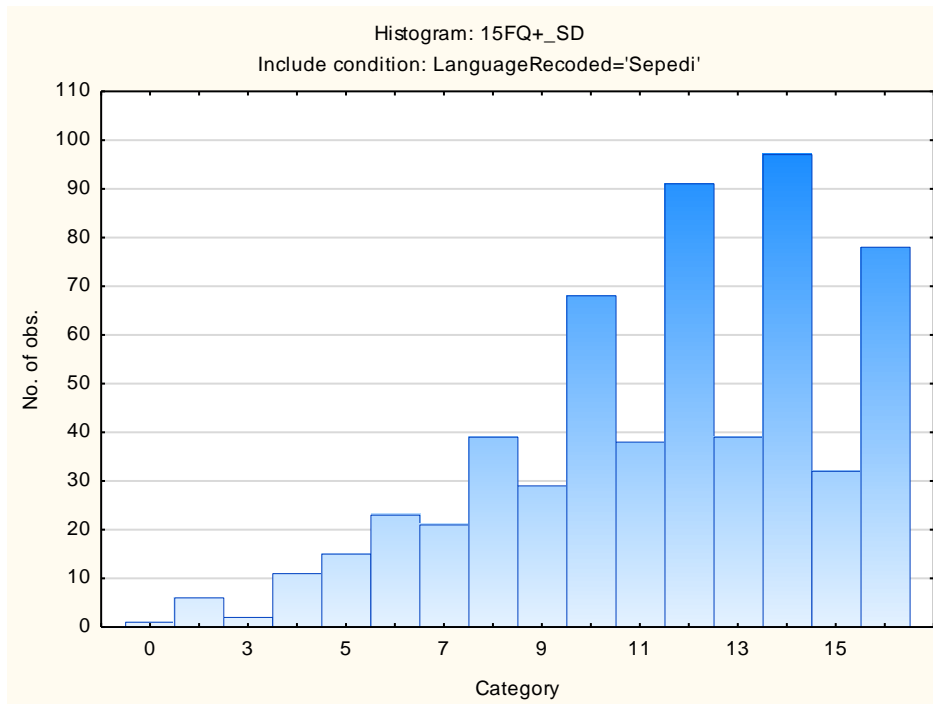
Informal- Self-disciplined



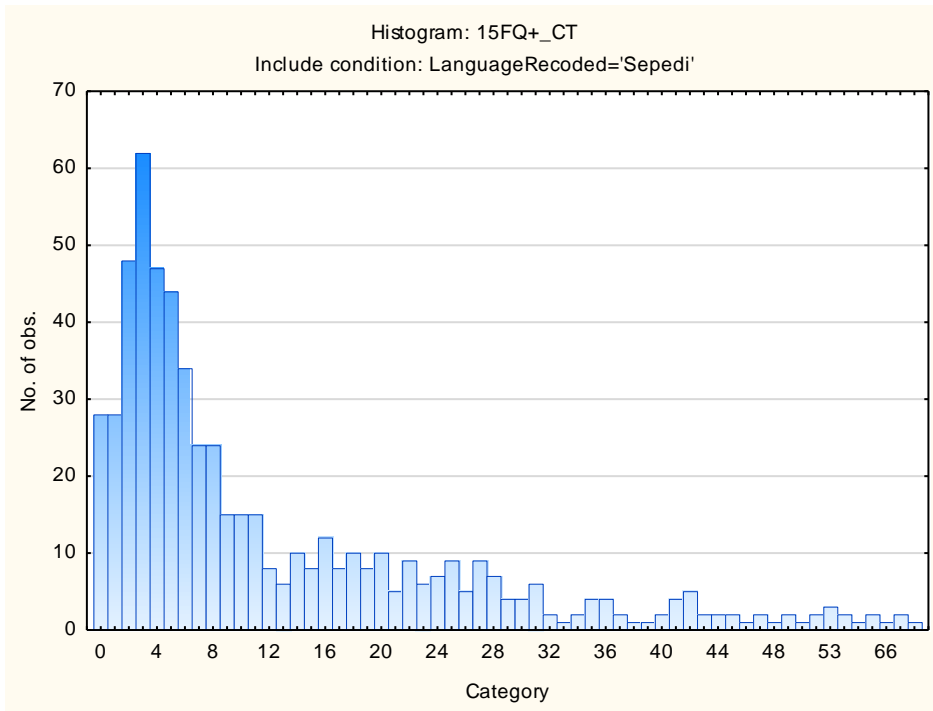
Composed – Tense-driven



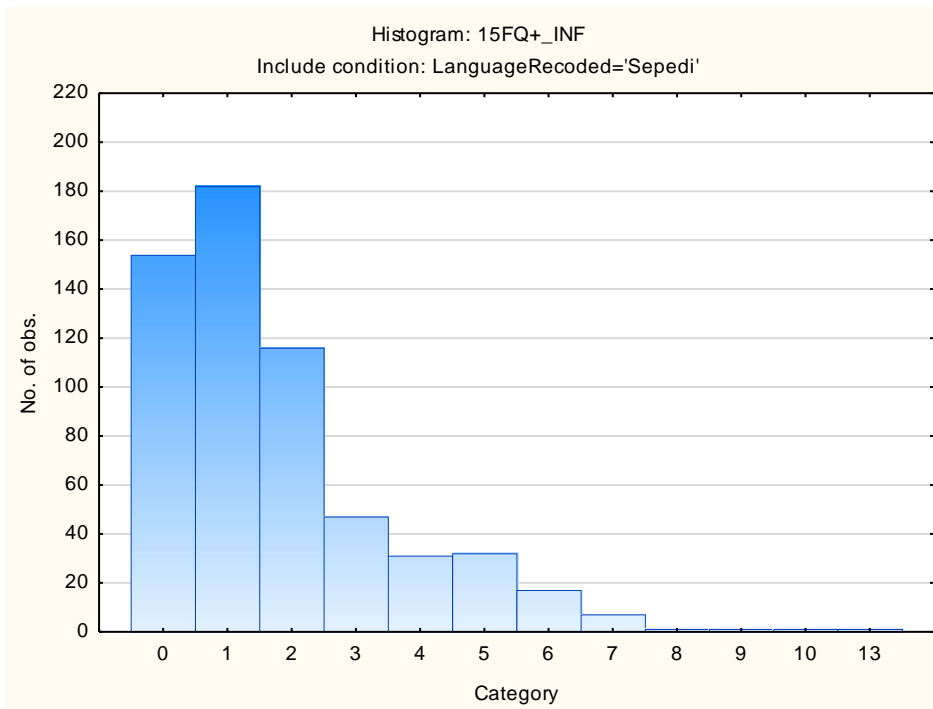
Social Desirability



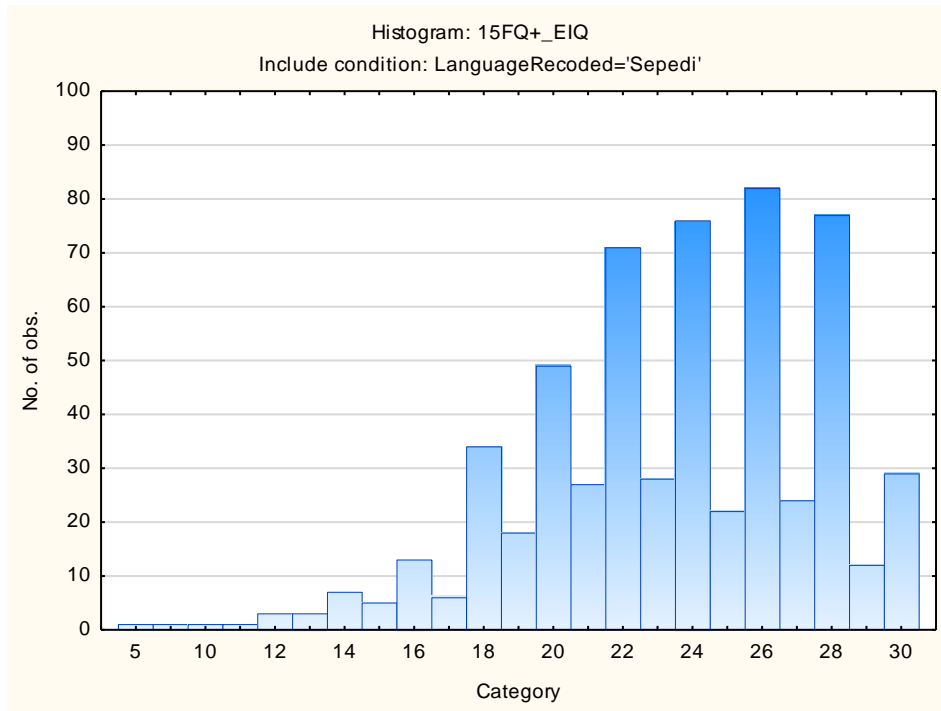
Central Tendency



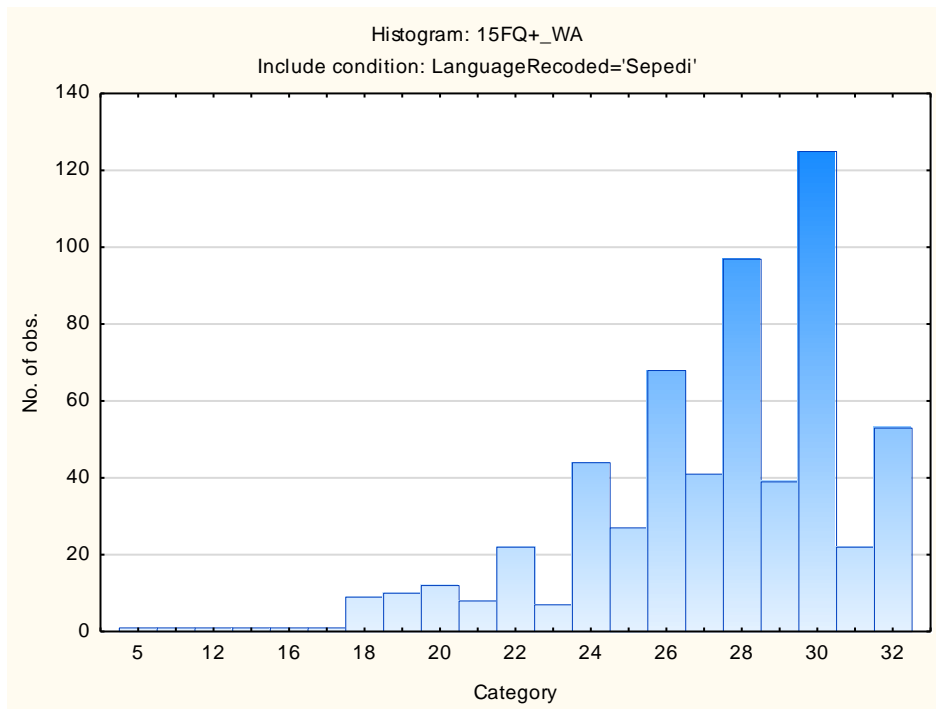
Infrequency



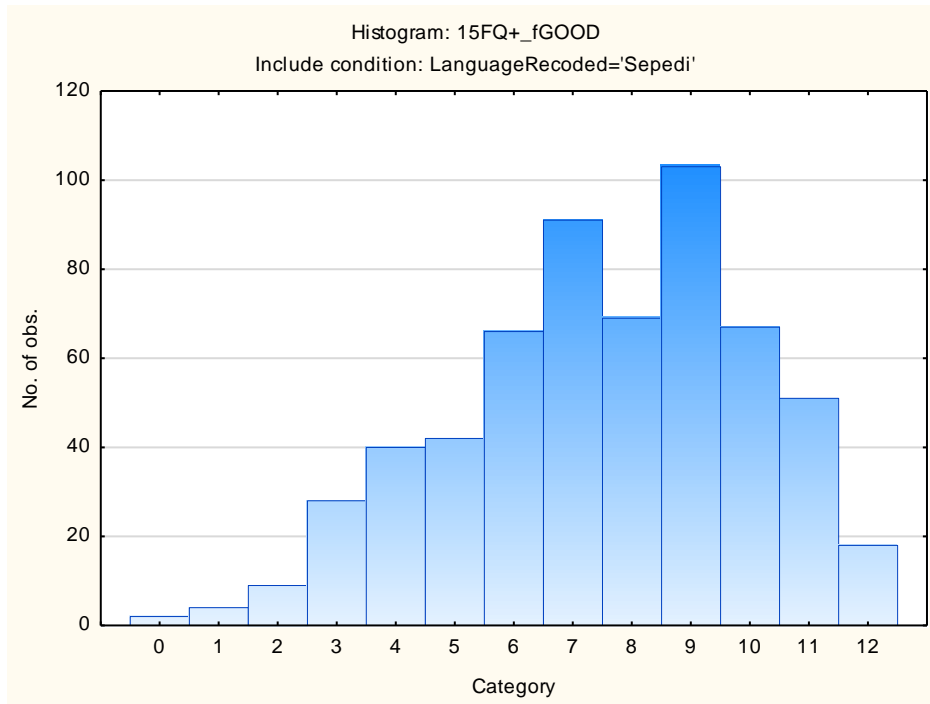
Derived Score: Emotional Intelligence



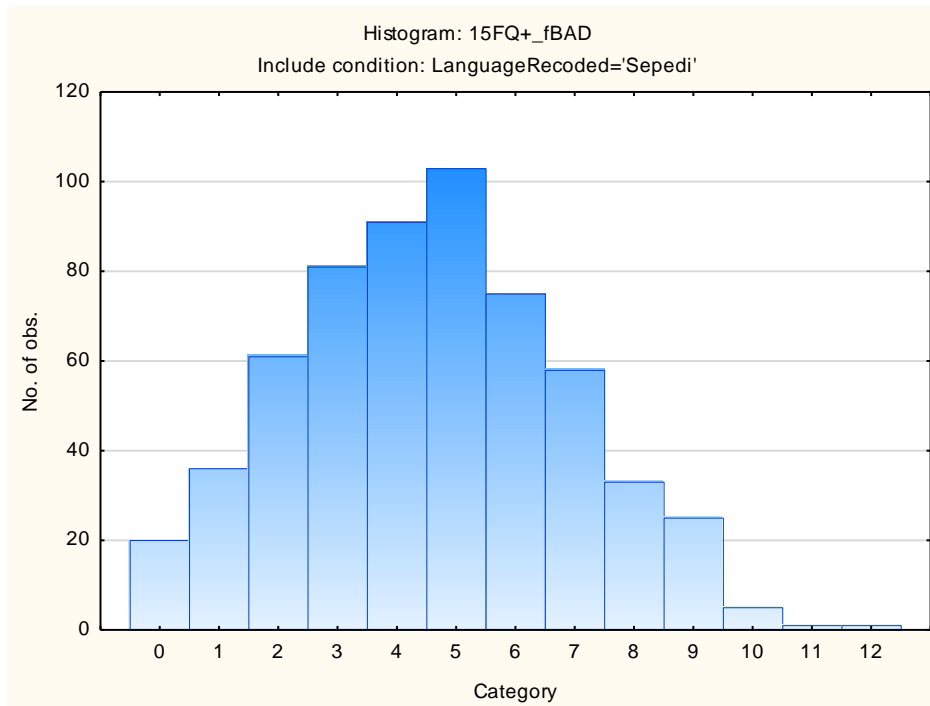
Derived Score: Work Attitude



Faking Good



Faking Bad



Sten Table

Scale Abbreviation	Scale Name	Raw Scores for Sten Categories									
		1	2	3	4	5	6	7	8	9	10
fA	Distant Aloof - Empathic	4-12	13-13	14-15	16-17	18-18	19-20	21-21	22-23	24-24	
B	Intellectance	2-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24		
fC	Affected by Feelings - Emotionally Stable	3-6	7-9	10-11	12-13	14-16	17-18	19-21	22-23	24-24	
fE	Accommodating – Dominant	2-8	9-10	11-12	13-14	15-16	17-18	19-19	20-21	22-23	24-24
fF	Sober serious - Enthusiastic	0-2	3-5	6-8	9-10	11-13	14-16	17-18	19-21	22-24	
fG	Expedient – Conscientious	6-13	14-15	16-17	18-18	19-20	21-21	22-23	24-24		
fH	Retiring – Socially-bold	0-5	6-8	9-10	11-13	14-15	16-18	19-21	22-23	24-24	
fI	Hard-headed – Tender-minded	0-6	7-8	9-10	11-12	13-15	16-17	18-19	20-21	22-23	24-24
fL	Trusting - Suspicious	0-2	3-4	5-6	7-9	10-11	12-13	14-16	17-18	19-20	21-22
fM	Concrete - Abstract	1-4	5-5	6-7	8-8	9-10	11-11	12-13	14-14	15-16	17-20
fN	Direct - Restrained	6-14	15-15	16-17	18-18	19-20	21-21	22-23	24-24		
fO	Confident – Self-doubting	0-2	3-5	6-7	8-9	10-12	13-14	15-17	18-19	20-21	22-23
fQ1	Conventional - Radical	0-1	2-3	4-5	6-7	8-9	10-10	11-12	13-14	15-16	17-22
fQ2	Group-orientated - Self-sufficient	0-1	0-0	1-2	3-5	6-7	8-9	10-11	12-14	15-16	17-22
fQ3	Informal - Self-disciplined	7-16	17-17	18-18	19-19	20-21	22-22	23-23	24-24		
fQ4	Composed – Tense-driven	0-1	0-1	2-3	4-6	7-8	9-10	11-12	13-15	16-17	18-24
SD	Social Desirability	0-4	5-6	7-8	9-9	10-11	12-13	14-14	15-16		
CT	Central Tendency	0-1	0-0	1-1	2-5	6-12	13-19	20-25	26-32	33-39	40-79
INF	Infrequency	0-1	0-0	1-1	2-2	3-3	4-4	5-5	6-6	7-7	8-13
EIQ	Derived Score: Emotional Intelligence	5-15	16-17	18-19	20-21	22-23	24-25	26-27	28-29	30-30	
WA	Derived Score: Work Attitude	5-19	20-21	22-23	24-25	26-27	28-29	30-30	31-32		
fGOOD	Faking Good	0-2	3-3	4-5	6-6	7-7	8-8	9-10	11-11	12-12	
fBAD	Faking Bad	0-1	0-1	2-2	3-3	4-4	5-5	6-6	7-8	9-9	10-12

Fifteen Factor Questionnaire (15FQ+)

Norm Group: SA Sesotho Speakers, Updated 2016

Norm Type:

Standard deviation norm

Composition of the Sample

The sample consisted of 664 Sesotho speaking South Africans tested by Psytech SA and collaborators, via GeneSys for Windows, in the period up to June 2015.

Gender Composition of the Sample

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	262	262	39,45783	39,4578
M	401	663	60,39157	99,8494
U	1	664	0,15060	100,0000
Missing	0	664	0,00000	100,0000

Educational Composition of the Sample

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	170	170	25,60241	25,6024
Tertiary	344	514	51,80723	77,4096
Post Graduate	99	613	14,90964	92,3193
< Matric	13	626	1,95783	94,2771
Unknown	2	628	0,30120	94,5783
Other	1	629	0,15060	94,7289
Missing	35	664	5,27108	100,0000

Language Composition of the Sample

Category	Frequency table: Language			
	Count	Cumulative Count	Percent	Cumulative Percent
Sesotho	664	664	100,0000	100,0000
Missing	0	664	0,0000	100,0000

Language Group Composition of the Sample

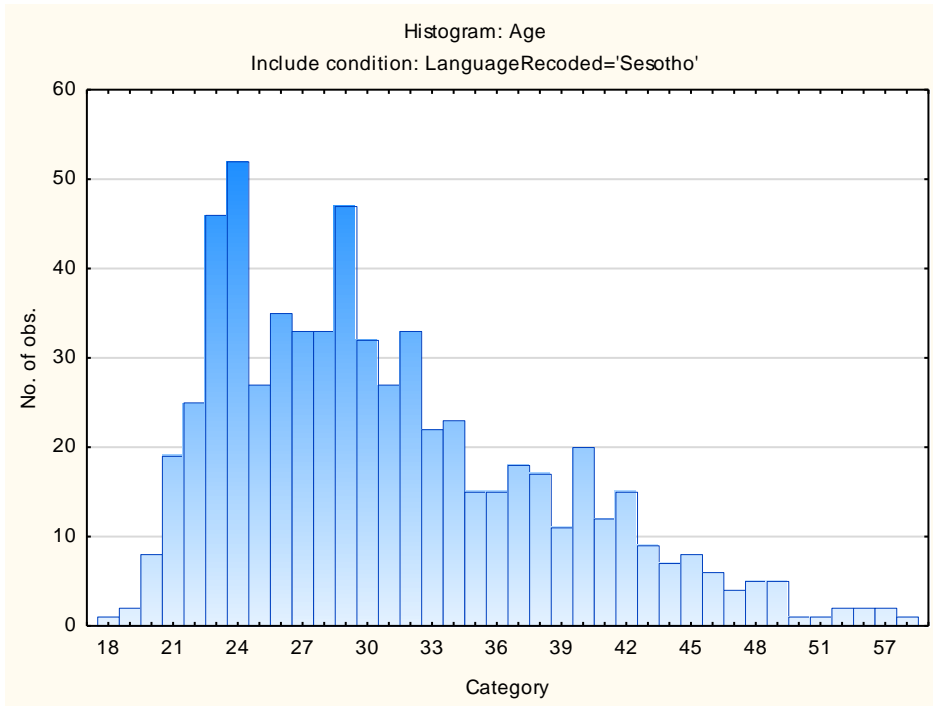
Category	Frequency table: Language Group			
	Count	Cumulative Count	Percent	Cumulative Percent
Indigenous	664	664	100,0000	100,0000
Missing	0	664	0,0000	100,0000

Racial Composition of the Sample

Category	Frequency table: Race			
	Count	Cumulative Count	Percent	Cumulative Percent
African	657	657	98,94578	98,9458
European	2	659	0,30120	99,2470
Coloured	1	660	0,15060	99,3976
Missing	4	664	0,60241	100,0000

Age Composition and Distribution of the Sample

Variable	Descriptive Statistics: Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	30,90796	7,477212	18,00000	60,00000	641	23

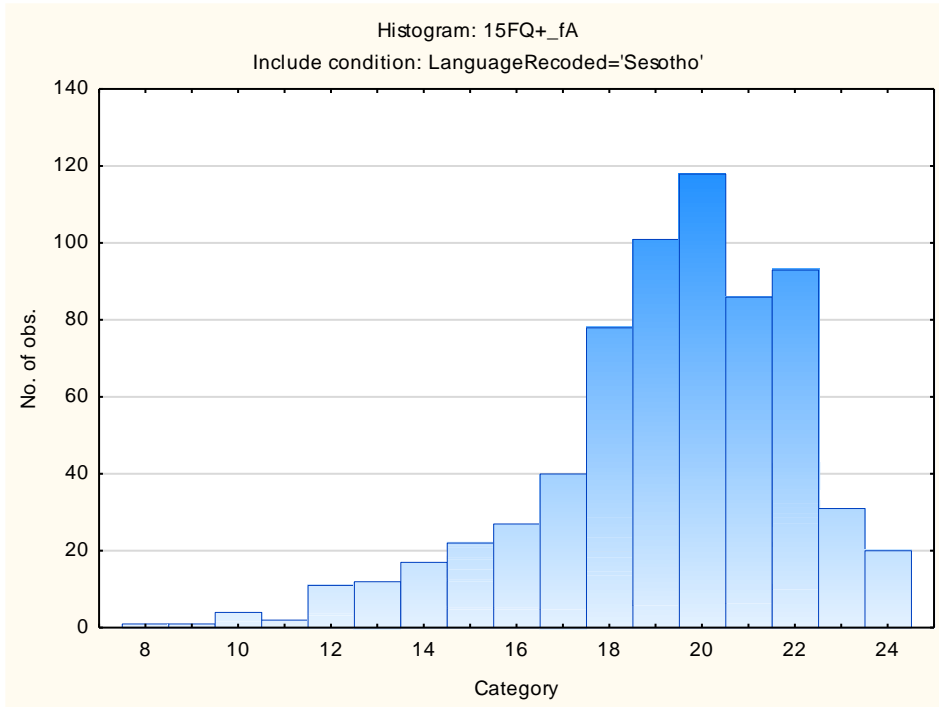


Descriptive Statistics on 15FQ+ Scales

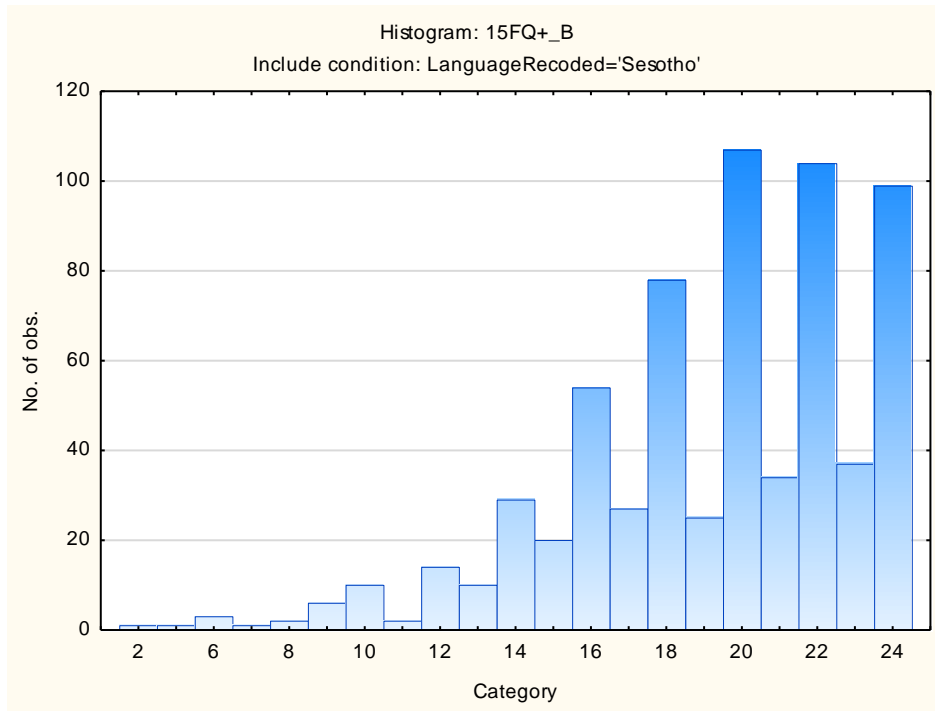
Scale	Scale description	Sample size	Mean	Std.Dev.
fA	Distant Aloof - Empathic	664	19,23946	2,78948
B	Intellectance	664	19,27560	3,85924
fC	Affected by feelings - Emotionally Stable	664	17,09337	4,66562
fE	Accommodating - Dominant	664	16,64608	3,89838
fF	Sober serious - Enthusiastic	664	15,16265	5,11916
fG	Expedient - Conscientious	664	19,63404	4,11488
fH	Retiring – Socially-bold	664	16,65361	5,18647
fI	Hard-headed – Tender-minded	664	14,89006	4,78985
fL	Trusting - Suspicious	664	10,68976	4,48259
fM	Concrete - Abstract	664	10,62952	3,48729
fN	Direct - Restrained	664	20,20030	3,29824
fO	Confident – Self-doubting	664	11,81627	5,20320
fQ1	Conventional - Radical	664	9,86747	4,29640
fQ2	Group-orientated - Self-sufficient	664	6,73193	4,21559
fQ3	Informal – Self-disciplined	664	20,19277	2,99455
fQ4	Composed – Tense-driven	664	7,68976	4,32086
SD	Social Desirability	664	11,61446	3,38110
CT	Central Tendency	664	11,32831	13,63743
INF	Infrequency	664	1,45482	1,75095
EIQ	Derived Score: Emotional Intelligence	664	24,12199	3,73866
WA	Derived Score: Work Attitude	664	26,99096	3,83639
fGOOD	Faking Good	664	7,96837	2,35606
fBAD	Faking Bad	664	4,37801	2,24318

Frequency Distributions for 15FQ+ Scales

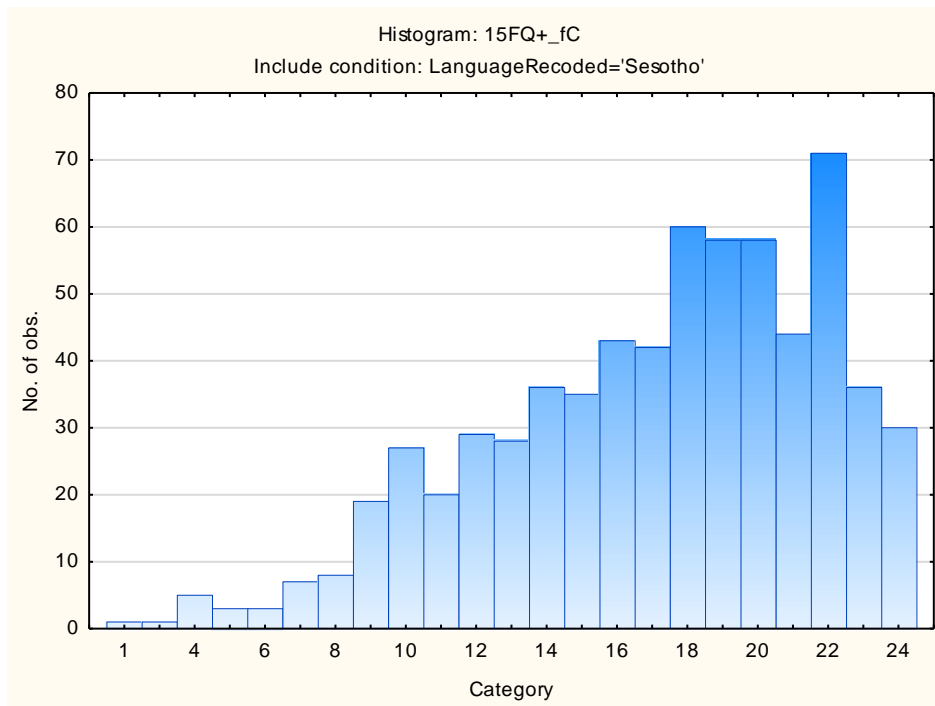
Distant Aloof – Empathic



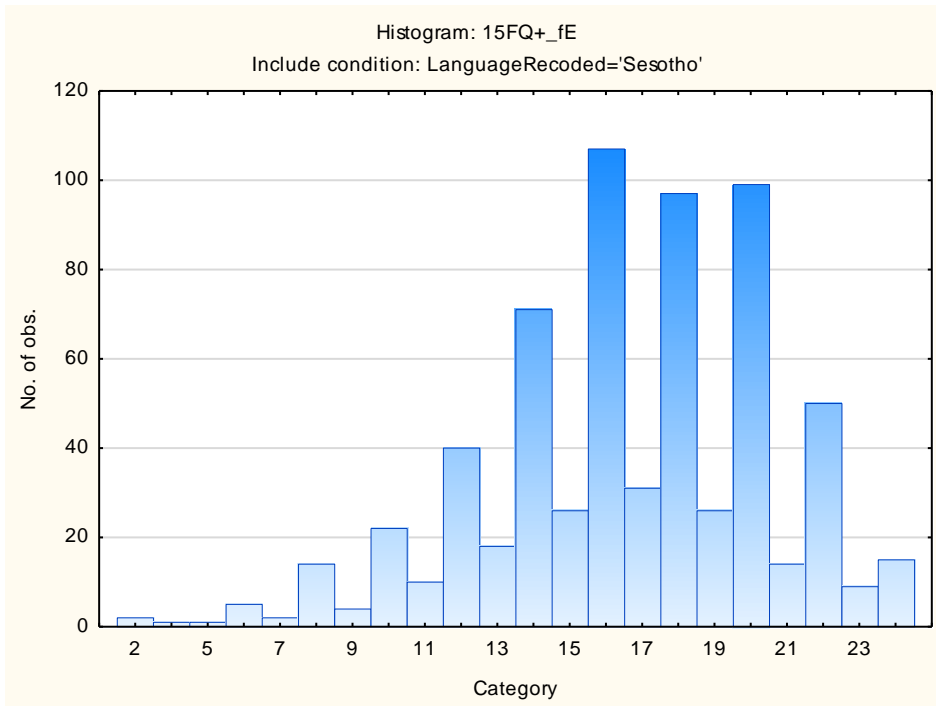
Intellectance



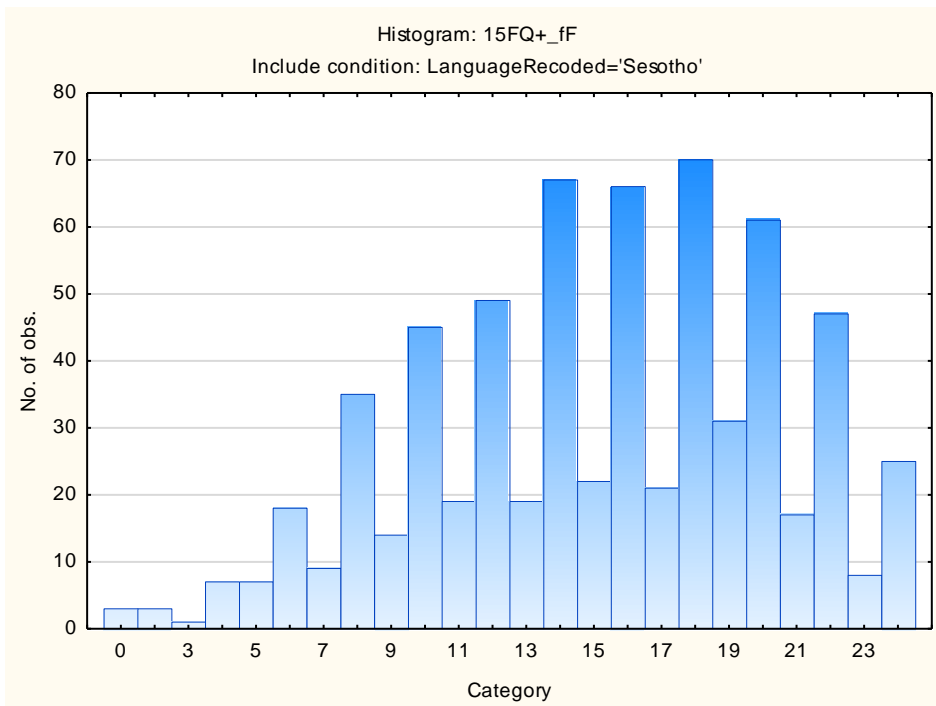
Affected by Feelings - Emotionally Stable



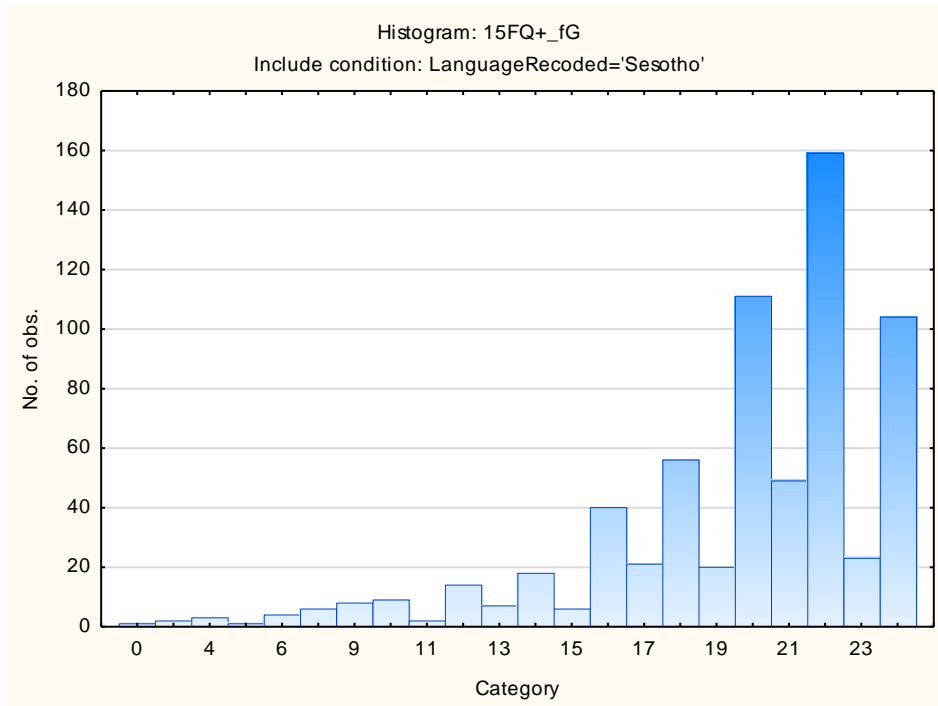
Accommodating – Dominant



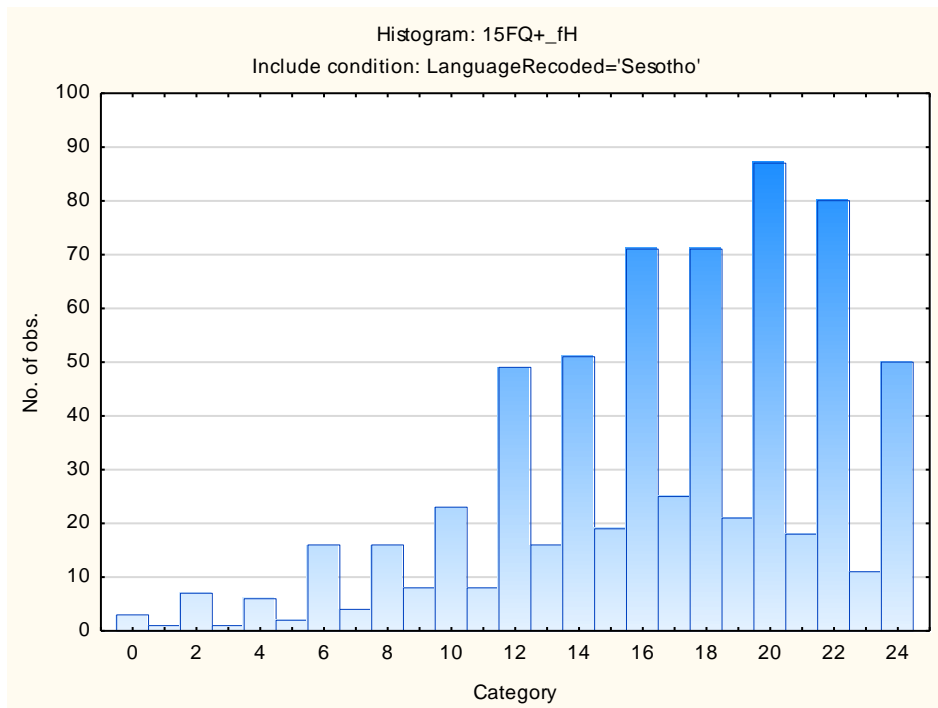
Sober Serious – Enthusiastic



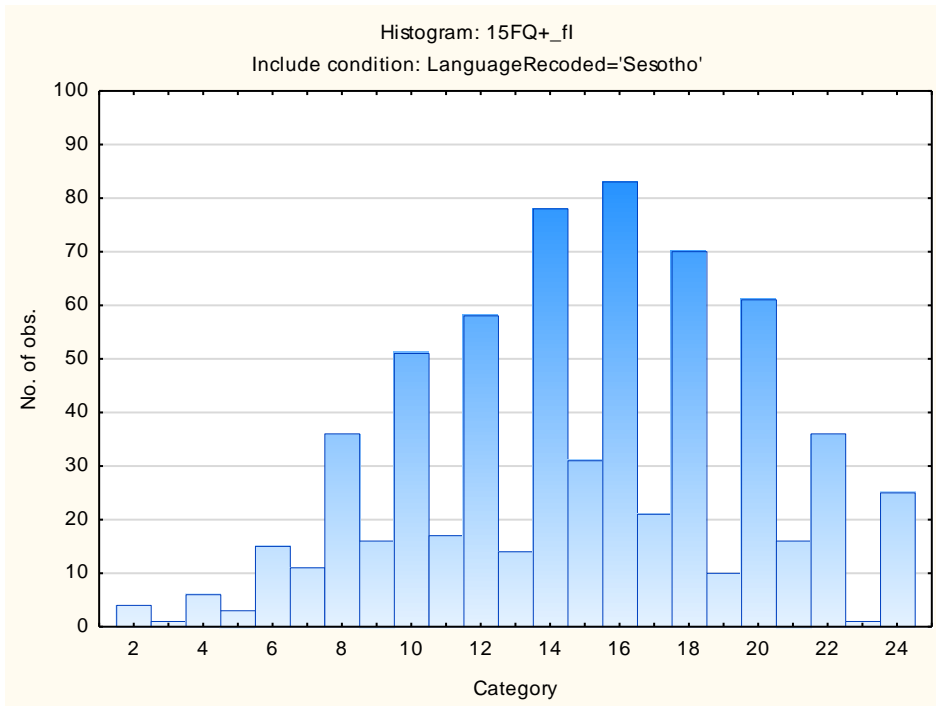
Expedient – Conscientious



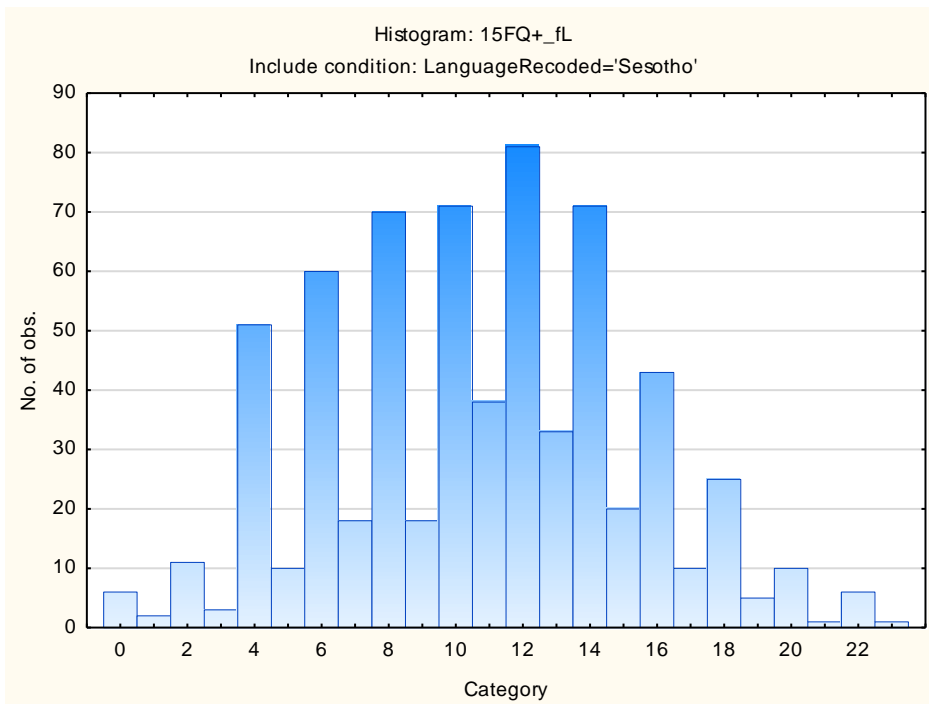
Retiring – Socially-bold



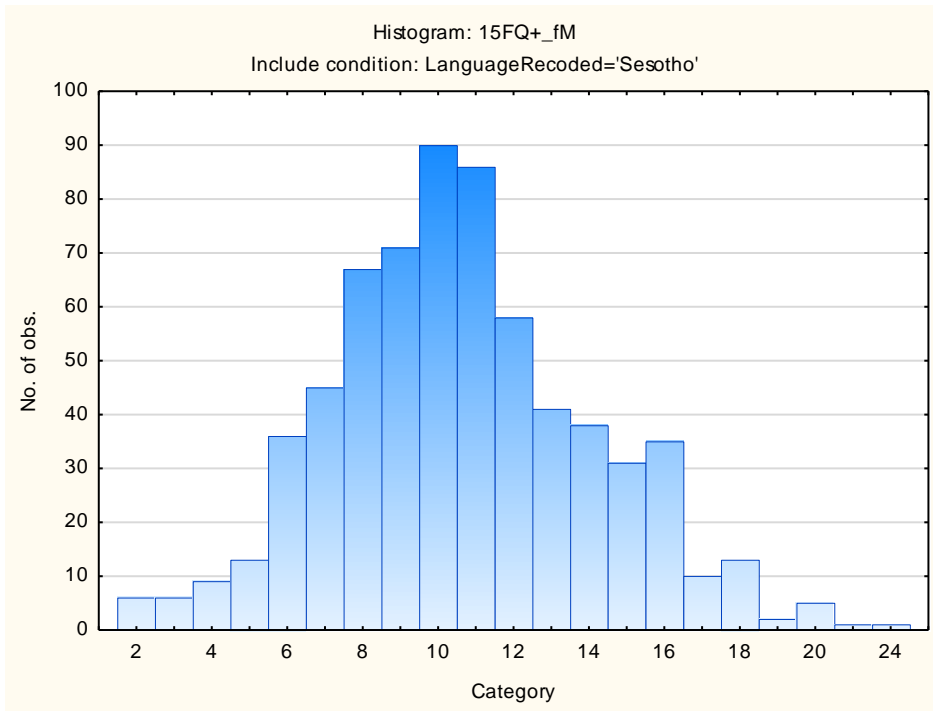
Hard-headed – Tender-minded



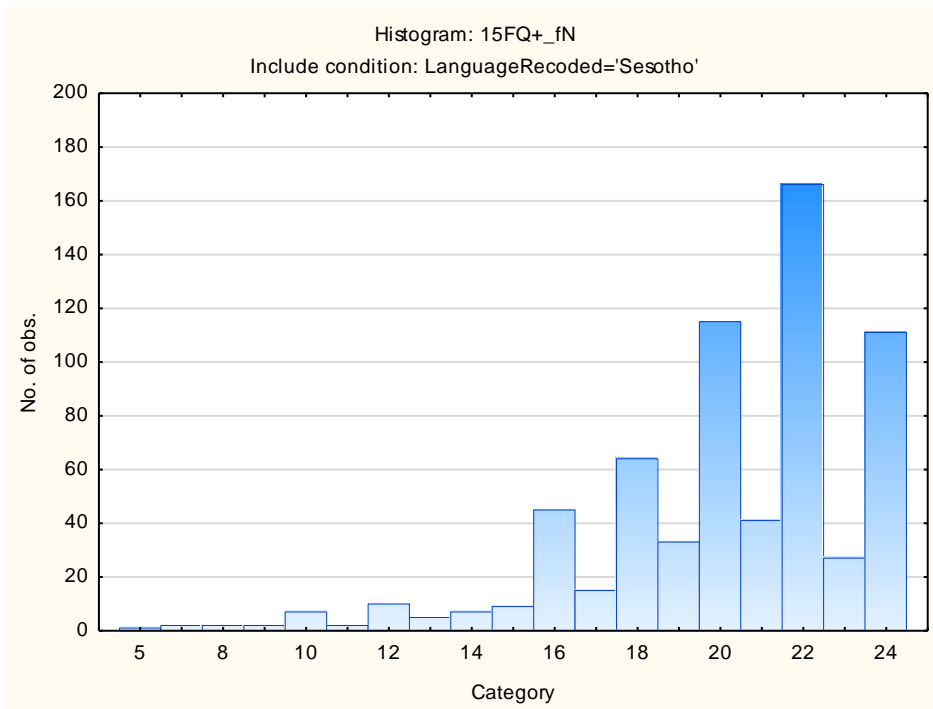
Trusting – Suspicious



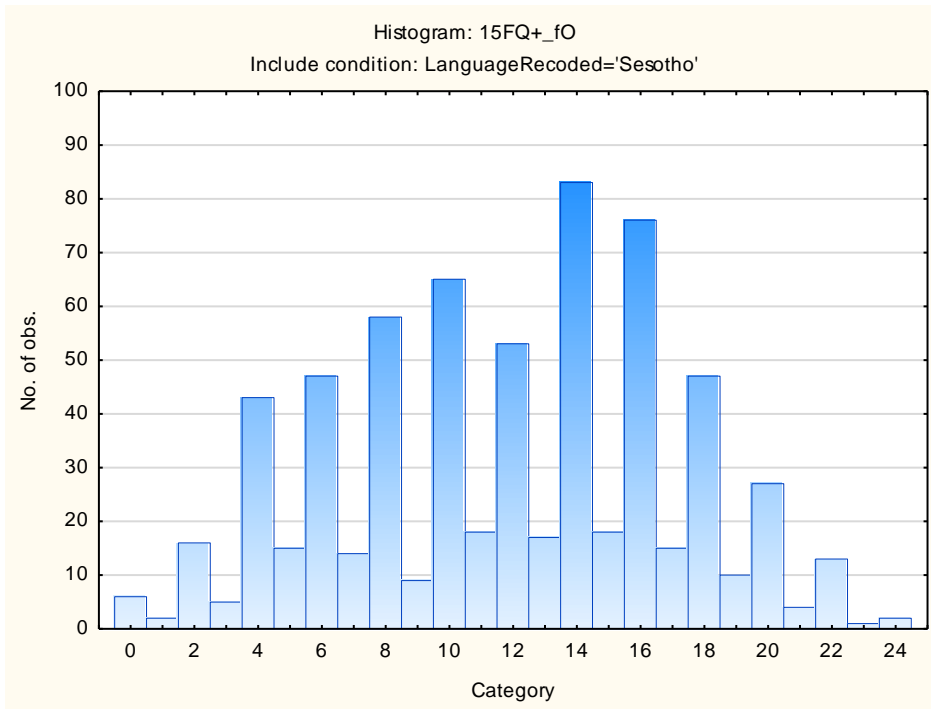
Concrete – Abstract



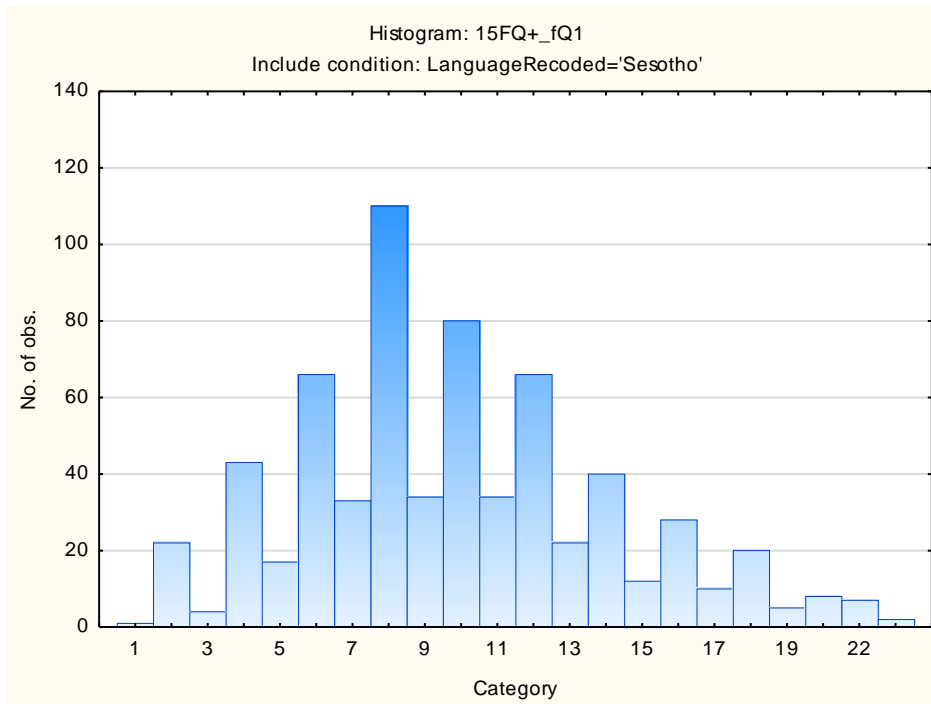
Direct – Restrained



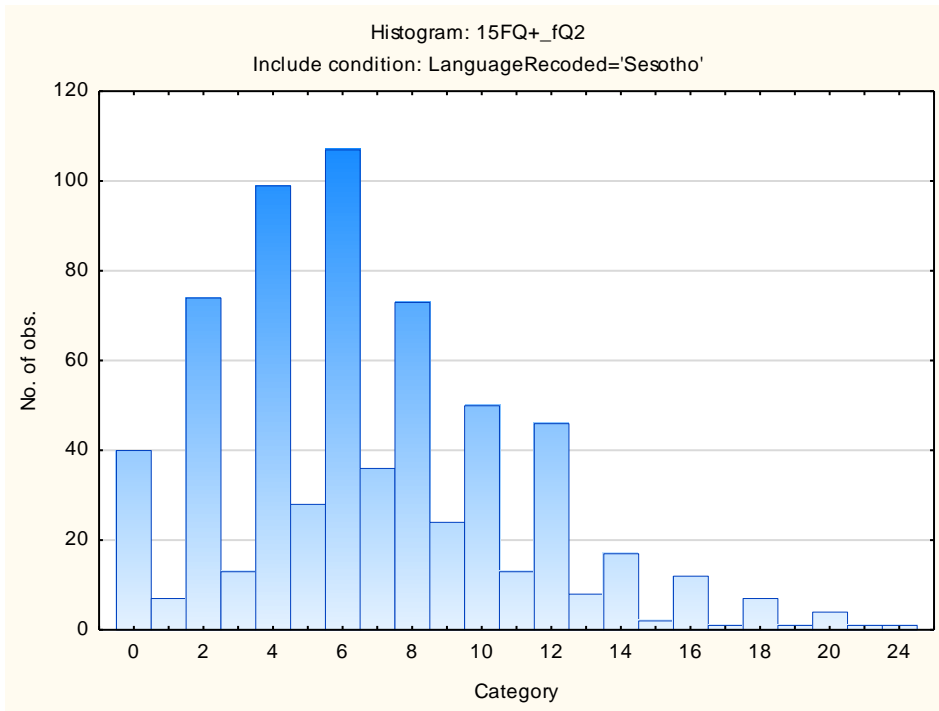
Confident - Self-doubting



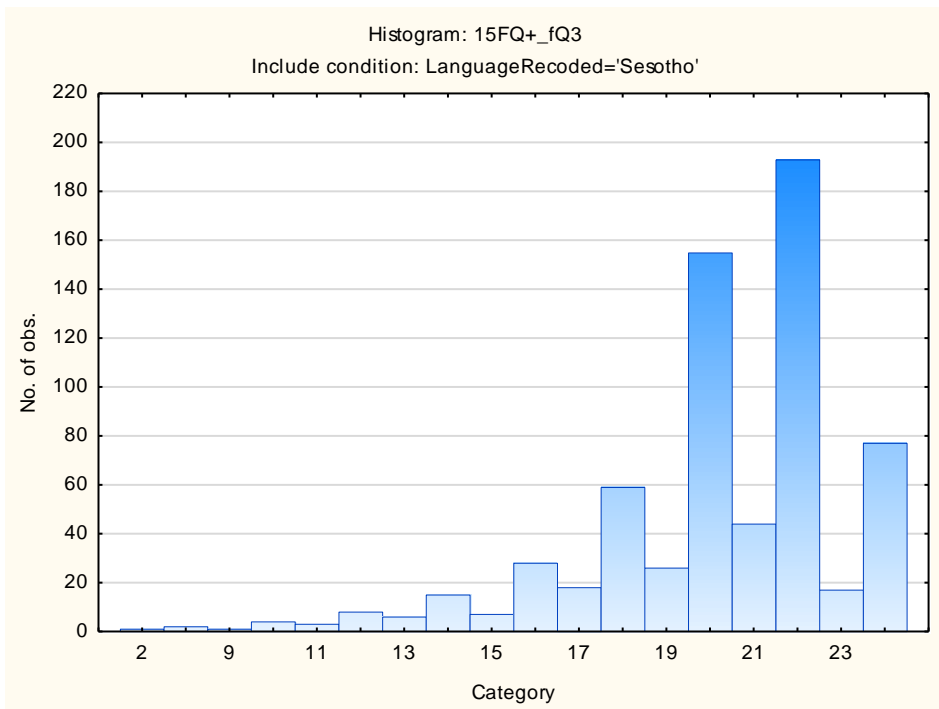
Conventional – Radical



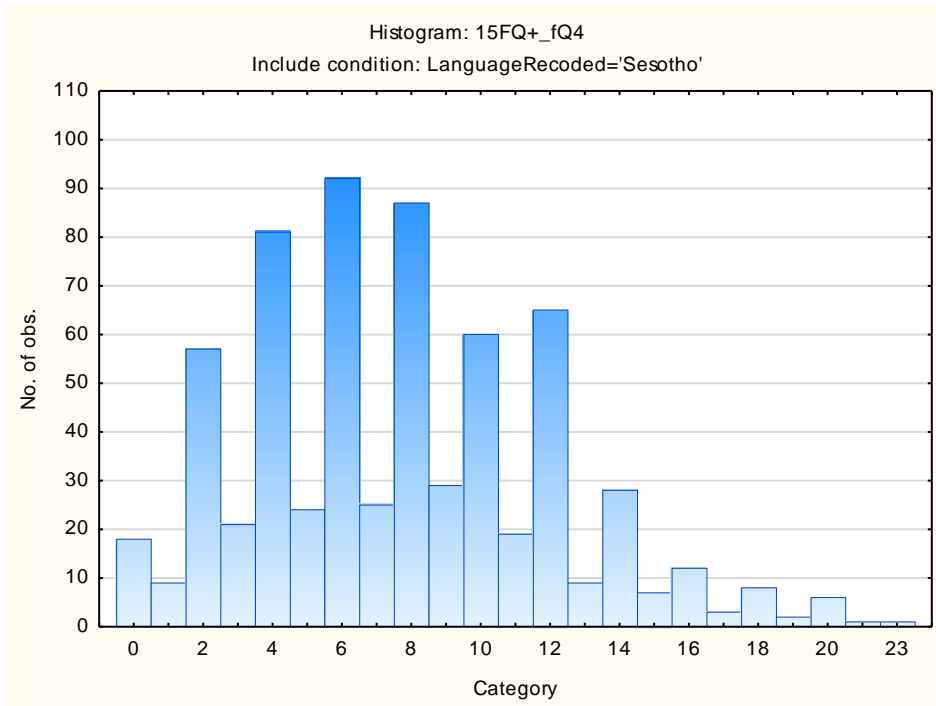
Group-orientated - Self-sufficient



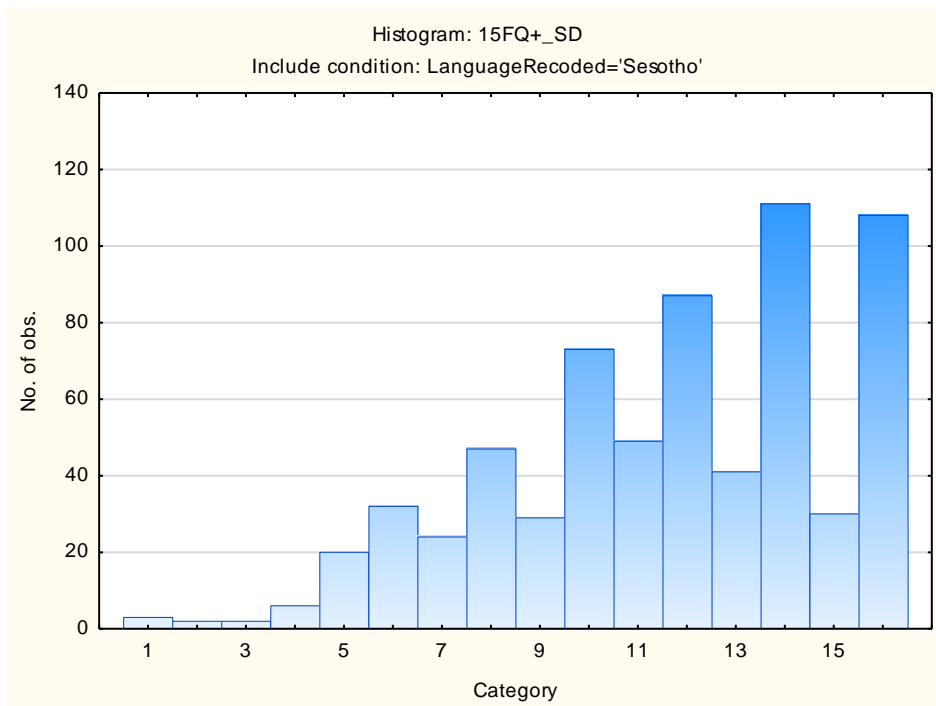
Informal- Self-disciplined



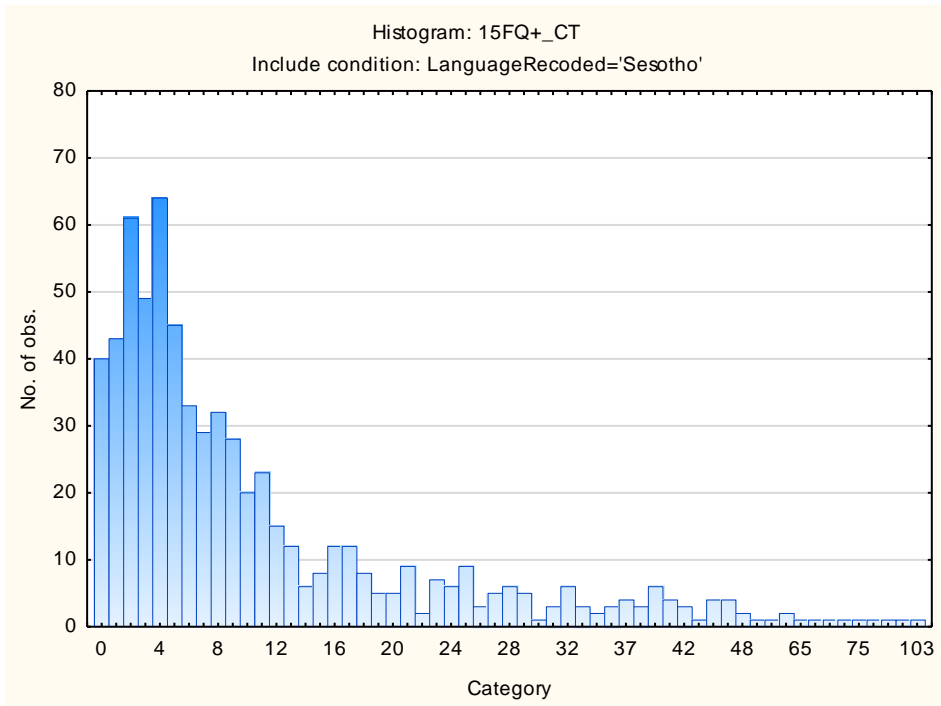
Composed – Tense-driven



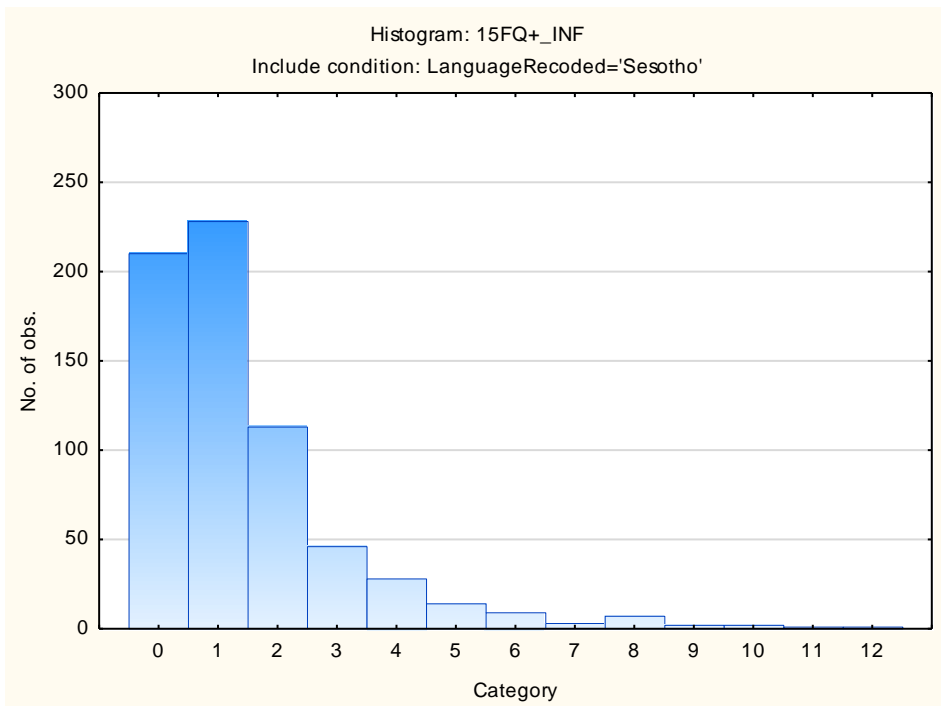
Social Desirability



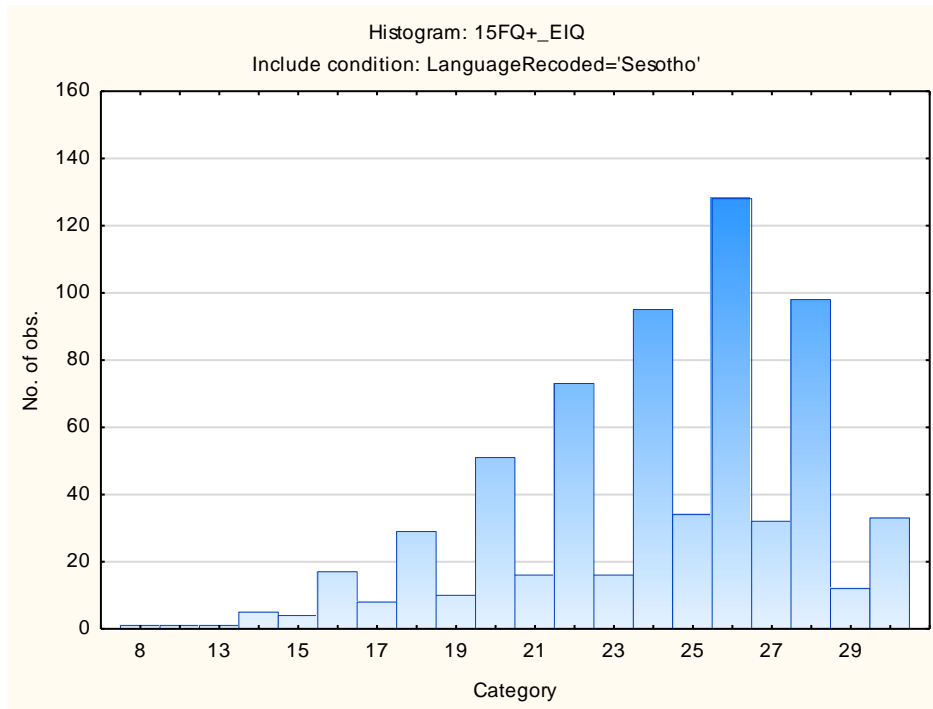
Central Tendency



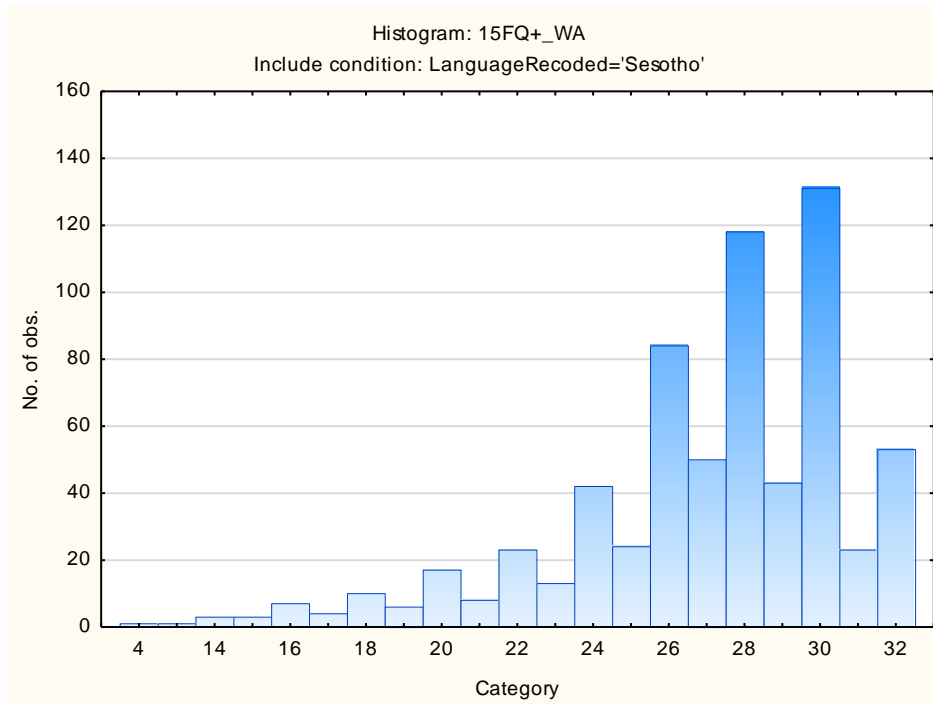
Infrequency



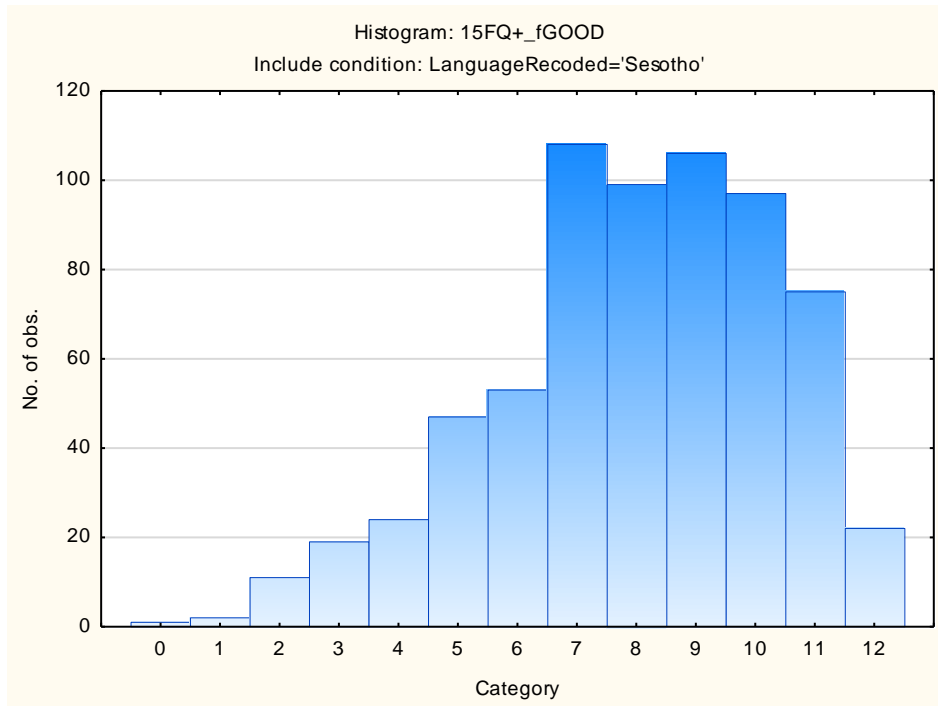
Derived Score: Emotional Intelligence



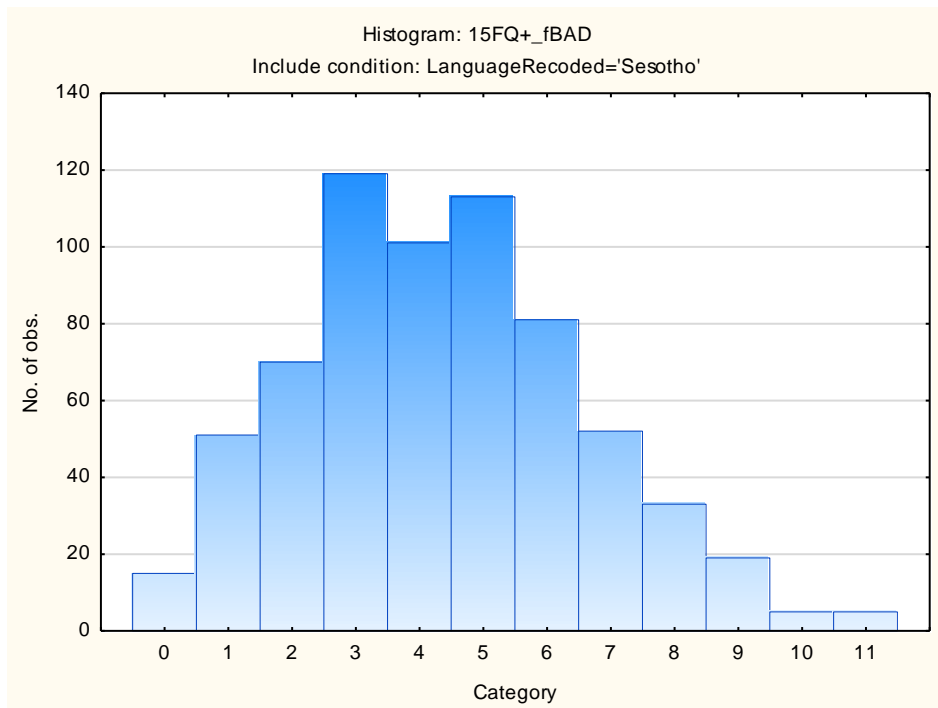
Derived Score: Work Attitude



Faking Good



Faking Bad



Sten Table

Scale Abbreviation	Scale Name	Raw Scores for Sten Categories									
		1	2	3	4	5	6	7	8	9	10
fA	Distant Aloof - Empathic	8-13	14-15	16-16	17-17	18-19	20-20	21-22	23-23	24-24	
B	Intellectance	2-11	12-13	14-15	16-17	18-19	20-21	22-23	24-24		
fC	Affected by Feelings - Emotionally Stable	1-7	8-10	11-12	13-14	15-17	18-19	20-21	22-24		
fE	Accommodating – Dominant	2-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	
fF	Sober serious - Enthusiastic	0-4	5-7	8-10	11-12	13-15	16-17	18-20	21-22	23-24	
fG	Expedient – Conscientious	0-11	12-13	14-15	16-17	18-19	20-21	22-23	24-24		
fH	Retiring – Socially-bold	0-6	7-8	9-11	12-14	15-16	17-19	20-21	22-24		
fI	Hard-headed – Tender-minded	2-5	6-7	8-10	11-12	13-14	15-17	18-19	20-22	23-24	
fL	Trusting - Suspicious	0-1	2-3	4-6	7-8	9-10	11-12	13-15	16-17	18-19	20-24
fM	Concrete - Abstract	2-3	4-5	6-7	8-8	9-10	11-12	13-14	15-15	16-17	18-24
fN	Direct - Restrained	5-13	14-15	16-16	17-18	19-20	21-21	22-23	24-24		
fO	Confident – Self-doubting	0-1	2-4	5-6	7-9	10-11	12-14	15-17	18-19	20-22	23-24
fQ1	Conventional - Radical	1-1	2-3	4-5	6-7	8-9	10-12	13-14	15-16	17-18	19-23
fQ2	Group-orientated - Self-sufficient	0-1	0-0	1-2	3-4	5-6	7-8	9-10	11-13	14-15	16-24
fQ3	Informal - Self-disciplined	2-14	15-15	16-17	18-18	19-20	21-21	22-23	24-24		
fQ4	Composed – Tense-driven	0-1	0-1	2-3	4-5	6-7	8-9	10-12	13-14	15-16	17-23
SD	Social Desirability	1-4	5-6	7-8	9-9	10-11	12-13	14-14	15-16		
CT	Central Tendency	0-1	0-0	1-1	2-4	5-11	12-18	19-24	25-31	32-38	39-103
INF	Infrequency	0-1	0-0	1-1	2-2	3-3	4-4	5-5	6-6	7-7	8-12
EIQ	Derived Score: Emotional Intelligence	8-16	17-18	19-20	21-22	23-24	25-25	26-27	28-29	30-30	
WA	Derived Score: Work Attitude	4-19	20-21	22-23	24-25	26-26	27-28	29-30	31-32		
fGOOD	Faking Good	0-3	4-4	5-5	6-6	7-7	8-9	10-10	11-11	12-12	
fBAD	Faking Bad	0-1	0-1	2-2	3-3	4-4	5-5	6-6	7-7	8-8	9-11

Fifteen Factor Questionnaire (15FQ+)

Norm Group: SA siSwati Speakers, Updated 2016

Norm Type:

Standard deviation norm

Composition of the Sample

The sample consisted of 112 siSwati speaking South Africans tested by Psytech SA and collaborators, via GeneSys for Windows, in the period up to June 2015.

Gender Composition of the Sample

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	44	44	39,28571	39,2857
M	68	112	60,71429	100,0000
Missing	0	112	0,00000	100,0000

Educational Composition of the Sample

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	33	33	29,46429	29,4643
Tertiary	56	89	50,00000	79,4643
Post Graduate	18	107	16,07143	95,5357
< Matric	2	109	1,78571	97,3214
Missing	3	112	2,67857	100,0000

Language Composition of the Sample

Category	Frequency table: Language			
	Count	Cumulative Count	Percent	Cumulative Percent
siSwati	112	112	100,0000	100,0000
Missing	0	112	0,0000	100,0000

Language Group Composition of the Sample

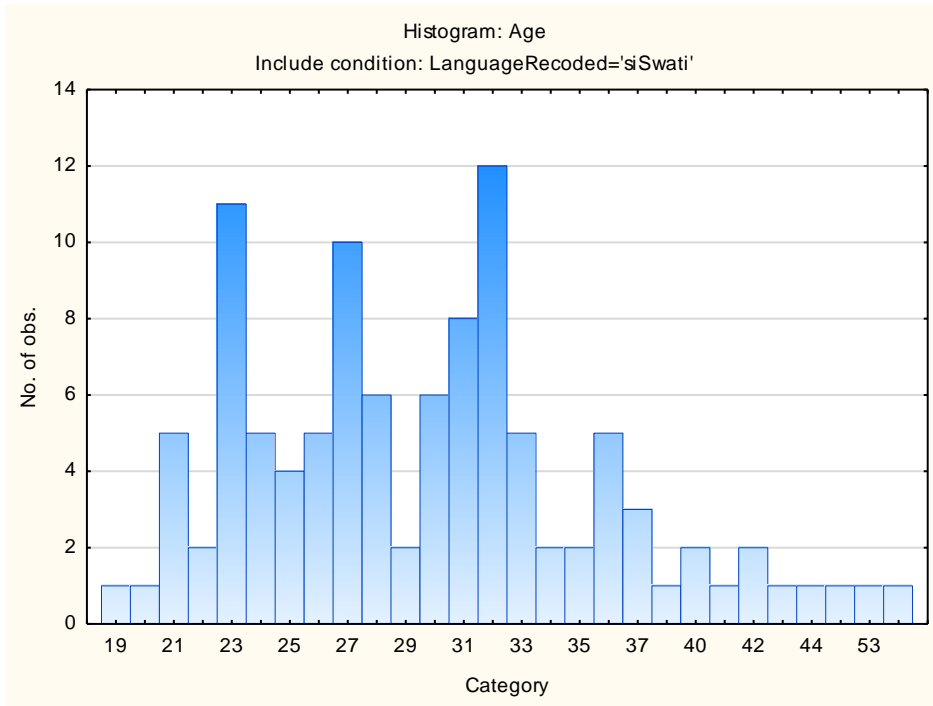
Category	Frequency table: Language Group			
	Count	Cumulative Count	Percent	Cumulative Percent
Indigenous	112	112	100,0000	100,0000
Missing	0	112	0,0000	100,0000

Racial Composition of the Sample

Category	Frequency table: Race			
	Count	Cumulative Count	Percent	Cumulative Percent
African	109	109	97,32143	97,3214
European	2	111	1,78571	99,1071
Missing	1	112	0,89286	100,0000

Age Composition and Distribution of the Sample

Variable	Descriptive Statistics: Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	29,98113	6,721651	19,00000	55,00000	106	6

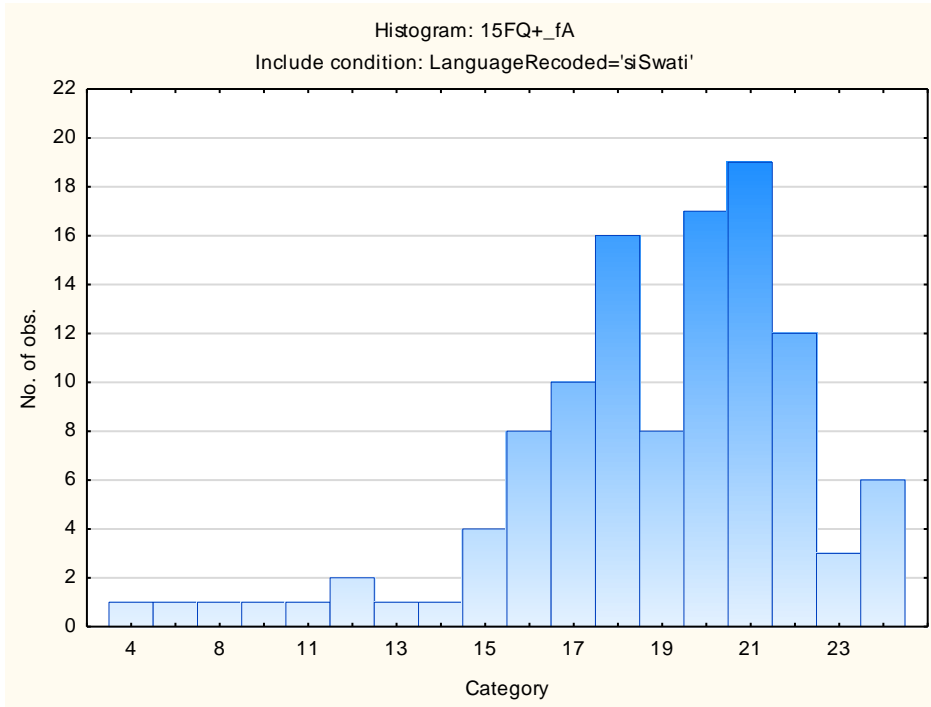


Descriptive Statistics on 15FQ+ Scales

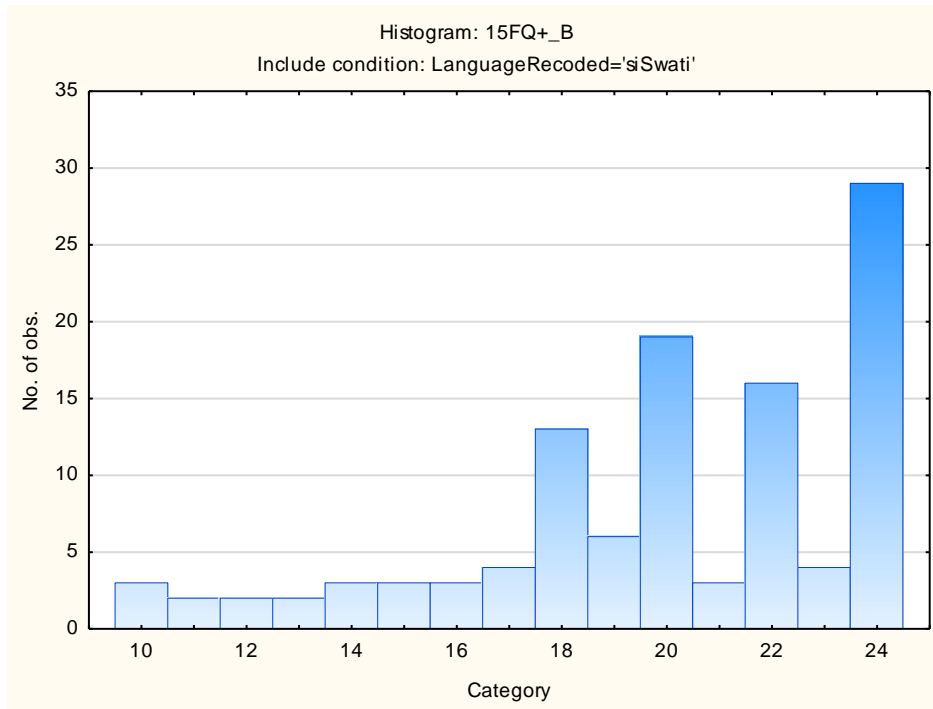
Scale	Scale description	Sample size	Mean	Std.Dev.
fA	Distant Aloof - Empathic	112	18,76786	3,61424
B	Intellectance	112	19,96429	3,77266
fC	Affected by feelings - Emotionally Stable	112	18,49107	4,47414
fE	Accommodating - Dominant	112	16,72321	3,90936
fF	Sober serious - Enthusiastic	112	14,66964	5,96595
fG	Expedient - Conscientious	112	20,30357	4,03775
fH	Retiring – Socially-bold	112	17,41071	5,26514
fI	Hard-headed – Tender-minded	112	15,26786	4,72864
fL	Trusting - Suspicious	112	10,41071	4,42262
fM	Concrete - Abstract	112	10,52679	3,35836
fN	Direct - Restrained	112	20,21429	3,30555
fO	Confident – Self-doubting	112	10,73214	4,86573
fQ1	Conventional - Radical	112	8,94643	4,89132
fQ2	Group-orientated - Self-sufficient	112	7,03571	4,67296
fQ3	Informal – Self-disciplined	112	20,58929	2,69652
fQ4	Composed – Tense-driven	112	7,41071	4,34659
SD	Social Desirability	112	12,49107	3,11056
CT	Central Tendency	112	10,62500	13,01082
INF	Infrequency	112	1,61607	1,58396
EIQ	Derived Score: Emotional Intelligence	112	24,50000	3,74647
WA	Derived Score: Work Attitude	112	27,83036	3,64874
fGOOD	Faking Good	112	8,25893	2,37762
fBAD	Faking Bad	112	4,06250	2,14468

Frequency Distributions for 15FQ+ Scales

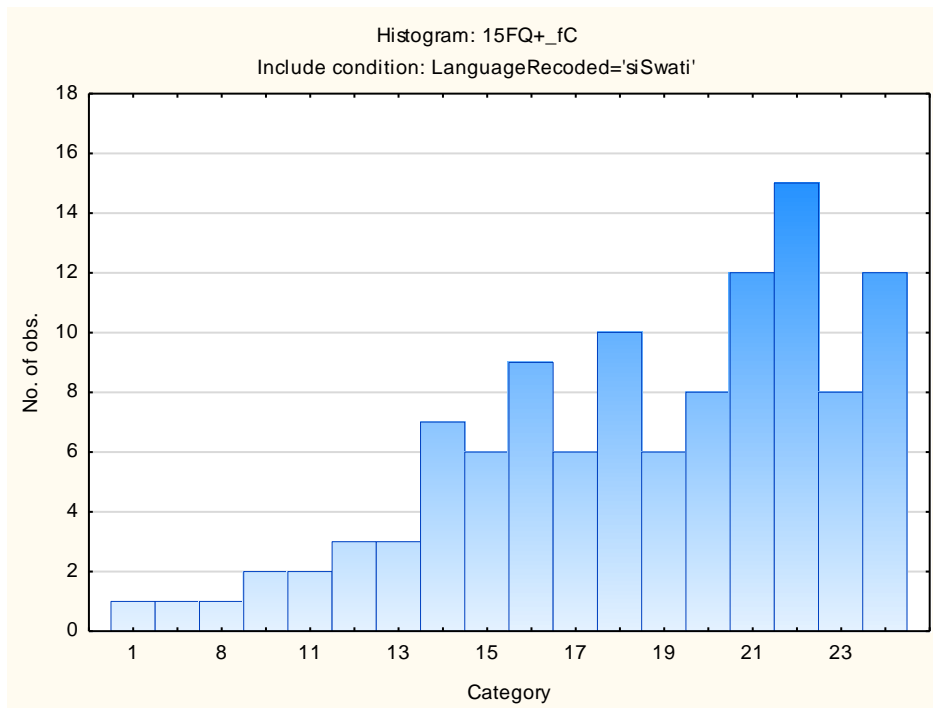
Distant Aloof – Empathic



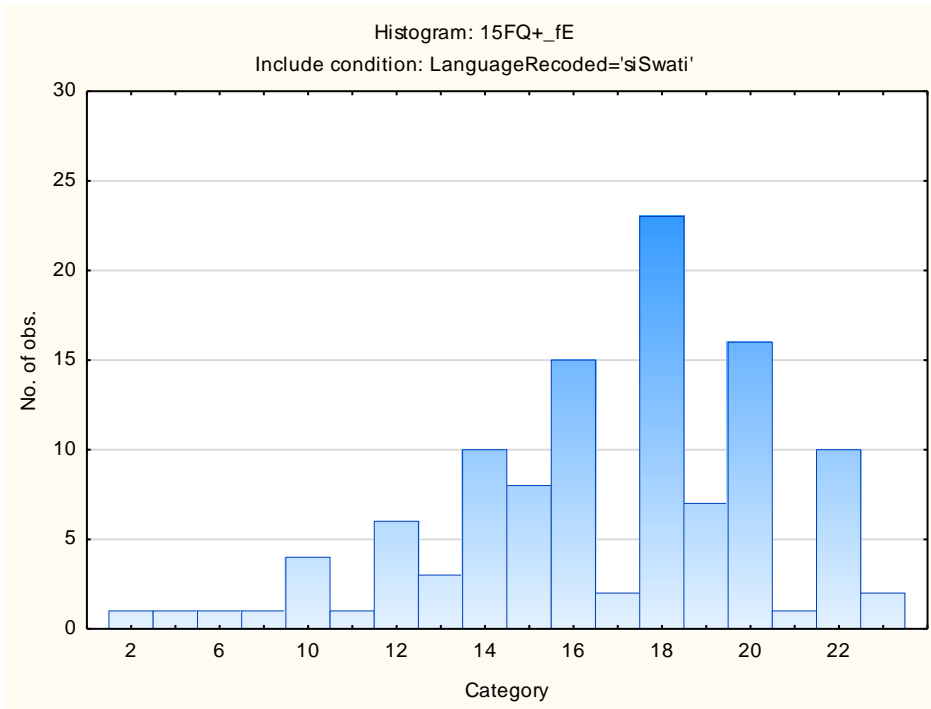
Intellectance



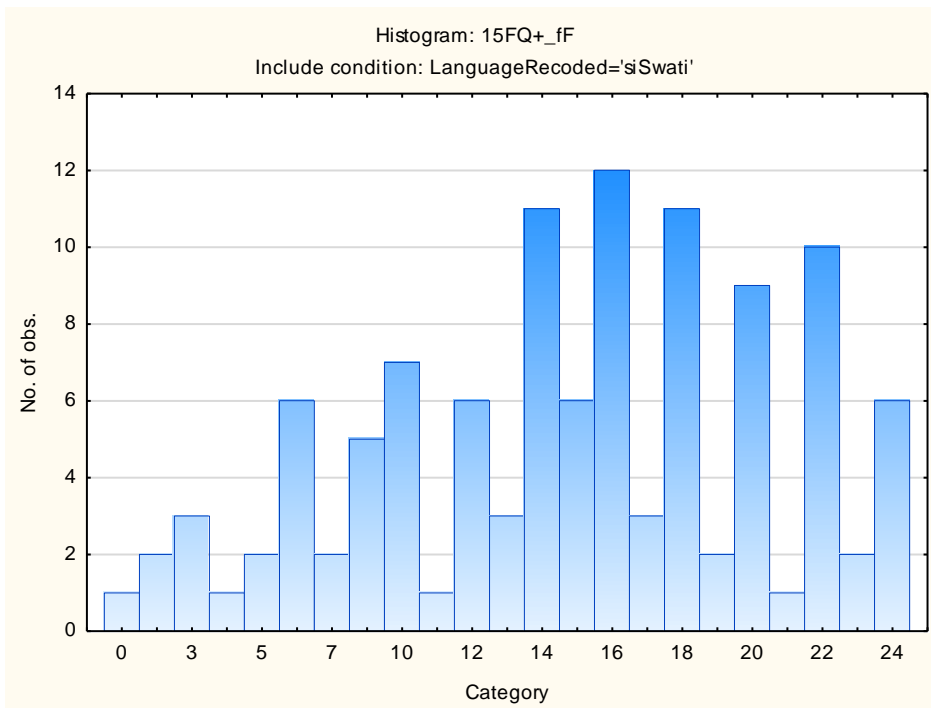
Affected by Feelings - Emotionally Stable



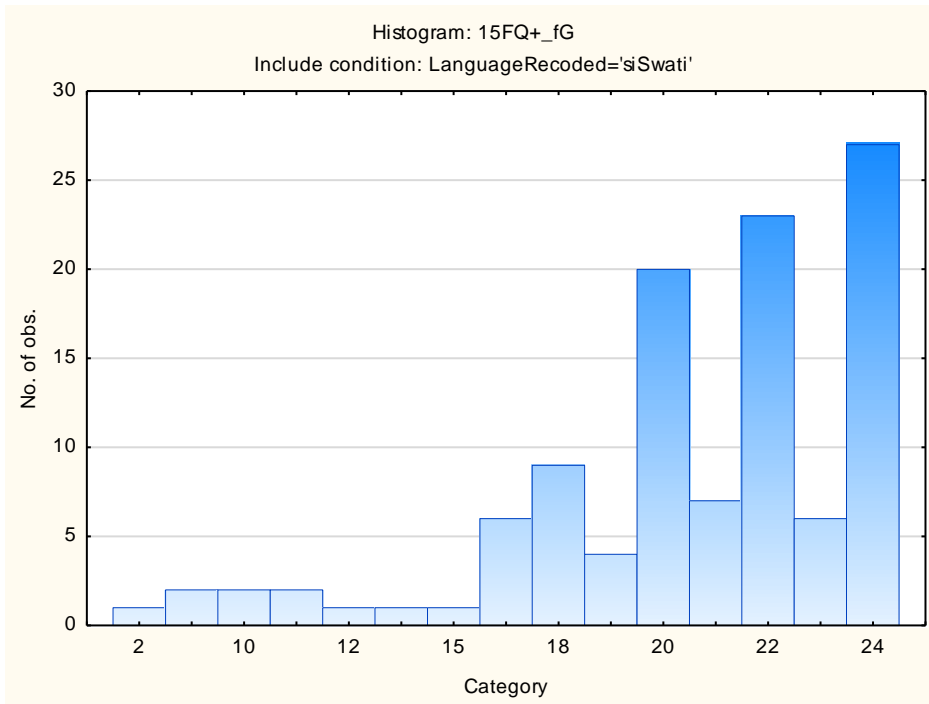
Accommodating – Dominant



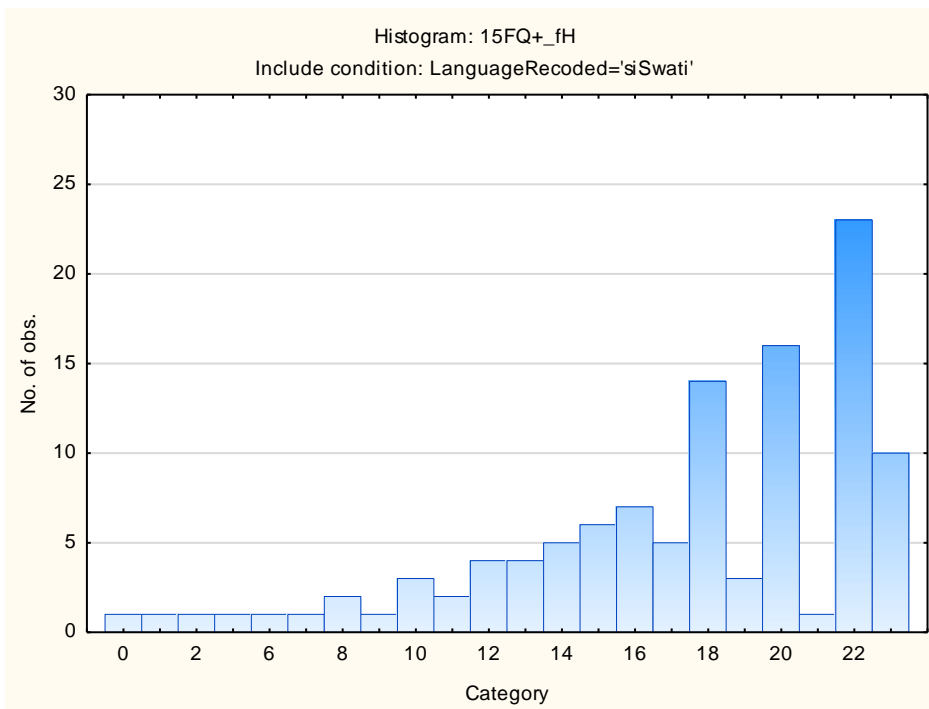
Sober Serious – Enthusiastic



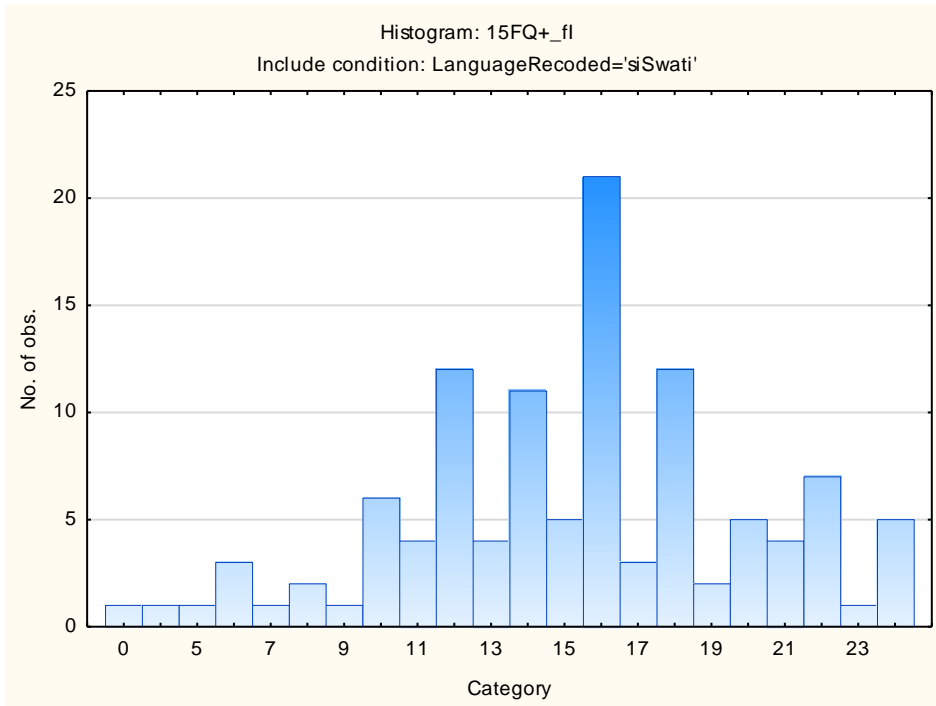
Expedient – Conscientious



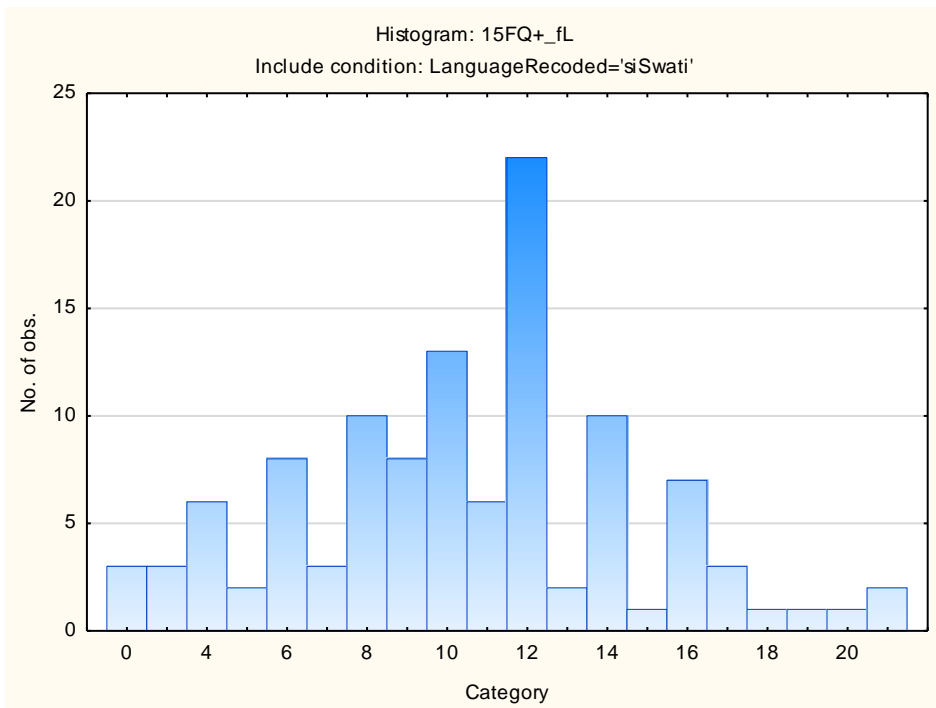
Retiring – Socially-bold



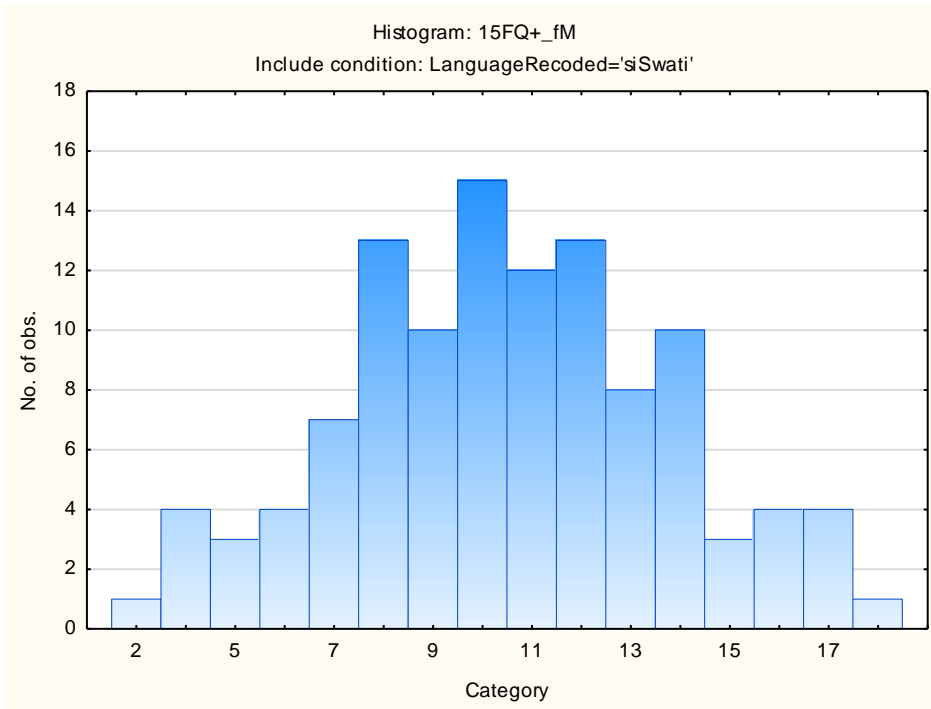
Hard-headed – Tender-minded



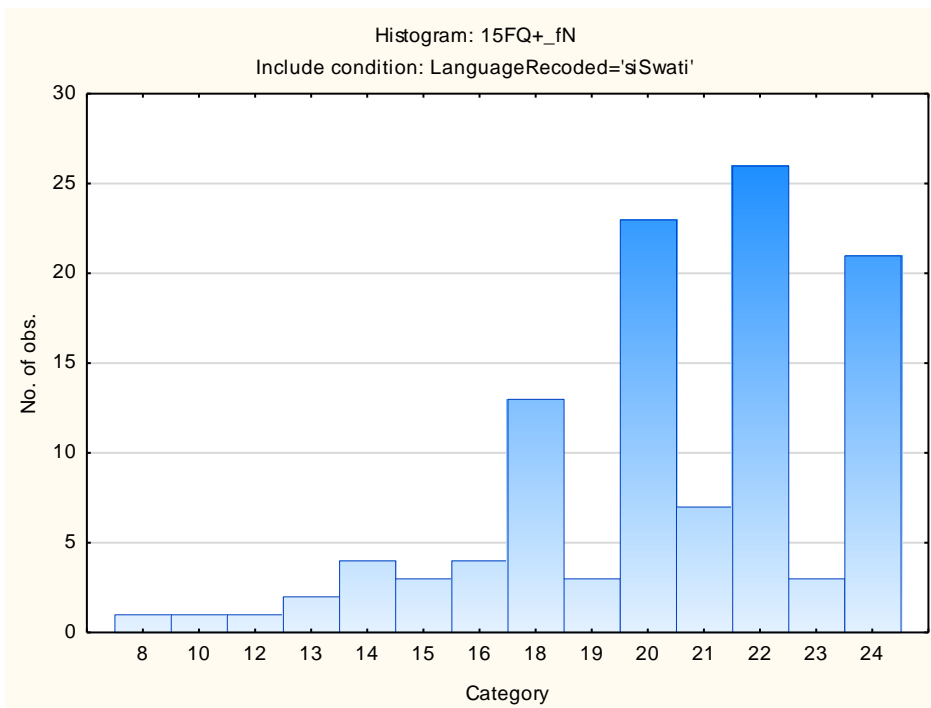
Trusting – Suspicious



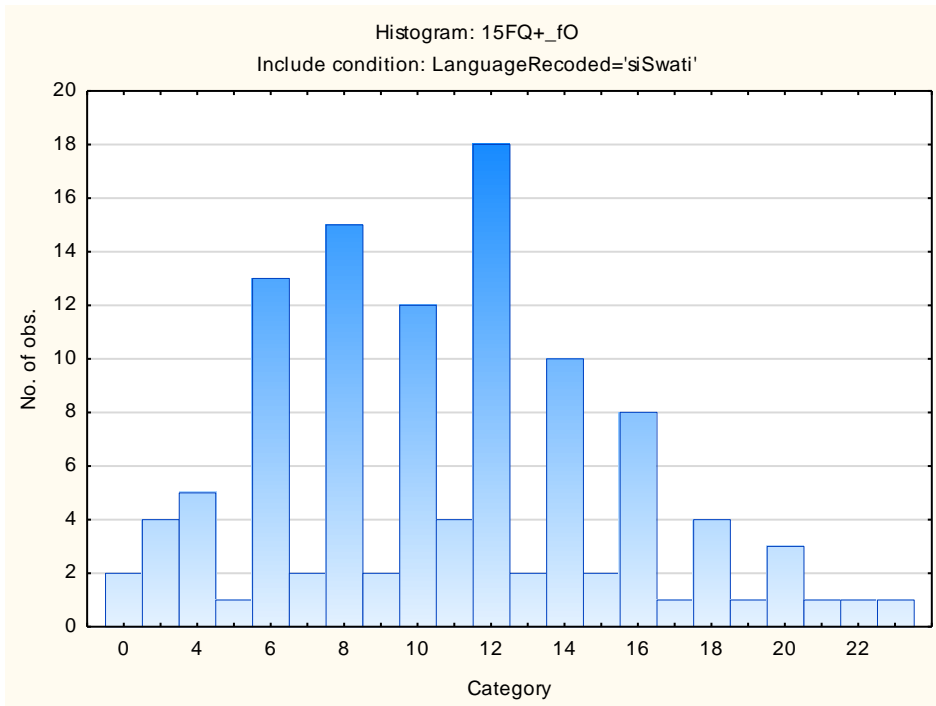
Concrete – Abstract



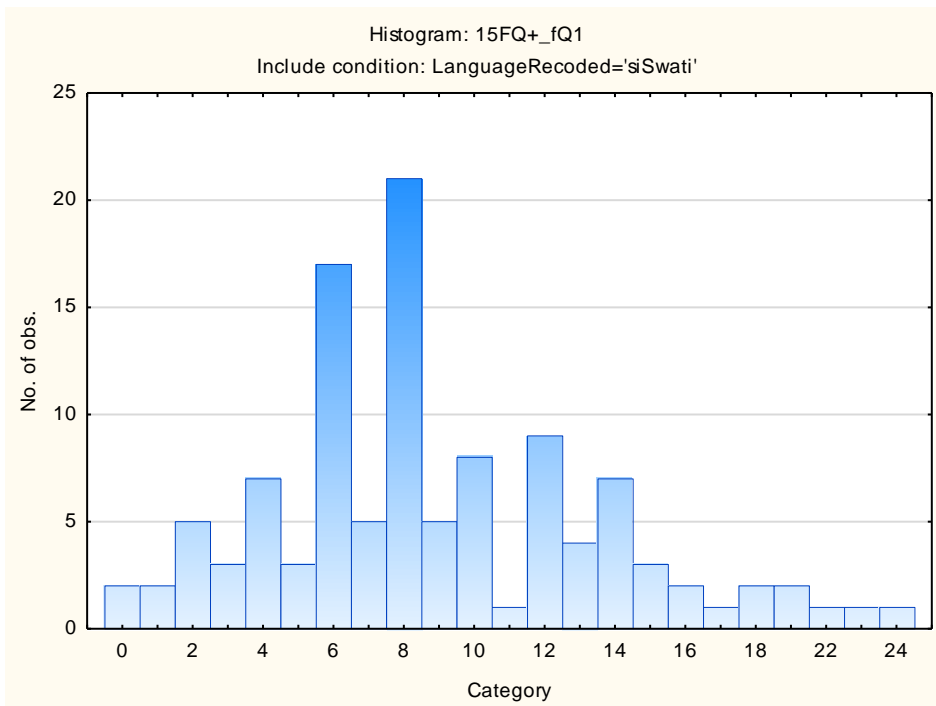
Direct – Restrained



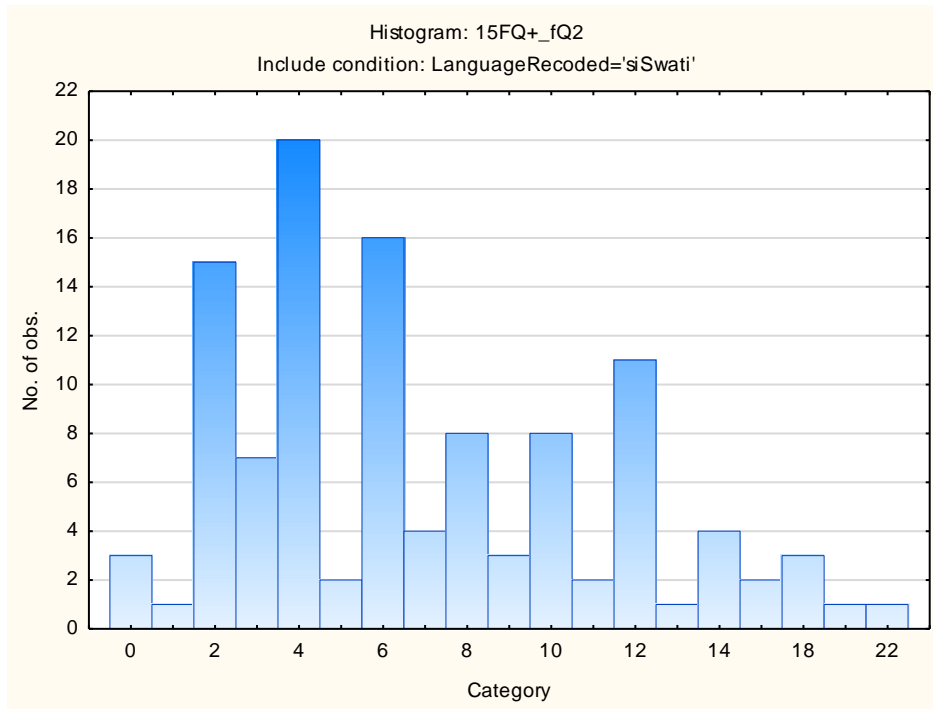
Confident - Self-doubting



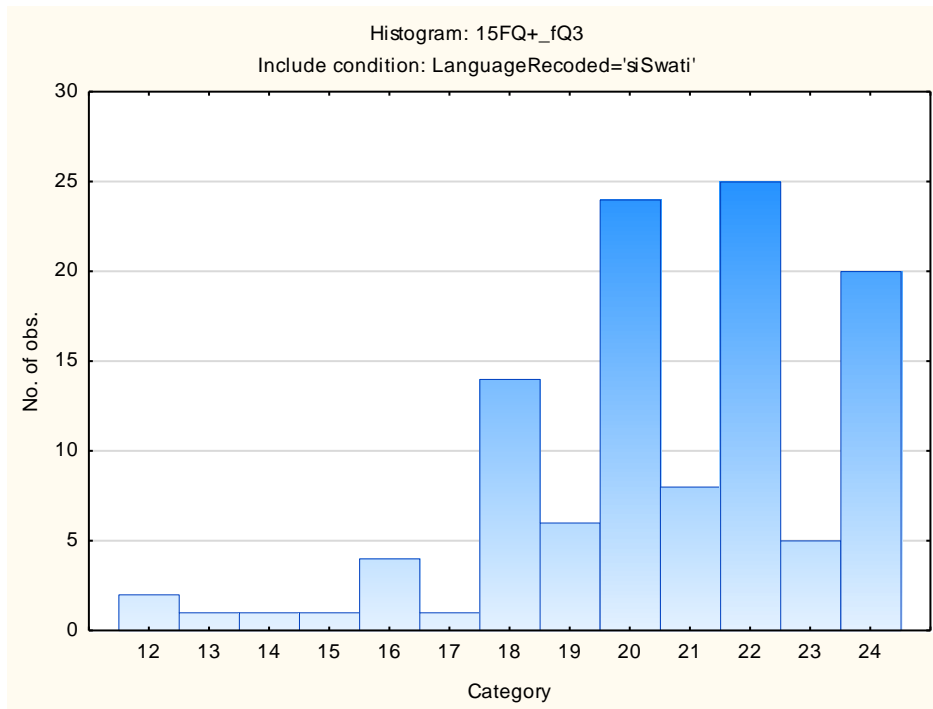
Conventional – Radical



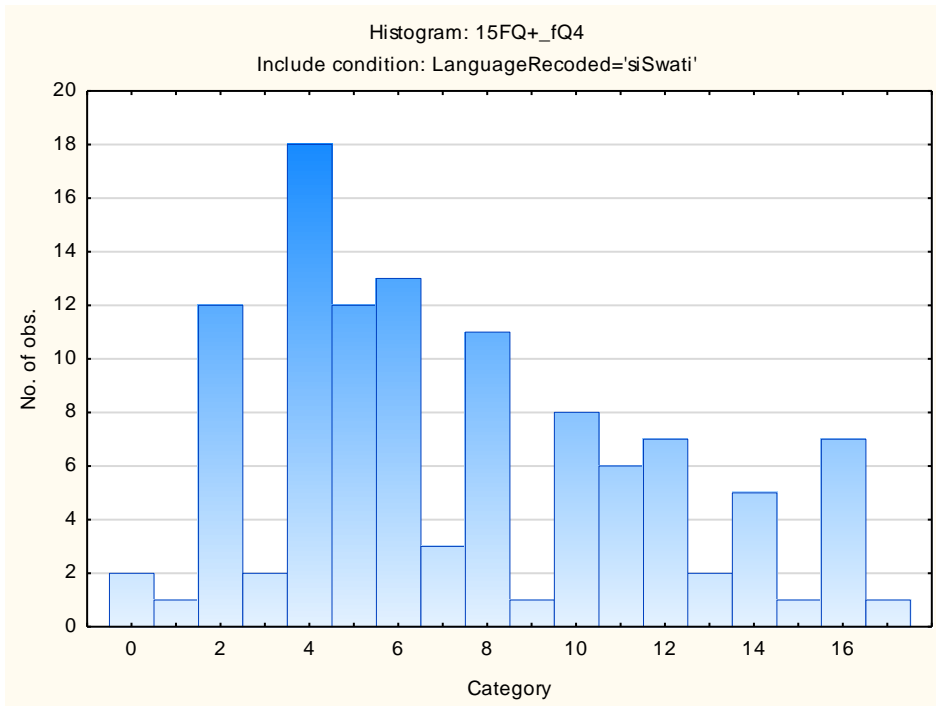
Group-orientated - Self-sufficient



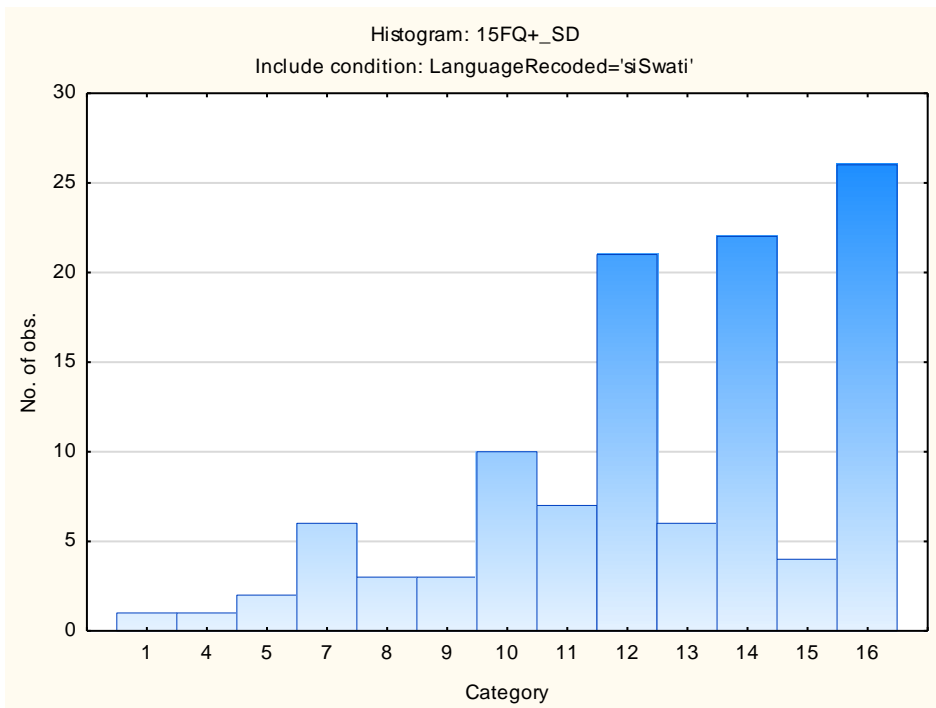
Informal- Self-disciplined



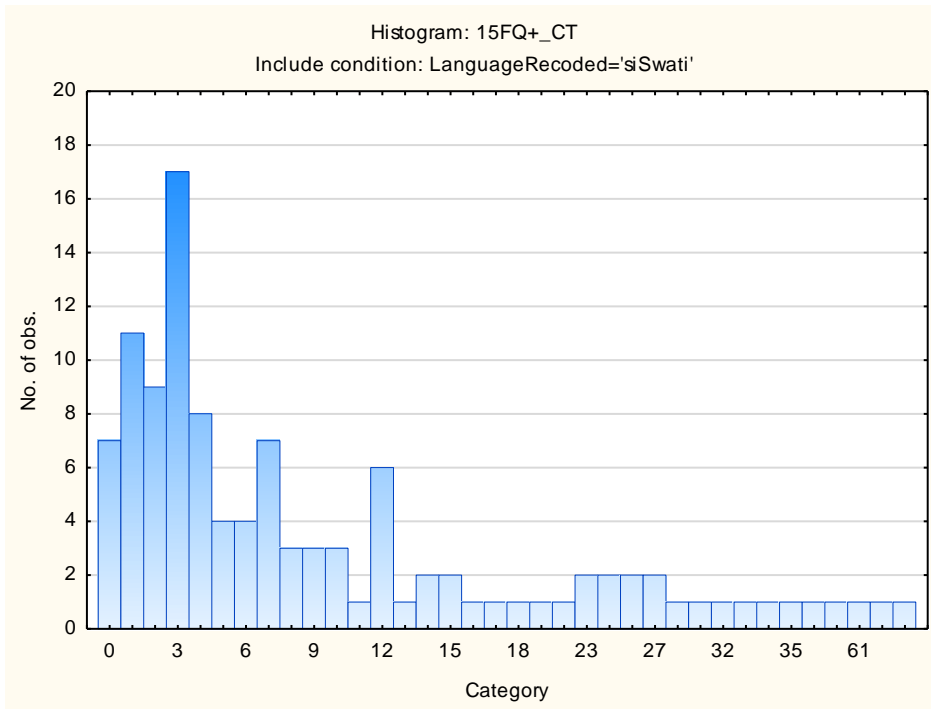
Composed – Tense-driven



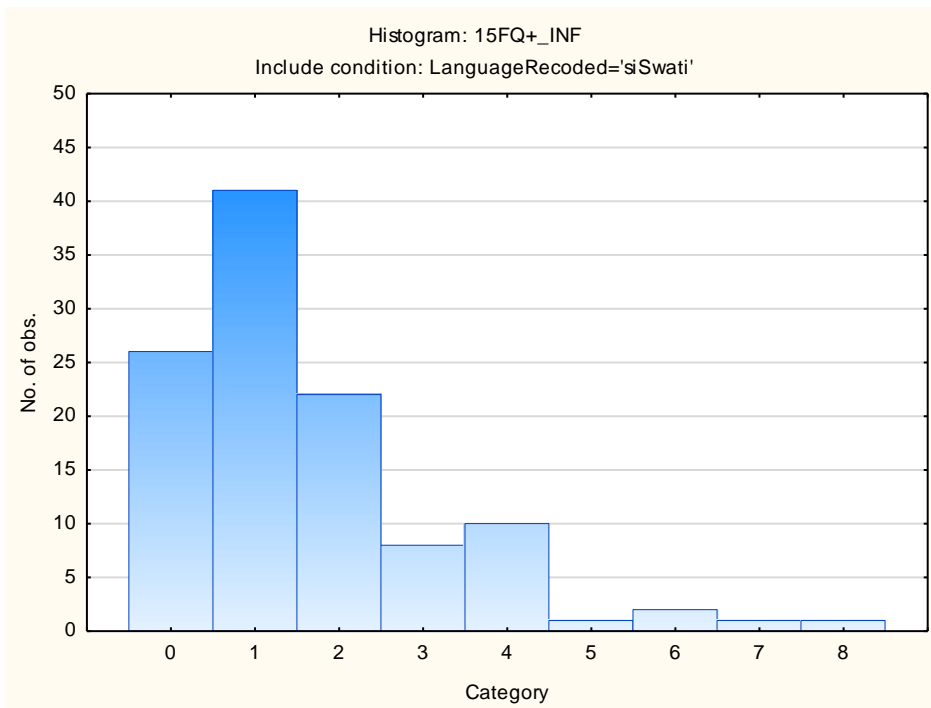
Social Desirability



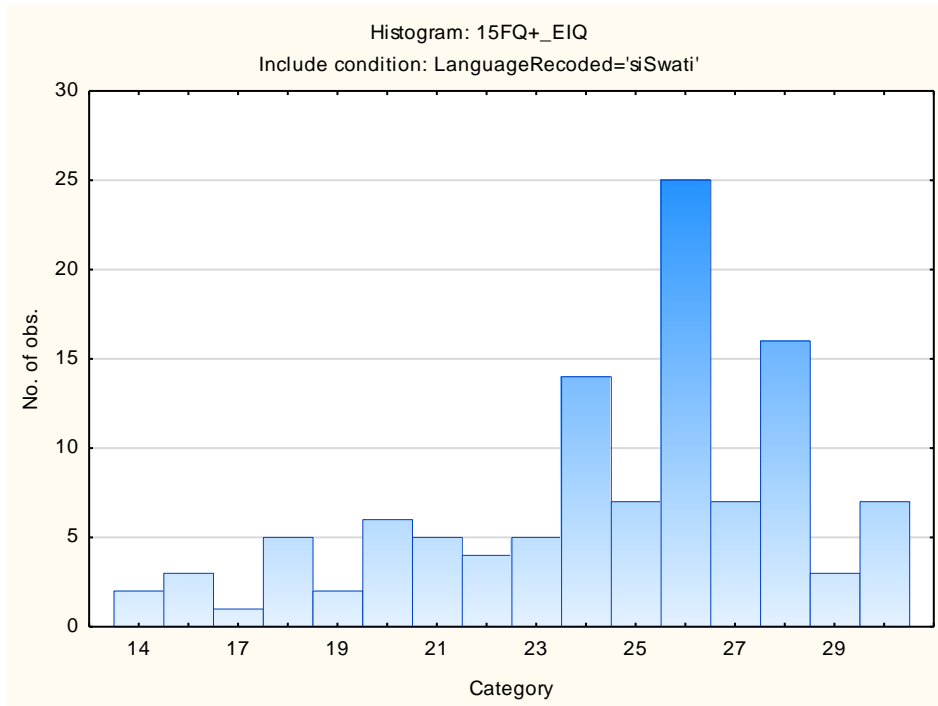
Central Tendency



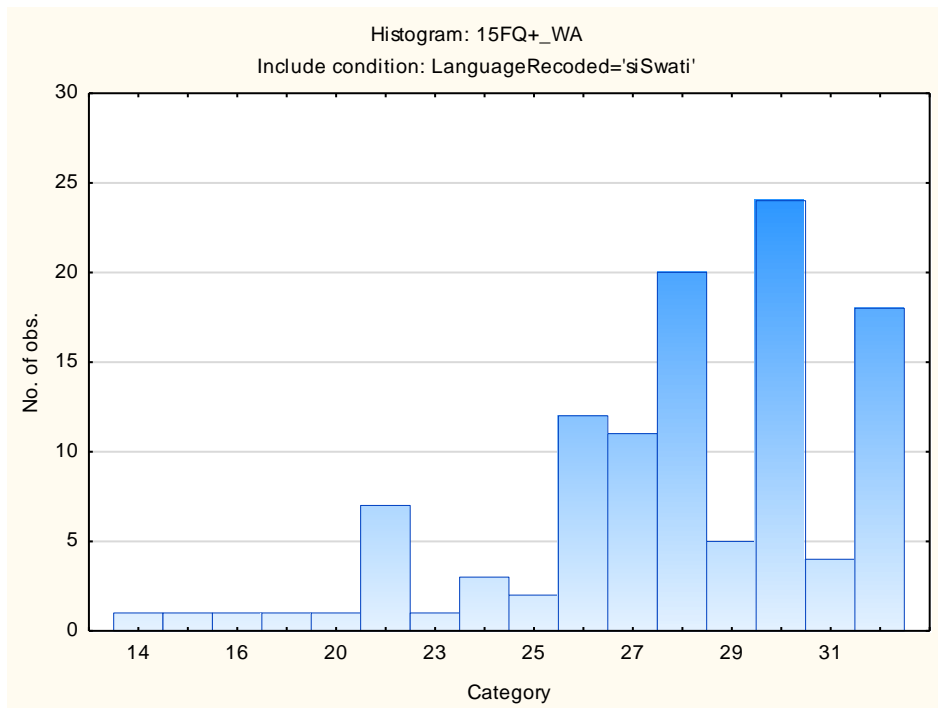
Infrequency



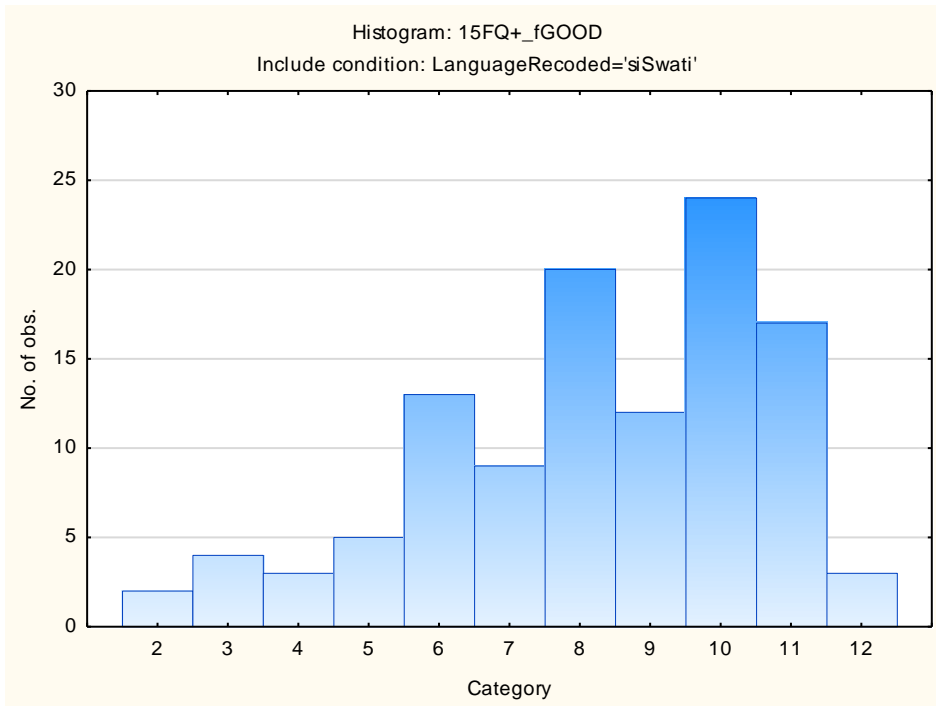
Derived Score: Emotional Intelligence



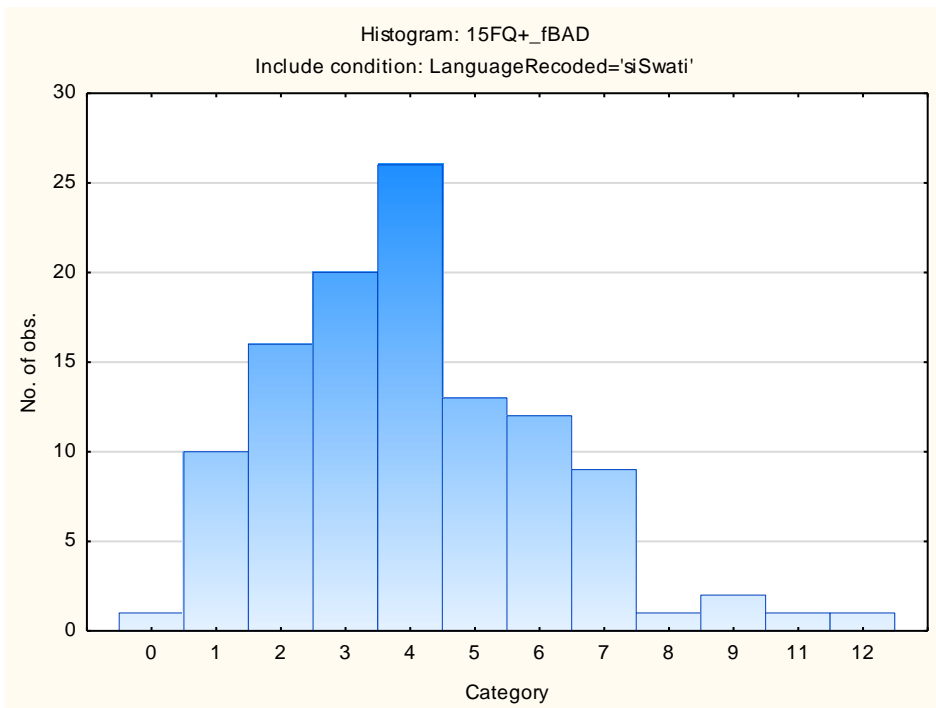
Derived Score: Work Attitude



Faking Good



Faking Bad



Sten Table

Scale Abbreviation	Scale Name	Raw Scores for Sten Categories									
		1	2	3	4	5	6	7	8	9	10
fA	Distant Aloof - Empathic	4-11	12-13	14-15	16-16	17-18	19-20	21-22	23-24		
B	Intellectance	10-12	13-14	15-16	17-18	19-19	20-21	22-23	24-24		
fC	Affected by Feelings - Emotionally Stable	1-9	10-11	12-14	15-16	17-18	19-20	21-22	23-24		
fE	Accommodating – Dominant	2-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	
fF	Sober serious - Enthusiastic	0-2	3-5	6-8	9-11	12-14	15-17	18-20	21-23	24-24	
fG	Expedient – Conscientious	2-12	13-14	15-16	17-18	19-20	21-22	23-24			
fH	Retiring – Socially-bold	0-6	7-9	10-12	13-14	15-17	18-20	21-22	23-24		
fI	Hard-headed – Tender-minded	0-5	6-8	9-10	11-12	13-15	16-17	18-19	20-22	23-24	
fL	Trusting - Suspicious	0-1	2-3	4-5	6-8	9-10	11-12	13-14	15-17	18-19	20-22
fM	Concrete - Abstract	2-3	4-5	6-7	8-8	9-10	11-12	13-13	14-15	16-17	18-20
fN	Direct - Restrained	8-13	14-15	16-16	17-18	19-20	21-21	22-23	24-24		
fO	Confident – Self-doubting	0-1	2-3	4-5	6-8	9-10	11-13	14-15	16-18	19-20	21-24
fQ1	Conventional - Radical	0-1	0-1	2-4	5-6	7-8	9-11	12-13	14-16	17-18	19-24
fQ2	Group-orientated - Self-sufficient	0-1	0-0	1-2	3-4	5-7	8-9	10-11	12-14	15-16	17-22
fQ3	Informal - Self-disciplined	12-15	16-16	17-17	18-19	20-20	21-21	22-23	24-24		
fQ4	Composed – Tense-driven	0-1	0-0	1-3	4-5	6-7	8-9	10-11	12-13	14-16	17-18
SD	Social Desirability	1-6	7-7	8-9	10-10	11-12	13-14	15-15	16-16		
CT	Central Tendency	0-1	0-0	1-1	2-4	5-10	11-17	18-23	24-30	31-36	37-64
INF	Infrequency	0-1	0-0	1-1	2-2	3-3	4-4	5-5	6-6	7-7	8-8
EIQ	Derived Score: Emotional Intelligence	14-17	18-18	19-20	21-22	23-24	25-26	27-28	29-30		
WA	Derived Score: Work Attitude	14-20	21-22	23-24	25-26	27-27	28-29	30-31	32-32		
fGOOD	Faking Good	2-3	4-4	5-5	6-7	8-8	9-9	10-10	11-11	12-12	
fBAD	Faking Bad	0-1	0-0	1-1	2-2	3-4	5-5	6-6	7-7	8-8	9-12

Fifteen Factor Questionnaire (15FQ+)

Norm Group: SA Tshivenda Speakers, Updated 2016

Norm Type:

Standard deviation norm

Composition of the sample

The sample consisted of 149 Tshivenda speaking South Africans tested by Psytech SA and collaborators, via GeneSys for Windows, in the period up to June 2015.

Gender composition of the sample

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	51	51	34,22819	34,2282
M	98	149	65,77181	100,0000
Missing	0	149	0,00000	100,0000

Educational Composition of the Sample

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	21	21	14,09396	14,0940
Tertiary	94	115	63,08725	77,1812
Post Graduate	19	134	12,75168	89,9329
< Matric	1	135	0,67114	90,6040
Missing	14	149	9,39597	100,0000

Language composition of the sample

Category	Frequency table: Language			
	Count	Cumulative Count	Percent	Cumulative Percent
Tshivenda	149	149	100,0000	100,0000
Missing	0	149	0,0000	100,0000

Language Group Composition of the Sample

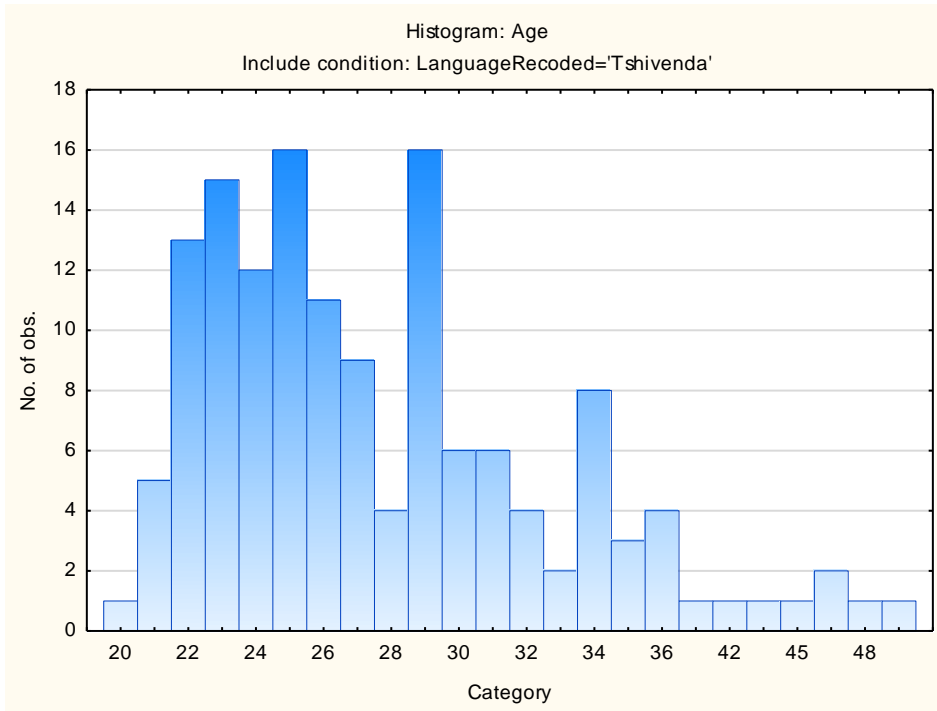
Category	Frequency table: Language Group			
	Count	Cumulative Count	Percent	Cumulative Percent
Indigenous	149	149	100,0000	100,0000
Missing	0	149	0,0000	100,0000

Racial composition of the sample

Category	Frequency table: Race			
	Count	Cumulative Count	Percent	Cumulative Percent
African	147	147	98,65772	98,6577
European	1	148	0,67114	99,3289
Asian	1	149	0,67114	100,0000
Missing	0	149	0,00000	100,0000

Age Composition and Distribution of the Sample

Variable	Descriptive Statistics: Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	27,90909	5,874161	20,00000	51,00000	143	6

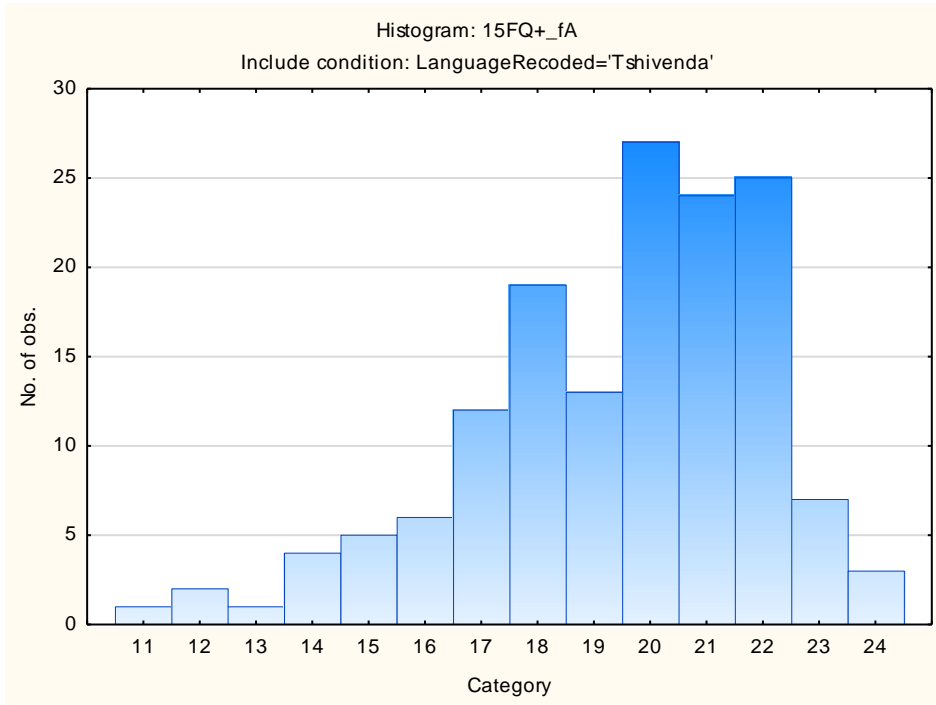


Descriptive Statistics on 15FQ+ Scales

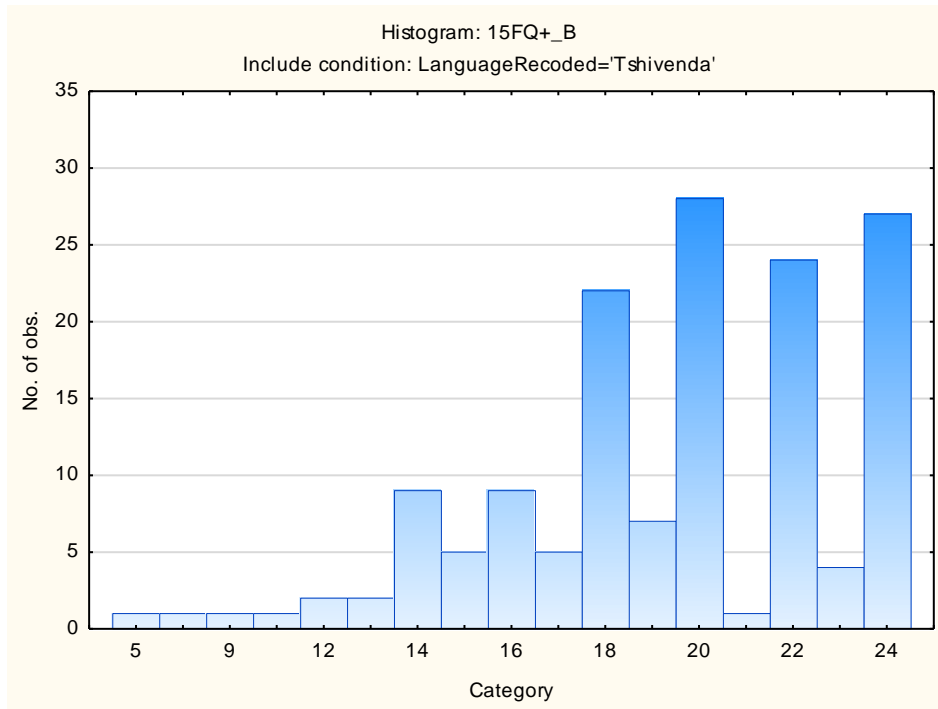
Scale	Scale description	Sample size	Mean	Std.Dev.
fA	Distant Aloof - Empathic	149	19,42953	2,60782
B	Intellectance	149	19,39597	3,73048
fC	Affected by feelings - Emotionally Stable	149	17,82550	4,35228
fE	Accommodating - Dominant	149	16,66443	3,72648
fF	Sober serious - Enthusiastic	149	14,82550	5,01718
fG	Expedient - Conscientious	149	19,89262	3,68001
fH	Retiring – Socially-bold	149	17,22819	5,23646
fI	Hard-headed – Tender-minded	149	14,91946	4,33639
fL	Trusting - Suspicious	149	10,48993	3,99935
fM	Concrete - Abstract	149	10,40268	2,96128
fN	Direct - Restrained	149	20,16779	3,22449
fO	Confident – Self-doubting	149	10,89262	4,49646
fQ1	Conventional - Radical	149	9,21477	3,91733
fQ2	Group-orientated - Self-sufficient	149	6,48322	4,39226
fQ3	Informal – Self-disciplined	149	20,33557	2,30924
fQ4	Composed – Tense-driven	149	7,04027	4,39730
SD	Social Desirability	149	11,53020	3,29528
CT	Central Tendency	149	9,58389	14,41897
INF	Infrequency	149	1,59060	1,98308
EIQ	Derived Score: Emotional Intelligence	149	24,36242	3,68198
WA	Derived Score: Work Attitude	149	26,93960	3,77085
fGOOD	Faking Good	149	8,29530	2,40355
fBAD	Faking Bad	149	4,14094	2,08281

Frequency Distributions for 15FQ+ Scales

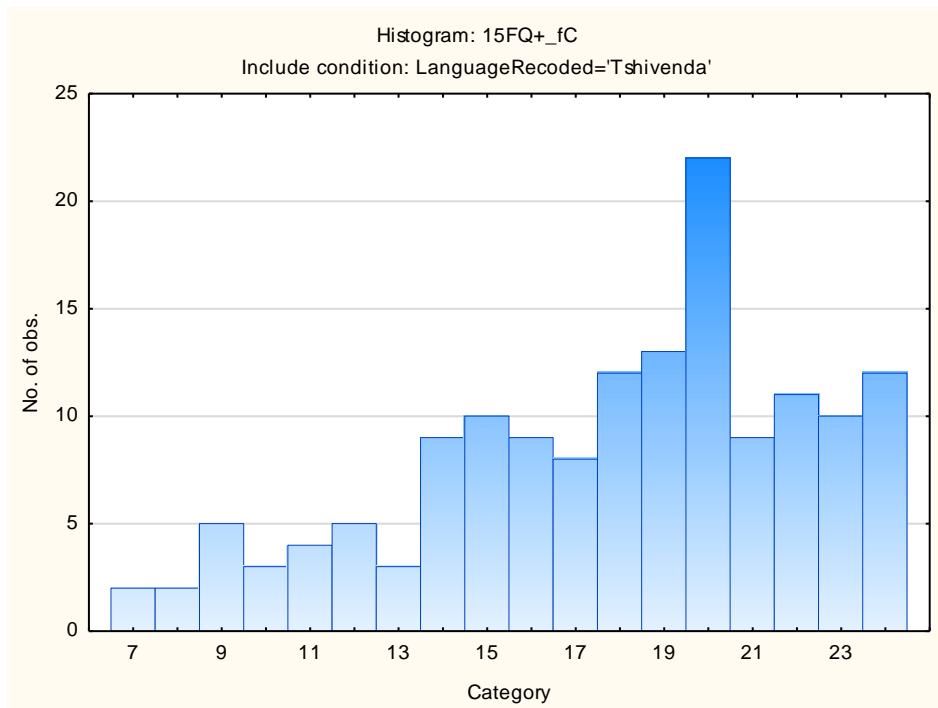
Distant Aloof – Empathic



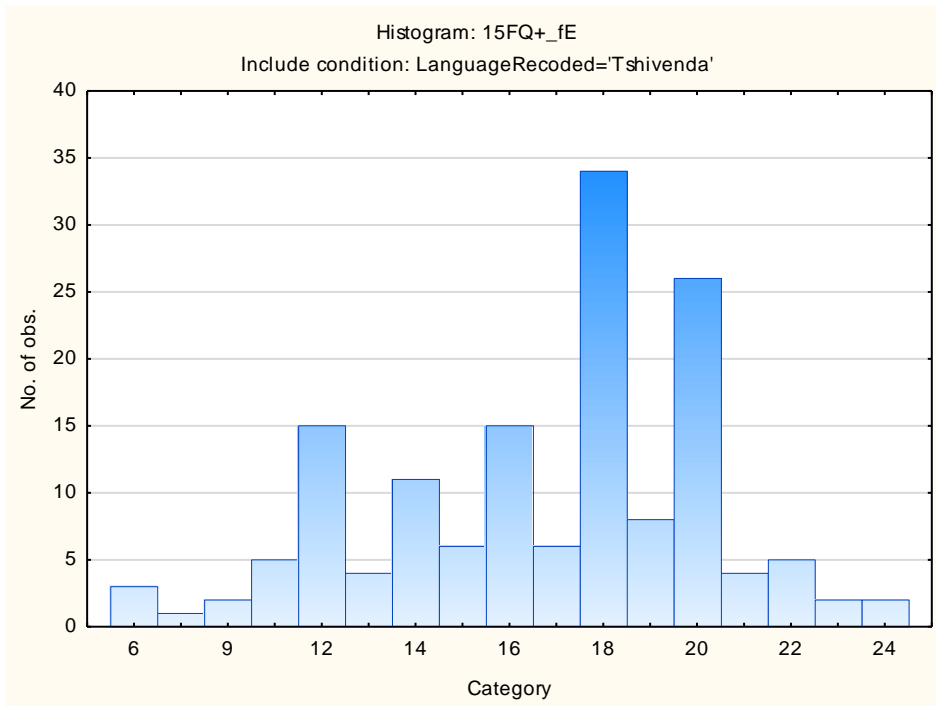
Intellectance



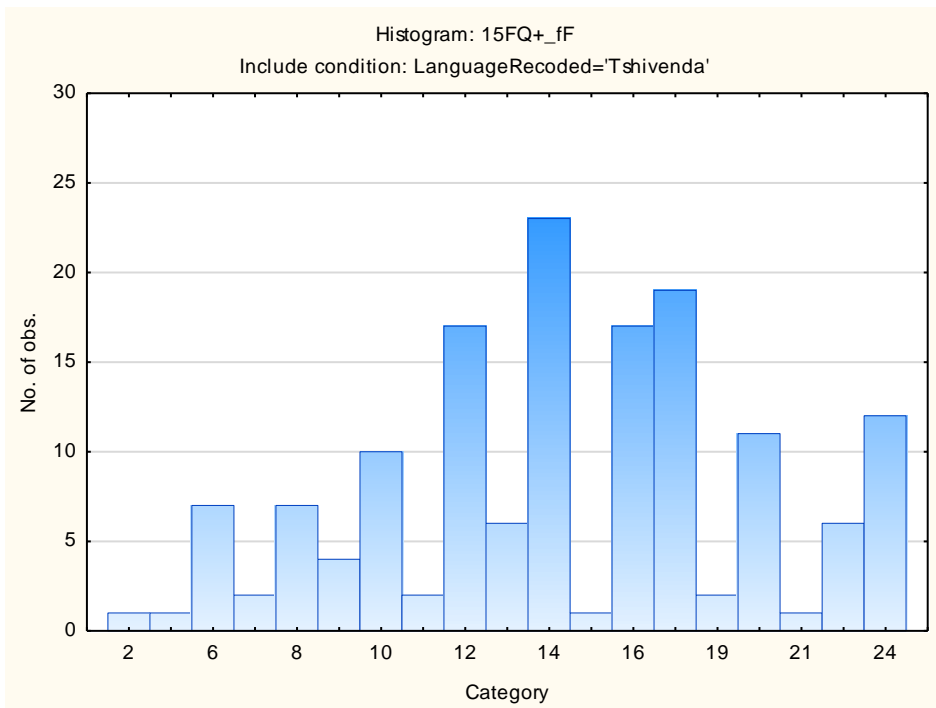
Affected by Feelings - Emotionally Stable



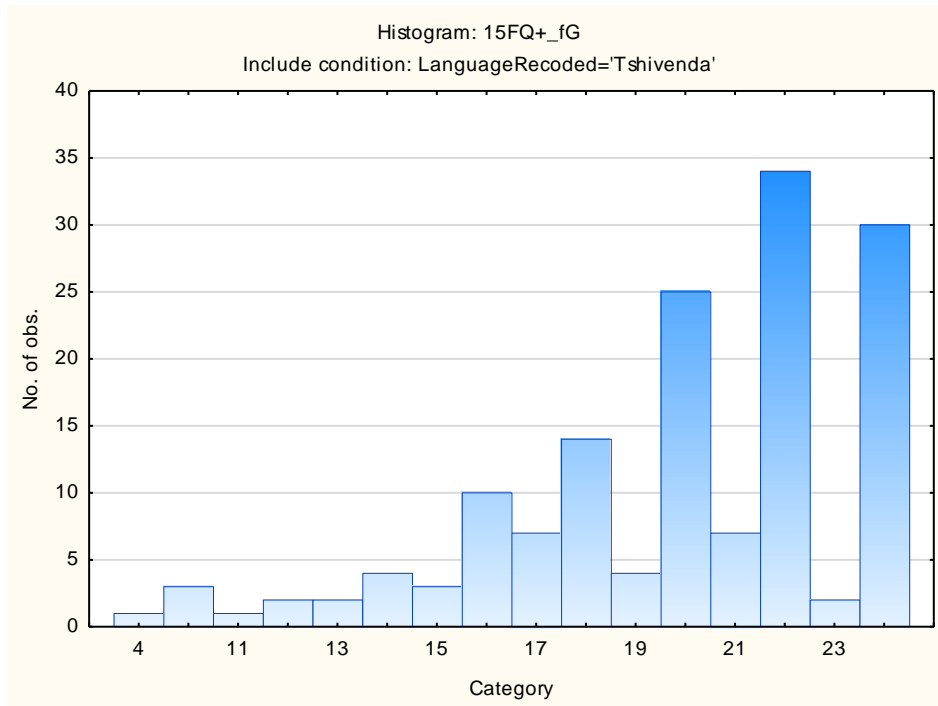
Accommodating – Dominant



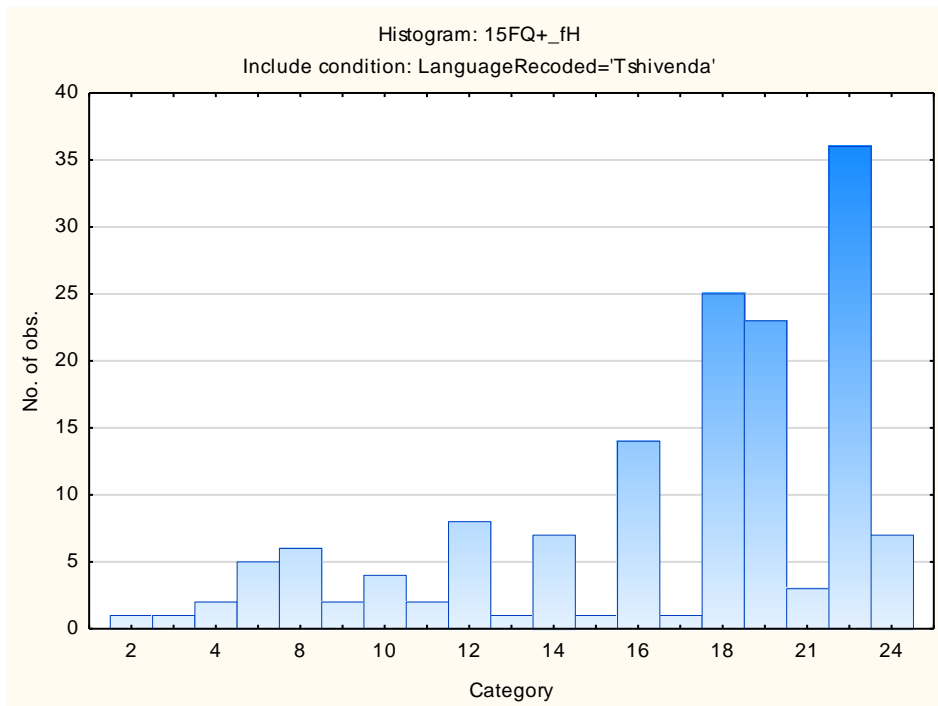
Sober Serious – Enthusiastic



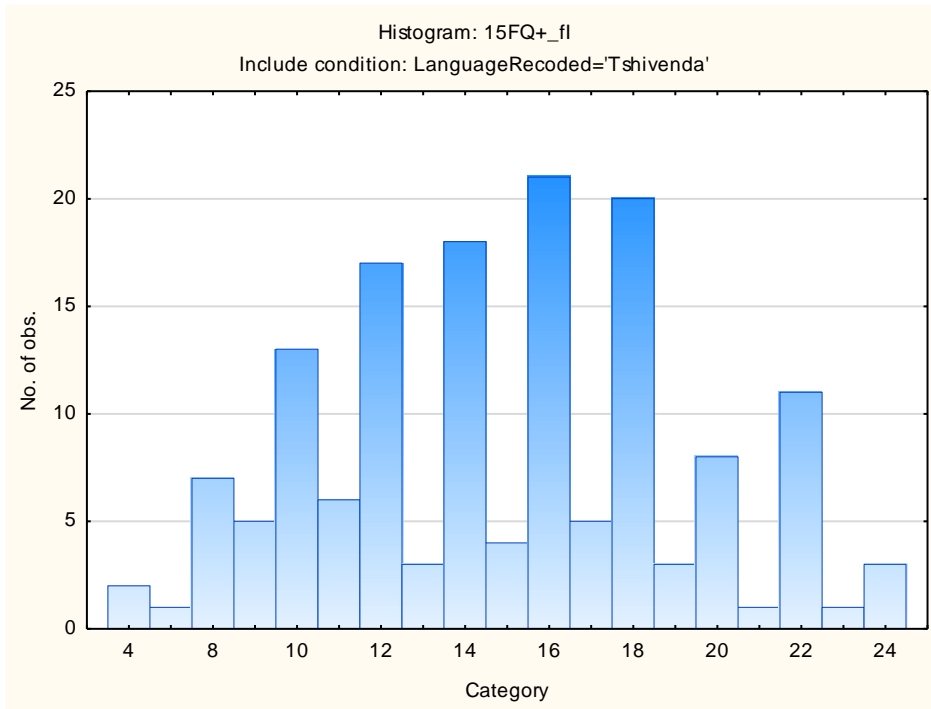
Expedient – Conscientious



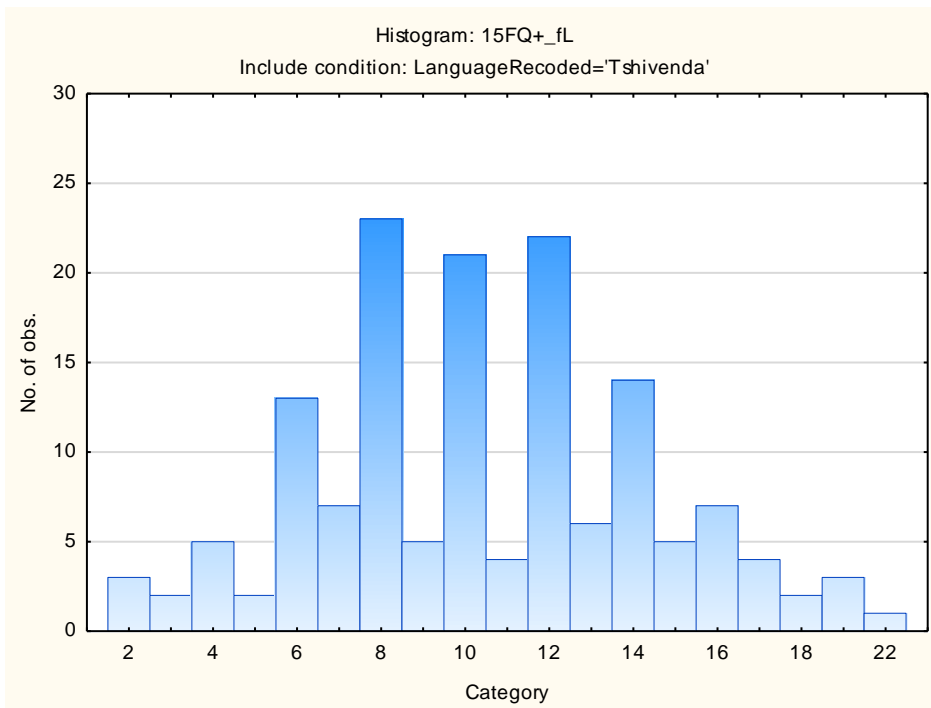
Retiring – Socially-bold



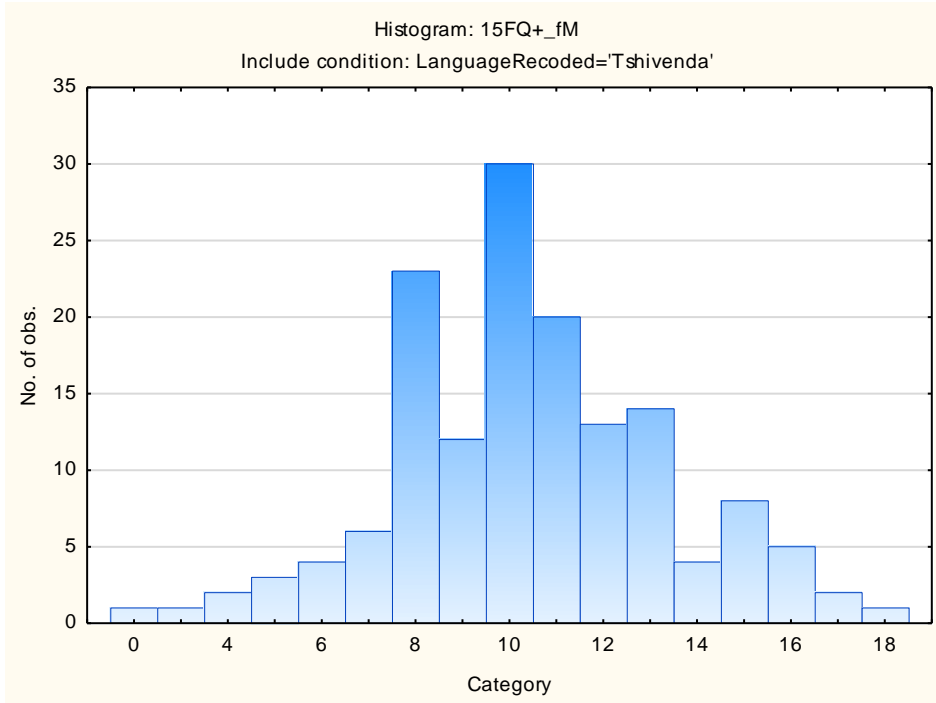
Hard-headed – Tender-minded



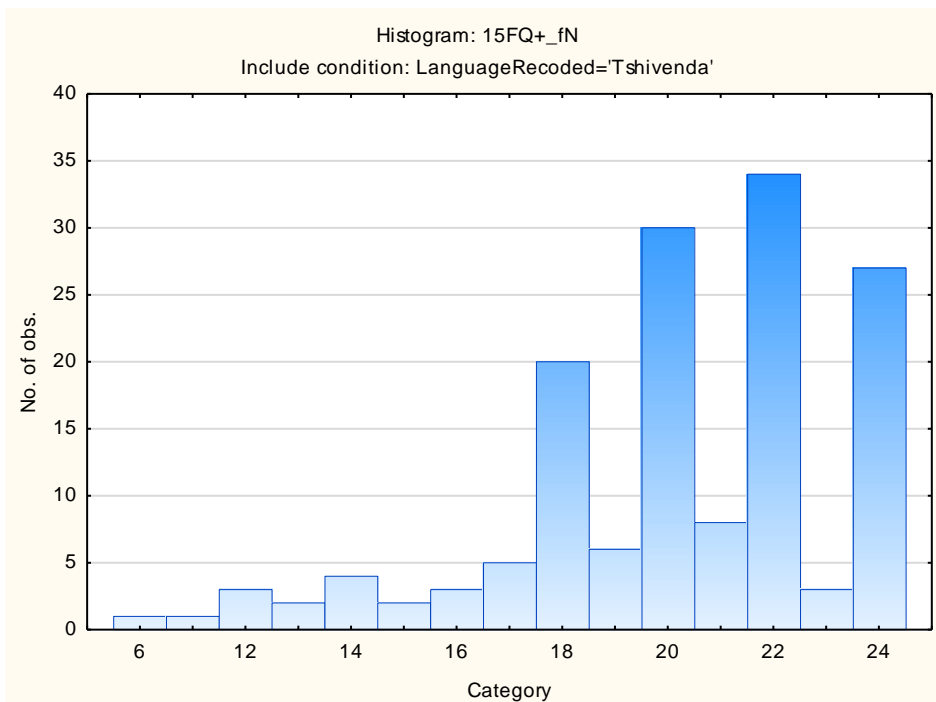
Trusting – Suspicious



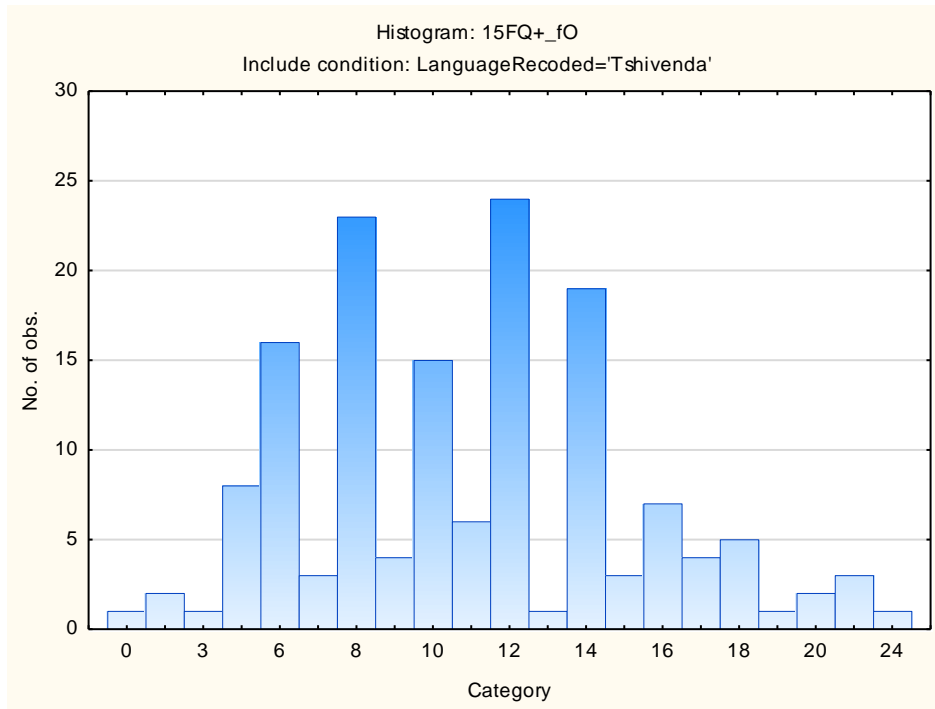
Concrete – Abstract



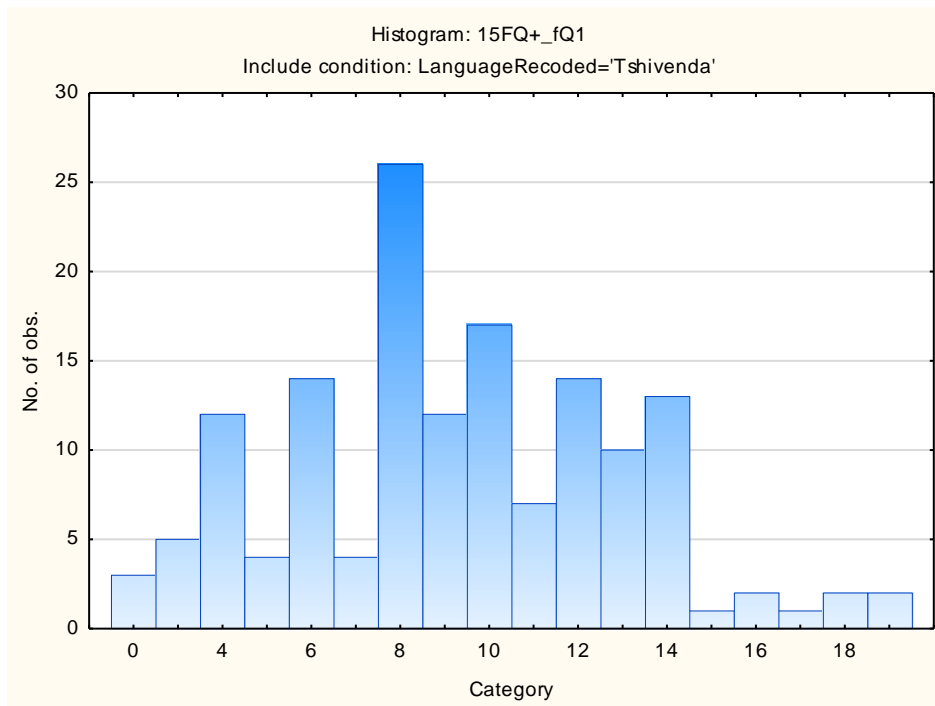
Direct – Restrained



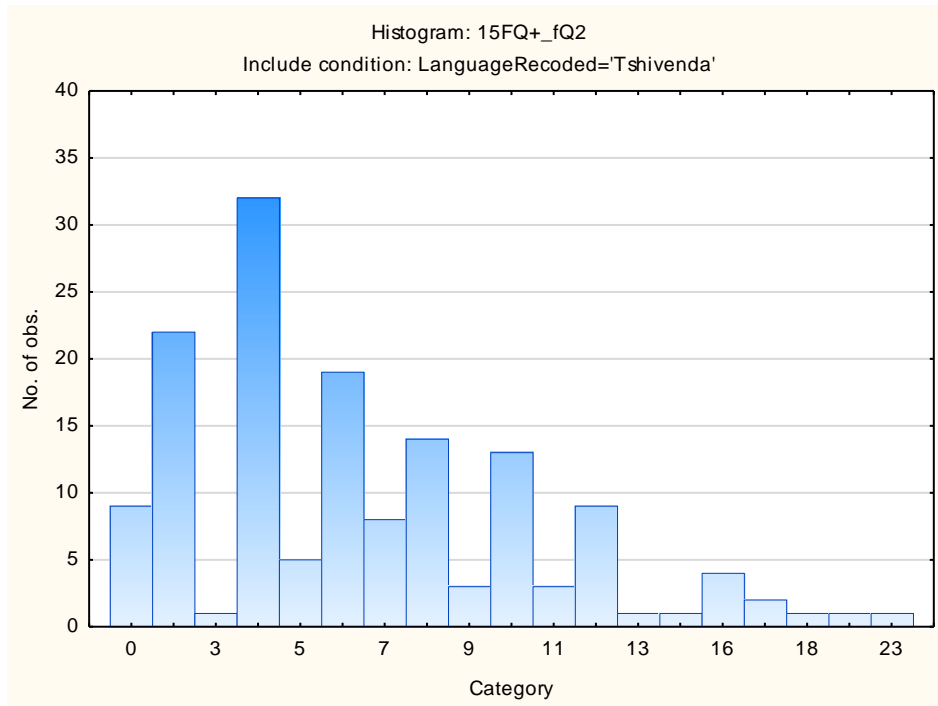
Confident - Self-doubting



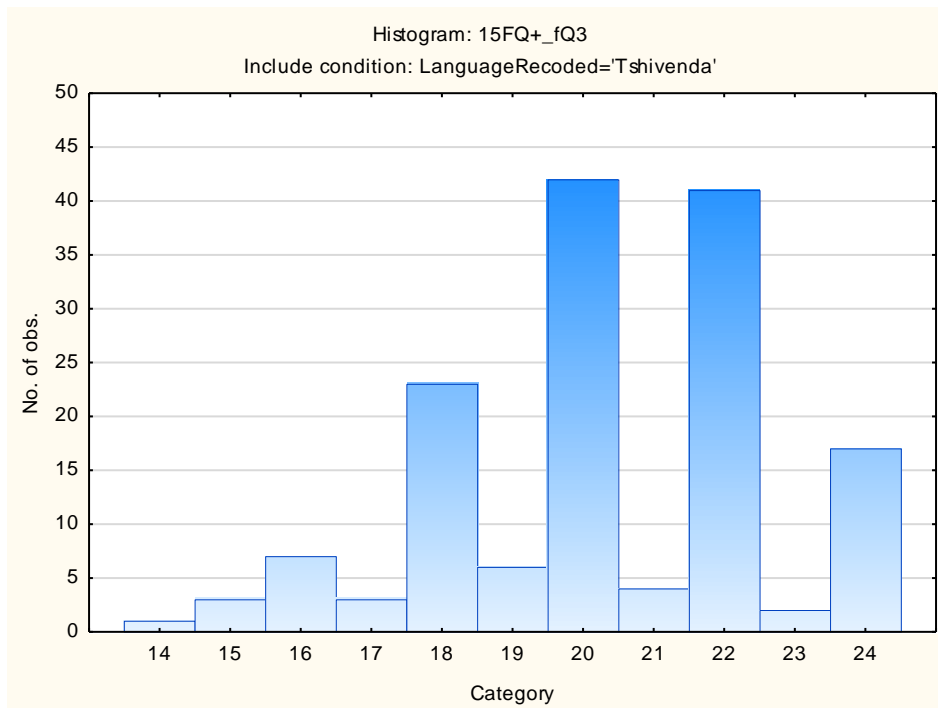
Conventional – Radical



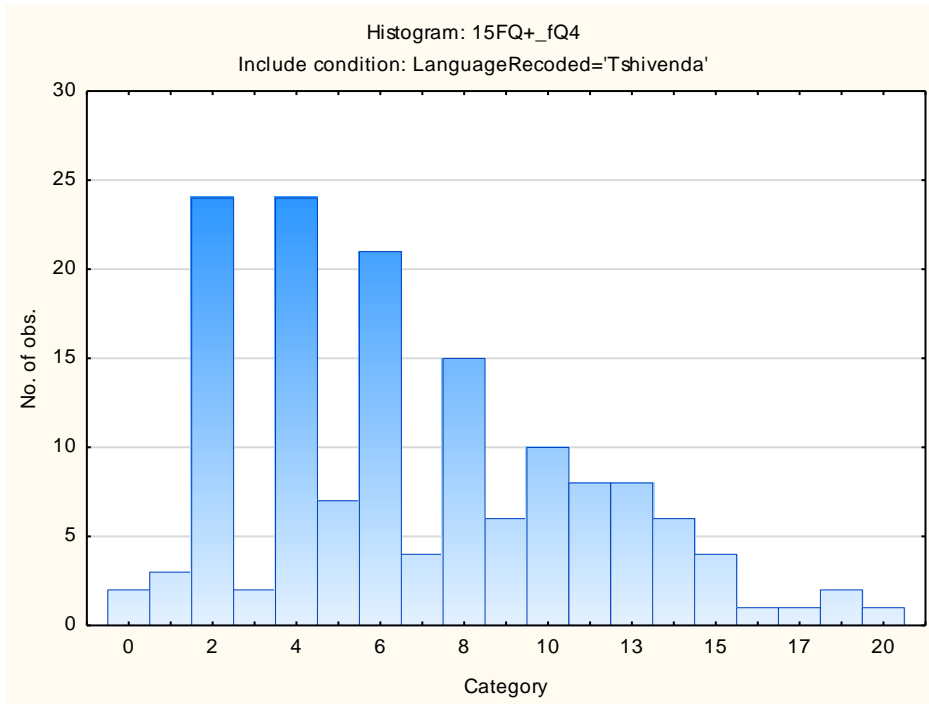
Group-orientated - Self-sufficient



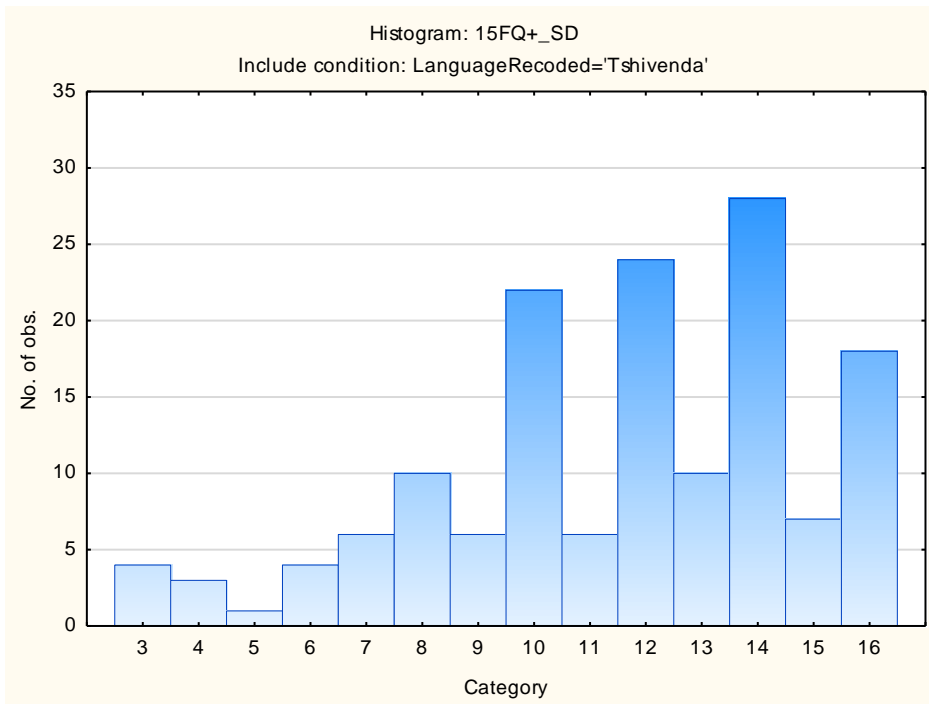
Informal- Self-disciplined



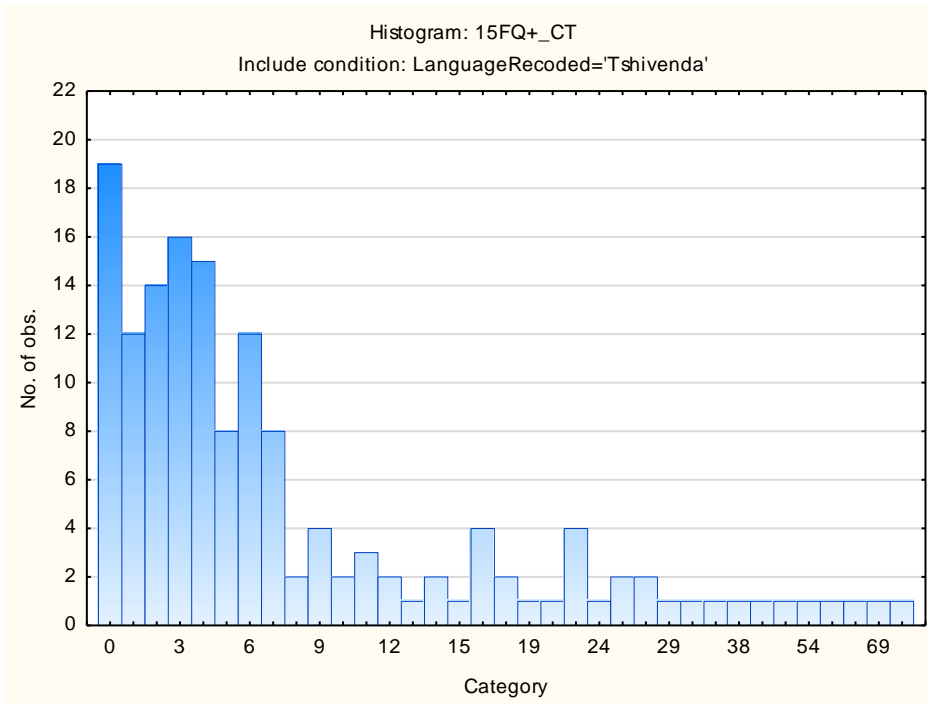
Composed – Tense-driven



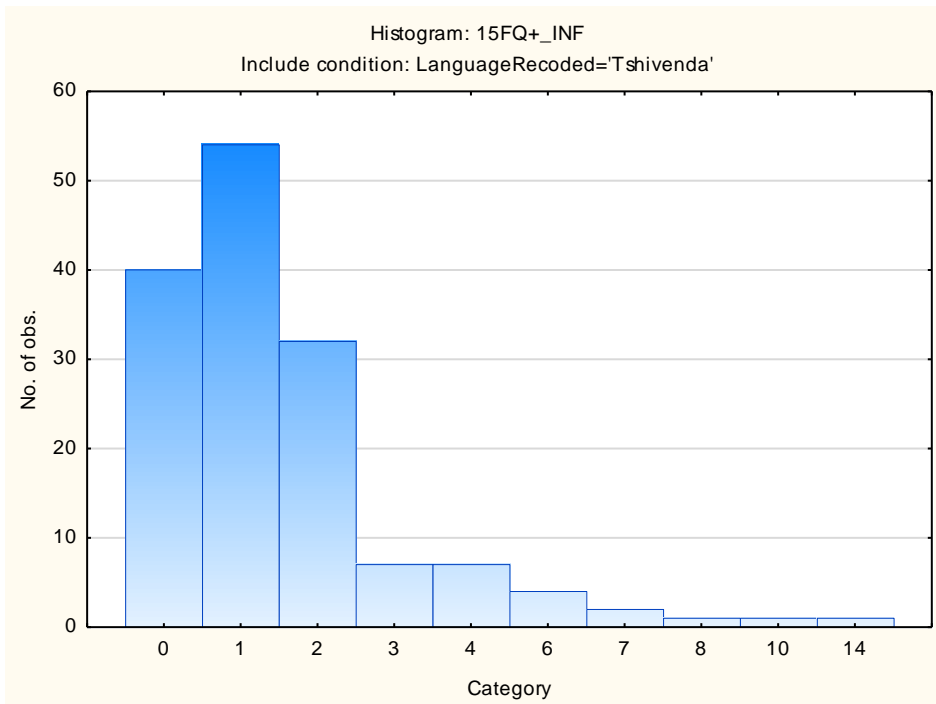
Social Desirability



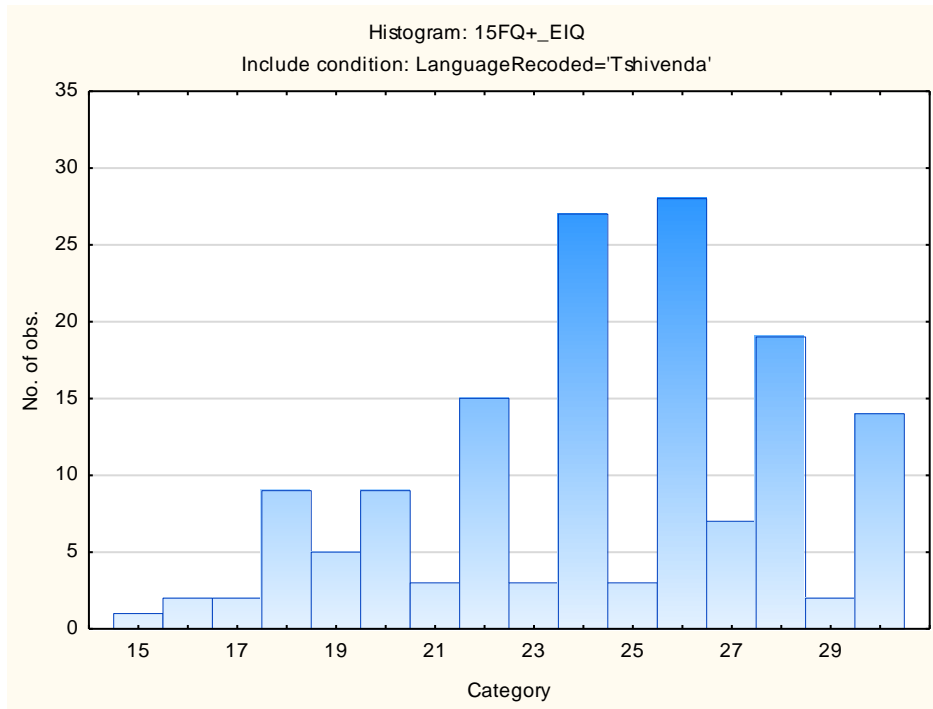
Central Tendency



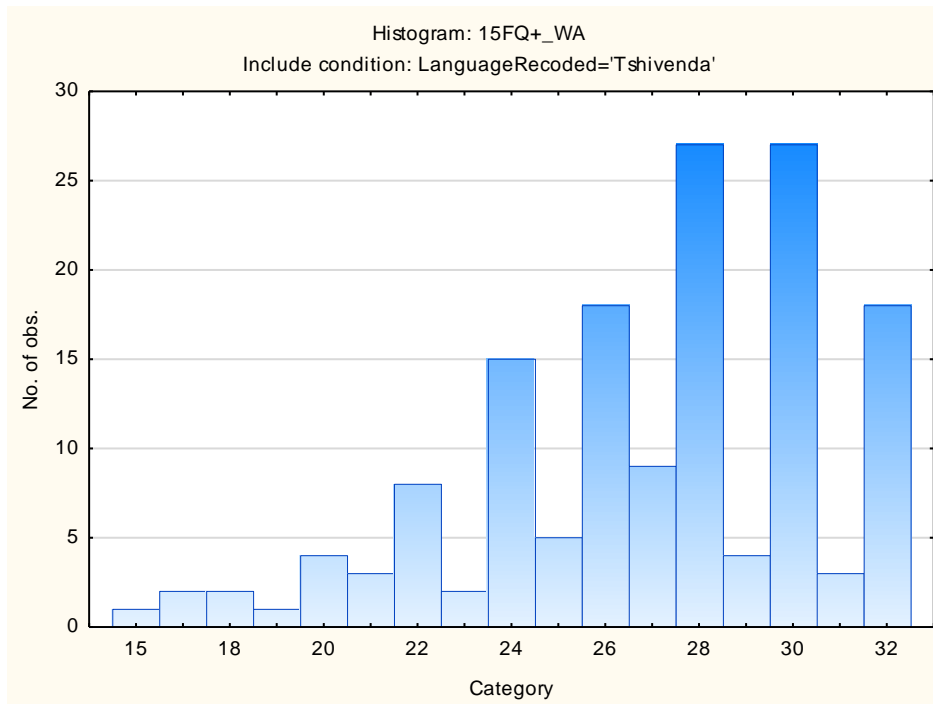
Infrequency



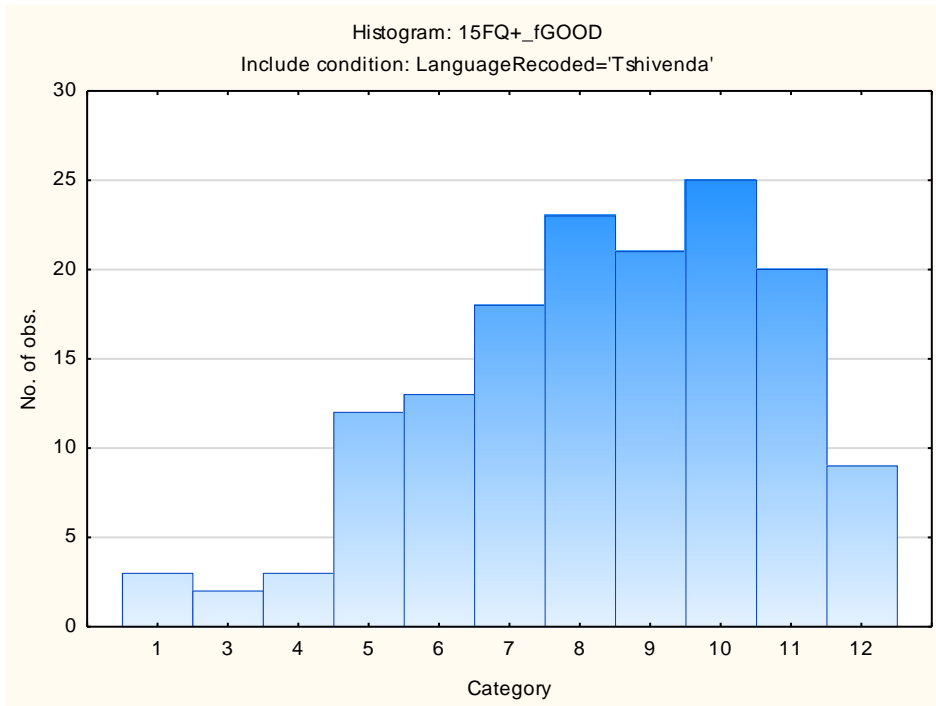
Derived Score: Emotional Intelligence



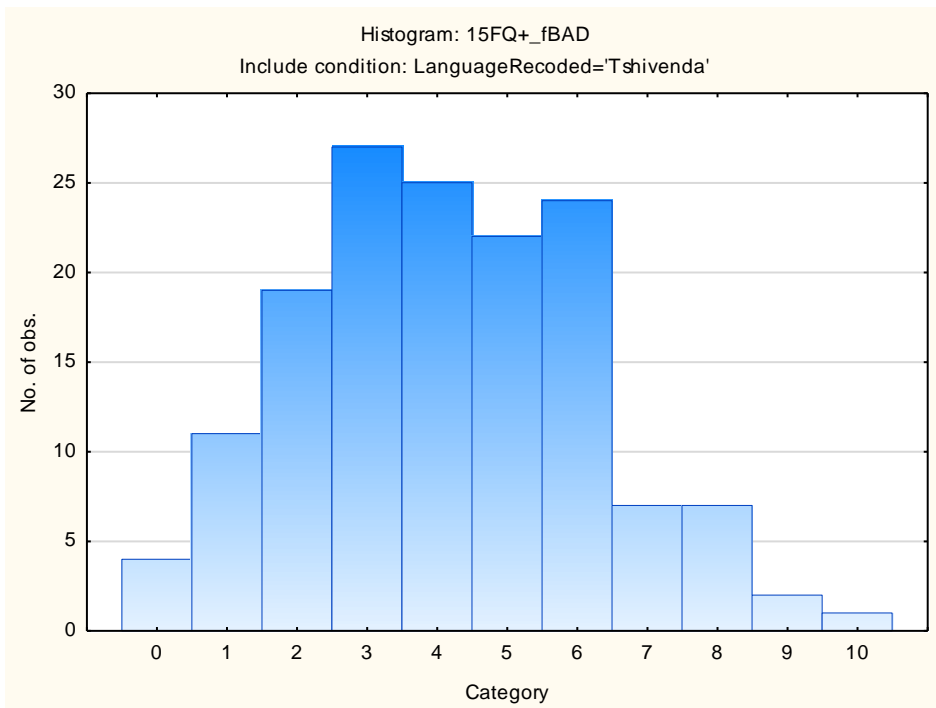
Derived Score: Work Attitude



Faking Good



Faking Bad



Sten Table

Scale Abbreviation	Scale Name	Raw Scores for Sten Categories									
		1	2	3	4	5	6	7	8	9	10
fA	Distant Aloof - Empathic	11-14	15-15	16-16	17-18	19-19	20-20	21-22	23-23	24-24	
B	Intellectance	5-11	12-13	14-15	16-17	18-19	20-21	22-23	24-24		
fC	Affected by Feelings - Emotionally Stable	7-9	10-11	12-13	14-15	16-17	18-20	21-22	23-24		
fE	Accommodating – Dominant	6-9	10-11	12-12	13-14	15-16	17-18	19-20	21-22	23-24	
fF	Sober serious - Enthusiastic	2-4	5-7	8-9	10-12	13-14	15-17	18-19	20-22	23-24	
fG	Expedient – Conscientious	4-12	13-14	15-16	17-18	19-19	20-21	22-23	24-24		
fH	Retiring – Socially-bold	2-6	7-9	10-11	12-14	15-17	18-19	20-22	23-24		
fI	Hard-headed – Tender-minded	4-6	7-8	9-10	11-12	13-14	15-17	18-19	20-21	22-23	24-24
fL	Trusting - Suspicious	2-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-22
fM	Concrete - Abstract	0-4	5-5	6-7	8-8	9-10	11-11	12-13	14-14	15-16	17-18
fN	Direct - Restrained	6-13	14-15	16-16	17-18	19-20	21-21	22-23	24-24		
fO	Confident – Self-doubting	0-1	2-4	5-6	7-8	9-10	11-13	14-15	16-17	18-19	20-24
fQ1	Conventional - Radical	0-1	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-17	18-20
fQ2	Group-orientated - Self-sufficient	0--1	0-0	1-2	3-4	5-6	7-8	9-10	11-13	14-15	16-23
fQ3	Informal - Self-disciplined	14-15	16-16	17-18	19-19	20-20	21-21	22-22	23-23	24-24	
fQ4	Composed – Tense-driven	0--1	0-0	1-2	3-4	5-7	8-9	10-11	12-13	14-15	16-20
SD	Social Desirability	3-4	5-6	7-8	9-9	10-11	12-13	14-14	15-16		
CT	Central Tendency	0--1	0-0	1-1	2-2	3-9	10-16	17-24	25-31	32-38	39-97
INF	Infrequency	0--1	0-0	1-1	2-2	3-3	4-4	5-5	6-6	7-7	8-14
EIQ	Derived Score: Emotional Intelligence	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-29	30-30	
WA	Derived Score: Work Attitude	15-19	20-21	22-23	24-25	26-26	27-28	29-30	31-32		
fGOOD	Faking Good	1-3	4-4	5-5	6-7	8-8	9-9	10-10	11-11	12-12	
fBAD	Faking Bad	0--1	0-1	2-2	3-3	4-4	5-5	6-6	7-7	8-8	9-10

Fifteen Factor Questionnaire (15FQ+)

Norm Group: SA Xitsonga Speakers, Updated 2016

Norm Type:

Standard deviation norm

Composition of the Sample

The sample consisted of 192 Xitsonga speaking South Africans tested by Psytech SA and collaborators, via GeneSys for Windows, in the period up to June 2015.

Gender Composition of the Sample

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	64	64	33,33333	33,3333
M	128	192	66,66667	100,0000
Missing	0	192	0,00000	100,0000

Educational Composition of the Sample

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	56	56	29,16667	29,1667
Tertiary	89	145	46,35417	75,5208
Post Graduate	37	182	19,27083	94,7917
< Matric	2	184	1,04167	95,8333
Missing	8	192	4,16667	100,0000

Language Composition of the Sample

Category	Frequency table: Language			
	Count	Cumulative Count	Percent	Cumulative Percent
Xitsonga	192	192	100,0000	100,0000
Missing	0	192	0,0000	100,0000

Language Group Composition of the Sample

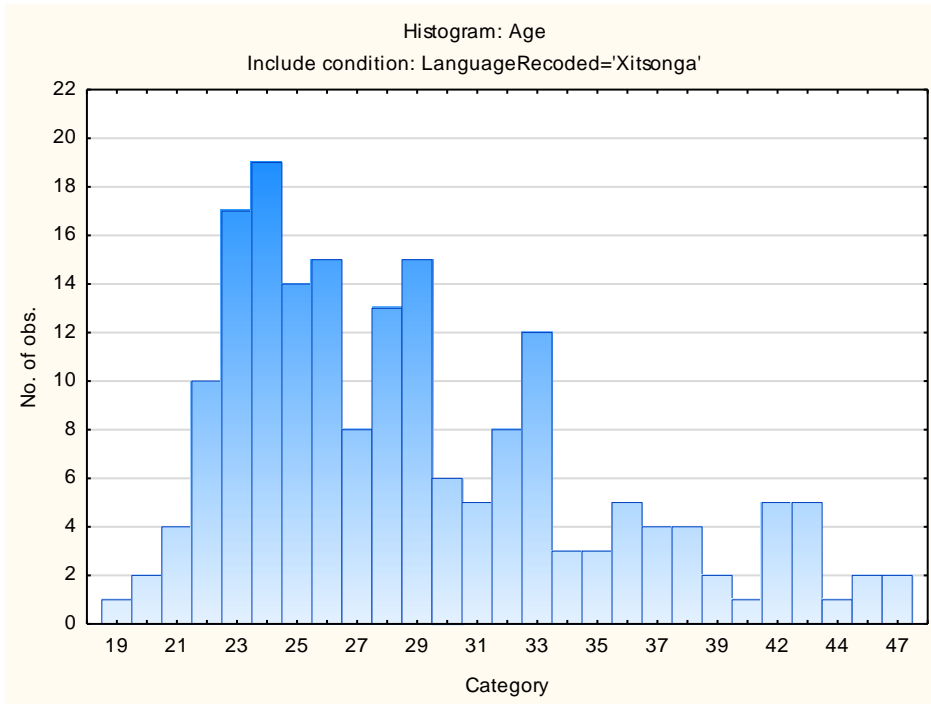
Category	Frequency table: Language Group			
	Count	Cumulative Count	Percent	Cumulative Percent
Indigenous	192	192	100,0000	100,0000
Missing	0	192	0,0000	100,0000

Racial Composition of the Sample

Category	Frequency table: Race			
	Count	Cumulative Count	Percent	Cumulative Percent
African	191	191	99,47917	99,4792
European	1	192	0,52083	100,0000
Missing	0	192	0,00000	100,0000

Age Composition and Distribution of the Sample

Variable	Descriptive Statistics: Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	29,08602	6,293121	19,00000	47,00000	186	6

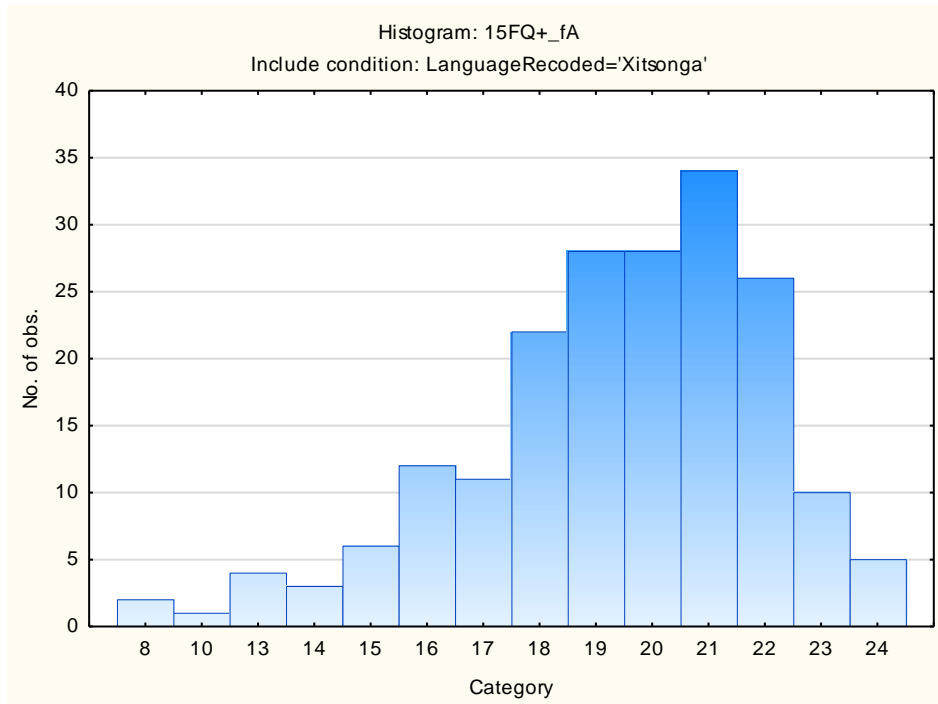


Descriptive Statistics on 15FQ+ Scales

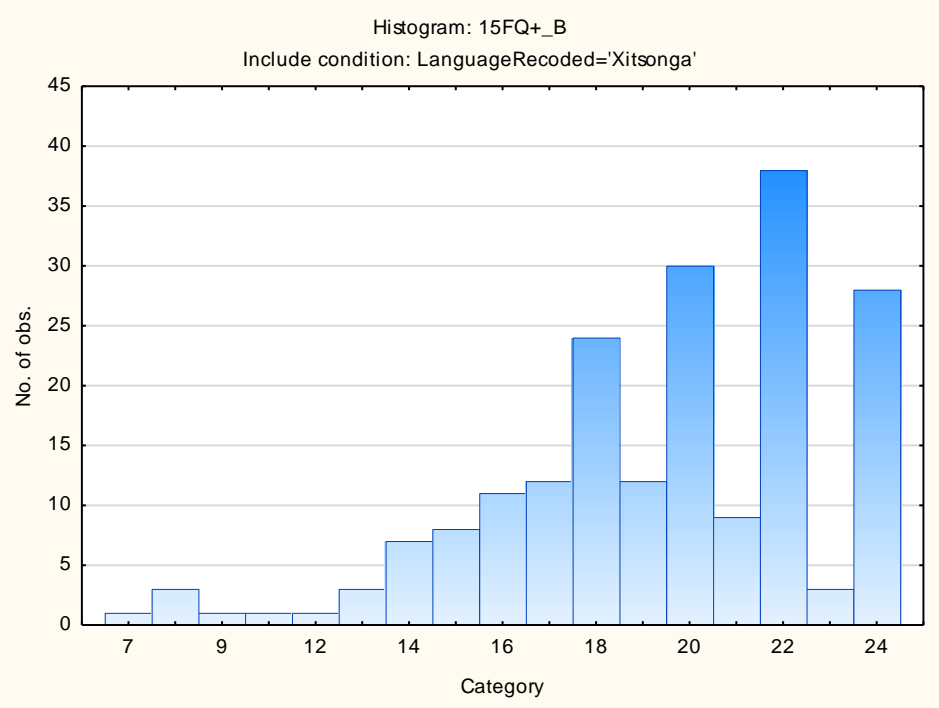
Scale	Scale description	Sample size	Mean	Std.Dev.
fA	Distant Aloof - Empathic	192	19,33854	2,77705
B	Intellectance	192	19,40104	3,57721
fC	Affected by feelings - Emotionally Stable	192	17,50521	4,16165
fE	Accommodating - Dominant	192	16,65104	3,82580
fF	Sober serious - Enthusiastic	192	14,02083	5,45420
fG	Expedient - Conscientious	192	19,69792	4,12912
fH	Retiring – Socially-bold	192	16,16146	5,16634
fI	Hard-headed – Tender-minded	192	14,94271	4,68616
fL	Trusting - Suspicious	192	10,54688	4,55196
fM	Concrete - Abstract	192	10,70312	3,39855
fN	Direct - Restrained	192	20,27604	2,84906
fO	Confident – Self-doubting	192	11,31250	4,88788
fQ1	Conventional - Radical	192	9,73438	4,29382
fQ2	Group-orientated - Self-sufficient	192	7,08333	4,11272
fQ3	Informal – Self-disciplined	192	20,20313	3,05712
fQ4	Composed – Tense-driven	192	6,89583	4,46740
SD	Social Desirability	192	11,43750	3,27073
CT	Central Tendency	192	12,06771	12,41940
INF	Infrequency	192	1,61458	1,68374
EIQ	Derived Score: Emotional Intelligence	192	24,51563	3,26328
WA	Derived Score: Work Attitude	192	26,78646	4,32226
fGOOD	Faking Good	192	8,36979	2,27062
fBAD	Faking Bad	192	4,16667	2,17634

Frequency Distributions for 15FQ+ Scales

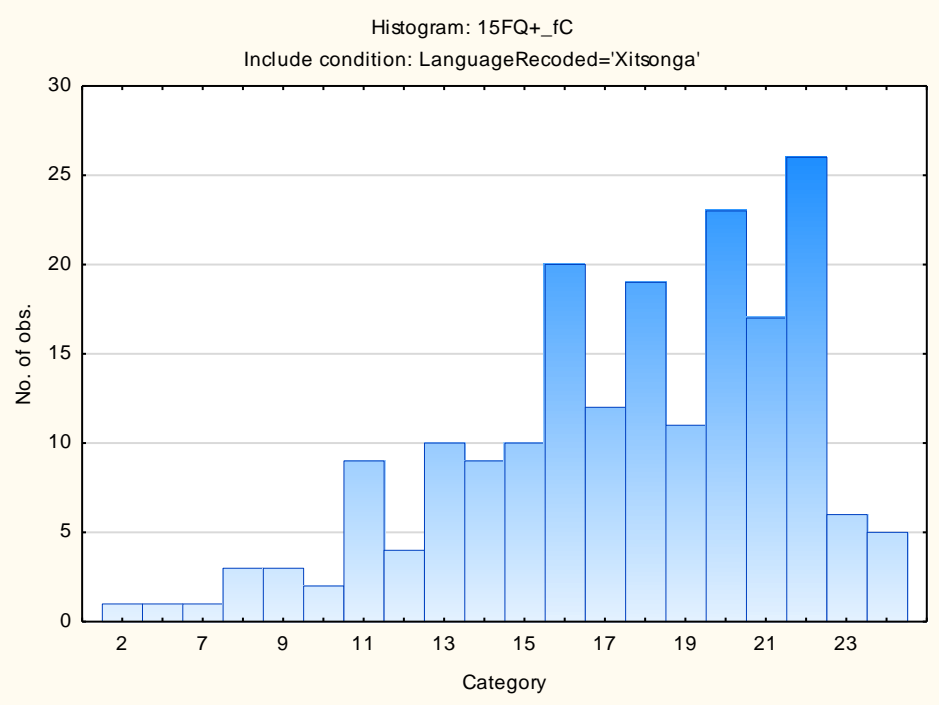
Distant Aloof – Empathic



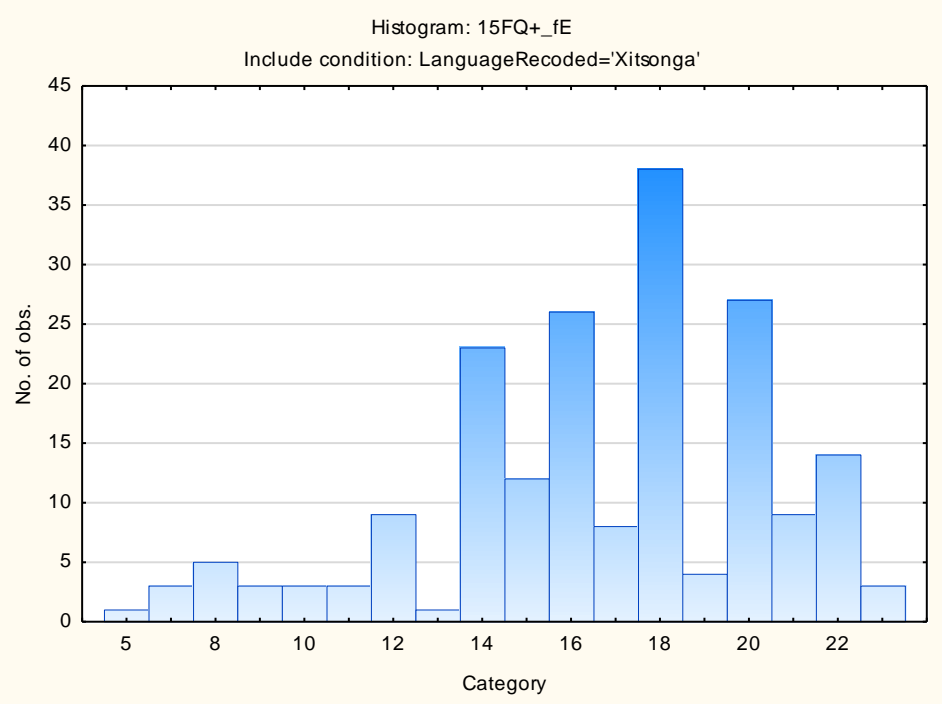
Intellectance



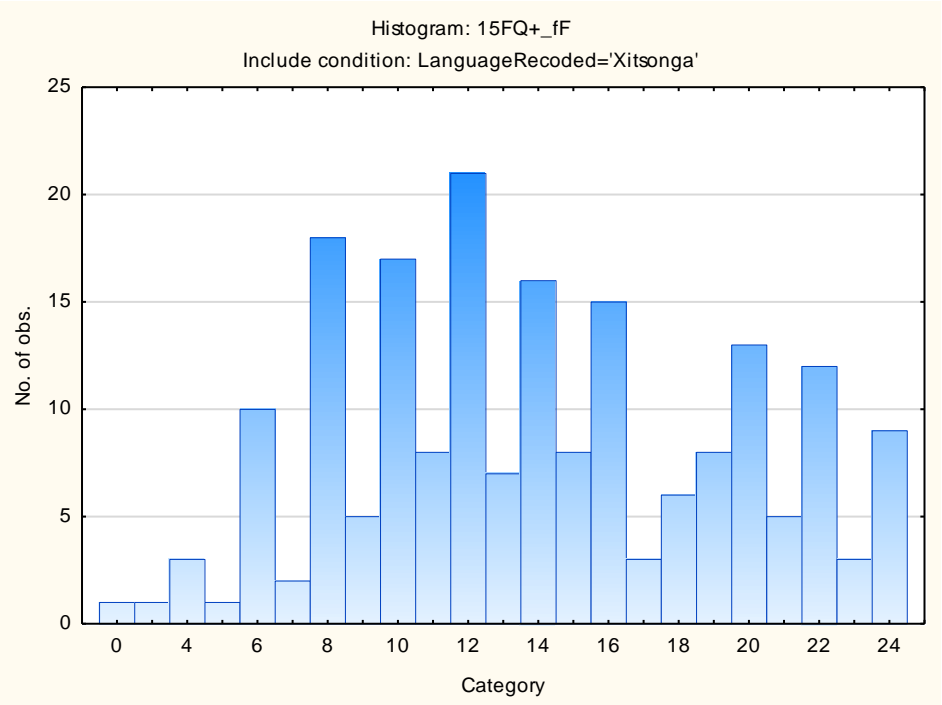
Affected by Feelings - Emotionally Stable



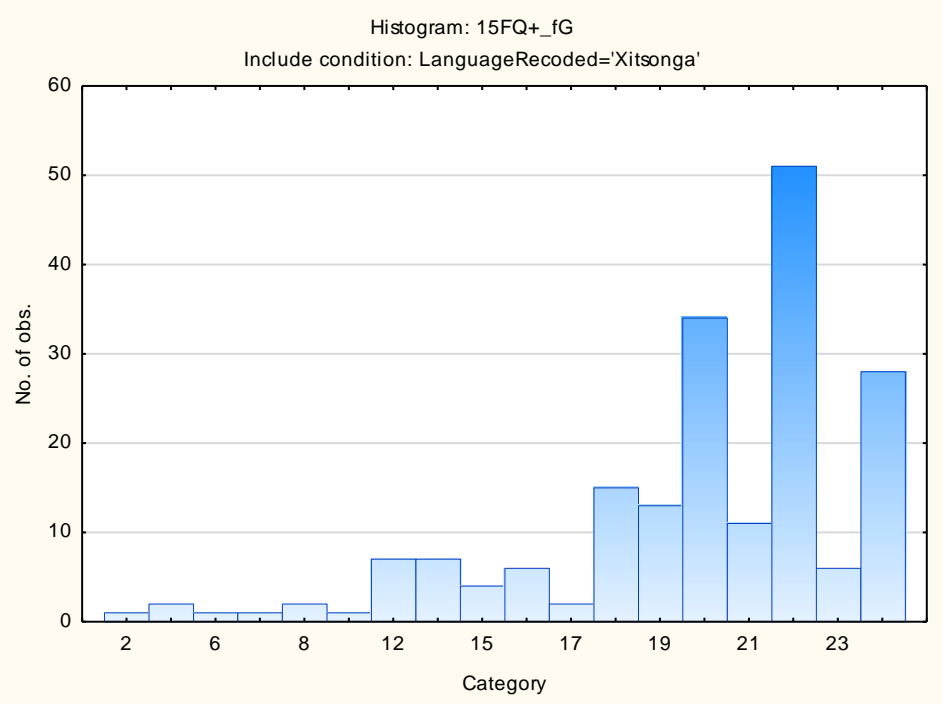
Accommodating – Dominant



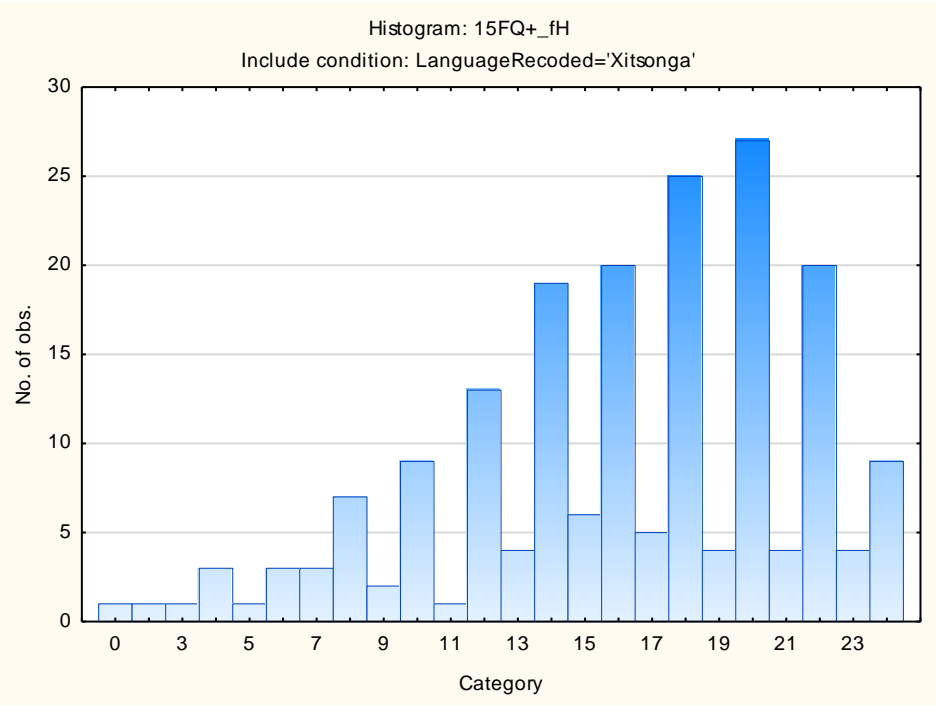
Sober Serious – Enthusiastic



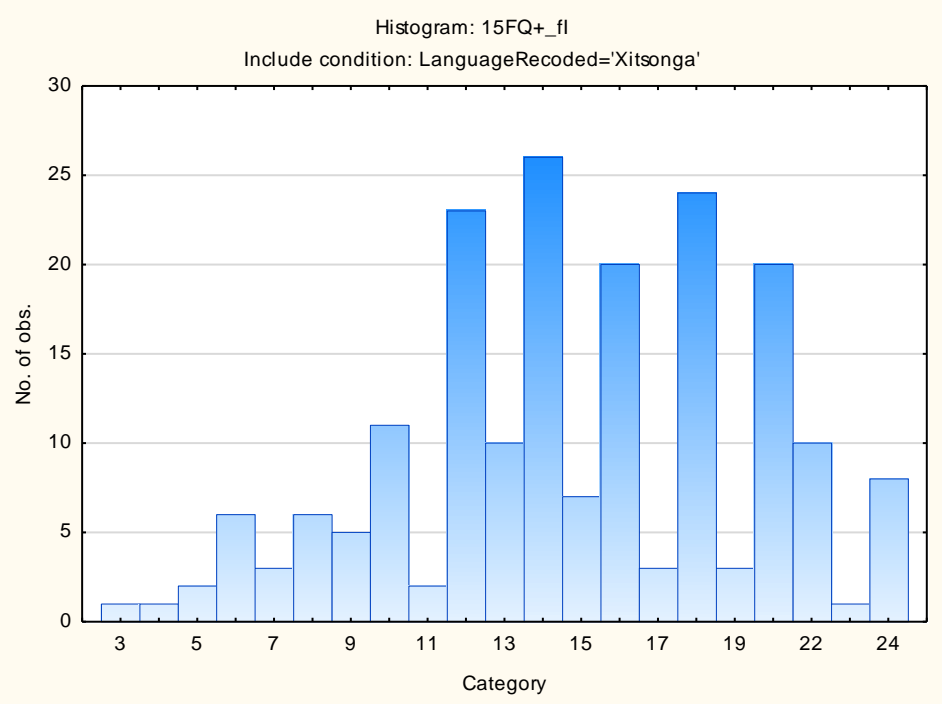
Expedient – Conscientious



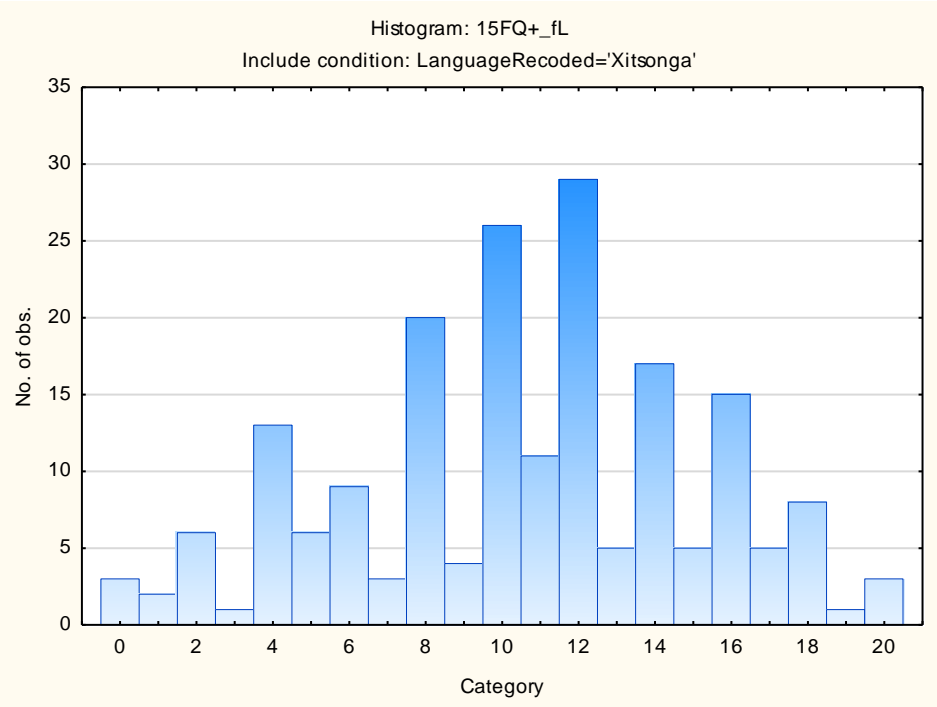
Retiring – Socially-bold



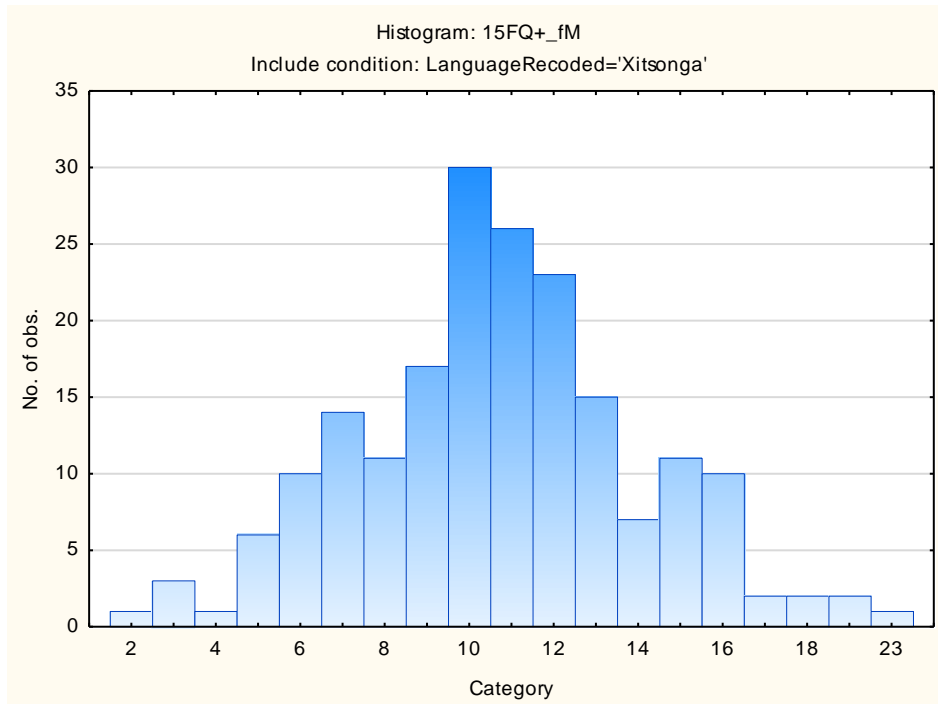
Hard-headed – Tender-minded



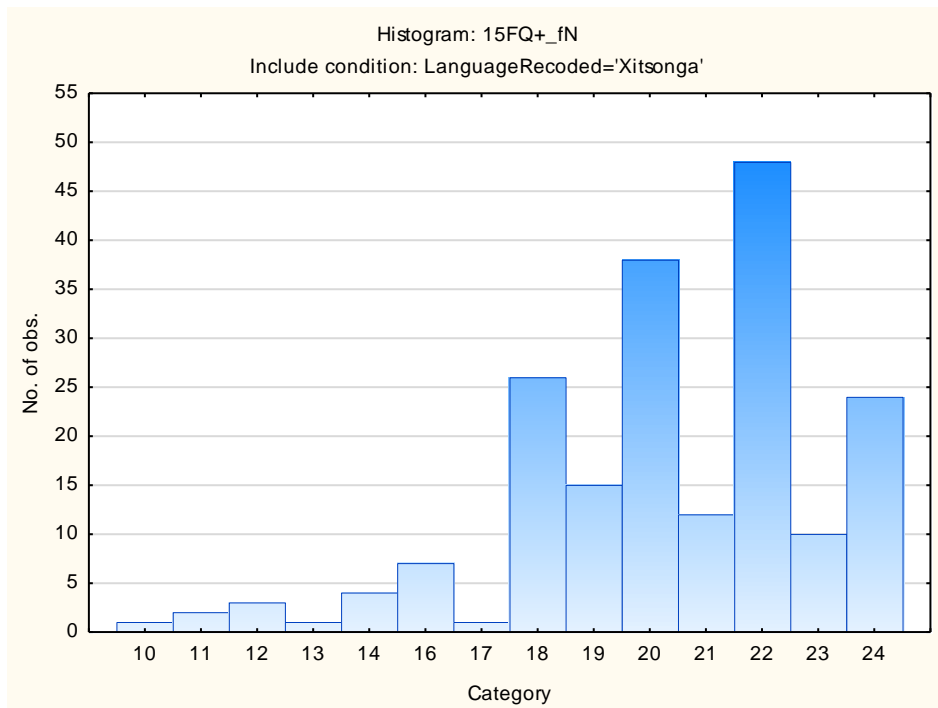
Trusting – Suspicious



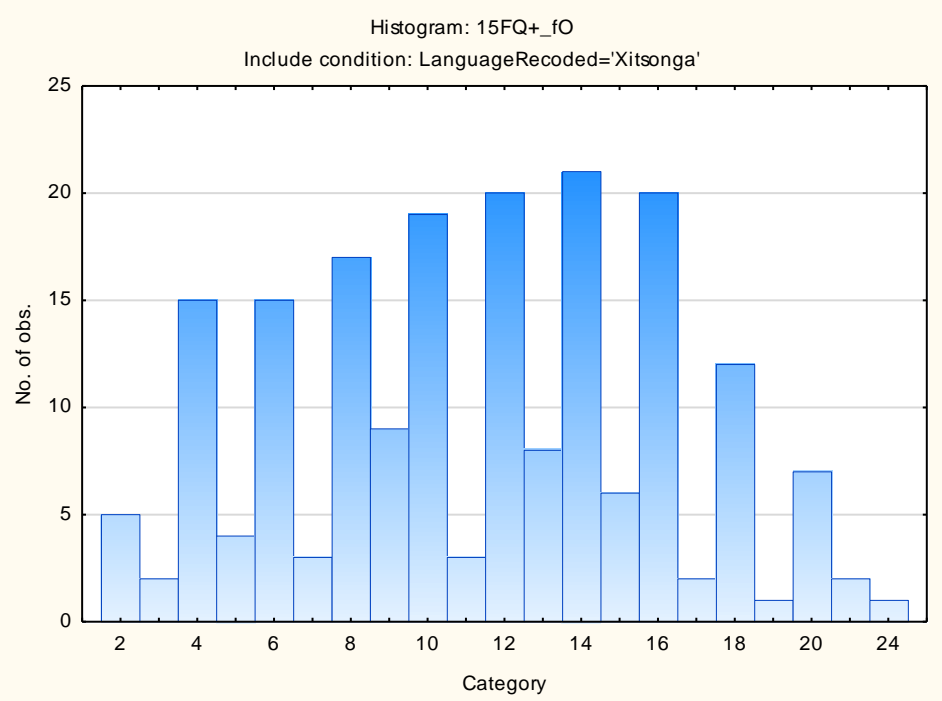
Concrete – Abstract



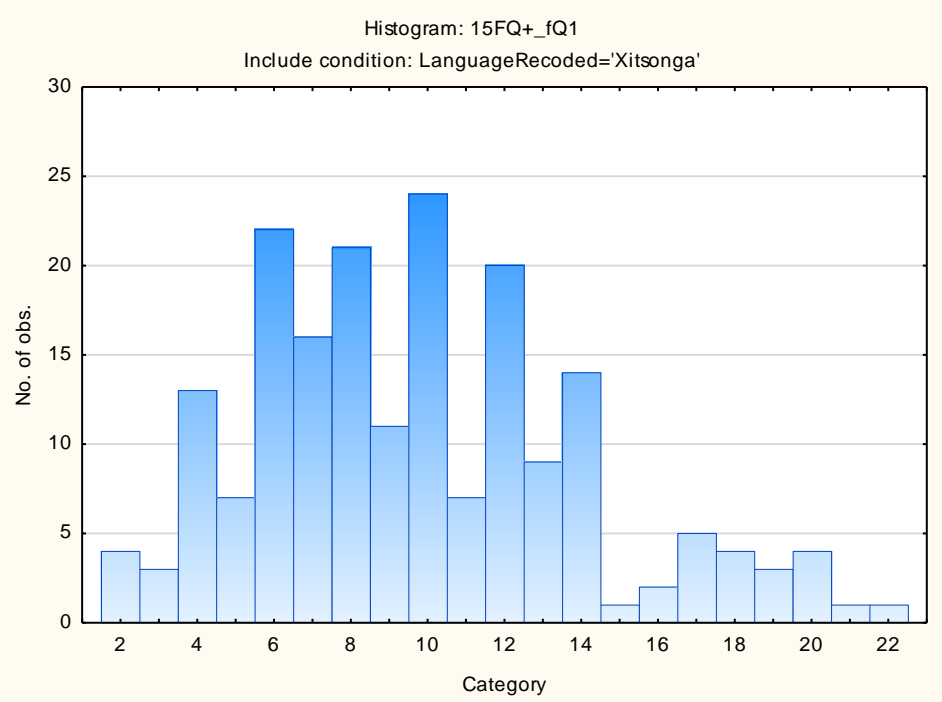
Direct – Restrained



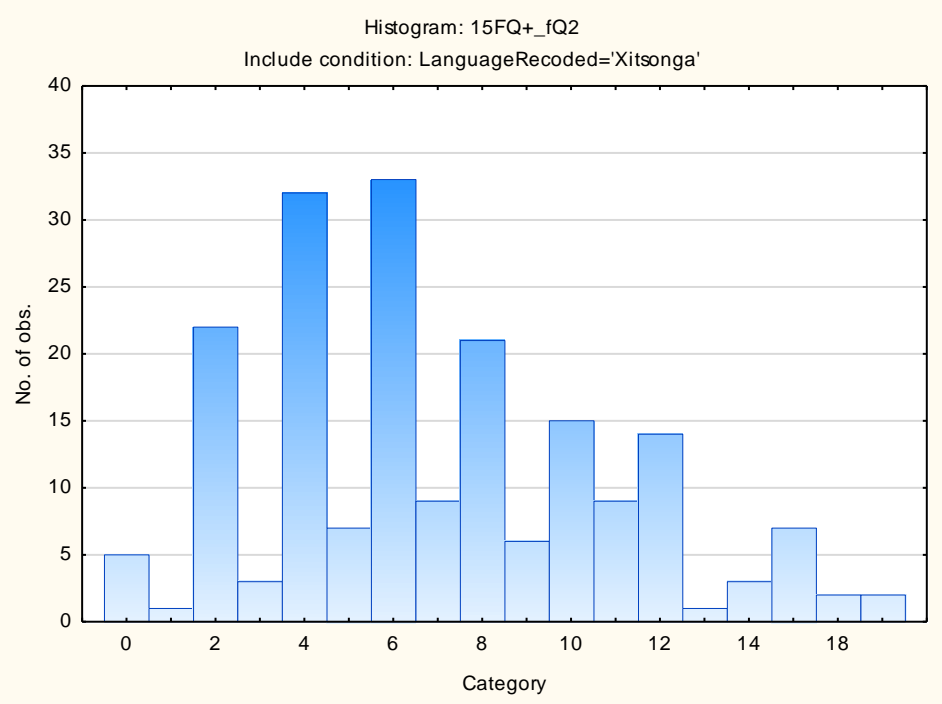
Confident - Self-doubting



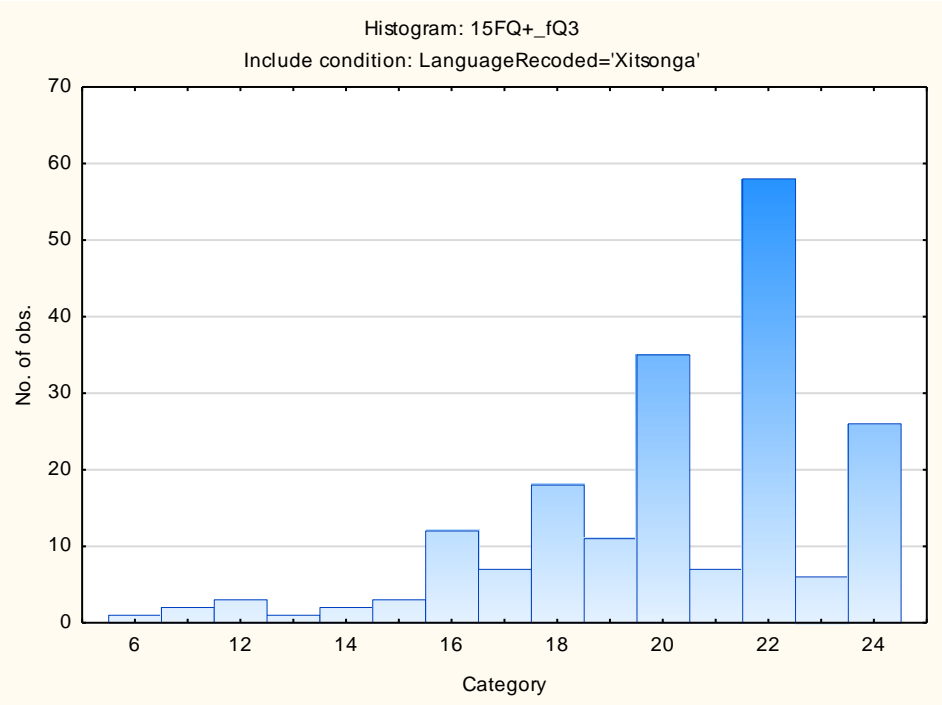
Conventional – Radical



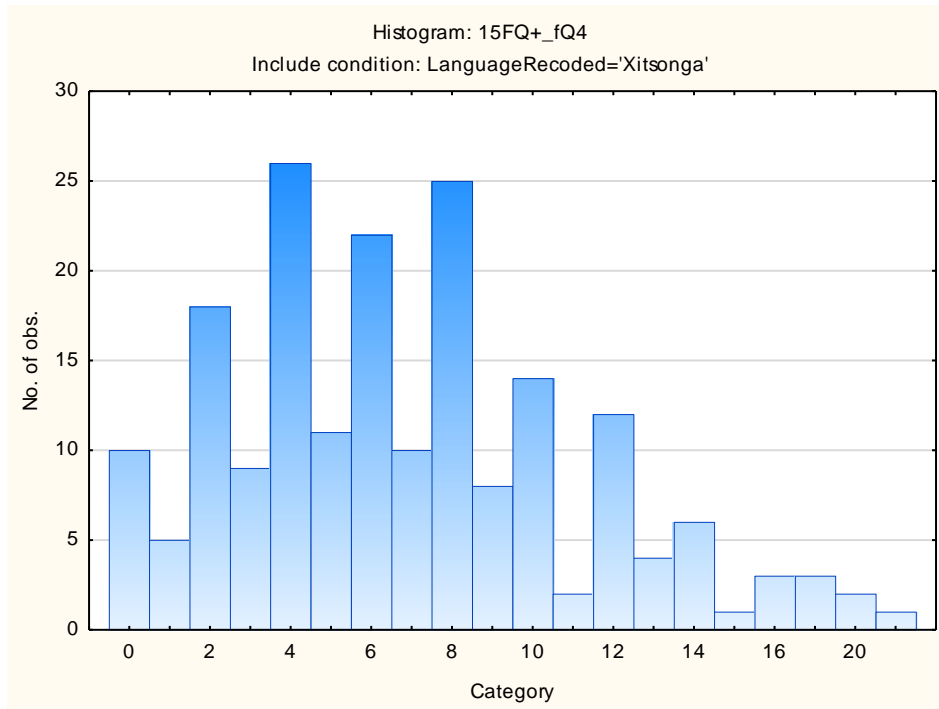
Group-orientated - Self-sufficient



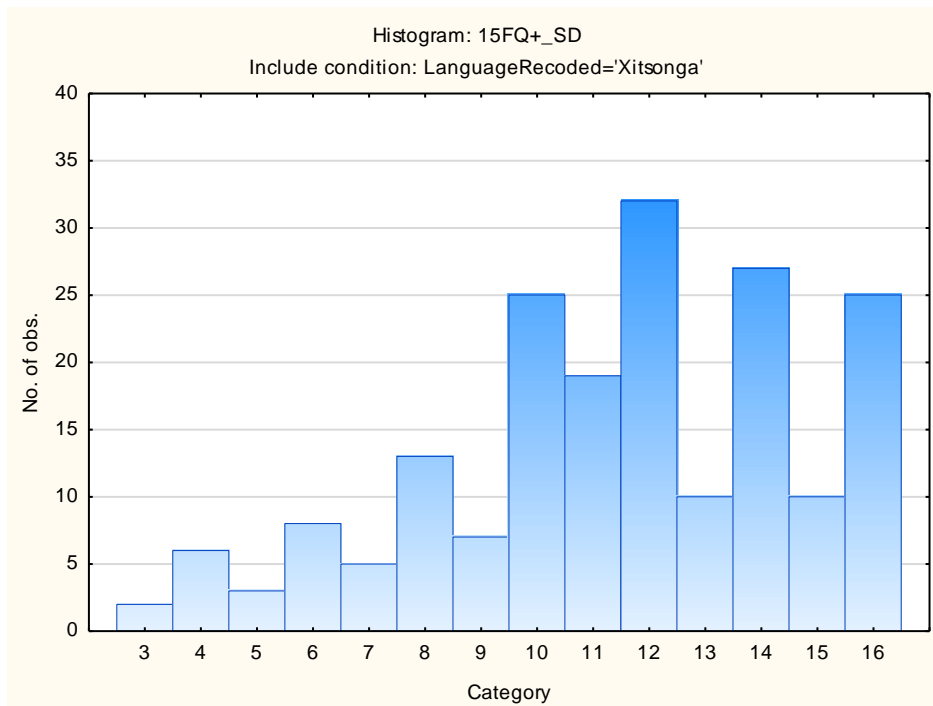
Informal- Self-disciplined



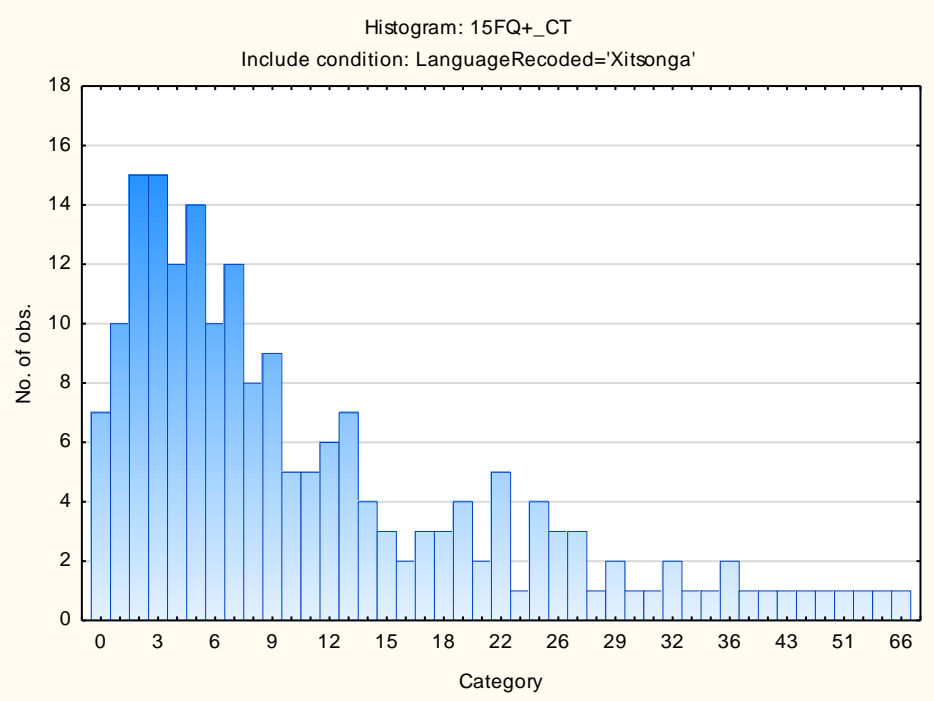
Composed – Tense-driven



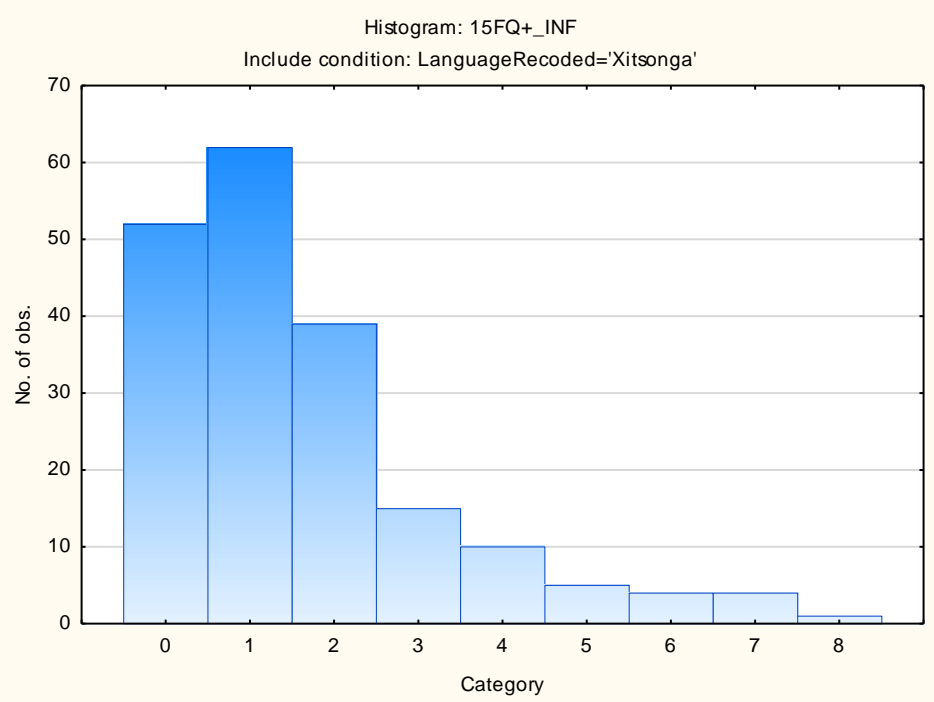
Social Desirability



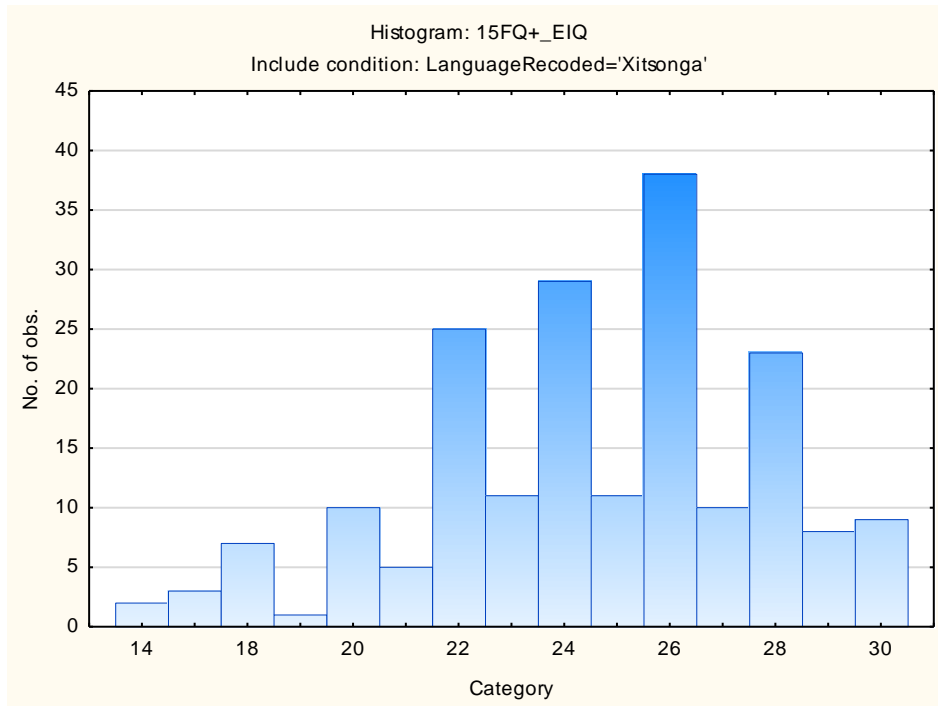
Central Tendency



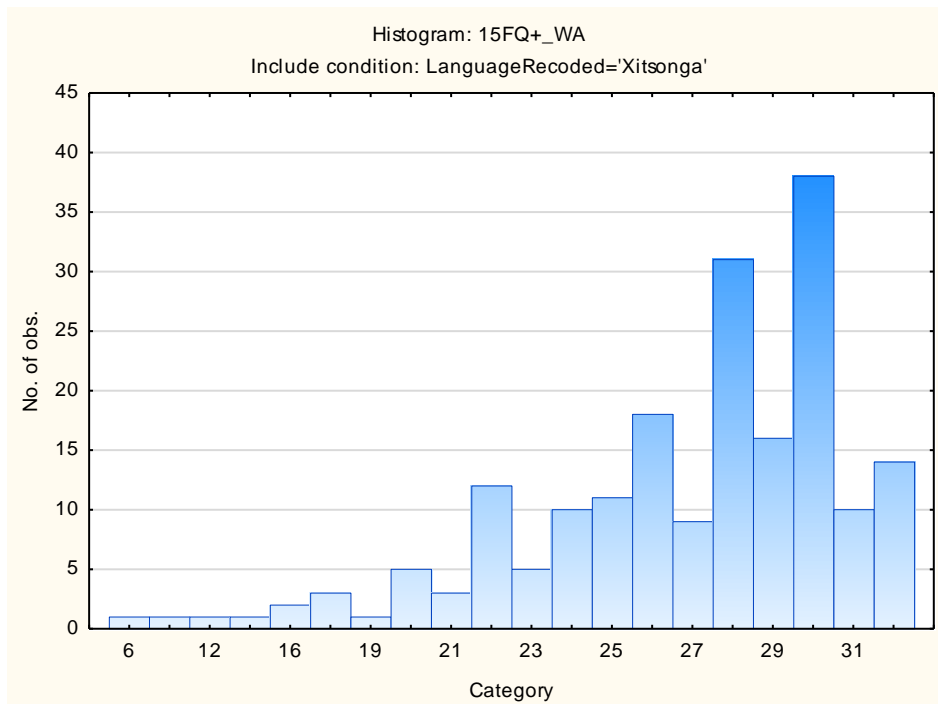
Infrequency



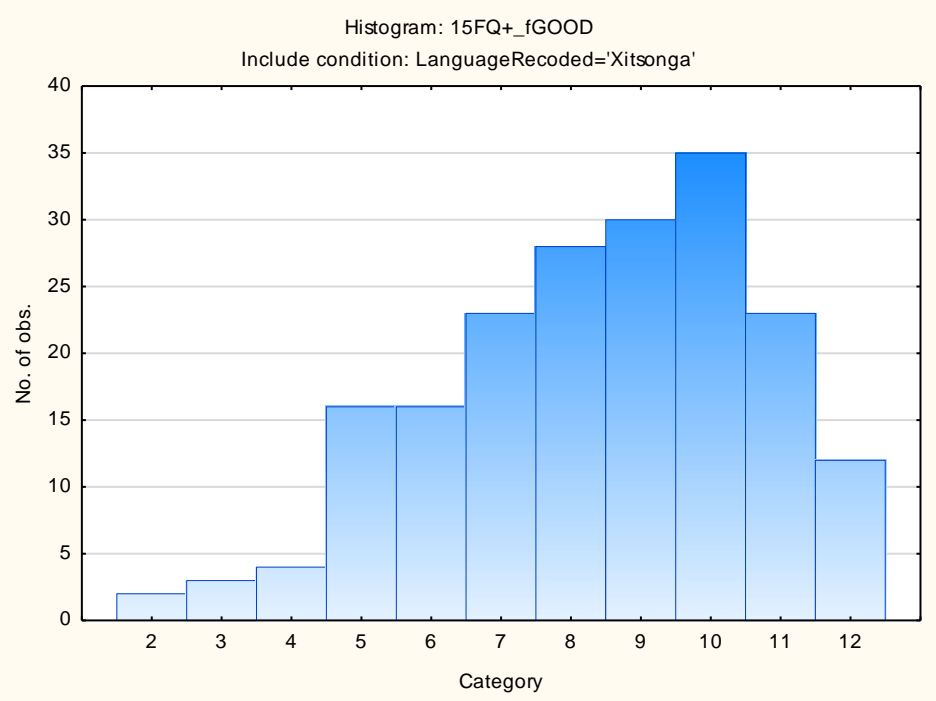
Derived Score: Emotional Intelligence



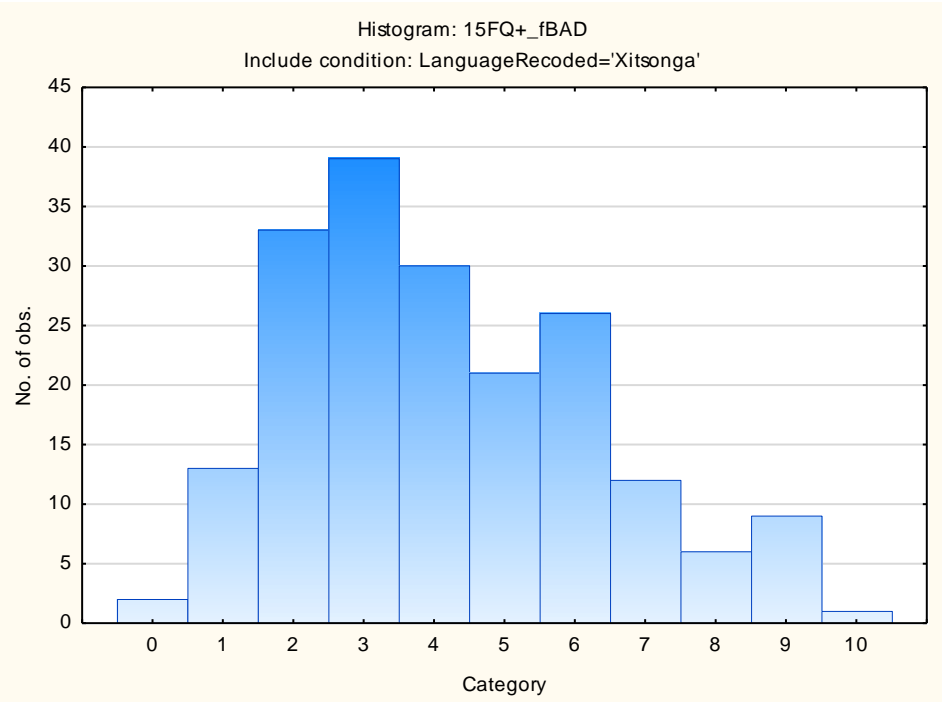
Derived Score: Work Attitude



Faking Good



Faking Bad



Sten Table

Scale Abbreviation	Scale Name	Raw Scores for Sten Categories									
		1	2	3	4	5	6	7	8	9	10
fA	Distant Aloof - Empathic	8-13	14-15	16-16	17-17	18-19	20-20	21-22	23-23	24-24	
B	Intellectance	7-12	13-14	15-15	16-17	18-19	20-21	22-22	23-24		
fC	Affected by Feelings - Emotionally Stable	2-9	10-11	12-13	14-15	16-17	18-19	20-21	22-23	24-24	
fE	Accommodating – Dominant	5-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	
fF	Sober serious - Enthusiastic	0-3	4-5	6-8	9-11	12-14	15-16	17-19	20-22	23-24	
fG	Expedient – Conscientious	2-11	12-13	14-15	16-17	18-19	20-21	22-23	24-24		
fH	Retiring – Socially-bold	0-5	6-8	9-10	11-13	14-16	17-18	19-21	22-23	24-24	
fI	Hard-headed – Tender-minded	3-5	6-7	8-10	11-12	13-14	15-17	18-19	20-21	22-24	
fL	Trusting - Suspicious	0-1	2-3	4-5	6-8	9-10	11-12	13-15	16-17	18-19	20-20
fM	Concrete - Abstract	2-3	4-5	6-7	8-9	10-10	11-12	13-14	15-15	16-17	18-23
fN	Direct - Restrained	10-14	15-16	17-17	18-18	19-20	21-21	22-23	24-24		
fO	Confident – Self-doubting	2-1	2-3	4-6	7-8	9-11	12-13	14-16	17-18	19-21	22-24
fQ1	Conventional - Radical	2-1	2-3	4-5	6-7	8-9	10-11	12-14	15-16	17-18	19-22
fQ2	Group-orientated - Self-sufficient	0-1	0-0	1-2	3-5	6-7	8-9	10-11	12-13	14-15	16-20
fQ3	Informal - Self-disciplined	6-14	15-15	16-17	18-18	19-20	21-21	22-23	24-24		
fQ4	Composed – Tense-driven	0-1	0-0	1-2	3-4	5-6	7-9	10-11	12-13	14-15	16-24
SD	Social Desirability	3-4	5-6	7-8	9-9	10-11	12-13	14-14	15-16		
CT	Central Tendency	0-1	0-0	1-1	2-5	6-12	13-18	19-24	25-30	31-36	37-66
INF	Infrequency	0-1	0-0	1-1	2-2	3-3	4-4	5-5	6-6	7-7	8-8
EIQ	Derived Score: Emotional Intelligence	14-17	18-19	20-21	22-22	23-24	25-26	27-27	28-29	30-30	
WA	Derived Score: Work Attitude	6-18	19-20	21-22	23-24	25-26	27-28	29-31	32-32		
fGOOD	Faking Good	2-3	4-4	5-6	7-7	8-8	9-9	10-10	11-11	12-12	
fBAD	Faking Bad	0-1	0-0	1-1	2-3	4-4	5-5	6-6	7-7	8-8	9-10

Fifteen Factor Questionnaire (15FQ+)

Norm Group: SA Setswana Speakers, Updated 2016

Norm Type:

Standard deviation norm

Composition of the Sample

The sample consisted of 660 Setswana speaking South Africans tested by Psytech SA and collaborators, via GeneSys for Windows, in the period up to June 2015.

Gender Composition of the Sample

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	299	299	45,30303	45,3030
M	358	657	54,24242	99,5455
U	3	660	0,45455	100,0000
Missing	0	660	0,00000	100,0000

Educational Composition of the Sample

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	173	173	26,21212	26,2121
Tertiary	352	525	53,33333	79,5455
Post Graduate	75	600	11,36364	90,9091
< Matric	16	616	2,42424	93,3333
Unknown	1	617	0,15152	93,4848
Missing	43	660	6,51515	100,0000

Language Composition of the Sample

Category	Frequency table: Language			
	Count	Cumulative Count	Percent	Cumulative Percent
Setswana	660	660	100,0000	100,0000
Missing	0	660	0,0000	100,0000

Language Group Composition of the Sample

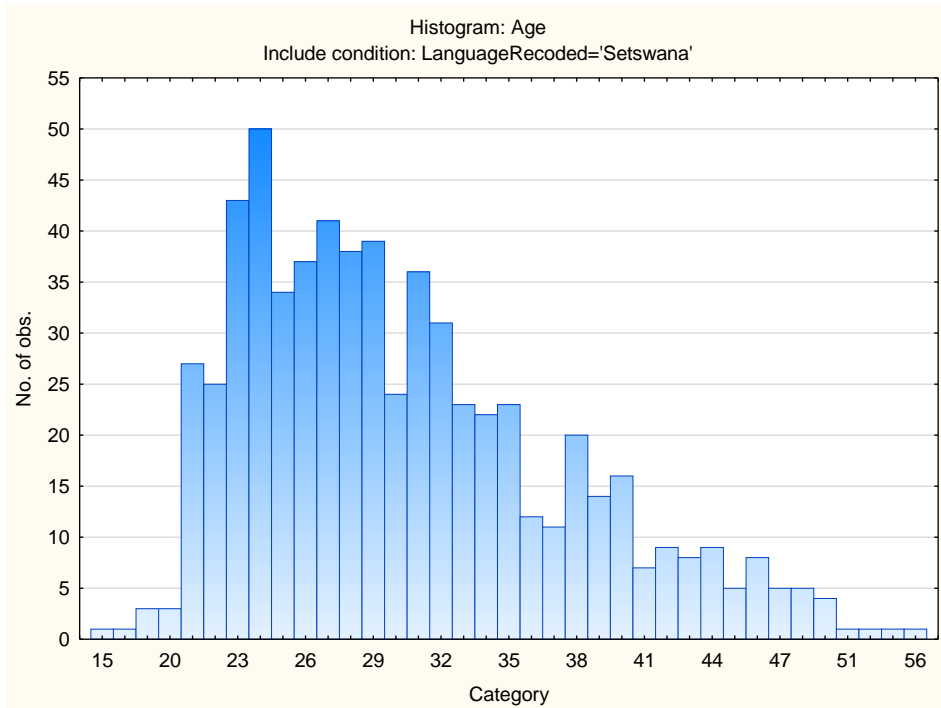
Category	Frequency table: Language Group			
	Count	Cumulative Count	Percent	Cumulative Percent
Indigenous	660	660	100,0000	100,0000
Missing	0	660	0,0000	100,0000

Racial Composition of the Sample

Category	Frequency table: Race			
	Count	Cumulative Count	Percent	Cumulative Percent
African	652	652	98,78788	98,7879
European	1	653	0,15152	98,9394
Coloured	4	657	0,60606	99,5455
Asian	1	658	0,15152	99,6970
Missing	2	660	0,30303	100,0000

Age Composition and Distribution of the Sample

Variable	Descriptive Statistics: Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	30,37618	7,107132	15,00000	56,00000	638	22

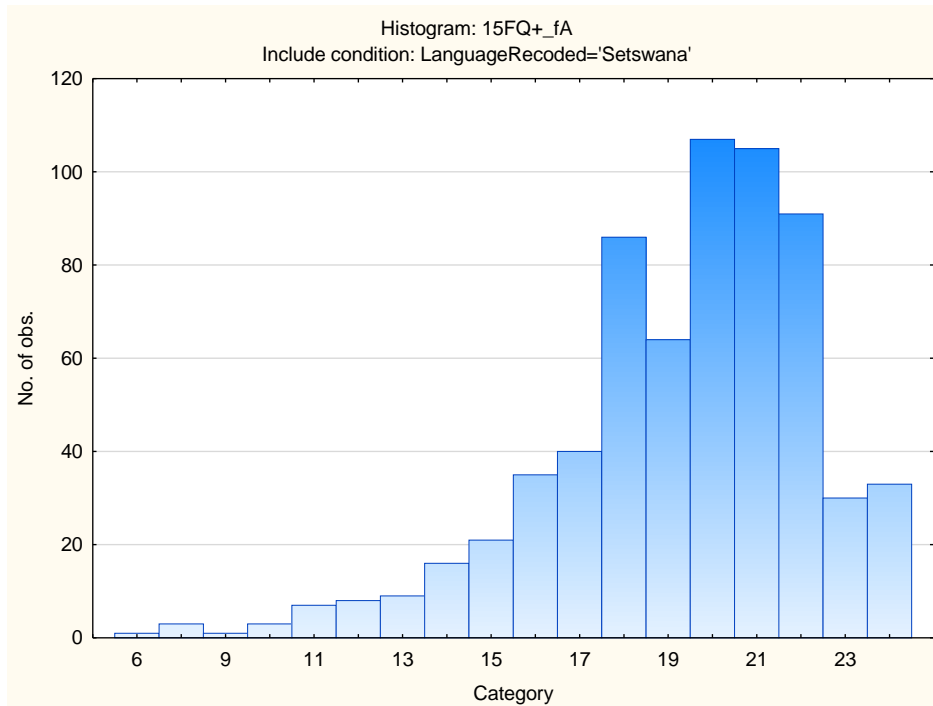


Descriptive Statistics on 15FQ+ Scales

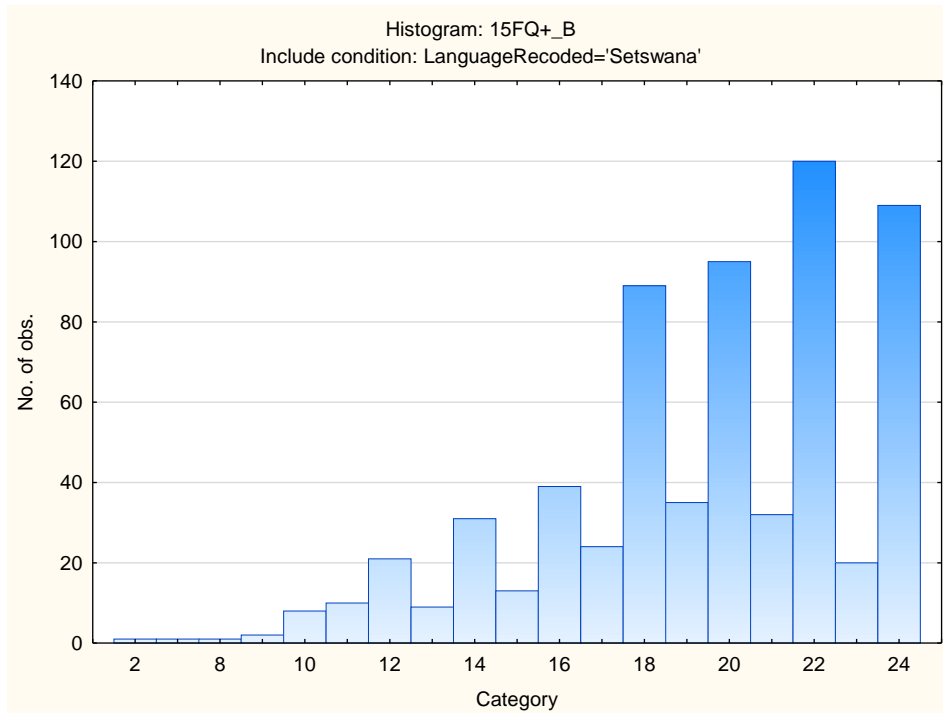
Scale	Scale description	Sample size	Mean	Std.Dev.
fA	Distant Aloof - Empathic	660	19,28939	3,00018
B	Intellectance	660	19,40758	3,73178
fC	Affected by feelings - Emotionally Stable	660	16,80909	4,70913
fE	Accommodating - Dominant	660	16,71061	3,78475
fF	Sober serious - Enthusiastic	660	14,71818	5,36605
fG	Expedient - Conscientious	660	19,83939	4,00246
fH	Retiring – Socially-bold	660	16,62727	5,26712
fI	Hard-headed – Tender-minded	660	15,31667	4,88980
fL	Trusting - Suspicious	660	11,02576	4,59177
fM	Concrete - Abstract	660	10,67879	3,52961
fN	Direct - Restrained	660	20,33485	3,30700
fO	Confident – Self-doubting	660	12,33636	4,56571
fQ1	Conventional - Radical	660	9,58788	4,23582
fQ2	Group-orientated - Self-sufficient	660	6,66970	4,28747
fQ3	Informal – Self-disciplined	660	20,88030	2,50993
fQ4	Composed – Tense-driven	660	8,00909	4,68588
SD	Social Desirability	660	11,51515	3,42020
CT	Central Tendency	660	10,37273	12,44657
INF	Infrequency	660	1,45758	1,61828
EIQ	Derived Score: Emotional Intelligence	660	23,83939	3,82885
WA	Derived Score: Work Attitude	660	27,31364	3,85040
fGOOD	Faking Good	660	7,75152	2,38077
fBAD	Faking Bad	660	4,46515	2,29607

Frequency Distributions for 15FQ+ Scales

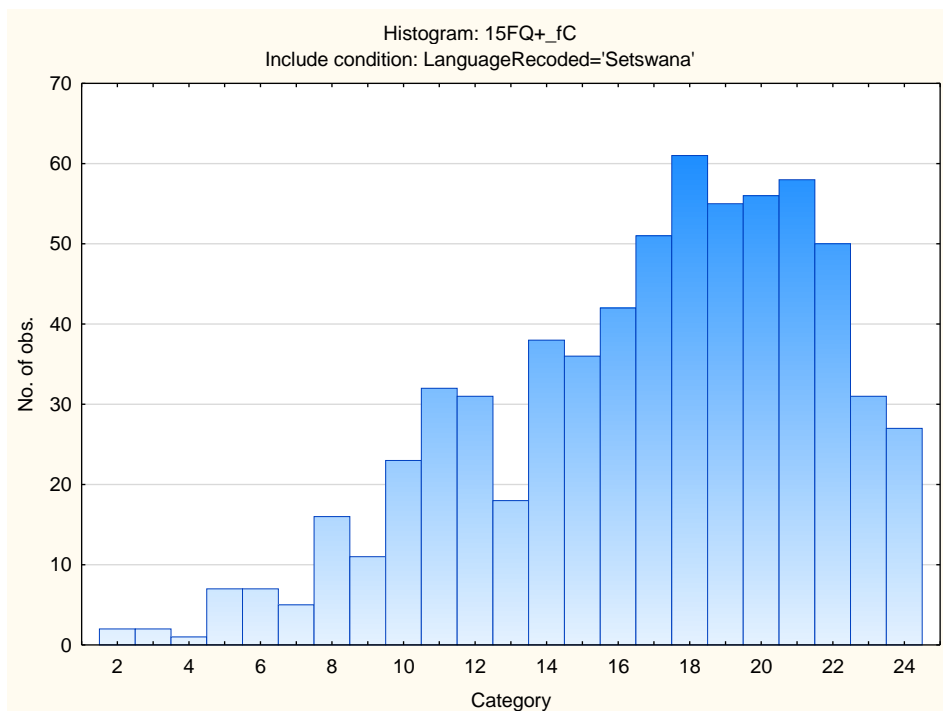
Distant Aloof – Empathic



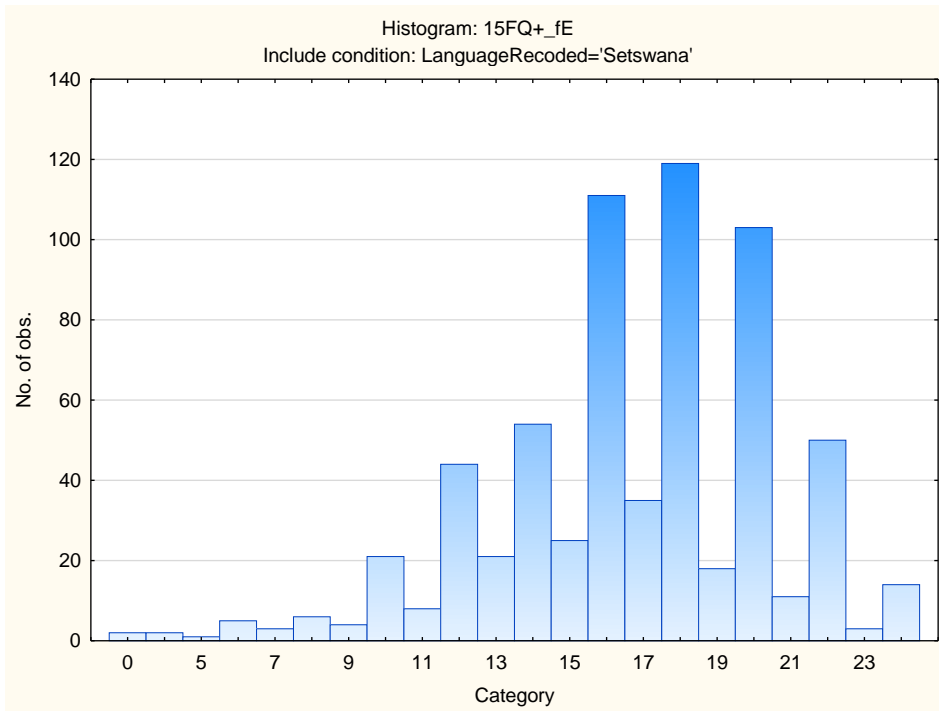
Intellectance



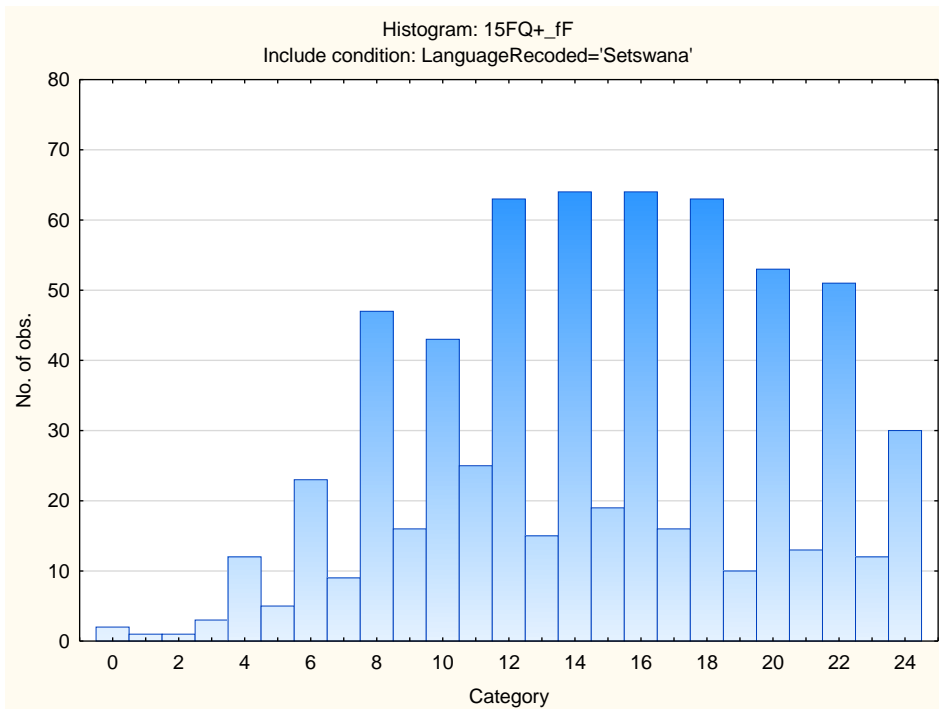
Affected by Feelings - Emotionally Stable



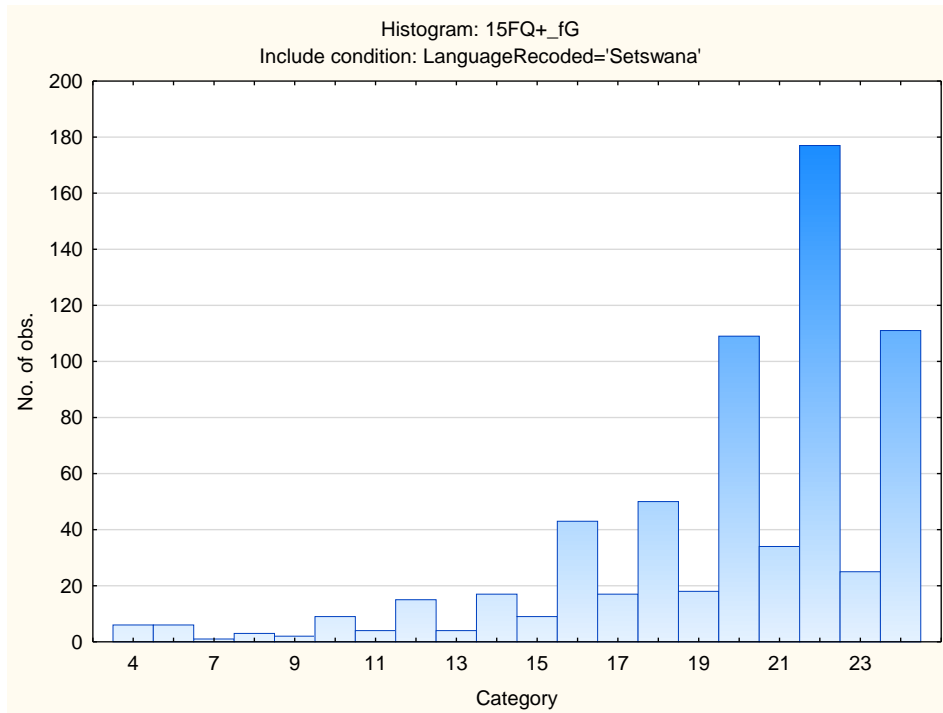
Accommodating – Dominant



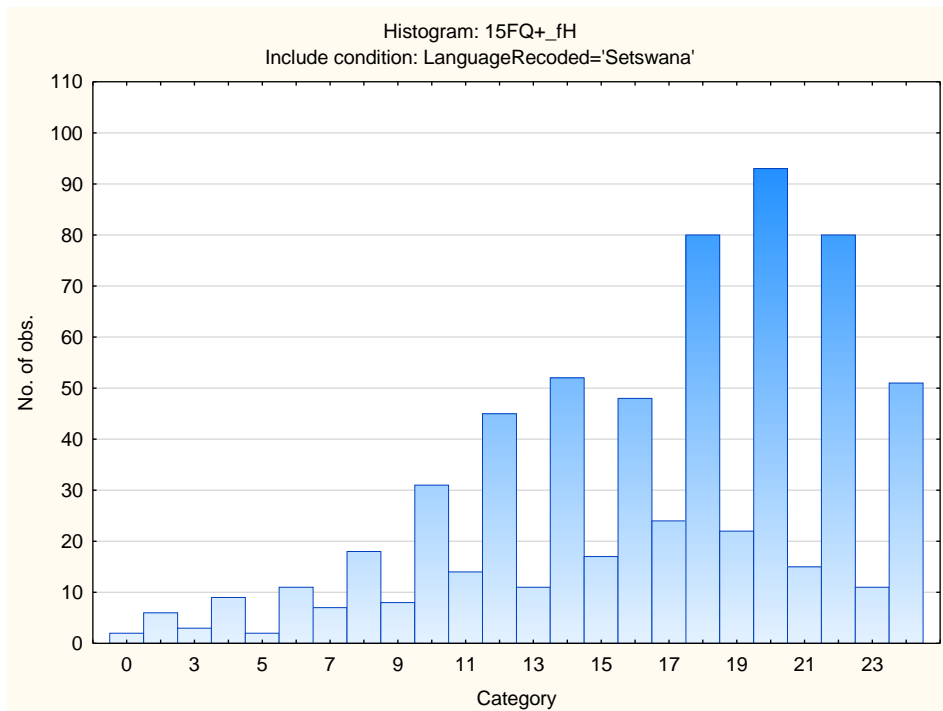
Sober Serious – Enthusiastic



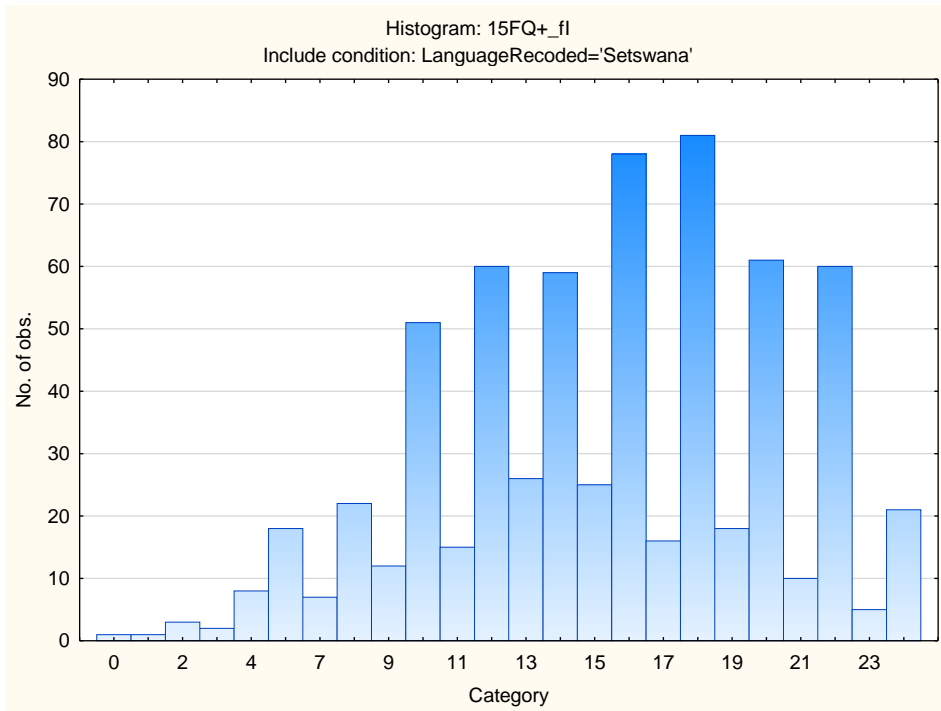
Expedient – Conscientious



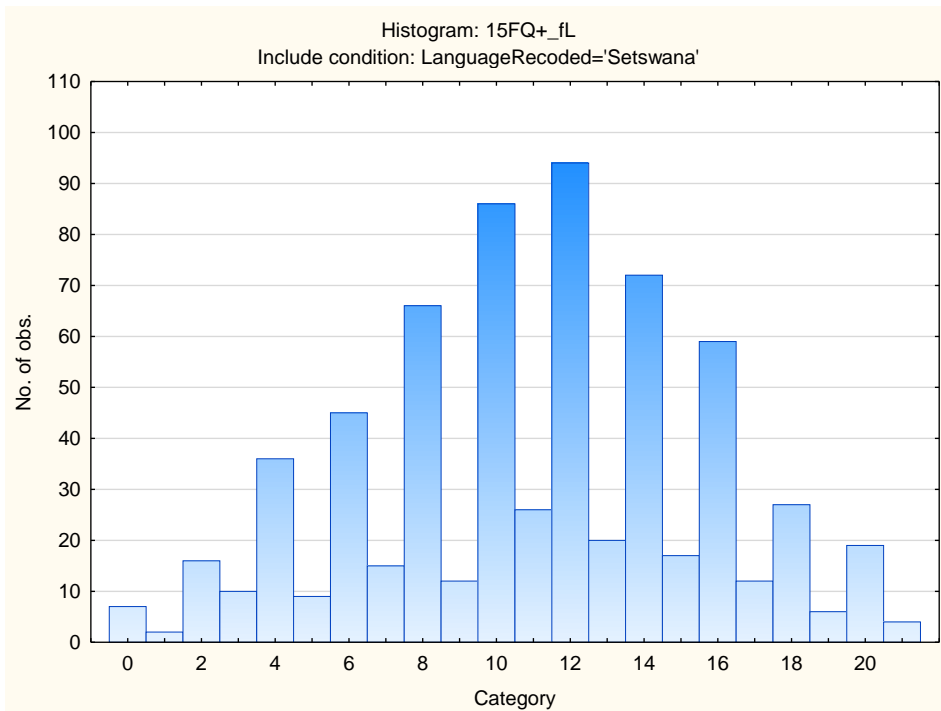
Retiring – Socially-bold



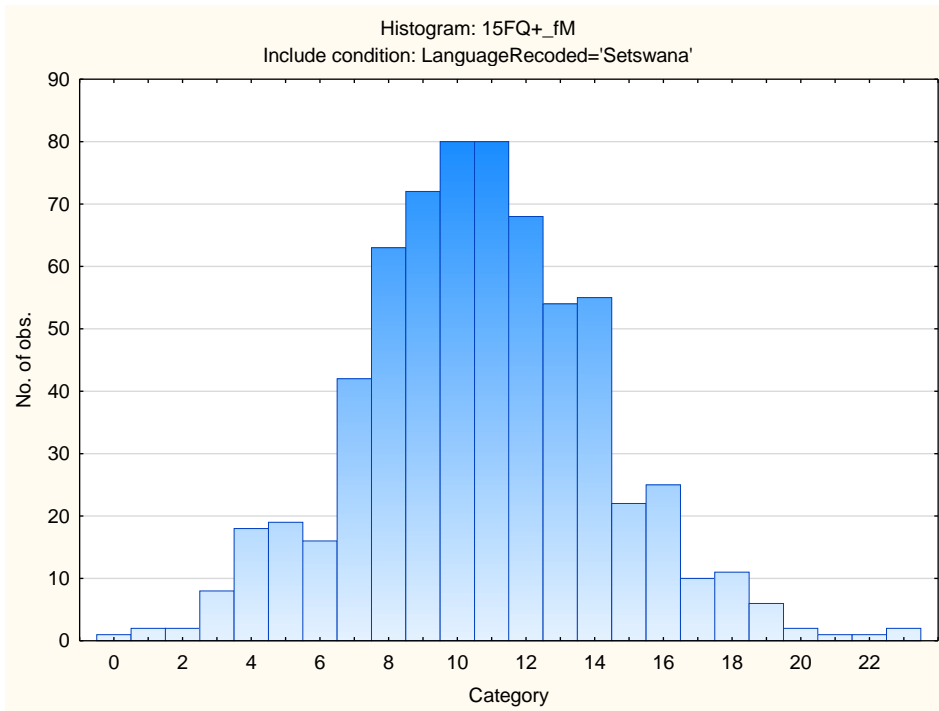
Hard-headed – Tender-minded



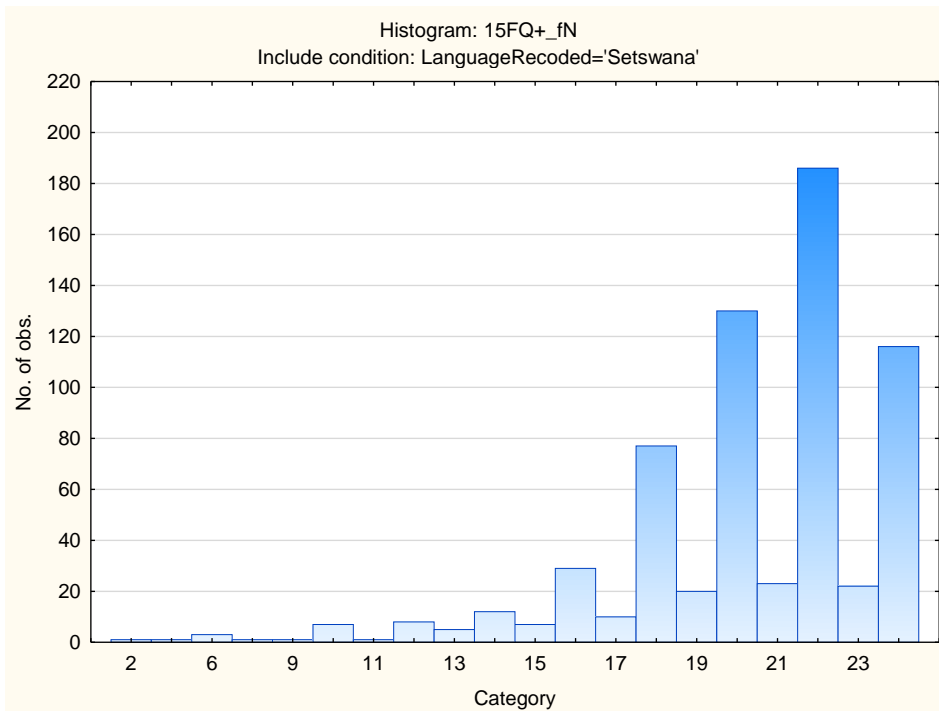
Trusting – Suspicious



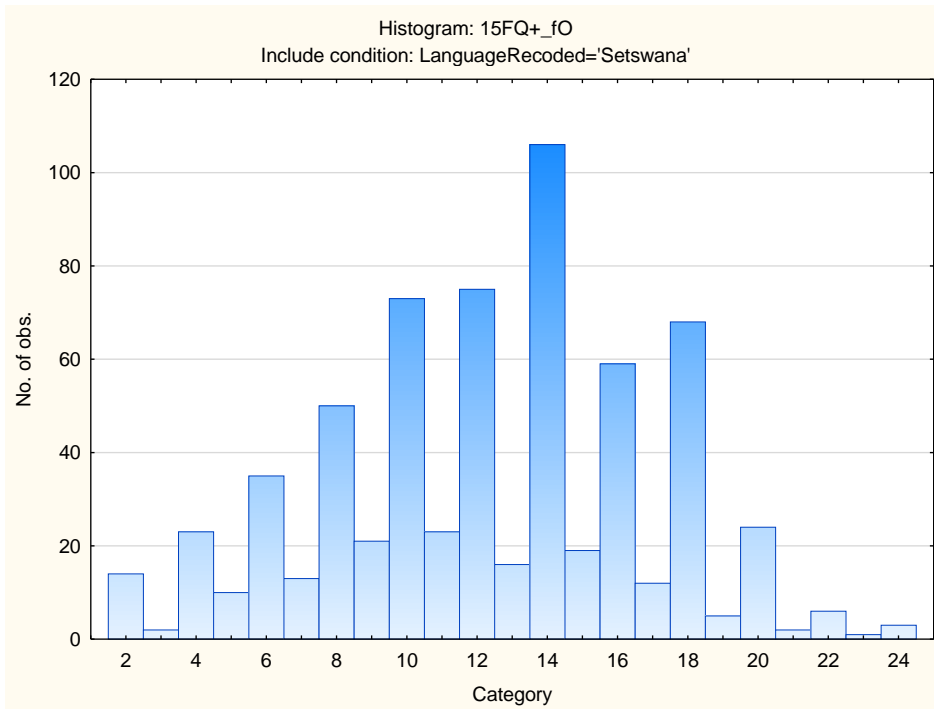
Concrete – Abstract



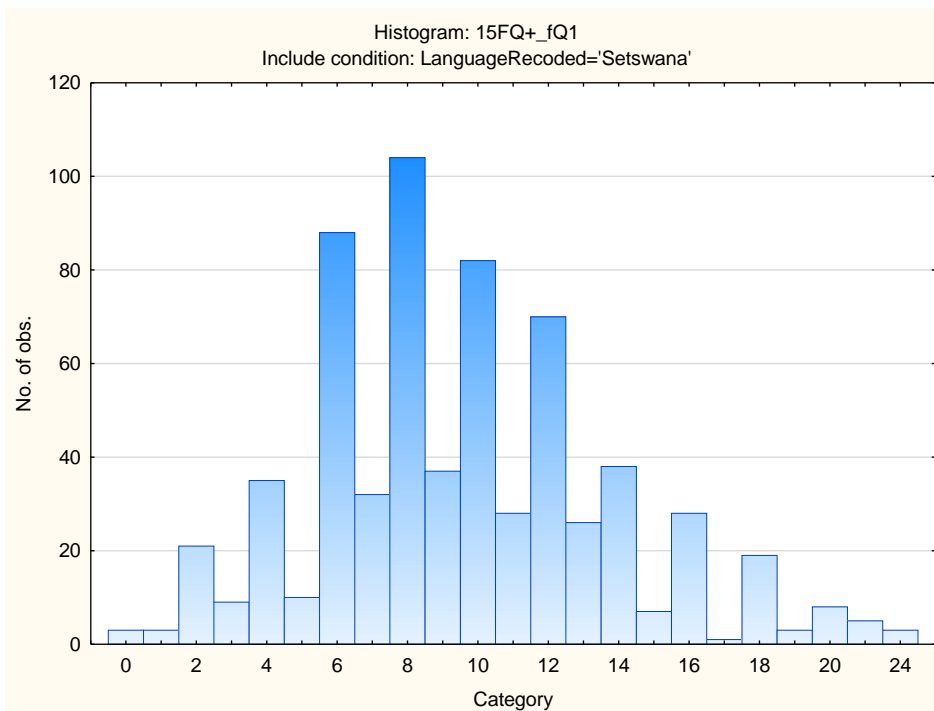
Direct – Restrained



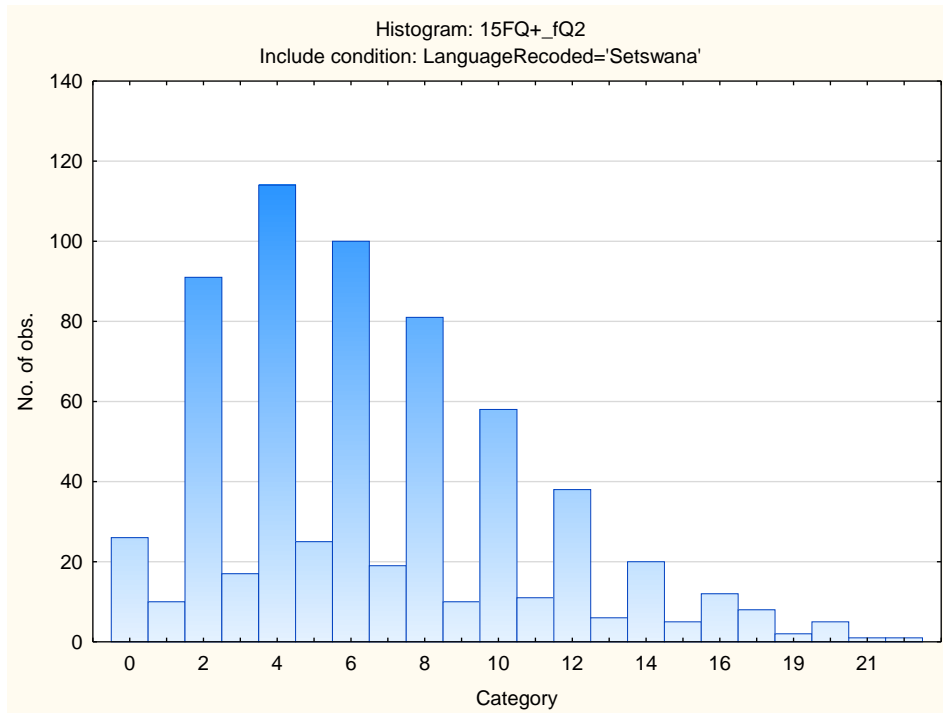
Confident - Self-doubting



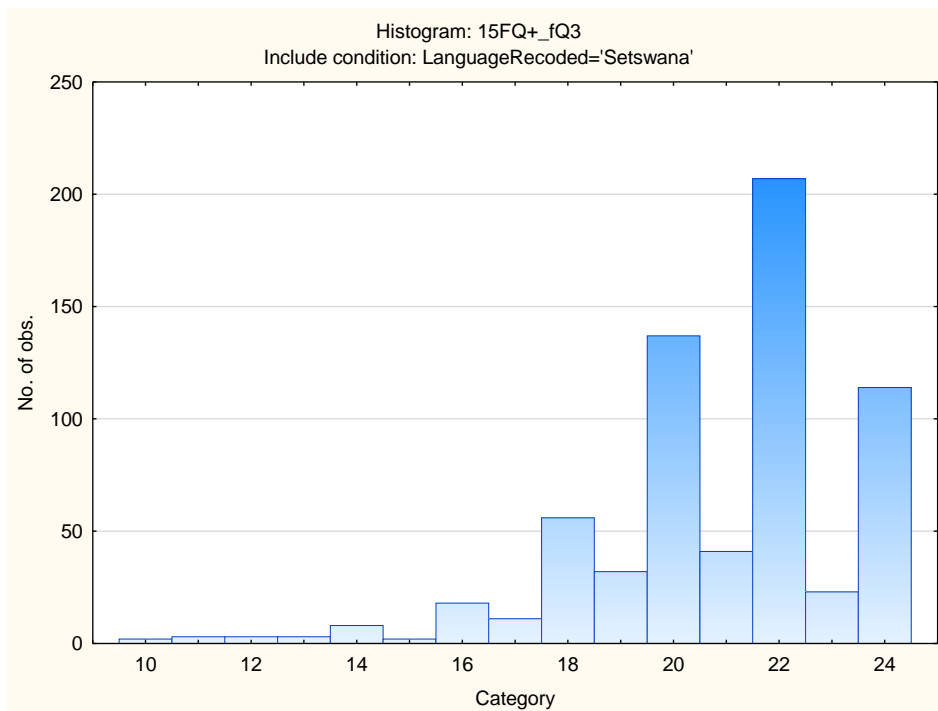
Conventional – Radical



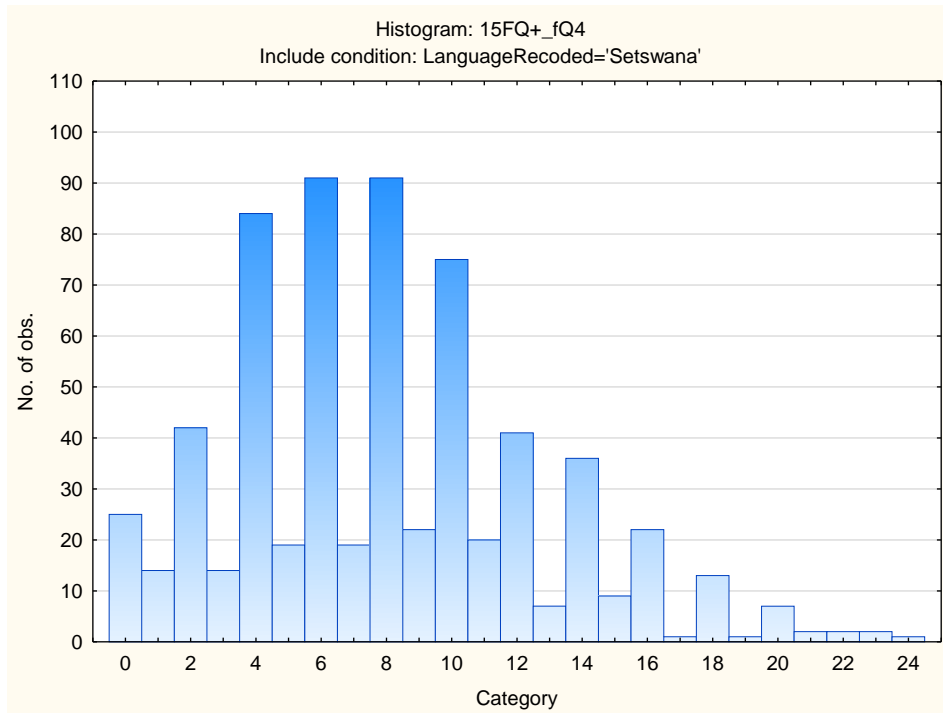
Group-orientated - Self-sufficient



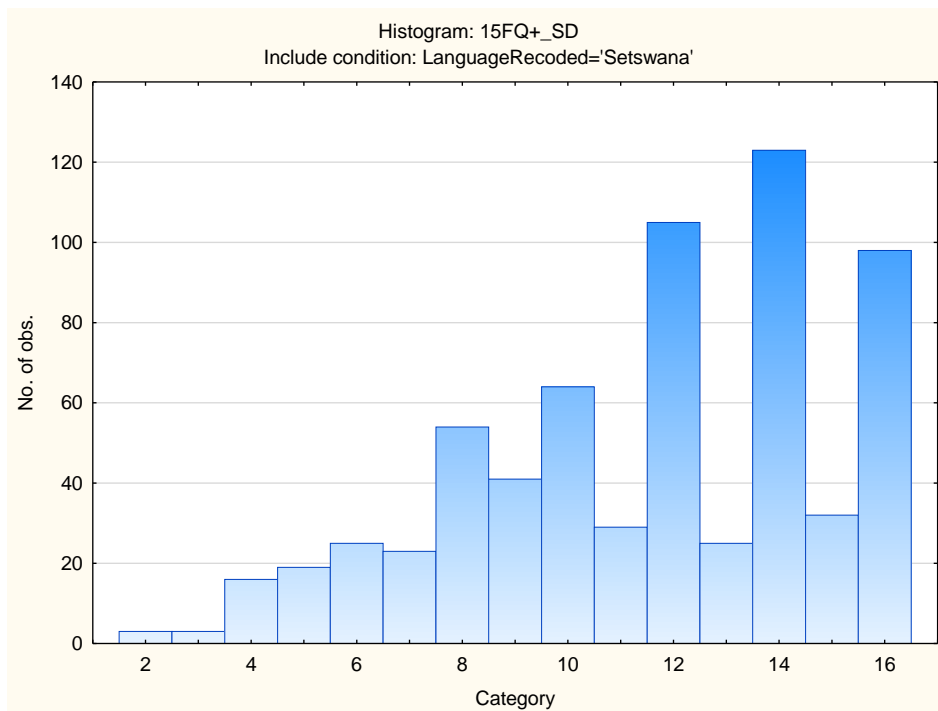
Informal- Self-disciplined



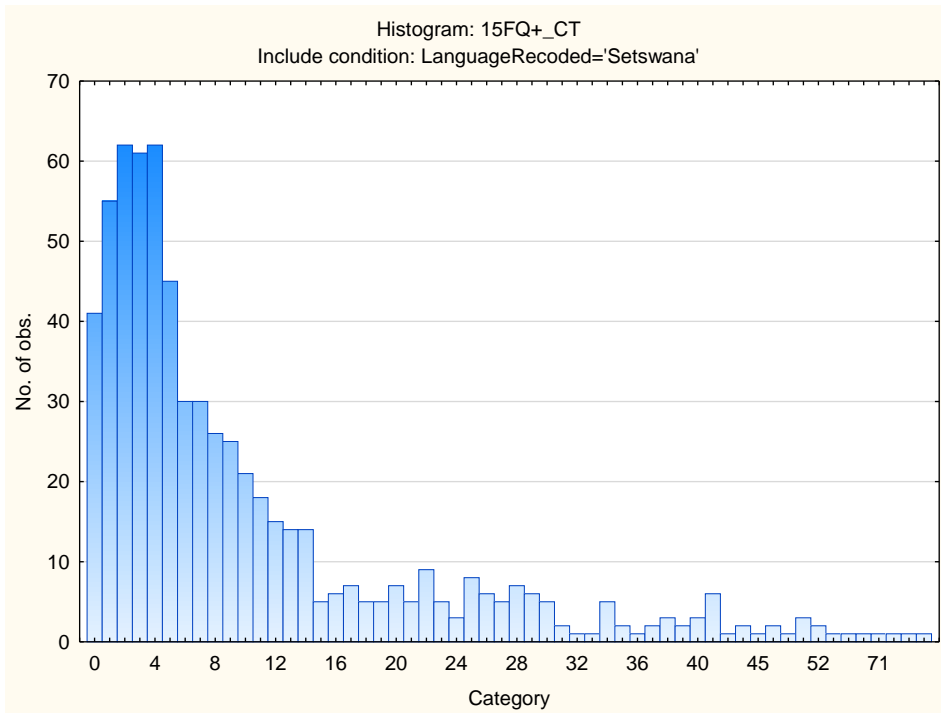
Composed – Tense-driven



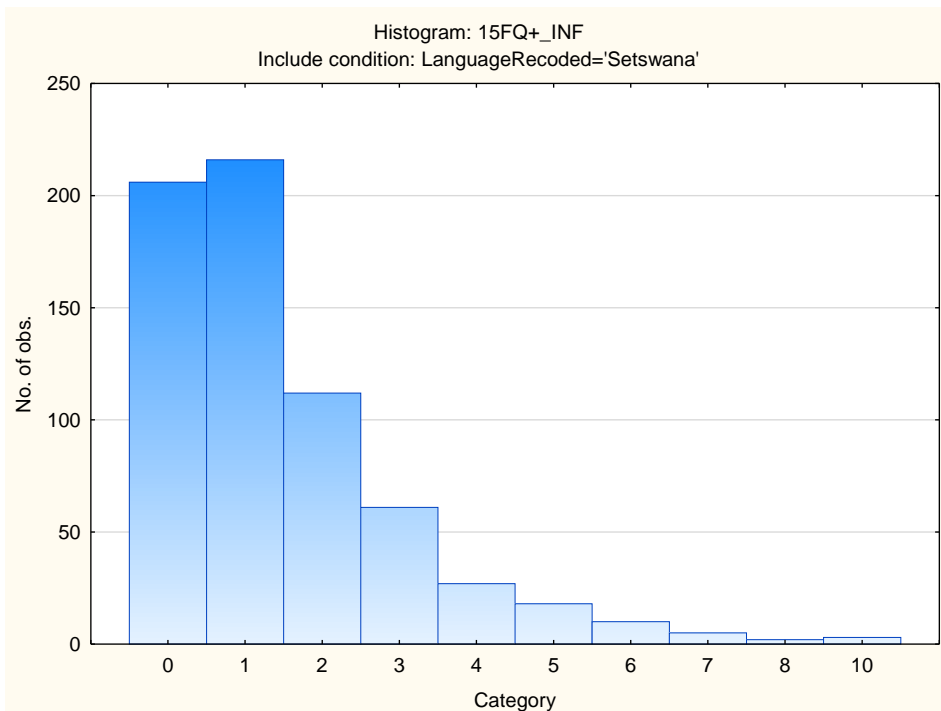
Social Desirability



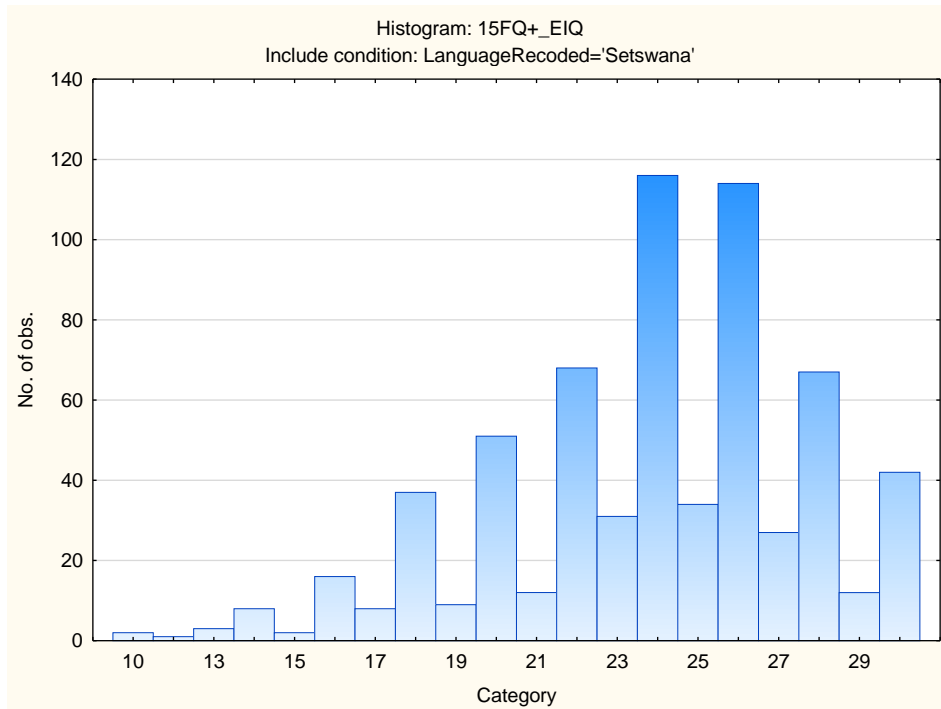
Central Tendency



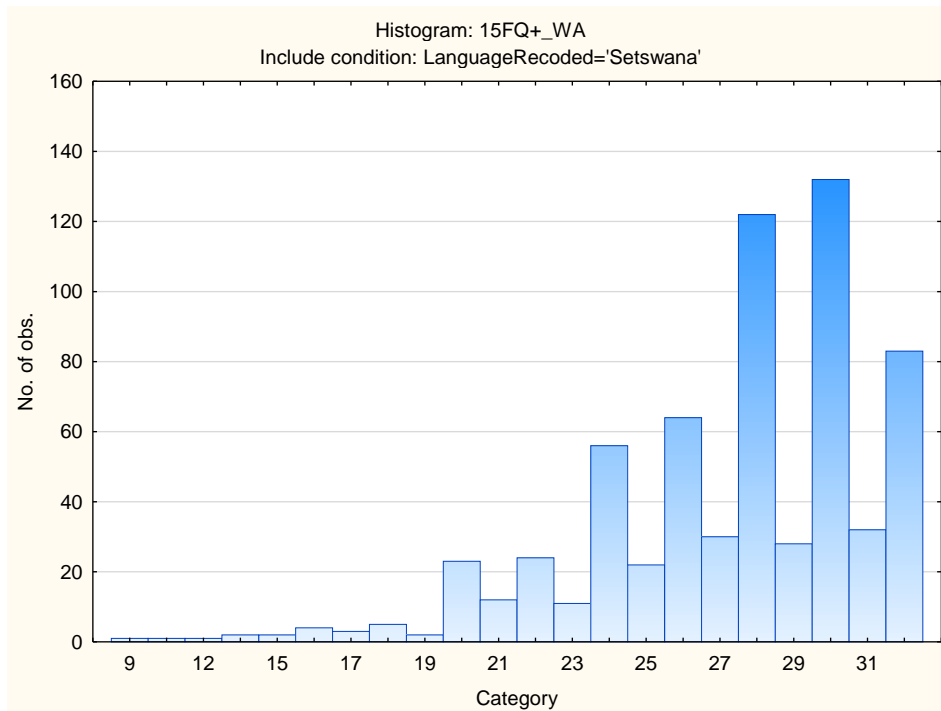
Infrequency



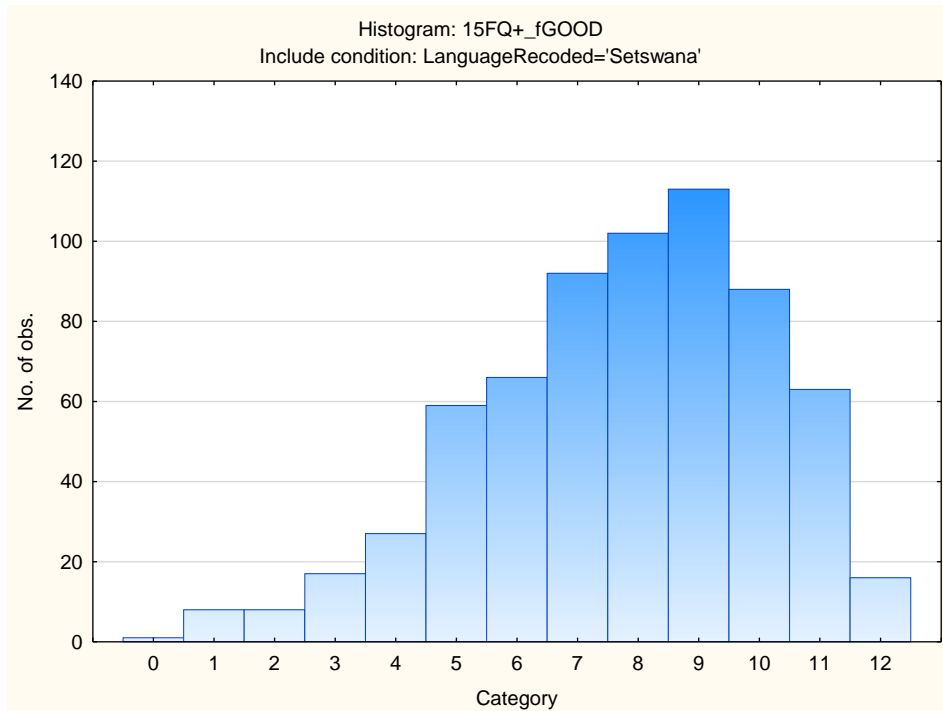
Derived Score: Emotional Intelligence



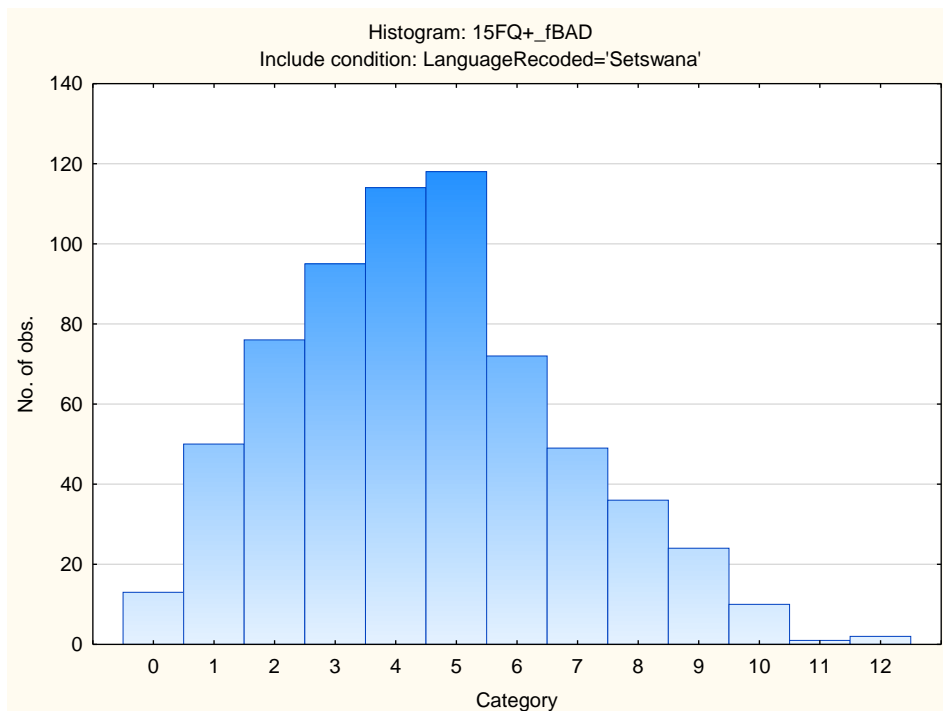
Derived Score: Work Attitude



Faking Good



Faking Bad



Sten Table

Scale Abbreviation	Scale Name	Raw Scores for Sten Categories									
		1	2	3	4	5	6	7	8	9	10
fA	Distant Aloof - Empathic	6-13	14-14	15-16	17-17	18-19	20-20	21-22	23-23	24-24	
B	Intellectance	2-11	12-13	14-15	16-17	18-19	20-21	22-23	24-24		
fC	Affected by Feelings - Emotionally Stable	2-7	8-9	10-12	13-14	15-16	17-19	20-21	22-23	24-24	
fE	Accommodating – Dominant	0-9	10-11	12-12	13-14	15-16	17-18	19-20	21-22	23-24	
fF	Sober serious - Enthusiastic	0-3	4-6	7-9	10-12	13-14	15-17	18-20	21-22	23-24	
fG	Expedient – Conscientious	4-11	12-13	14-15	16-17	18-19	20-21	22-23	24-24		
fH	Retiring – Socially-bold	0-6	7-8	9-11	12-13	14-16	17-19	20-21	22-24		
fI	Hard-headed – Tender-minded	0-5	6-7	8-10	11-12	13-15	16-17	18-20	21-22	23-24	
fL	Trusting - Suspicious	0-1	2-4	5-6	7-8	9-11	12-13	14-15	16-17	18-20	21-22
fM	Concrete - Abstract	0-3	4-5	6-7	8-8	9-10	11-12	13-14	15-15	16-17	18-23
fN	Direct - Restrained	2-13	14-15	16-17	18-18	19-20	21-21	22-23	24-24		
fO	Confident – Self-doubting	2-3	4-5	6-7	8-10	11-12	13-14	15-16	17-19	20-21	22-24
fQ1	Conventional - Radical	0-1	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-18	19-24
fQ2	Group-orientated - Self-sufficient	0-1	0-0	1-2	3-4	5-6	7-8	9-10	11-13	14-15	16-22
fQ3	Informal - Self-disciplined	10-15	16-17	18-18	19-19	20-20	21-22	23-23	24-24		
fQ4	Composed – Tense-driven	0-1	0-0	1-3	4-5	6-8	9-10	11-12	13-15	16-17	18-24
SD	Social Desirability	2-4	5-6	7-8	9-9	10-11	12-13	14-14	15-16		
CT	Central Tendency	0-1	0-0	1-1	2-4	5-10	11-16	17-22	23-29	30-35	36-92
INF	Infrequency	0-1	0-0	1-1	2-2	3-3	4-4	5-5	6-6	7-7	8-10
EIQ	Derived Score: Emotional Intelligence	10-16	17-18	19-20	21-21	22-23	24-25	26-27	28-29	30-30	
WA	Derived Score: Work Attitude	9-19	20-21	22-23	24-25	26-27	28-29	30-31	32-32		
fGOOD	Faking Good	0-2	3-4	5-5	6-6	7-7	8-8	9-10	11-11	12-12	
fBAD	Faking Bad	0-1	0-1	2-2	3-3	4-4	5-5	6-6	7-7	8-9	10-12

The Fifteen Factor Questionnaire Plus (15FQ+)

Reliability introduction

Reliability introduction	1
Reliability studies.....	3
Availability of biographical information.....	3
The effect of English language proficiency on the reliability of the 15FQ+.....	3
The effect of sample size on reliability	3
Relationship between reliability groups and norm groups	4
Standard error of measurement (SEM)	4
Choosing an appropriate comparison group for reliability	4
The effect of reliability on validity	4
What Does It Mean If A Test Has Low Reliability?	4
Advice to users.....	4
List of reliability tables.....	5

Reliability studies

Reliability studies are done whenever we receive a substantial body of data that contains item responses. Reliability calculation is one of the services offered by Psytech SA to its clients. In almost all cases, clients have been willing to share the results of these calculations with other users.

Availability of biographical information

Frequently full biographical information is not collected, which makes it very difficult to calculate separate reliabilities on different racial and language groups. In some cases, it has been necessary to do a post-hoc classification of respondents based on their names. In such situations it is usually not possible to distinguish between Whites and Coloureds, and they have had to be classified together in one group.

The effect of English language proficiency on the reliability of the 15FQ+

If the respondents have difficulty understanding the item text, the internal consistency reliability of the test is affected. It stands to reason that for groups with lower levels of education, or people who were historically affected by poorer education due to past discriminatory policies, the 15FQ+ will not be as reliable, and hence not as valid, as for groups who have had the benefit of good education.

Pre-screening for language proficiency is advised before a personality questionnaire should be used. A standardized test of English proficiency is preferred.

Some norm groups were screened for English language comprehension. For those groups, we report the reliability coefficients for the screened and unscreened sample.

The effect of sample size on reliability

An overview of the reliability results will alert the user to the phenomenon that calculated reliabilities are often higher with larger, more diverse samples.

If a sample is very narrowly selected by being based on a particular group of people with particular characteristics, the variance in the sample is reduced. This affects the reliability coefficients. Internal consistency reliability coefficients are based on correlations. Correlations are reduced under conditions where range is restricted.

In-house calculated reliabilities may also be depressed by lack of variance in the sample, particularly if the respondents are employees (not applicants) who were pre-selected on personality. This may be true even if they were pre-selected on a different personality questionnaire (not the 15FQ+).

Relationship between reliability groups and norm groups

It is not possible to create a norm group for each reliability sample, because of sample size constraints. It is also not possible to report a reliability coefficient for every norm sample, because item response data are not always available. For ease of reference, we have included as much information as possible about the composition of the samples, rather than refer the user to the description of a related norm group.

Standard error of measurement (SEM)

Where data are available, the standard error of measurement is reported for every group for which we have calculated reliabilities. This is usually done for samples that are also used as norm groups. In some cases, the standard error of measurement is reported for a group that has been screened for English comprehension, and for the total group as well.

Choosing an appropriate comparison group for reliability

If a larger, more diverse group is available that conforms to the demographic characteristics of the group you are interested in, use that table for comparison purposes.

The effect of reliability on validity

The reliability of a test places an upper limit on its validity. If a test is not reliable, it cannot be valid.

What Does It Mean If A Test Has Low Reliability?

On an ability measure, Reliability is considered low if it is below 0.75. Personality measures should always be interpreted with caution. In cases where the reliability is below 0.65, the results should be interpreted with extreme caution by using additional information for this purpose. The interview prompts report can assist the user in obtaining additional information for the purpose of triangulation, directly from the respondent.

There are various reasons why the reliability of a test, or of a specific sample of the overall sample group, might be low:

- Respondents guessing the answers to items which they may not know. Results should therefore be interpreted with caution.
- Respondents may have rushed to complete the assessment or may have been lacking in motivation at the time of test completion. In this instance, a lower reliability could be attributed to guessing or hasty decision making.
- Respondents finding the test items too difficult.
- Shorter tests, although economic and quick to administer, tend to be less reliable.

It is best practice to always rely on multiple sources of information when making an informed decision utilising an assessment process. This is of particular importance when the reliability of an assessment is lower than usual.

Advice to users

- Collect full biographical information on the respondents.
- Pre-screen for language proficiency using a standardized test of English proficiency wherever possible.
- Verify whether the scales you are interested in for decision-making purposes, are reliable for the persons you want to test.
- Where available, bear the standard error of measurement in mind when making decisions on test results.
- Do not use unreliable scales for decision making.
- Do not rely on a single test when reliability is doubtful.

List of reliability tables

Group	Study number
SA Police officers	R1
SA Police Assessment Centre Candidates	R2
SA Technical Officers	R3
SA Managers - manufacturing	R4
SA Insurance Sales	R5
SA Managerial Professional	R6
SA Marketing –Tobacco industry	R7
General Population updated 2008	R8
SA English updated 2008	R9
SA Afrikaans updated 2008	R10
Reliabilities: Race group comparison	R11
Reliabilities: Language group comparison	R12
Reliabilities: Language comparison	R13
Reliability: relationship to verbal reasoning, comparison by race	R14
SA Aggregate Population updated 2016	R15
SA Afrikaans updated 2016	R16
SA English 2016	R17
SA Indigenous 2016	R18
SA isiXhosa updated 2016	R19
SA isiZulu updated 2016	R20
SA Sepedi updated 2016	R21
SA Sesotho updated 2016	R22
SA siSwati updated 2016	R23
SA Tshivenda updated 2016	R24
SA Xitsonga updated 2016	R25
SA Setswana updated 2016	R26

15FQ+ Reliability: South African Police officers

Police officers tested for promotional or placement purposes during 2000-2004. Only respondents for whom response data were available, were included in this analysis.

Sample composition

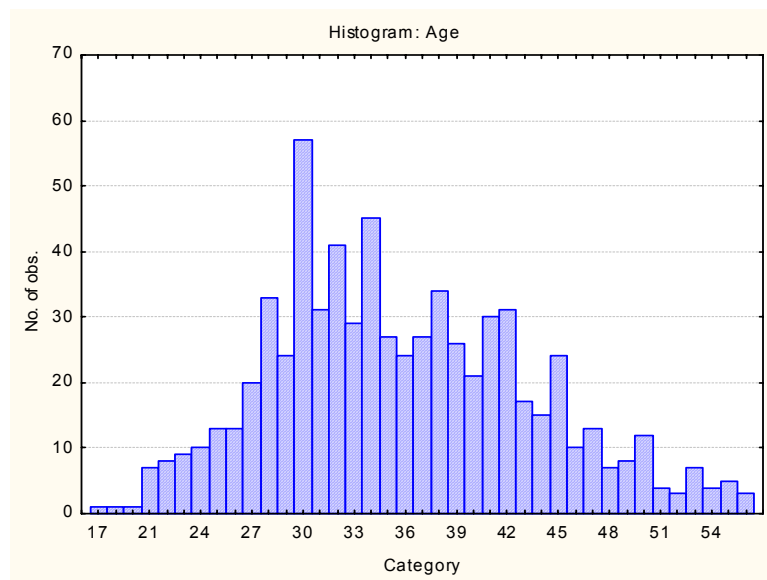
Frequency table: Sex				
Category	Count	Cumulative Count	Percent	Cumulative Percent
M	639	639	68.48875	68.4887
F	151	790	16.18435	84.6731
U	143	933	15.32690	100.0000
Missing	0	933	0.00000	100.0000

Frequency table: Education				
Category	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	93	93	9.96785	9.9678
Technikon	42	135	4.50161	14.4695
Post Graduate	9	144	0.96463	15.4341
University diploma	4	148	0.42872	15.8628
Grade 10 or 11	8	156	0.85745	16.7203
Degree	7	163	0.75027	17.4705
University entrance matri	3	166	0.32154	17.7921
Diploma	1	167	0.10718	17.8992
Missing	766	933	82.10075	100.0000

Frequency table: First Language				
Category	Count	Cumulative Count	Percent	Cumulative Percent
English	46	46	4.93033	4.9303
Afrikaans	77	123	8.25295	13.1833
Setswana	13	136	1.39335	14.5766
Xitsonga	6	142	0.64309	15.2197
isiZulu	12	154	1.28617	16.5059
isiXhosa	19	173	2.03644	18.5423
Sesotho	15	188	1.60772	20.1501
Sepedi	9	197	0.96463	21.1147
siSwati	1	198	0.10718	21.2219
Tshivenda	1	199	0.10718	21.3290
Missing	734	933	78.67095	100.0000

Frequency table: Race				
Category	Count	Cumulative Count	Percent	Cumulative Percent
Asian	54	54	5.78778	5.7878
European	189	243	20.25723	26.0450
Coloured	28	271	3.00107	29.0461
African	306	577	32.79743	61.8435
Other	2	579	0.21436	62.0579
Missing	354	933	37.94212	100.0000

Descriptive Statistics						
Variable	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	35.77986	7.637247	17.00000	57.00000	695	238



Internal consistency reliability on 15FQ+ scales

Scale	Scale description	Coefficient Alpha
fA	Cool reserved - outgoing	.58
fB	Intellectance	.72
fC	Affected by feelings - emotionally stable	.70
fE	Accommodating - Dominant	.56
fF	Sober serious - enthusiastic	.73
fG	Expedient - conscientious	.67
fH	Retiring - socially bold	.77
fI	Tough Minded - tender minded	.63
fL	Trusting - suspicious	.71
fM	Practical - Abstract	.46
fN	Forthright - discreet	.69
fO	Self-assured - apprehensive	.50
fQ1	Conventional - radical	.51
fQ2	Group - orientated - self-sufficient	.73
fQ3	Undisciplined - self-disciplined	.55
fQ4	Relaxed - tense driven	.68
	MEAN ALPHA	0.64

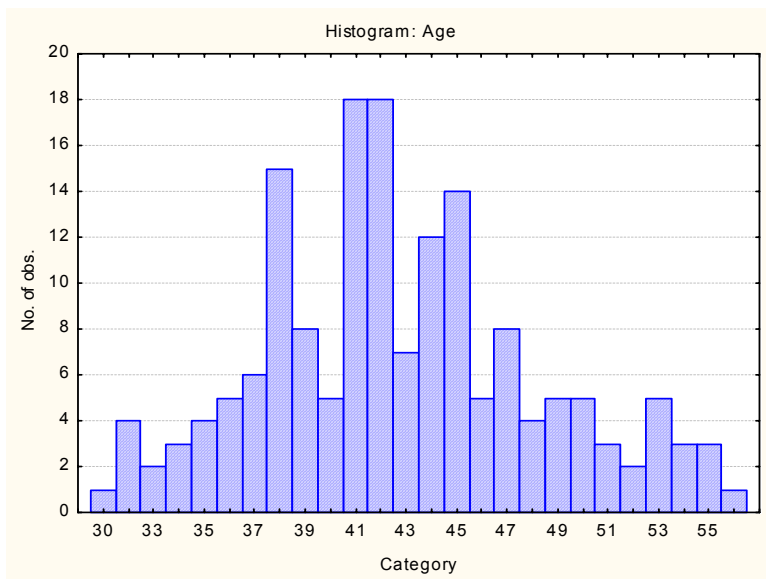
15FQ+ Reliability: South African Police Assessment Centre

Senior police officers who completed the 15FQ+ as part of an assessment centre. Assessments were done during 2002-2003

Sample composition

Frequency table: Sex				
Category	Count	Cumulative Count	Percent	Cumulative Percent
F	36	36	19.04762	19.0476
M	153	189	80.95238	100.0000
Missing	0	189	0.00000	100.0000

Descriptive Statistics						
Variable	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	42.78313	5.534571	30.00000	57.00000	166	23



Internal consistency reliability on 15FQ+ scales

Scale	Scale description	Coefficient Alpha N = 189
fA	Cool reserved - outgoing	.50
fB	Intellectance	.68
fC	Affected by feelings - emotionally stable	.72
fE	Accommodating - Dominant	.43
fF	Sober serious - enthusiastic	.72
fG	Expedient - conscientious	.71
fH	Retiring - socially bold	.74
fI	Tough Minded - tender minded	.60
fL	Trusting - suspicious	.76
fM	Practical - Abstract	.43
fN	Forthright - discreet	.58
fO	Self-assured - apprehensive	.48
fQ1	Conventional - radical	.51
fQ2	Group - orientated - self-sufficient	.72
fQ3	Undisciplined - self-disciplined	.63
fQ4	Relaxed - tense driven	.67
	MEAN ALPHA	0.62

15FQ+ Reliability: SA Senior Technical Officers (Electricity supply company)

Sample composition

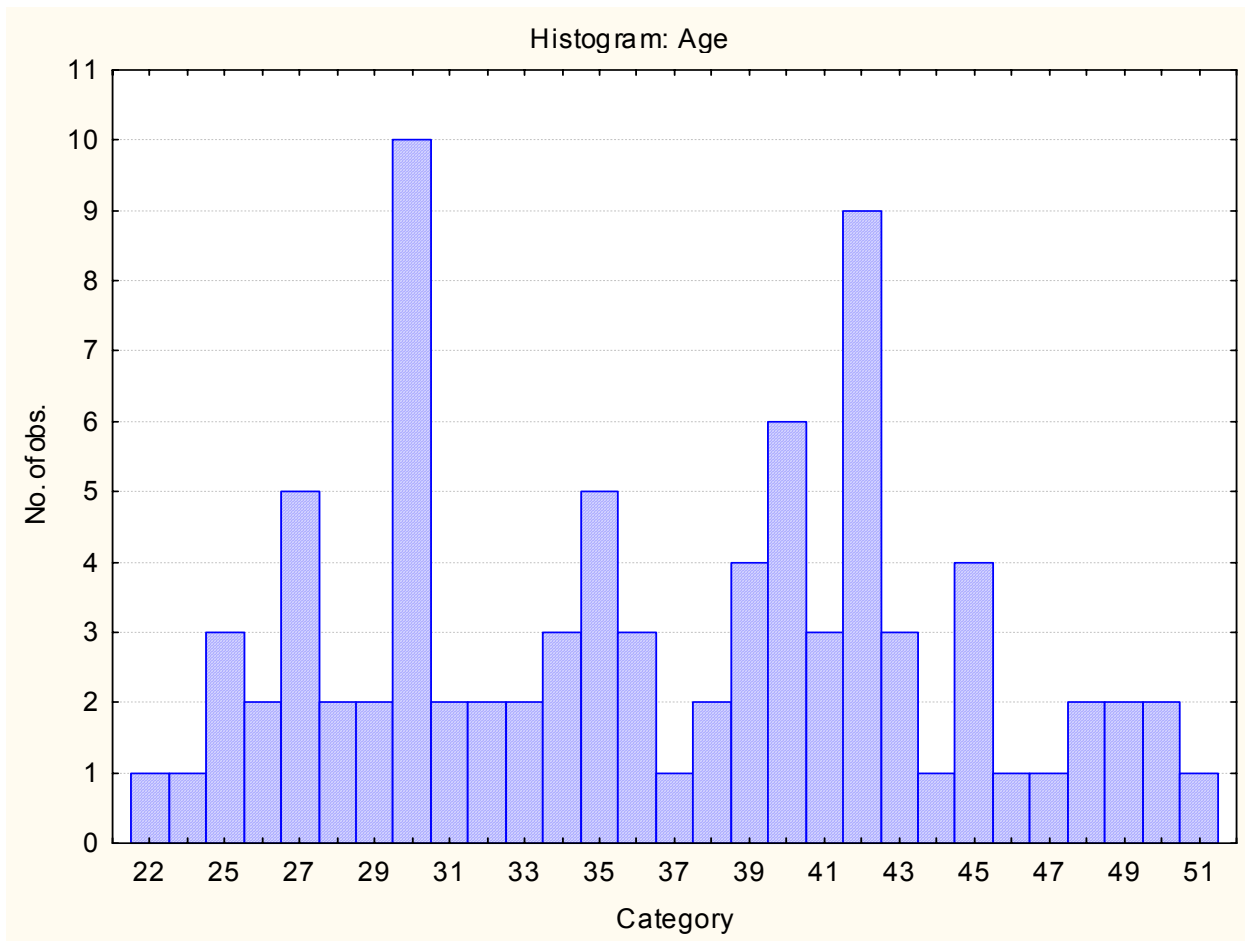
Senior technical officers tested as part of a validation study with a major South African electricity supplier.

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Technikon	1	1	1.13636	1.1364
Vocational Training	41	42	46.59091	47.7273
Grade 12	14	56	15.90909	63.6364
Grade 10 or 11	2	58	2.27273	65.9091
Missing	30	88	34.09091	100.0000

Category	Frequency table: First Language			
	Count	Cumulative Count	Percent	Cumulative Percent
isiZulu	8	8	9.09091	9.0909
isiXhosa	2	10	2.27273	11.3636
Afrikaans	29	39	32.95455	44.3182
English	8	47	9.09091	53.4091
Sesotho	8	55	9.09091	62.5000
Xitsonga	1	56	1.13636	63.6364
Setswana	1	57	1.13636	64.7727
isiNdebele	1	58	1.13636	65.9091
Missing	30	88	34.09091	100.0000

Category	Frequency table: Race			
	Count	Cumulative Count	Percent	Cumulative Percent
African	21	21	23.86364	23.8636
European	32	53	36.36364	60.2273
Coloured	5	58	5.68182	65.9091
Missing	30	88	34.09091	100.0000

Variable	Descriptive Statistics					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	36.47059	7.344561	22.00000	51.00000	85	3



Internal consistency reliabilities

	Scale	Description	Cronbach Alpha N = 88
1	fA	Distant Aloof - Empathic	0.58
2	B	Intellectance	0.73
3	fC	Affected by feelings - Emotionally stable	0.77
4	fE	Accommodating - Dominant	0.57
5	fF	Sober serious - Enthusiastic	0.73
6	fG	Expedient - Conscientious	0.69
7	fH	Retiring - Socially Bold	0.79
8	fI	Hard Headed - Tender minded	0.67
9	fL	Trusting - Suspicious	0.48
10	fM	Concrete - Abstract	0.45
11	fN	Direct - Restrained	0.76
12	fO	Self assured - Apprehensive	0.55
13	fQ1	Conventional - Radica	0.42
14	fQ2	Group Orientated - Self Sufficient	0.73
15	fQ3	Informal - Self Disciplined	0.49
16	fQ4	Composed - Tense Driver	0.74
17			
MEAN		Mean alpha	0.631429

15FQ+ Reliability : SA Managers in a Manufacturing Company

Managers and supervisors in a South African manufacturing organisation.
Mixed race sample, tested during year 2000.

Sample composition

Frequency table: GENDER				
Category	Count	Cumulative Count	Percent	Cumulative Percent
Male	65	65	69.14894	69.1489
Female	24	89	25.53191	94.6809
Unknown	5	94	5.31915	100.0000
Missing	0	94	0.00000	100.0000

Frequency table: RACE				
Category	Count	Cumulative Count	Percent	Cumulative Percent
ASIAN	23	23	24.46809	24.4681
WHITE/COLOURED	44	67	46.80851	71.2766
BLACK	27	94	28.72340	100.0000
Missing	0	94	0.00000	100.0000

Internal Consistency reliabilities

Scale	Scale description	Coefficient Alpha
fA	Distant Aloof - Empathic	.60
fB	Intellectance	.53
fC	Affected by feelings - emotionally stable	.73
fE	Accommodating - Dominant	.66
fF	Sober serious - Enthusiastic	.80
fG	Expedient - Conscientious	.74
fH	Retiring - Socially bold	.83
fI	Tough Minded - Tender minded	.72
fL	Trusting - Suspicious	.73
fM	Concrete - Abstract	.61
fN	Direct - Restrained	.74
fO	Self-assured - Apprehensive	.71
fQ1	Conventional - Radical	.73
fQ2	Group orientated – Self sufficient	.66
fQ3	Informal - self-disciplined	.52
fQ4	Composed - Tense driven	.77
	MEAN ALPHA	0.69

15FQ+ Reliabilities – SA Insurance Sales Consultants

Sample composition

Sales consultants in the South African insurance industry.
Tested during 2000.

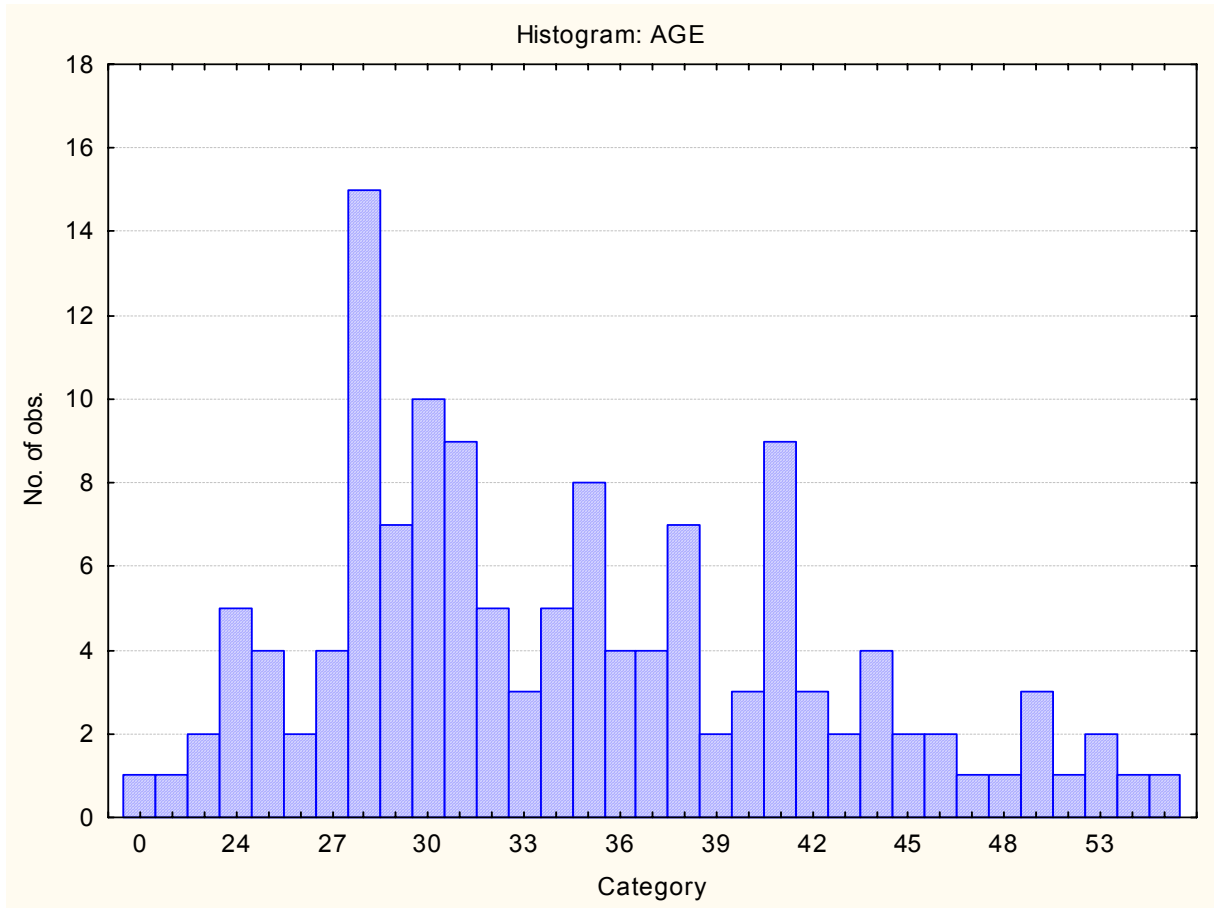
Frequency table: SEX				
Category	Count	Cumulative Count	Percent	Cumulative Percent
MALE	115	115	79.86111	79.8611
FEMALE	22	137	15.27778	95.1389
Missing	7	144	4.86111	100.0000

Frequency table: LANGUAGE				
Category	Count	Cumulative Count	Percent	Cumulative Percent
English	88	88	61.11111	61.1111
Afrikaans	24	112	16.66667	77.7778
Sesotho	6	118	4.16667	81.9444
isiZulu	7	125	4.86111	86.8056
Setswana	4	129	2.77778	89.5833
Sepedi	1	130	0.69444	90.2778
Missing	14	144	9.72222	100.0000

Frequency table: EDUCATION				
Category	Count	Cumulative Count	Percent	Cumulative Percent
Tec/Uni: Tec/Uni diploma	36	36	25.00000	25.0000
Grade 12	63	99	43.75000	68.7500
Grade 10 or 11	2	101	1.38889	70.1389
Vocational Training	8	109	5.55556	75.6944
Post Graduate	10	119	6.94444	82.6389
Degree	10	129	6.94444	89.5833
University entrance matric	1	130	0.69444	90.2778
Missing	14	144	9.72222	100.0000

Frequency table: RACE (liblifvalidate)				
Category	Count	Cumulative Count	Percent	Cumulative Percent
European	101	101	70.13889	70.1389
Asian	7	108	4.86111	75.0000
Coloured	3	111	2.08333	77.0833
African	19	130	13.19444	90.2778
Missing	14	144	9.72222	100.0000

Variable	Descriptive Statistics					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
AGE	34.36842	8.217197	0.00	57.00000	133	11



Internal Consistency reliabilities on 15FQ+ scales

Scale	Scale description	Coefficient Alpha
fA	Distant aloof - empathic	.661108
β	Intellectance	.683658
fC	Affected by feelings - emotionally stable	.749557
fE	Accommodating - Dominant	.738018
fF	Sober serious - Enthusiastic	.680355
fG	Expedient - Conscientious	.776183
fH	Retiring - Socially bold	.811664
fI	Tough Minded - Tender minded	.695789
fL	Trusting - Suspicious	.739440
fM	Concrete - Abstract	.624457
fN	Direct - Restrained	.744712
fO	Self-assured - Apprehensive	.818977
fQ1	Conventional - Radical	.741581
fQ2	Group - orientated - Self-sufficient	.716024
fQ3	Informal- selfdisciplined	.699864
fQ4	Composed - tense driven	.812509
	MEAN ALPHA	0.730869

15FQ+ Reliability: Professional and management development candidates tested by various clients of Psytech SA.

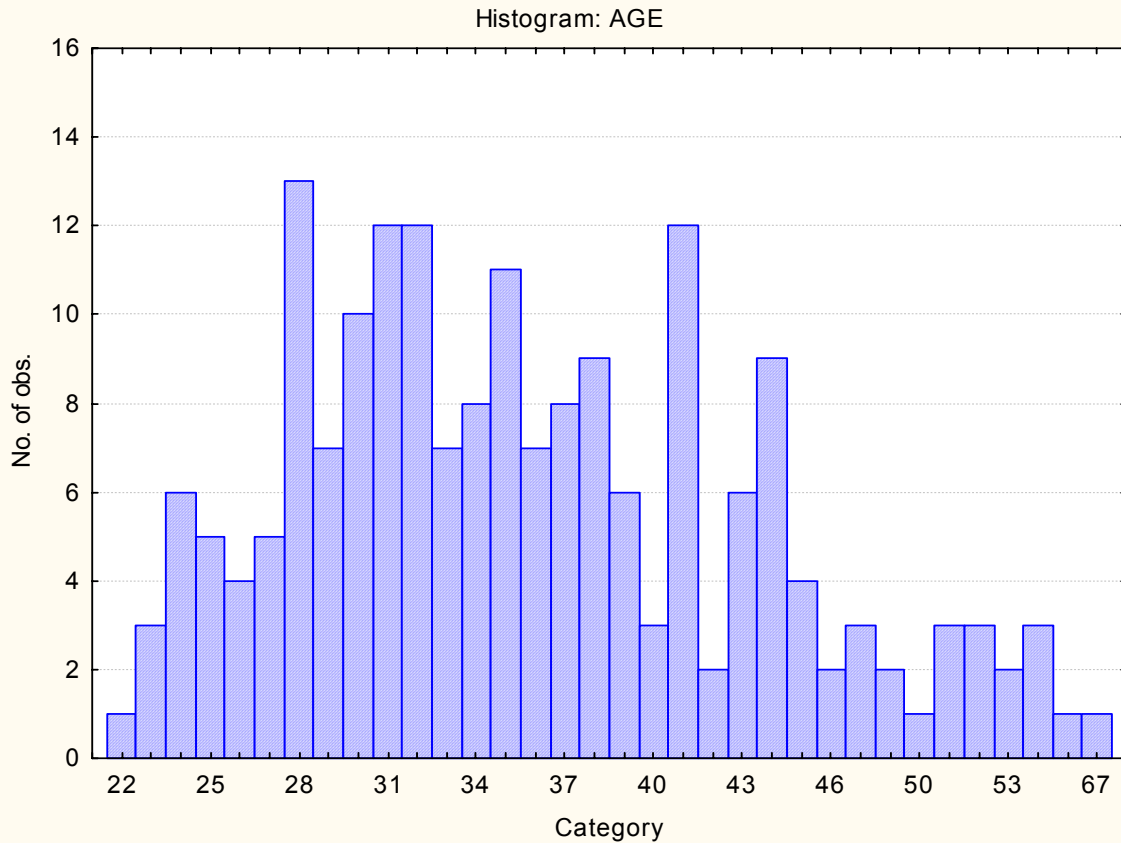
Data were collected between 2000 and 2002

Sample composition

Frequency table: GENDER				
Category	Count	Cumulative Count	Percent	Cumulative Percent
Male	175	175	77.43363	77.4336
Female	48	223	21.23894	98.6726
Unknown	3	226	1.32743	100.0000
Missing	0	226	0.00000	100.0000

Frequency table: RACE				
Category	Count	Cumulative Count	Percent	Cumulative Percent
White/coloured	180	180	79.64602	79.6460
Black	26	206	11.50442	91.1504
Asian	20	226	8.84956	100.0000
Missing	0	226	0.00000	100.0000

Descriptive Statistics						
Variable	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
AGE	35.87435	8.108145	22.00000	67.00000	191	35



Internal consistency reliability on 15FQ+ scales

Scale	Scale description	Alphas Total Sample N: 226
A	Distant aloof - empathic	.71
B	Intellectance	.67
C	Affected by feelings - emotionally stable	.76
E	Accommodating - Dominant	.75
F	Sober serious - enthusiastic	.71
G	Expedient - conscientious	.81
H	Retiring - socially bold	.82
I	Hard headed - tender minded	.71
L	Trusting - suspicious	.75
M	Concrete - Abstract	.68
N	Direct - Restrained	.73
O	Self-assured - apprehensive	.81
Q1	Conventional - Radical	.80
Q2	Group - orientated - Self-sufficient	.72
Q3	Informal - Self-disciplined	.77
Q4	Composed - Tense driven	.78
	MEAN ALPHA	.75

15FQ+ reliability: Marketing personnel in a tobacco manufacturing company

Sample description

The sample consisted of personnel in the marketing department of a company manufacturing tobacco products

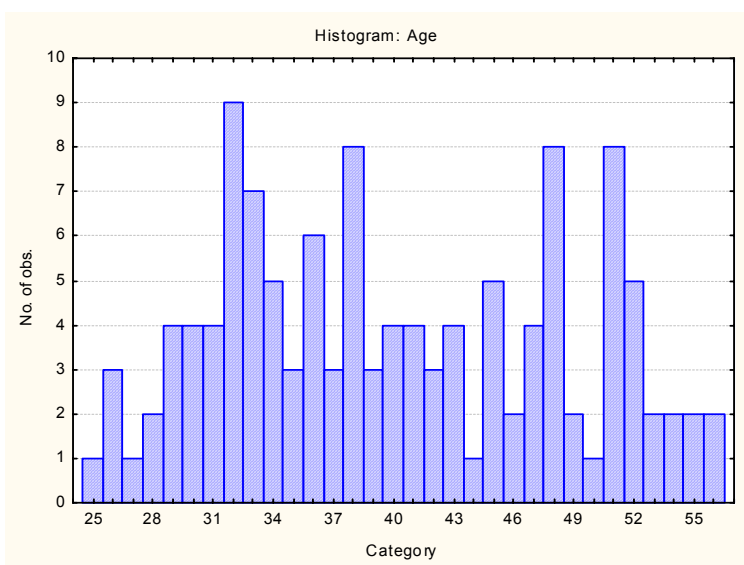
Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
Male	106	106	86.88525	86.8852
Female	16	122	13.11475	100.0000
Missing	0	122	0.00000	100.0000

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Post Graduate	9	9	7.37705	7.3770
Grade 12	55	64	45.08197	52.4590
Degree	12	76	9.83607	62.2951
Technikon	12	88	9.83607	72.1311
University diploma	3	91	2.45902	74.5902
Vocational Training	3	94	2.45902	77.0492
Missing	28	122	22.95082	100.0000

Category	Frequency table: First Language			
	Count	Cumulative Count	Percent	Cumulative Percent
English	33	33	27.04918	27.0492
Afrikaans	42	75	34.42623	61.4754
isiZulu	9	84	7.37705	68.8525
Setswana	5	89	4.09836	72.9508
Sesotho	4	93	3.27869	76.2295
isiXhosa	2	95	1.63934	77.8689
Xitsonga	1	96	0.81967	78.6885
Sepedi	1	97	0.81967	79.5082
Missing	25	122	20.49180	100.0000

Frequency table: Race				
Category	Count	Cumulative Count	Percent	Cumulative Percent
European	66	66	54.09836	54.0984
African	22	88	18.03279	72.1311
Asian	5	93	4.09836	76.2295
Other	2	95	1.63934	77.8689
Missing	27	122	22.13115	100.0000

Descriptive Statistics						
Variable	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	40.12295	8.343432	25.00000	56.00000	122	0



Internal consistency reliabilities on 15FQ+ scales

Scale	Scale description	Coefficient Alpha
fA	Distant aloof - empathic	.52
β	Intellectance	.66
fC	Affected by feelings - emotionally stable	.69
fE	Accommodating - Dominant	.60
fF	Sober serious - Enthusiastic	.68
fG	Expedient - Conscientious	.79
fH	Retiring - Socially bold	.76
fI	Tough Minded - Tender minded	.64
fL	Trusting - Suspicious	.64
fM	Concrete - Abstract	.70
fN	Direct - Restrained	.81
fO	Self-assured - Apprehensive	.57
fQ1	Conventional - Radical	.78
fQ2	Group - orientated - Self-sufficient	.55
fQ3	Informal - self disciplined	.76
fQ4	Composed - tense driven	.76
	MEAN ALPHA	0.68

Please note: one item had to be excluded from scale fL because all the respondents had given the same answer on it.

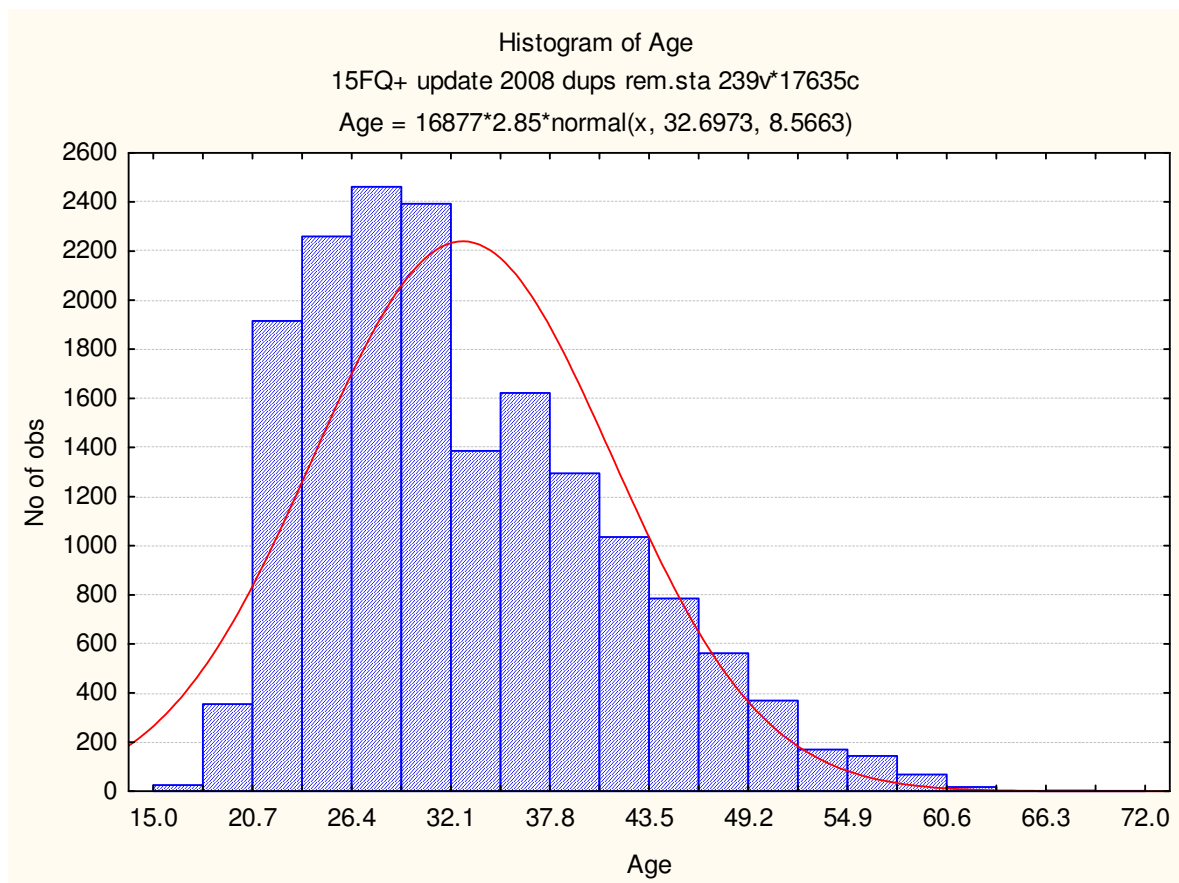
15FQ+ Reliability: South African General Population updated in 2008

Sample composition

Compiled from raw data on 17635 respondents submitted by various clients as well as collected by Psytech South Africa.

Descriptive statistics and frequency distribution for age

Variable	Descriptive Statistics				
	Valid N	Mean	Minimum	Maximum	Std.Dev.
Age	16877	32.69734	15.00000	72.00000	8.566300



It is clear from the frequency distribution that most of the respondents were in their twenties and early thirties.

Frequency table for sex

Category	Frequency table: Sex			
	Count	Cumulative Count	Percentage	Cumulative Percentage
Female	6633	6633	37.61270	37.6127
Male	10796	17429	61.21917	98.8319
Undisclosed	206	17635	1.16813	100.0000
Missing	0	17635	0.00000	100.0000

Frequency table for educational level

Category	Frequency table: Education			
	Count	Cumulative	Percent	Cumulative
Grade 12	3504	3504	19.86958	19.8696
Degree	2072	5576	11.74936	31.6189
Post Graduate	1825	7401	10.34874	41.9677
Technikon	1136	8537	6.44174	48.4094
University diploma	1035	9572	5.86901	54.2784
Grade 10 or 11	322	9894	1.82591	56.1043
Vocational Training	949	10843	5.38134	61.4857
Missing	6792	17635	38.51432	100.0000

It should be noted that a large number of respondents did not give their educational level. Of the remainder, the majority had a grade 12 level of education.

Racial composition of the sample

Category	Frequency table:			
	Count	Cumulative	Percent	Cumulative
Coloured	893	893	5.06379	5.0638
African	4502	5395	25.52878	30.5926
European	4612	10007	26.15254	56.7451
Asian	1620	11627	9.18628	65.9314
Other	85	11712	0.48200	66.4134
Missing	5923	17635	33.58662	100.0000

It should be noted that for a large number of persons no race information was available.

Language composition of the sample

Category	Frequency table: First Language			
	Count	Cumulative	Percent	Cumulative
English	4712	4712	26.71959	26.7196
isiZulu	1212	5924	6.87270	33.5923
Afrikaans	2467	8391	13.98923	47.5815
Other	230	8621	1.30422	48.8857
Sepedi	258	8879	1.46300	50.3487
Sesotho	569	9448	3.22654	53.5753
isiXhosa	730	10178	4.13950	57.7148
Setswana	542	10720	3.07343	60.7882
Xitsonga	157	10877	0.89028	61.6785
siSwati	87	10964	0.49334	62.1718
Tshivenda	127	11091	0.72016	62.8920
isiNdebele	68	11159	0.38560	63.2776
Missing	6476	17635	36.72243	100.0000

Internal consistency reliability on 15FQ+ scales

Scale	Scale description	Alphas Total Sample N: 17635
A	Distant aloof - empathic	.68
B	Intellectance	.71
C	Affected by feelings - emotionally stable	.74
E	Accommodating - Dominant	.66
F	Sober serious - enthusiastic	.75
G	Expedient - conscientious	.76
H	Retiring - socially bold	.80
I	Hard headed - tender minded	.69
L	Trusting - suspicious	.71
M	Concrete - Abstract	.57
N	Direct - Restrained	.72
O	Self-assured - apprehensive	.71
Q1	Conventional - Radical	.65
Q2	Group - orientated - Self-sufficient	.71
Q3	Informal - Self-disciplined	.60
Q4	Composed - Tense driven	.74
	MEAN ALPHA	.70

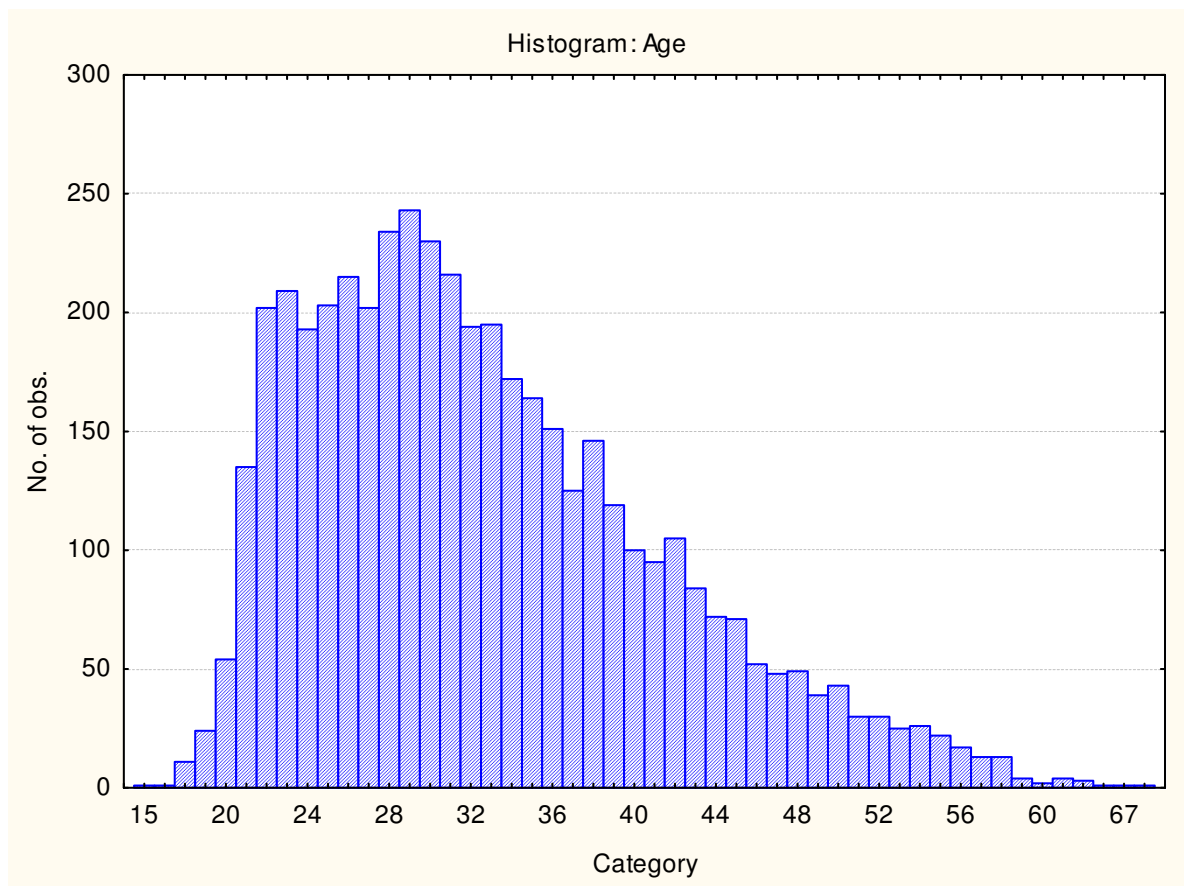
15FQ+ Reliability: South African English speakers in 2008

Sample composition

The sample consisted of 4712 English speaking South Africans who completed the 15FQ+ in the period up to June 2008.

Descriptive statistics and frequency distribution for age

Variable	Descriptive Statistics					No.cases
	Mean	Std.Dev	Minimum	Maximum	N	
Age	32.70429	8.627597	15.00000	68.00000	4589	123



Frequency table for sex

Category	Frequency table: Sex			
	Count	Cumulative	Percent	Cumulative
F	1866	1866	39.60102	39.6010
M	2828	4694	60.01698	99.6180
U	18	4712	0.38200	100.0000
Missing	0	4712	0.00000	100.0000

Frequency table for educational level

Category	Frequency table: Education			
	Count	Cumulative	Percent	Cumulative
Grade 12	1590	1590	33.74363	33.7436
Degree	805	2395	17.08404	50.8277
Post Graduate	759	3154	16.10781	66.9355
Technikon	443	3597	9.40153	76.3370
University diploma	423	4020	8.97708	85.3141
Grade 10 or 11	129	4149	2.73769	88.0518
Vocational Training	367	4516	7.78862	95.8404
Missing	196	4712	4.15959	100.0000

Racial composition of the sample

Category	Frequency table: Race			
	Count	Cumulative	Percent	Cumulative
Coloured	638	638	13.53990	13.5399
African	312	950	6.62139	20.1613
European	2162	3112	45.88285	66.0441
Asian	1487	4599	31.55772	97.6019
Other	57	4656	1.20968	98.8115
Missing	56	4712	1.18846	100.0000

Internal consistency reliability on 15FQ+ scales

Scale	Scale description	Alphas Total Sample N: 4712
A	Distant aloof - empathic	.70
B	Intellectance	.73
C	Affected by feelings - emotionally stable	.75
E	Accommodating - Dominant	.68
F	Sober serious - enthusiastic	.75
G	Expedient - conscientious	.76
H	Retiring - socially bold	.82
I	Hard headed - tender minded	.71
L	Trusting - suspicious	.72
M	Concrete - Abstract	.63
N	Direct - Restrained	.75
O	Self-assured - apprehensive	.74
Q1	Conventional - Radical	.71
Q2	Group - orientated - Self-sufficient	.71
Q3	Informal - Self-disciplined	.66
Q4	Composed - Tense driven	.78
	MEAN ALPHA	.73

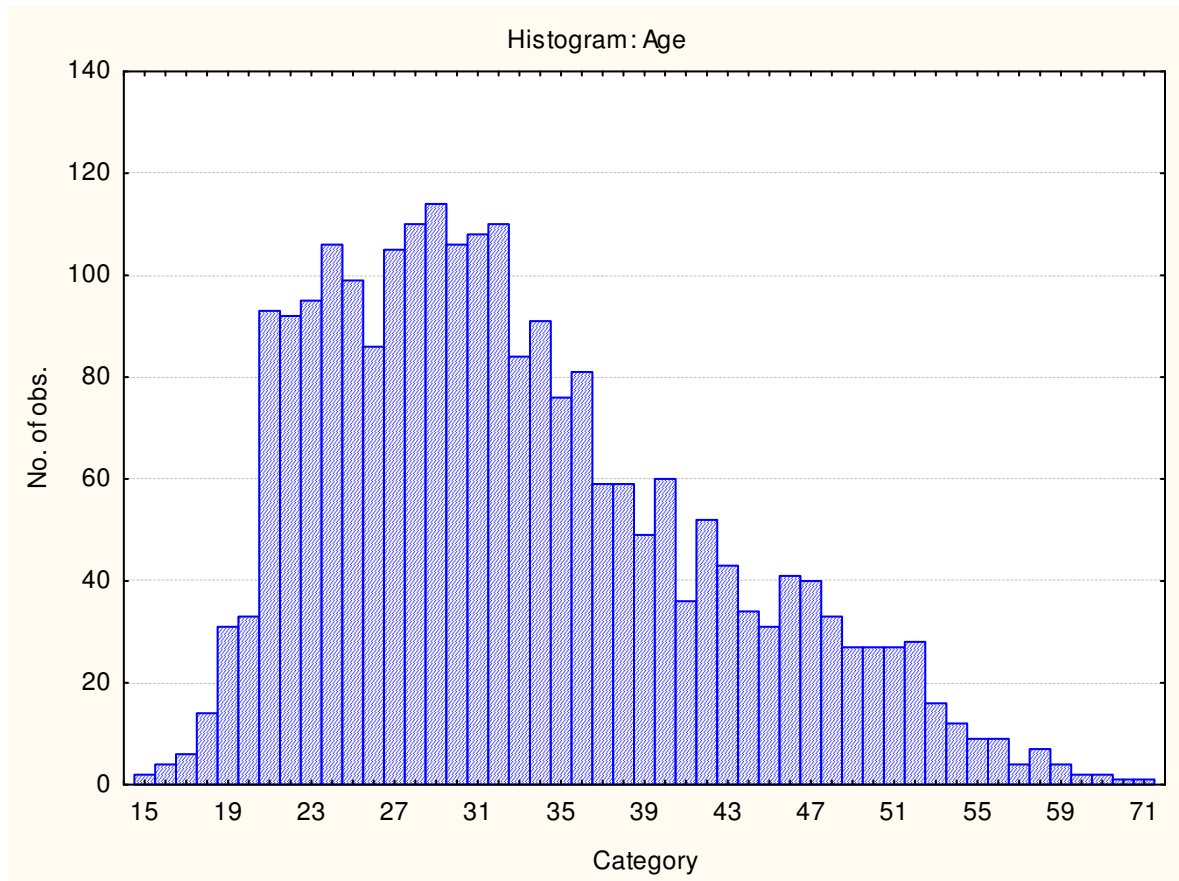
15FQ+ Reliability: South African English speakers in 2008

Sample composition

The sample consisted of 2467 Afrikaans-speaking South Africans tested in the period up to June 2008

Descriptive statistics and frequency distribution for age

Variable	Descriptive Statistics					No.cases missing
	Mean	Std.Dev	Minimum	Maximum	N	
Age	32.87749	9.211620	15.00000	71.00000	2359	108



Frequency table for sex

Category	Frequency table: Sex			
	Count	Cumulative	Percent	Cumulative
F	893	893	36.19781	36.1978
M	1568	2461	63.55898	99.7568
U	6	2467	0.24321	100.0000
Missing	0	2467	0.00000	100.0000

Frequency table for educational level

Category	Frequency table: Education			
	Count	Cumulative	Percent	Cumulative
Grade 12	877	877	35.54925	35.5493
Degree	428	1305	17.34901	52.8983
Post Graduate	368	1673	14.91690	67.8152
Technikon	168	1841	6.80989	74.6251
University diploma	133	1974	5.39116	80.0162
Grade 10 or 11	113	2087	4.58046	84.5967
Vocational Training	178	2265	7.21524	91.8119
Missing	202	2467	8.18808	100.0000

Racial composition of the sample

Category	Frequency table: Race			
	Count	Cumulative	Percent	Cumulative
Coloured	192	192	7.78273	7.7827
African	50	242	2.02675	9.8095
European	2169	2411	87.92055	97.7300
Asian	5	2416	0.20268	97.9327
Other	18	2434	0.72963	98.6623
Missing	33	2467	1.33766	100.0000

Internal consistency reliability on 15FQ+ scales

Scale	Scale description	Alphas Total Sample N: 2467
A	Distant aloof - empathic	.75
B	Intellectance	.74
C	Affected by feelings - emotionally stable	.79
E	Accommodating - Dominant	.74
F	Sober serious - enthusiastic	.79
G	Expedient - conscientious	.78
H	Retiring - socially bold	.83
I	Hard headed - tender minded	.75
L	Trusting - suspicious	.74
M	Concrete - Abstract	.64
N	Direct - Restrained	.75
O	Self-assured - apprehensive	.76
Q1	Conventional - Radical	.68
Q2	Group - orientated - Self-sufficient	.76
Q3	Informal - Self-disciplined	.62
Q4	Composed - Tense driven	.79
	MEAN ALPHA	0.74

15FQ+ Reliability comparison across race groups

Sample composition

The sample consisted of South Africans tested by Psytech and collaborators in the period up to February 2010. The biographical composition of the group is reported separately for the different race groups:

Sample composition: General Population

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	9389	9389	38.17132	38.1713
M	14980	24369	60.90174	99.0731
Missing	228	24597	0.92694	100.0000

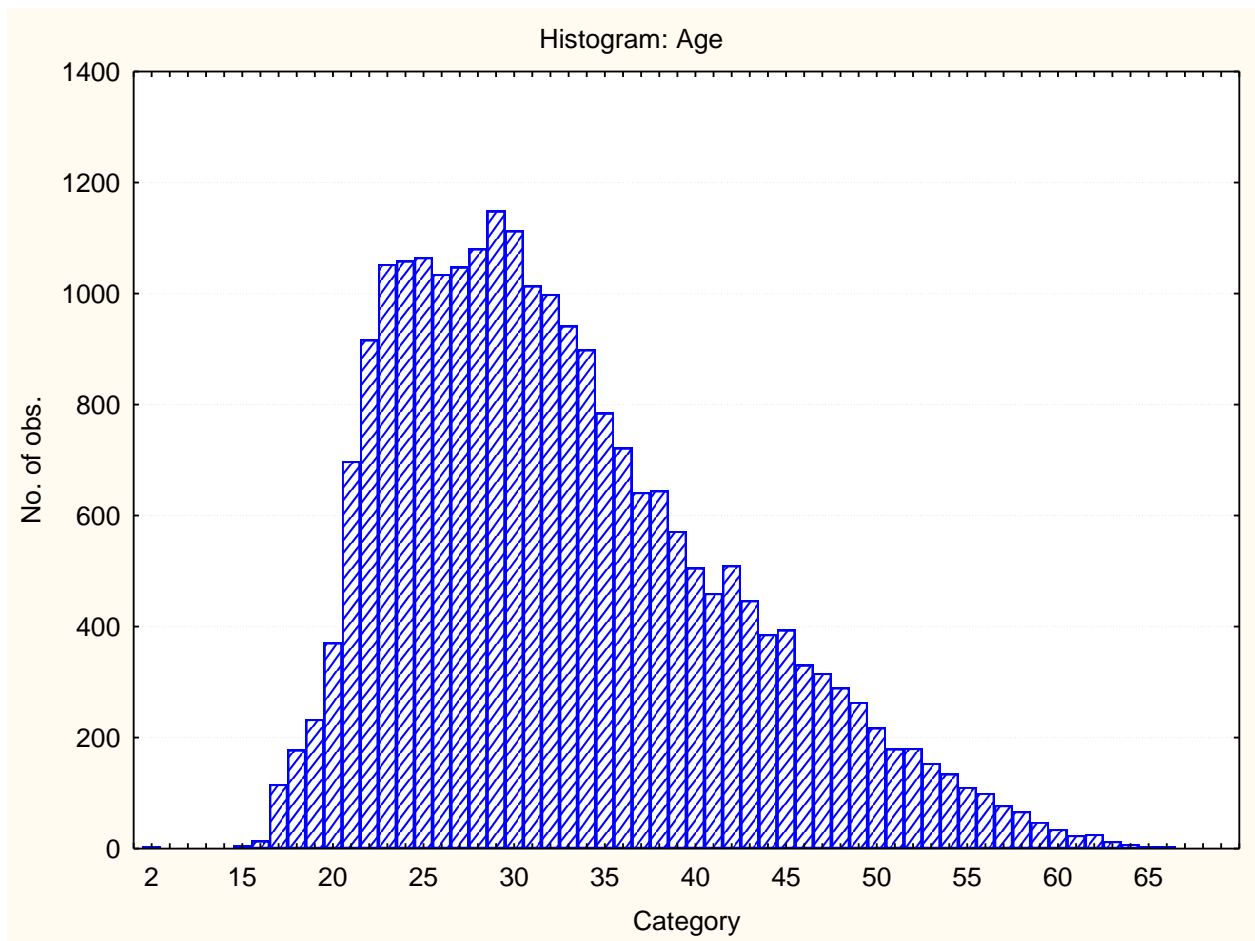
Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	3858	3858	15.68484	15.6848
Degree	2249	6107	9.14339	24.8282
Post Graduate	1927	8034	7.83429	32.6625
Technikon	1744	9778	7.09030	39.7528
University diploma	1174	10952	4.77294	44.5258
Grade 10 or 11	376	11328	1.52864	46.0544
Vocational Training	487	11815	1.97992	48.0343
Diploma	255	12070	1.03671	49.0710
Certificate	155	12225	0.63016	49.7012
Missing	12372	24597	50.29882	100.0000

Category	Frequency table: Language			
	Count	Cumulative Count	Percent	Cumulative Percent
English	5102	5102	20.74237	20.7424
Afrikaans	2857	7959	11.61524	32.3576
isiZulu	1589	9548	6.46014	38.8177
isiXhosa	1048	10596	4.26068	43.0784
Sesotho	752	11348	3.05728	46.1357
Setswana	740	12088	3.00850	49.1442
Sepedi	298	12386	1.21153	50.3557
Xitsonga	184	12570	0.74806	51.1038
Tshivenda	146	12716	0.59357	51.6974
siSwati	103	12819	0.41875	52.1161
isiNdebele	56	12875	0.22767	52.3438
Missing	11722	24597	47.65622	100.0000

Category	Frequency table: Language group			
	Count	Cumulative Count	Percent	Cumulative Percent
Indigenous	4145	4145	16.85165	16.8516
Afrikaans	2857	7002	11.61524	28.4669
English	5102	12104	20.74237	49.2093
Missing	12493	24597	50.79075	100.0000

Category	Frequency table: Race Group			
	Count	Cumulative Count	Percent	Cumulative Percent
African	5803	5803	23.59231	23.5923
European	5002	10805	20.33581	43.9281
Coloured	1124	11929	4.56966	48.4978
Asian	1734	13663	7.04964	55.5474
Missing	10934	24597	44.45258	100.0000

Variable	Descriptive Statistics: Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	32.80917	9.172097	2.000000	72.00000	23654	943



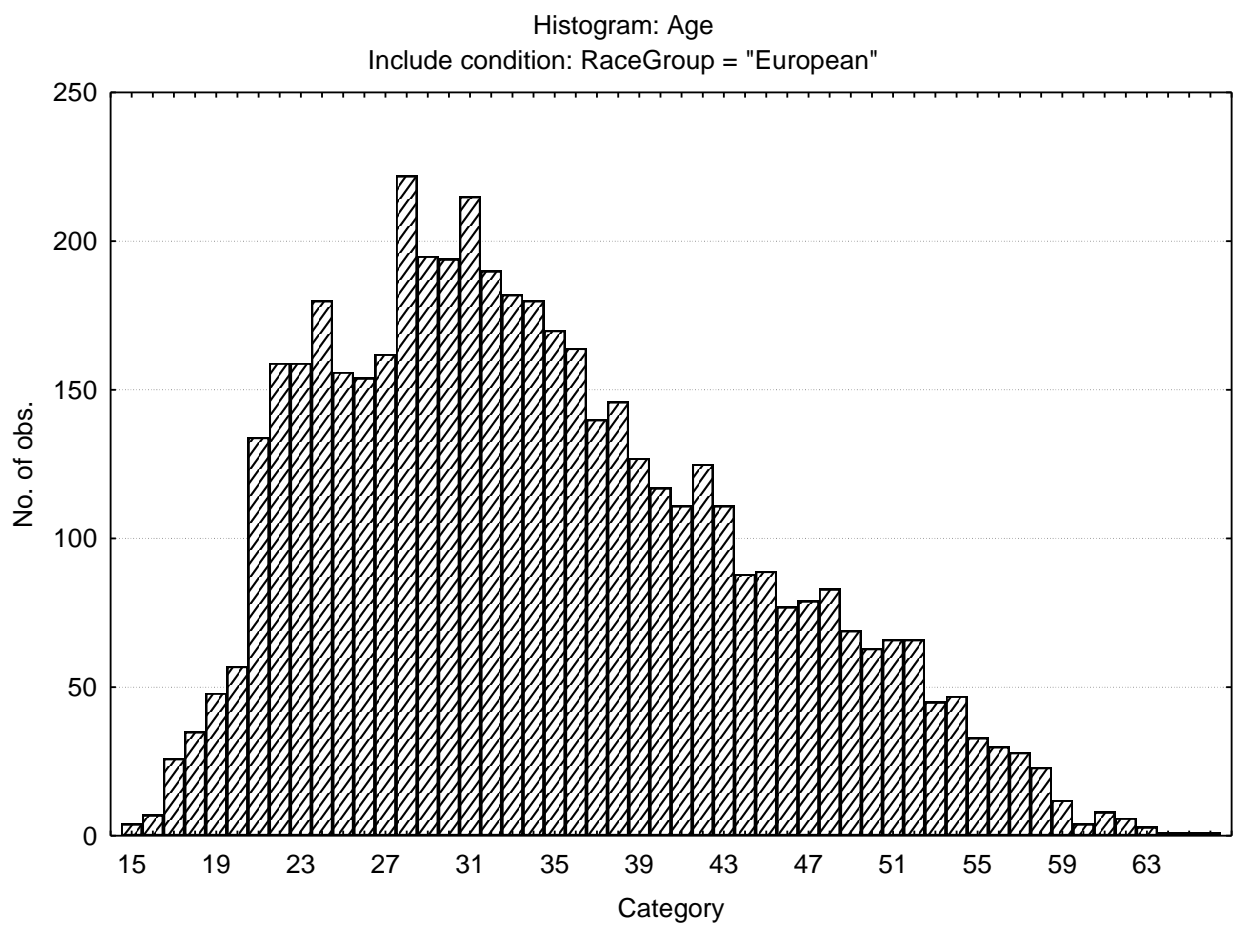
Sample composition: European group

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	1802	1802	36.02559	36.0256
M	3184	4986	63.65454	99.6801
Missing	16	5002	0.31987	100.0000

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	1551	1551	31.00760	31.0076
Degree	777	2328	15.53379	46.5414
Post Graduate	704	3032	14.07437	60.6158
Technikon	485	3517	9.69612	70.3119
University diploma	374	3891	7.47701	77.7889
Grade 10 or 11	152	4043	3.03878	80.8277
Vocational Training	166	4209	3.31867	84.1463
Diploma	72	4281	1.43942	85.5858
Certificate	18	4299	0.35986	85.9456
Missing	703	5002	14.05438	100.0000

Category	Frequency table: Language			
	Count	Cumulative Count	Percent	Cumulative Percent
English	2300	2300	45.98161	45.9816
Afrikaans	2399	4699	47.96082	93.9424
isiZulu	5	4704	0.09996	94.0424
isiXhosa	5	4709	0.09996	94.1423
Sesotho	2	4711	0.03998	94.1823
Setswana	1	4712	0.01999	94.2023
Sepedi	3	4715	0.05998	94.2623
Xitsonga	1	4716	0.01999	94.2823
Tshivenda	1	4717	0.01999	94.3023
siSwati	1	4718	0.01999	94.3223
Missing	284	5002	5.67773	100.0000

Variable	Descriptive Statistics : Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	34.47621	9.785972	15.00000	71.00000	4792	210



Sample composition: African group

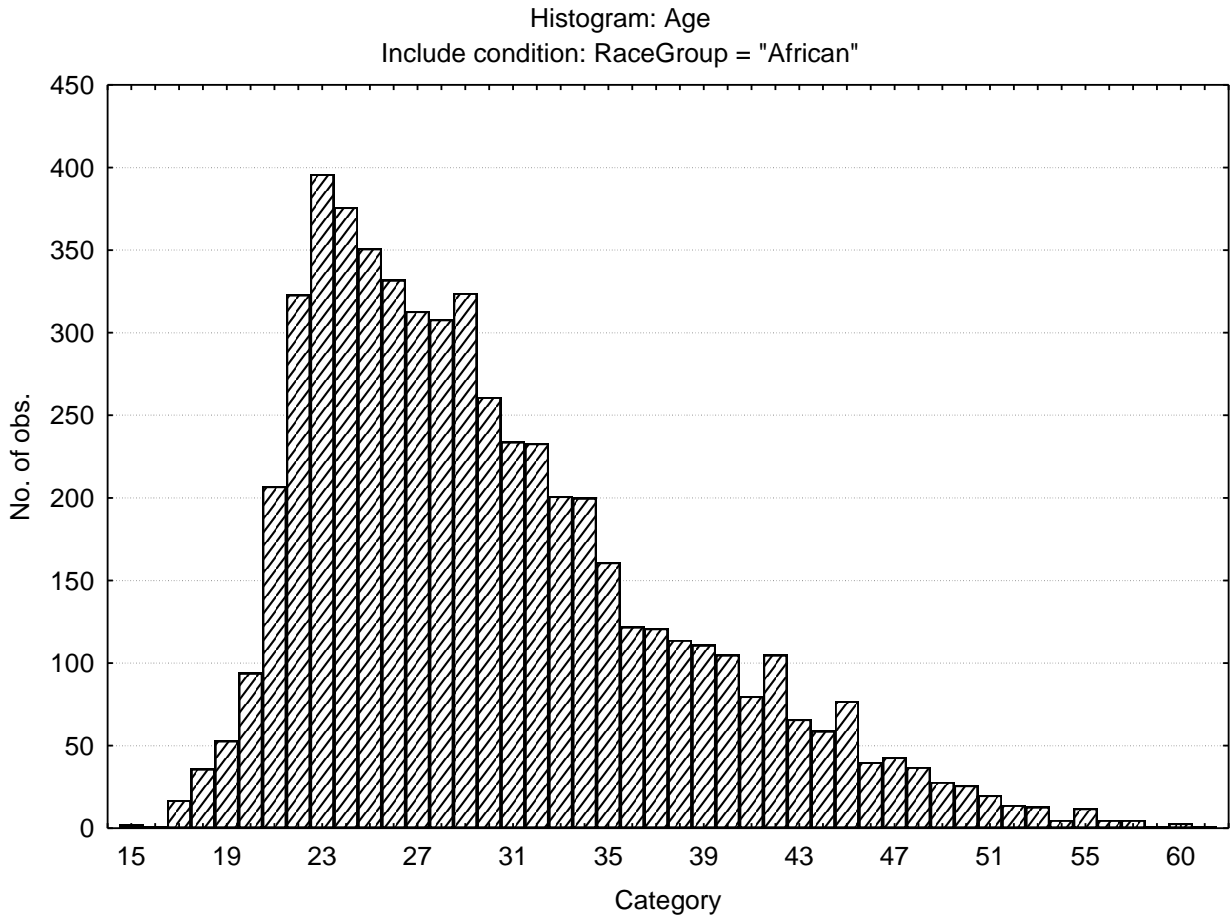
Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	2267	2267	39.06600	39.0660
M	3507	5774	60.43426	99.5003
Missing	29	5803	0.49974	100.0000

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	1284	1284	22.12649	22.1265
Degree	979	2263	16.87058	38.9971
Post Graduate	767	3030	13.21730	52.2144
Technikon	937	3967	16.14682	68.3612
University diploma	584	4551	10.06376	78.4250
Grade 10 or 11	114	4665	1.96450	80.3895
Vocational Training	223	4888	3.84284	84.2323
Diploma	143	5031	2.46424	86.6965
Certificate	112	5143	1.93004	88.6266
Missing	660	5803	11.37343	100.0000

Category	Frequency table: Language			
	Count	Cumulative Count	Percent	Cumulative Percent
English	342	342	5.89350	5.8935
Afrikaans	74	416	1.27520	7.1687
isiZulu	1565	1981	26.96881	34.1375
isiXhosa	1027	3008	17.69774	51.8353
Sesotho	745	3753	12.83819	64.6734
Setswana	729	4482	12.56247	77.2359
Sepedi	287	4769	4.94572	82.1816
Xitsonga	183	4952	3.15354	85.3352
Tshivenda	144	5096	2.48148	87.8166
siSwati	100	5196	1.72325	89.5399
isiNdebele	56	5252	0.96502	90.5049
Missing	551	5803	9.49509	100.0000

Category	Frequency table: Language			
	Count	Cumulative Count	Percent	Cumulative Percent
Indigenous	4077	4077	70.25676	70.2568
Afrikaans	74	4151	1.27520	71.5320
English	342	4493	5.89350	77.4255
Missing	1310	5803	22.57453	100.0000

Variable	Descriptive Statistics : Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	30.12793	7.593987	15.00000	62.00000	5636	167



Sample composition: Coloured group

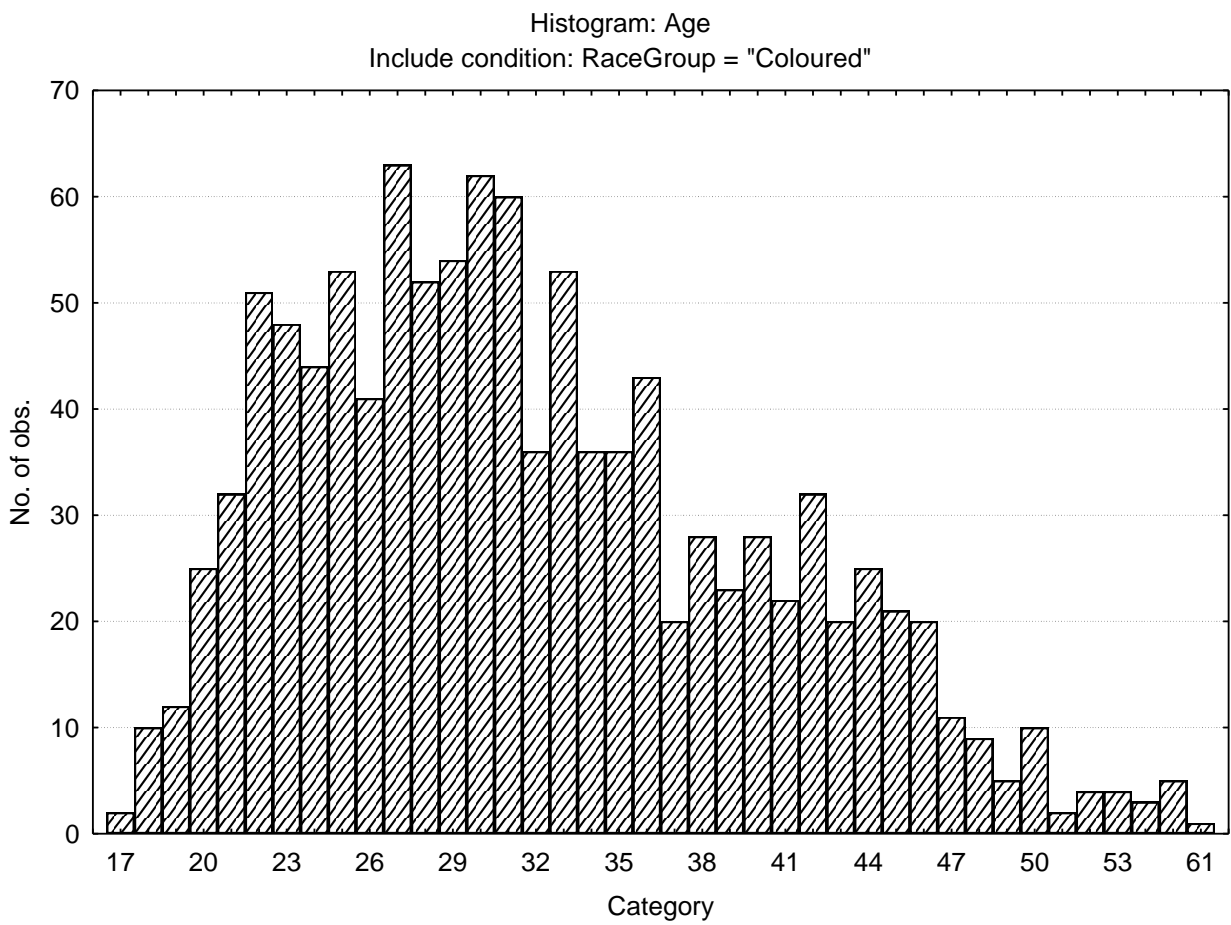
Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	483	483	42.97153	42.9715
M	636	1119	56.58363	99.5552
Missing	5	1124	0.44484	100.0000

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	456	456	40.56940	40.5694
Degree	124	580	11.03203	51.6014
Post Graduate	101	681	8.98577	60.5872
Technikon	137	818	12.18861	72.7758
University diploma	64	882	5.69395	78.4698
Grade 10 or 11	58	940	5.16014	83.6299
Vocational Training	41	981	3.64769	87.2776
Diploma	16	997	1.42349	88.7011
Certificate	13	1010	1.15658	89.8577
Missing	114	1124	10.14235	100.0000

Category	Frequency table: Language			
	Count	Cumulative Count	Percent	Cumulative Percent
English	745	745	66.28114	66.2811
Afrikaans	315	1060	28.02491	94.3060
isiZulu	2	1062	0.17794	94.4840
isiXhosa	1	1063	0.08897	94.5730
Sesotho	1	1064	0.08897	94.6619
Setswana	3	1067	0.26690	94.9288
Sepedi	3	1070	0.26690	95.1957
siSwati	1	1071	0.08897	95.2847
Missing	53	1124	4.71530	100.0000

Category	Frequency table: Language Group			
	Count	Cumulative Count	Percent	Cumulative Percent
Indigenous	7	7	0.62278	0.6228
Afrikaans	315	322	28.02491	28.6477
English	745	1067	66.28114	94.9288
Missing	57	1124	5.07117	100.0000

Variable	Descriptive Statistics : Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	31.88879	8.159569	17.00000	61.00000	1106	18



Sample composition: Asian Group

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	687	687	39.61938	39.6194
M	1040	1727	59.97693	99.5963
Missing	7	1734	0.40369	100.0000

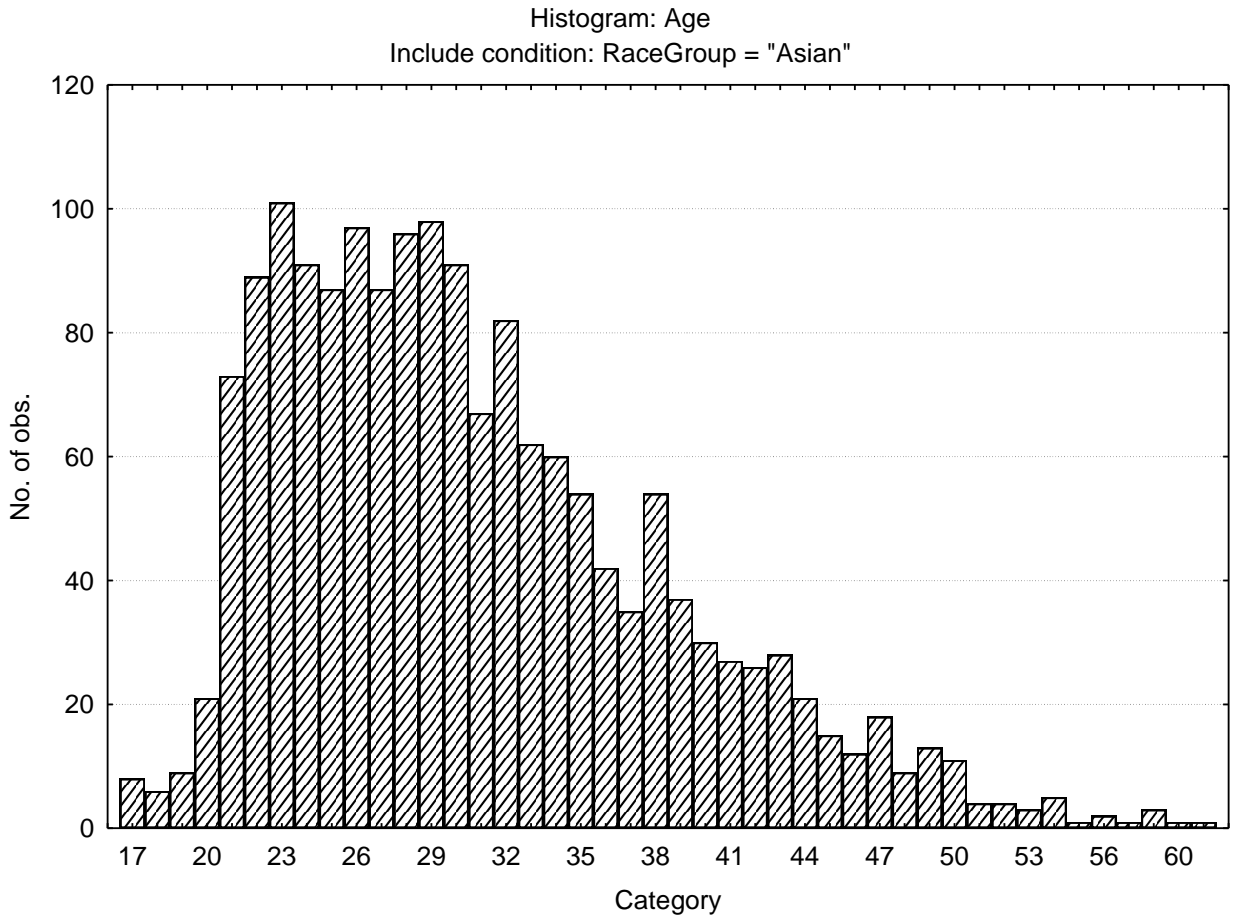
Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	484	484	27.91234	27.9123
Degree	340	824	19.60784	47.5202
Post Graduate	321	1145	18.51211	66.0323
Technikon	163	1308	9.40023	75.4325
University diploma	133	1441	7.67013	83.1027
Grade 10 or 11	42	1483	2.42215	85.5248
Vocational Training	45	1528	2.59516	88.1200
Diploma	24	1552	1.38408	89.5040
Certificate	9	1561	0.51903	90.0231
Missing	173	1734	9.97693	100.0000

Category	Frequency table: Language			
	Count	Cumulative Count	Percent	Cumulative Percent
English	1587	1587	91.52249	91.5225
Afrikaans	5	1592	0.28835	91.8108
isiZulu	5	1597	0.28835	92.0992
isiXhosa	2	1599	0.11534	92.2145
Sepedi	5	1604	0.28835	92.5029
Tshivenda	1	1605	0.05767	92.5606
Missing	129	1734	7.43945	100.0000

Category	Frequency table: Language Group			
	Count	Cumulative Count	Percent	Cumulative Percent
Indigenous	13	13	0.74971	0.7497
Afrikaans	5	18	0.28835	1.0381
English	1587	1605	91.52249	92.5606
Missing	129	1734	7.43945	100.0000

Category	Frequency table: Race Group			
	Count	Cumulative Count	Percent	Cumulative Percent
Asian	1734	1734	100.0000	100.0000
Missing	0	1734	0.0000	100.0000

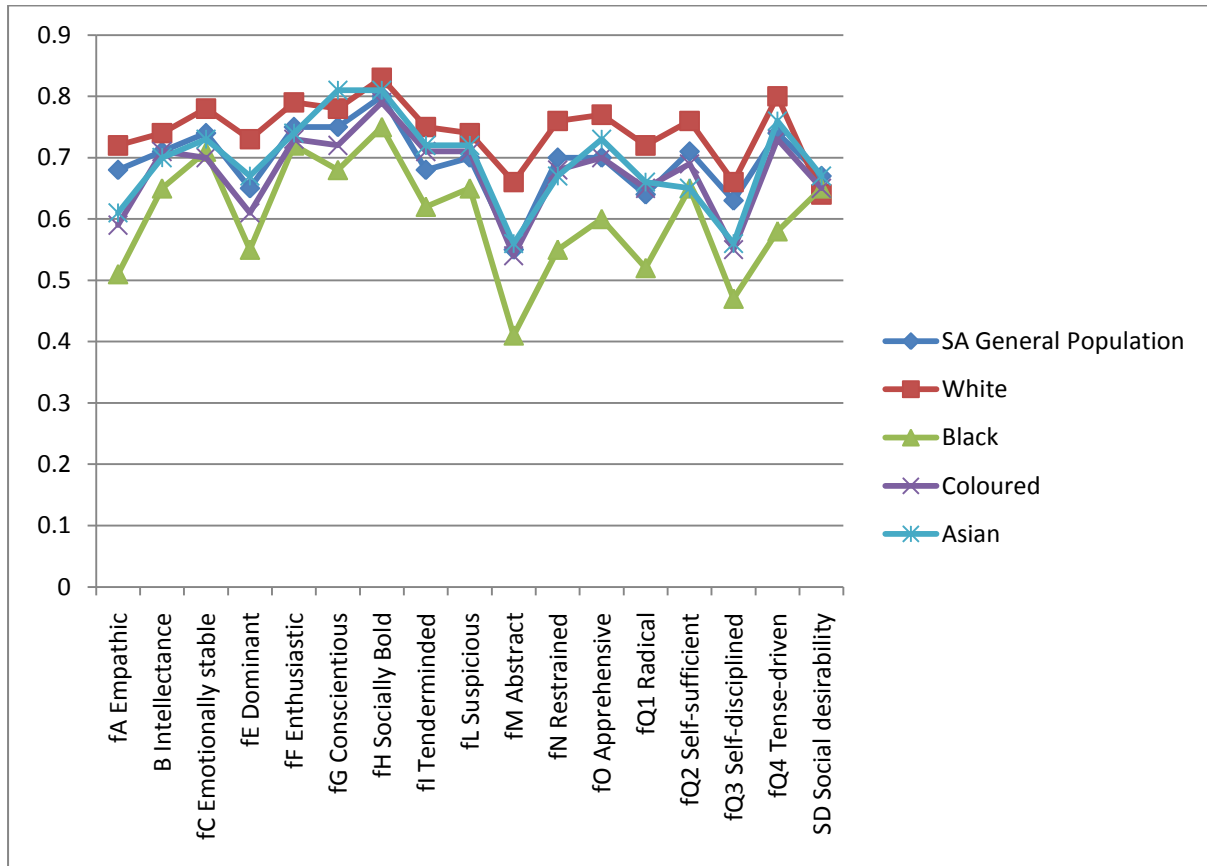
Variable	Descriptive Statistics : Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	30.73543	7.707752	17.00000	61.00000	1682	52



Internal consistency reliability coefficients for South African race groups

	European N = 5002	African N = 5803	Coloured N - 1124	Asian N = 1734
fA Empathic	0.72	0.51	0.59	0.61
B Intellectance	0.74	0.65	0.71	0.7
fC Emotionally stable	0.78	0.71	0.7	0.73
fE Dominant	0.73	0.55	0.61	0.67
fF Enthusiastic	0.79	0.72	0.73	0.74
fG Conscientious	0.78	0.68	0.72	0.81
fH Socially Bold	0.83	0.75	0.79	0.81
fI Tenderminded	0.75	0.62	0.71	0.72
fL Suspicious	0.74	0.65	0.71	0.72
fM Abstract	0.66	0.41	0.54	0.56
fN Restrained	0.76	0.55	0.68	0.67
fO Apprehensive	0.77	0.6	0.7	0.73
fQ1 Radical	0.72	0.52	0.65	0.66
fQ2 Self-sufficient	0.76	0.65	0.69	0.65
fQ3 Self-disciplined	0.66	0.47	0.55	0.56
fQ4 Tense-driven	0.8	0.58	0.73	0.76
SD Social desirability	0.64	0.65	0.65	0.67

Graph comparing internal consistency reliabilities for South African race groups



Notes: Data updated in 2010

SA General Population N = 22948, White n = 5002, Black n = 5803, Coloured n = 1124, Asian

15FQ+ Reliability: Comparison between language groups

Sample composition

The sample consisted of respondents tested by Psytech SA and collaborators in the period leading up to February 2010. Biographical composition is reported separately for different language groups

Sample composition for the Indigenous language group

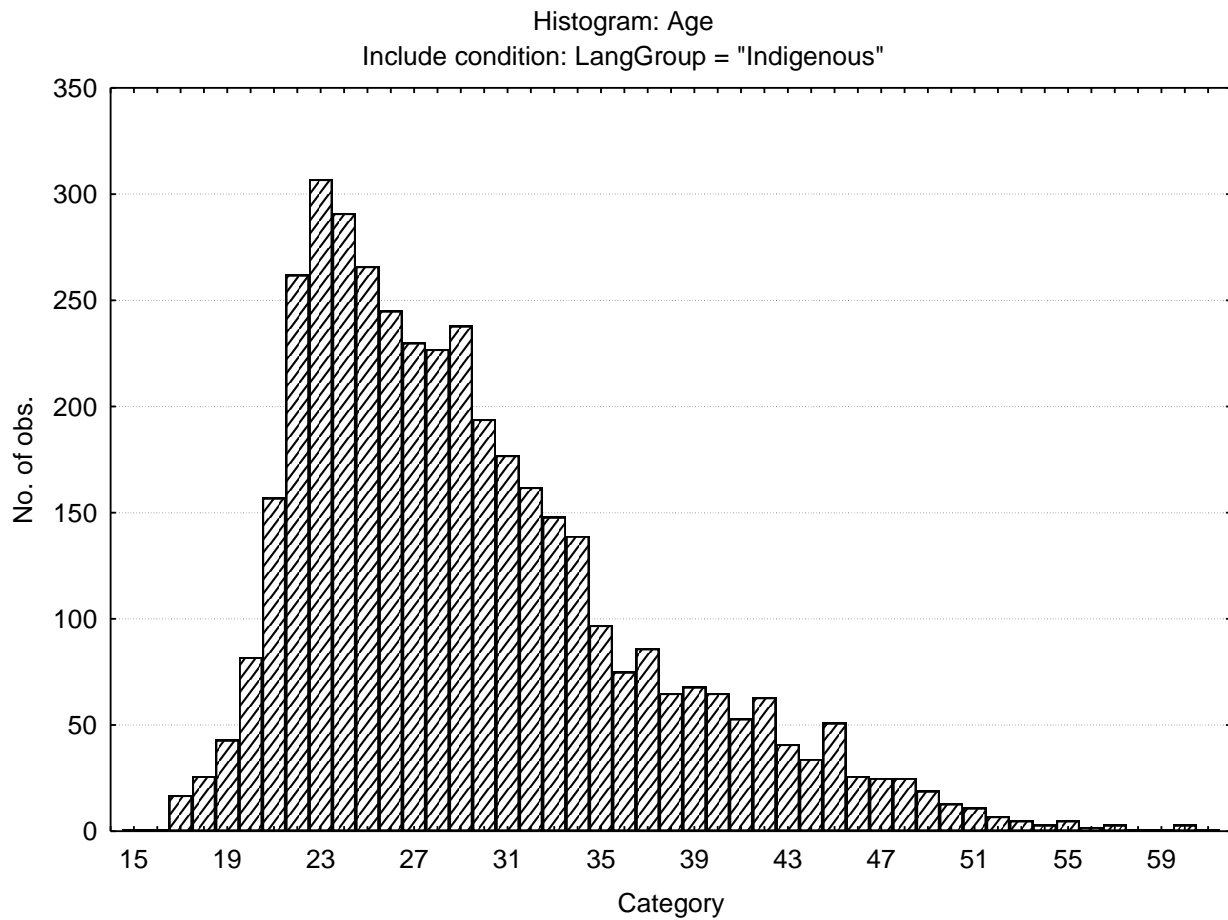
Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	1643	1643	39.63812	39.6381
M	2494	4137	60.16888	99.8070
Missing	8	4145	0.19300	100.0000

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	923	923	22.26779	22.2678
Degree	697	1620	16.81544	39.0832
Post Graduate	577	2197	13.92039	53.0036
Technikon	726	2923	17.51508	70.5187
University diploma	441	3364	10.63932	81.1580
Grade 10 or 11	86	3450	2.07479	83.2328
Vocational Training	169	3619	4.07720	87.3100
Diploma	103	3722	2.48492	89.7949
Certificate	95	3817	2.29192	92.0869
Missing	328	4145	7.91315	100.0000

Category	Frequency table: Language			
	Count	Cumulative Count	Percent	Cumulative Percent
isiZulu	1589	1589	38.33534	38.3353
isiXhosa	1048	2637	25.28347	63.6188
Sesotho	741	3378	17.87696	81.4958
Sepedi	288	3666	6.94813	88.4439
Xitsonga	184	3850	4.43908	92.8830
Tshivenda	137	3987	3.30519	96.1882
siSwati	102	4089	2.46080	98.6490
isiNdebele	56	4145	1.35103	100.0000
Missing	0	4145	0.00000	100.0000

Category	Frequency table: Race Group			
	Count	Cumulative Count	Percent	Cumulative Percent
African	4077	4077	98.35947	98.3595
European	18	4095	0.43426	98.7937
Coloured	7	4102	0.16888	98.9626
Asian	13	4115	0.31363	99.2762
Missing	30	4145	0.72376	100.0000

Variable	Descriptive Statistics : Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	29.48362	7.315113	15.00000	62.00000	4061	84



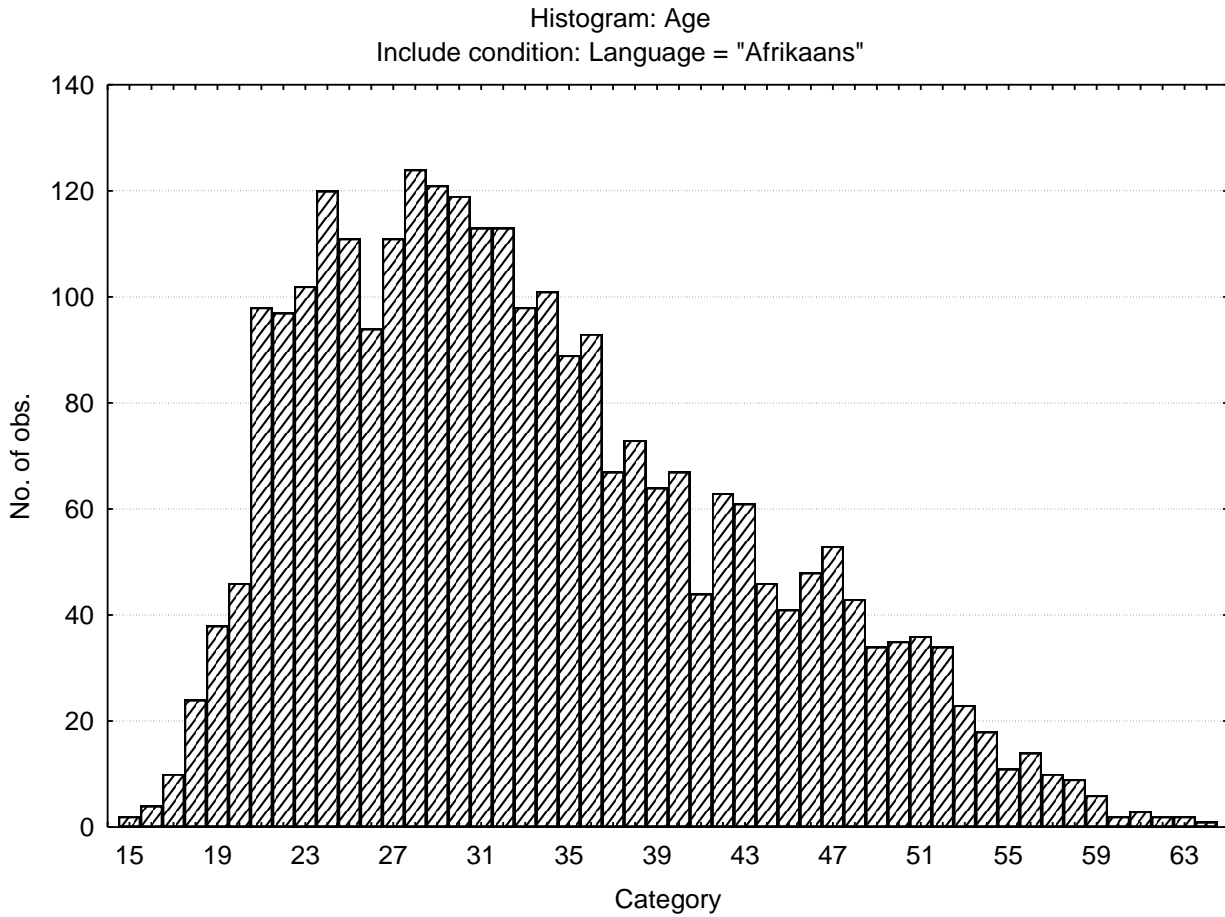
Sample composition for the Afrikaans language group

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	980	980	34.30172	34.3017
M	1870	2850	65.45327	99.7550
Missing	7	2857	0.24501	100.0000

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	951	951	33.28666	33.2867
Degree	457	1408	15.99580	49.2825
Post Graduate	383	1791	13.40567	62.6881
Technikon	301	2092	10.53553	73.2237
University diploma	150	2242	5.25026	78.4739
Grade 10 or 11	117	2359	4.09520	82.5691
Vocational Training	106	2465	3.71019	86.2793
Diploma	21	2486	0.73504	87.0144
Certificate	24	2510	0.84004	87.8544
Missing	347	2857	12.14561	100.0000

Category	Frequency table: Race Group			
	Count	Cumulative Count	Percent	Cumulative Percent
African	74	74	2.59013	2.5901
European	2399	2473	83.96920	86.5593
Coloured	315	2788	11.02555	97.5849
Asian	5	2793	0.17501	97.7599
Missing	64	2857	2.24011	100.0000

Variable	Descriptive Statistics: age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	33.44668	9.611198	15.00000	71.00000	2738	119



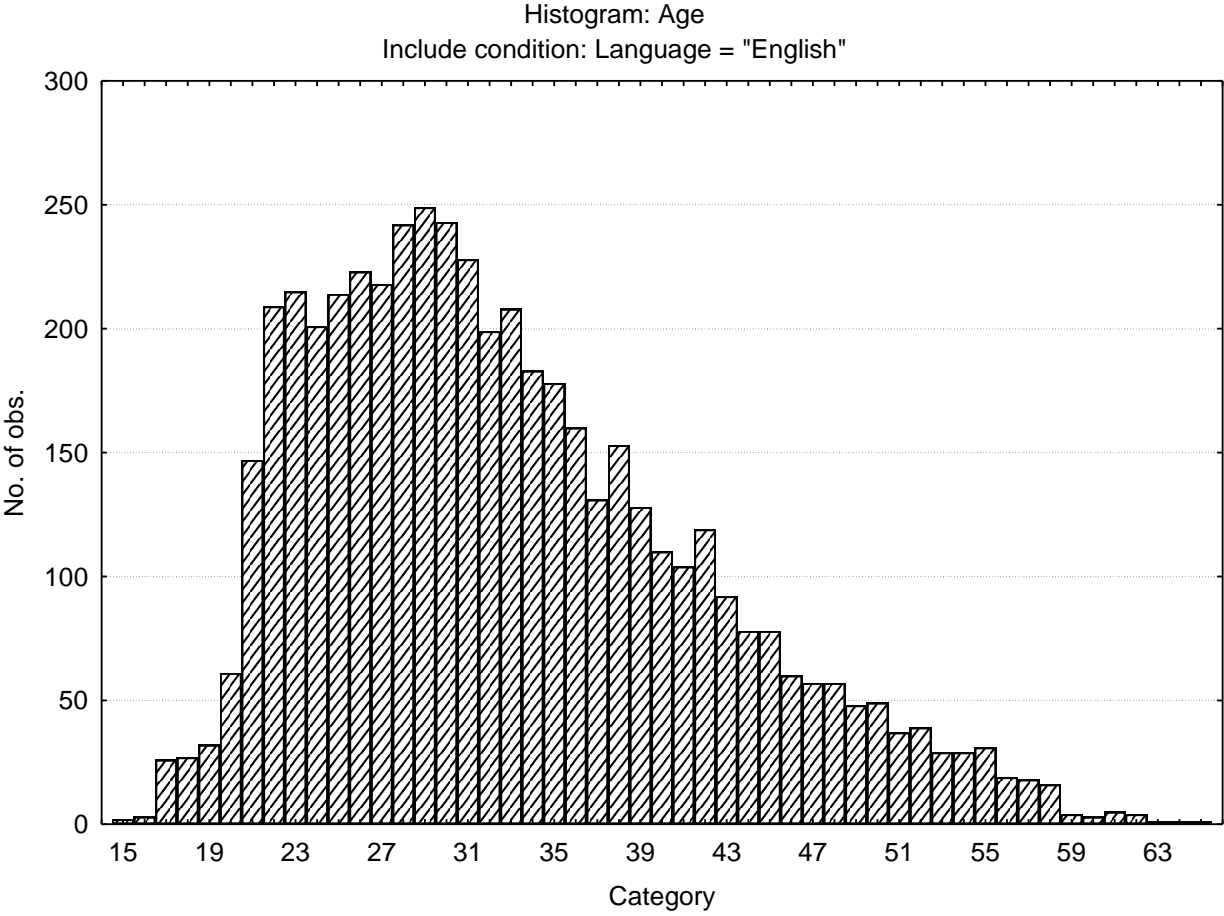
Sample composition for the English language group

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	2007	2007	39.33751	39.3375
M	3077	5084	60.30968	99.6472
Missing	18	5102	0.35280	100.0000

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	1651	1651	32.35986	32.3599
Degree	830	2481	16.26813	48.6280
Post Graduate	768	3249	15.05292	63.6809
Technikon	517	3766	10.13328	73.8142
University diploma	456	4222	8.93767	82.7519
Grade 10 or 11	146	4368	2.86162	85.6135
Vocational Training	162	4530	3.17523	88.7887
Diploma	85	4615	1.66601	90.4547
Certificate	19	4634	0.37240	90.8271
Missing	468	5102	9.17287	100.0000

Category	Frequency table: Race Group			
	Count	Cumulative Count	Percent	Cumulative Percent
African	342	342	6.70325	6.7033
European	2300	2642	45.08036	51.7836
Coloured	745	3387	14.60212	66.3857
Asian	1587	4974	31.10545	97.4912
Missing	128	5102	2.50882	100.0000

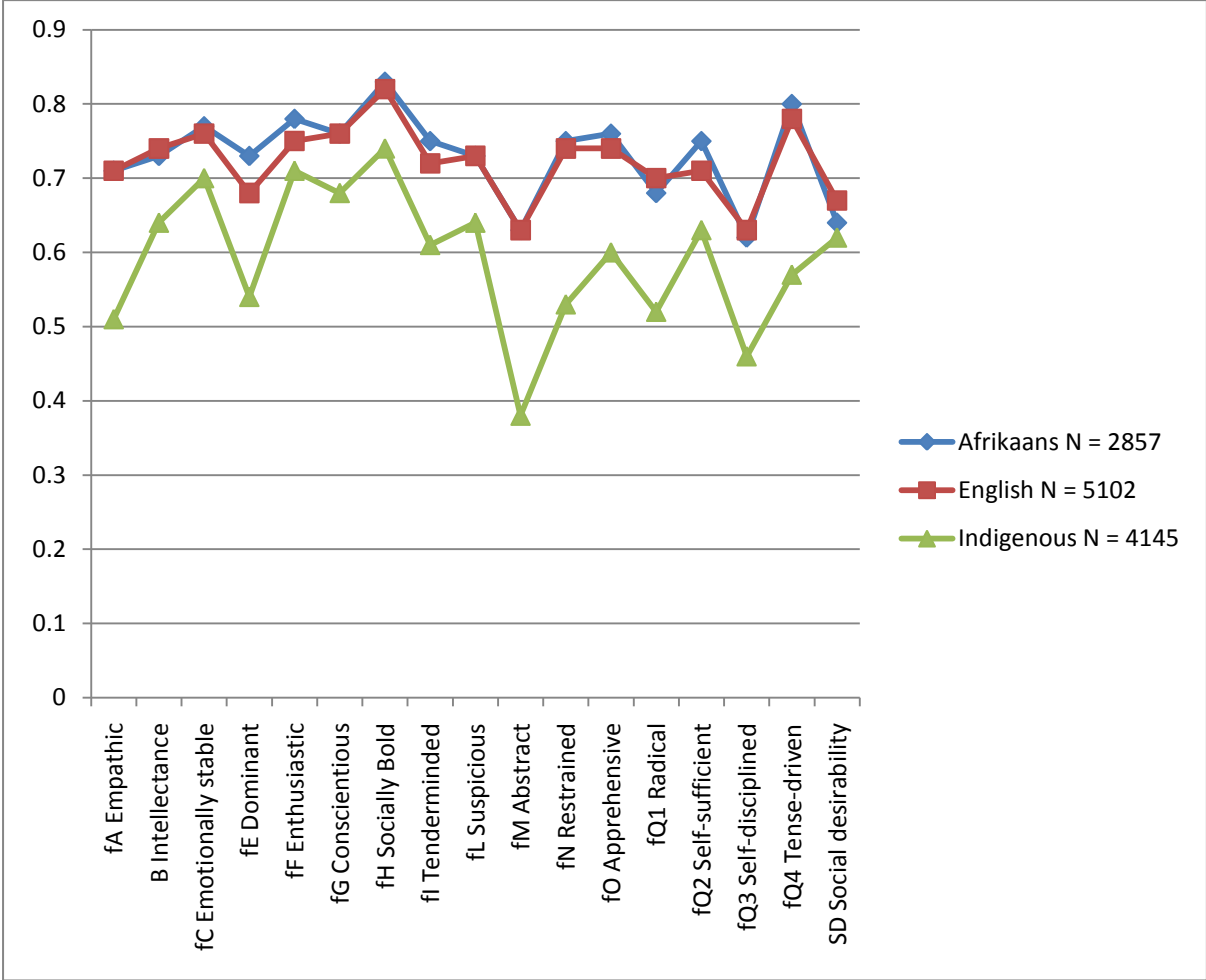
Variable	Descriptive Statistics : Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	32.84745	8.940359	15.00000	68.00000	4969	133



Internal consistency reliability coefficients for different language groups

	Afrikaans N = 2857	English N = 5102	Indigenous N = 4145
fA Empathic	0.71	0.71	0.51
B Intellectance	0.73	0.74	0.64
fC Emotionally stable	0.77	0.76	0.7
fE Dominant	0.73	0.68	0.54
fF Enthusiastic	0.78	0.75	0.71
fG Conscientious	0.76	0.76	0.68
fH Socially Bold	0.83	0.82	0.74
fI Tenderminded	0.75	0.72	0.61
fL Suspicious	0.73	0.73	0.64
fM Abstract	0.63	0.63	0.38
fN Restrained	0.75	0.74	0.53
fO Apprehensive	0.76	0.74	0.6
fQ1 Radical	0.68	0.7	0.52
fQ2 Self-sufficient	0.75	0.71	0.63
fQ3 Self-disciplined	0.62	0.63	0.46
fQ4 Tense-driven	0.8	0.78	0.57
SD Social desirability	0.64	0.67	0.62

Graph of reliability coefficients for different language groups



15FQ+ Reliability: Comparison between speakers of different South African languages

Sample composition

The sample consisted of respondents tested by Psytech SA and collaborators in the period leading up to February 2010. Biographical composition is reported separately for the different language groups.

Sample composition: General Population

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	9389	9389	38.17132	38.1713
M	14980	24369	60.90174	99.0731
Missing	228	24597	0.92694	100.0000

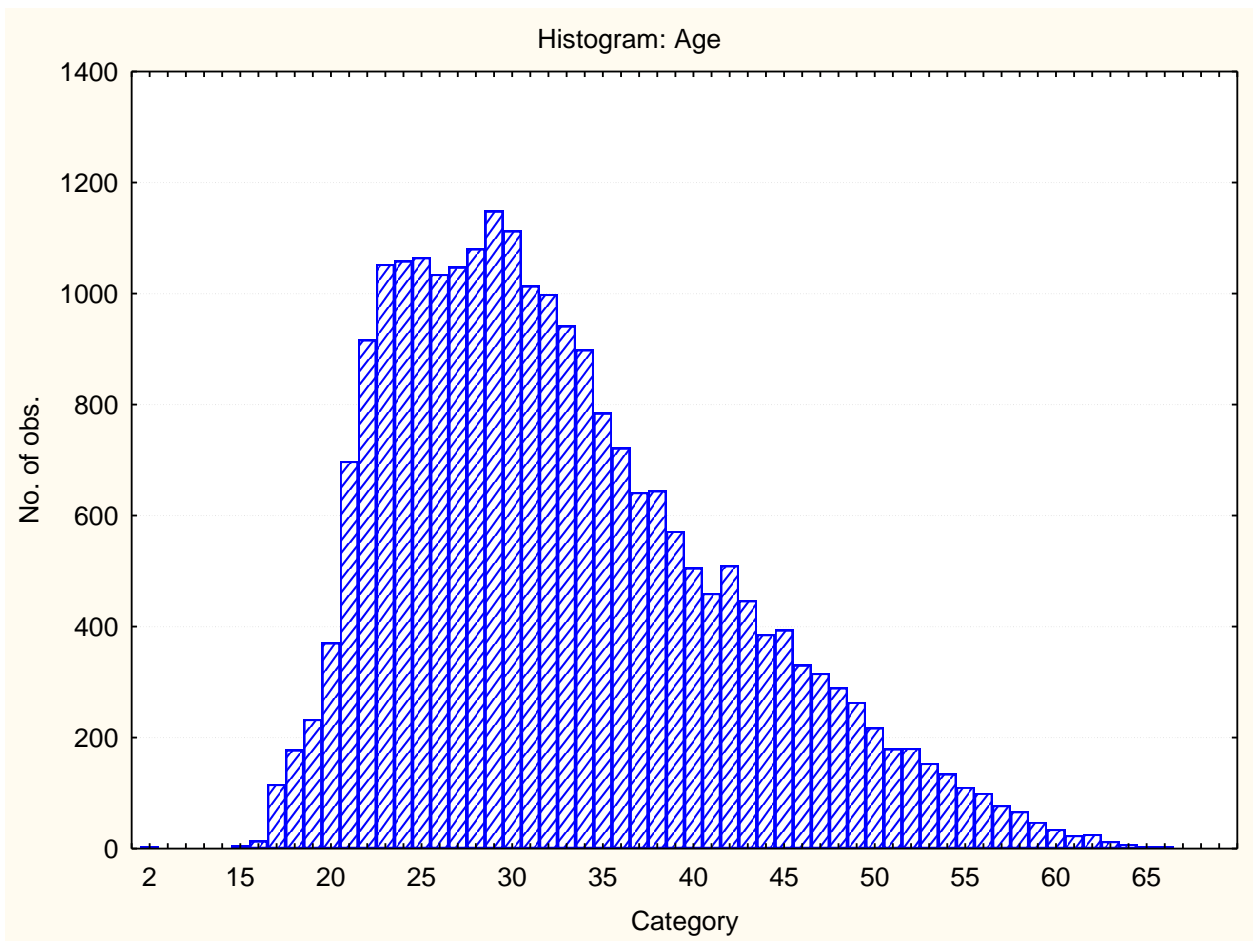
Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	3858	3858	15.68484	15.6848
Degree	2249	6107	9.14339	24.8282
Post Graduate	1927	8034	7.83429	32.6625
Technikon	1744	9778	7.09030	39.7528
University diploma	1174	10952	4.77294	44.5258
Grade 10 or 11	376	11328	1.52864	46.0544
Vocational Training	487	11815	1.97992	48.0343
Diploma	255	12070	1.03671	49.0710
Certificate	155	12225	0.63016	49.7012
Missing	12372	24597	50.29882	100.0000

Category	Frequency table: Language			
	Count	Cumulative Count	Percent	Cumulative Percent
English	5102	5102	20.74237	20.7424
Afrikaans	2857	7959	11.61524	32.3576
isiZulu	1589	9548	6.46014	38.8177
isiXhosa	1048	10596	4.26068	43.0784
Sesotho	752	11348	3.05728	46.1357
Setswana	740	12088	3.00850	49.1442
Sepedi	298	12386	1.21153	50.3557
Xitsonga	184	12570	0.74806	51.1038
Tshivenda	146	12716	0.59357	51.6974
siSwati	103	12819	0.41875	52.1161
isiNdebele	56	12875	0.22767	52.3438
Missing	11722	24597	47.65622	100.0000

Category	Frequency table: Language group			
	Count	Cumulative Count	Percent	Cumulative Percent
Indigenous	4145	4145	16.85165	16.8516
Afrikaans	2857	7002	11.61524	28.4669
English	5102	12104	20.74237	49.2093
Missing	12493	24597	50.79075	100.0000

Category	Frequency table: Race Group			
	Count	Cumulative Count	Percent	Cumulative Percent
African	5803	5803	23.59231	23.5923
European	5002	10805	20.33581	43.9281
Coloured	1124	11929	4.56966	48.4978
Asian	1734	13663	7.04964	55.5474
Missing	10934	24597	44.45258	100.0000

Variable	Descriptive Statistics: Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	32.80917	9.172097	2.000000	72.00000	23654	943



Sample composition: Afrikaans speakers

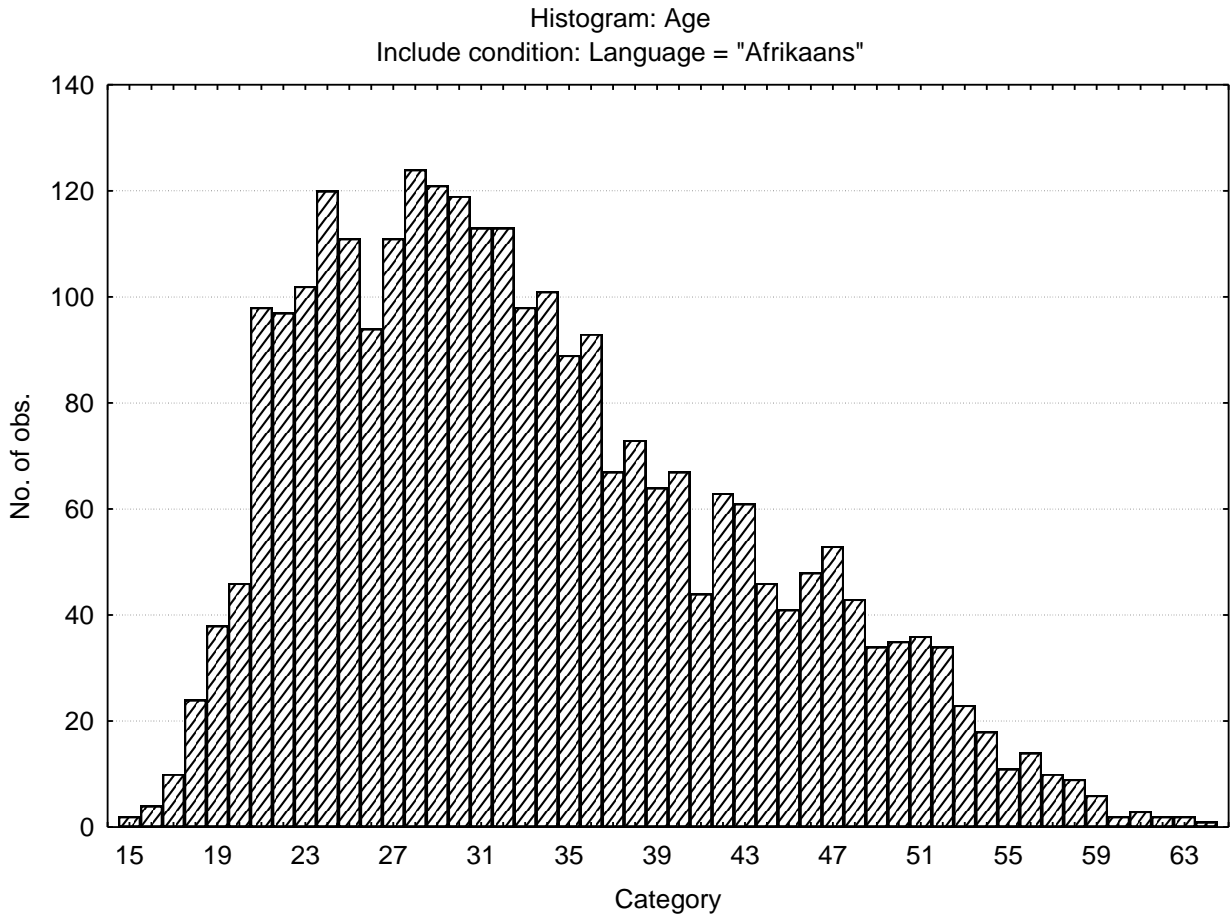
Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	980	980	34.30172	34.3017
M	1870	2850	65.45327	99.7550

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
Missing	7	2857	0.24501	100.0000

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	951	951	33.28666	33.2867
Degree	457	1408	15.99580	49.2825
Post Graduate	383	1791	13.40567	62.6881
Technikon	301	2092	10.53553	73.2237
University diploma	150	2242	5.25026	78.4739
Grade 10 or 11	117	2359	4.09520	82.5691
Vocational Training	106	2465	3.71019	86.2793
Diploma	21	2486	0.73504	87.0144
Certificate	24	2510	0.84004	87.8544
Missing	347	2857	12.14561	100.0000

Category	Frequency table: Race Group			
	Count	Cumulative Count	Percent	Cumulative Percent
African	74	74	2.59013	2.5901
European	2399	2473	83.96920	86.5593
Coloured	315	2788	11.02555	97.5849
Asian	5	2793	0.17501	97.7599
Missing	64	2857	2.24011	100.0000

Variable	Descriptive Statistics : Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	33.44668	9.611198	15.00000	71.00000	2738	119



Sample composition: English speakers

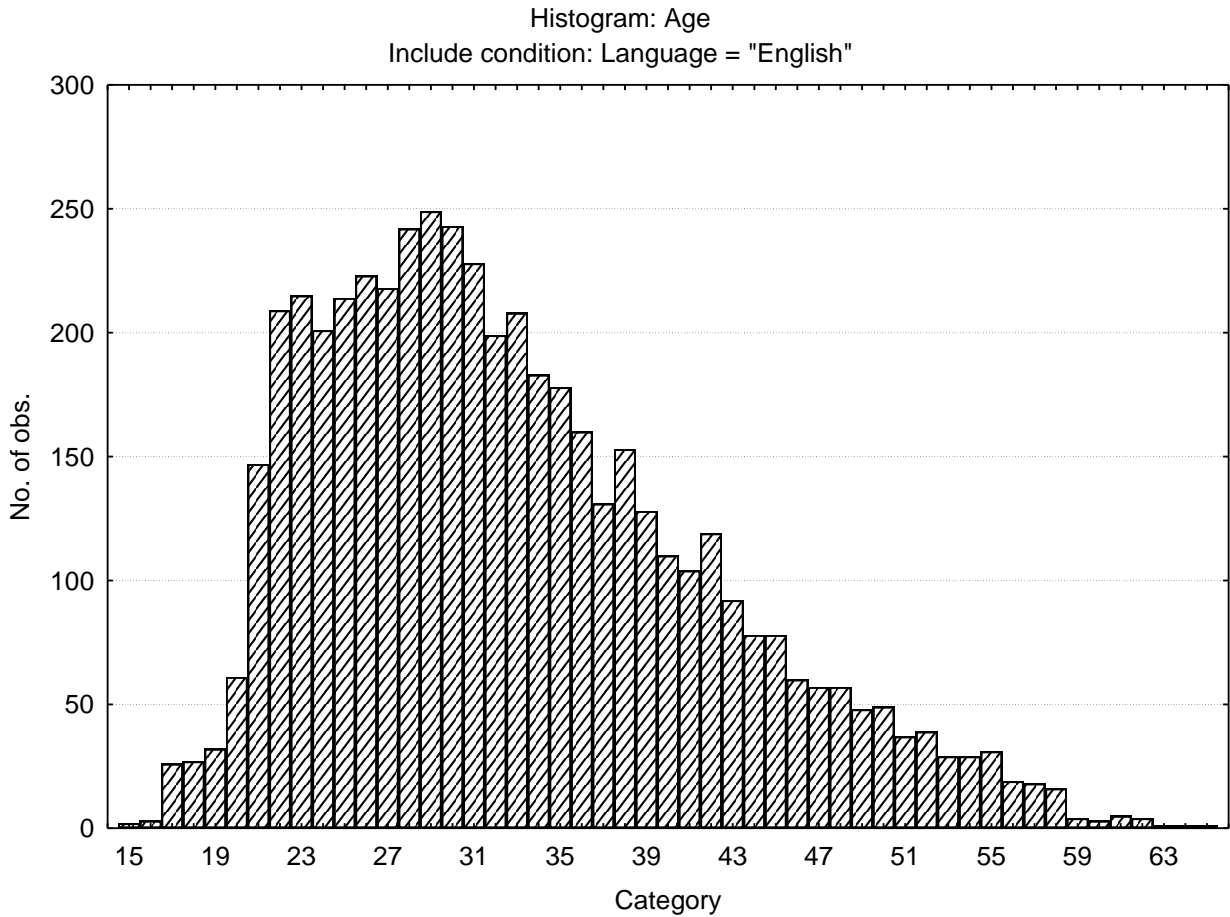
Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	2007	2007	39.33751	39.3375
M	3077	5084	60.30968	99.6472
Missing	18	5102	0.35280	100.0000

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	1651	1651	32.35986	32.3599
Degree	830	2481	16.26813	48.6280

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Post Graduate	768	3249	15.05292	63.6809
Technikon	517	3766	10.13328	73.8142
University diploma	456	4222	8.93767	82.7519
Grade 10 or 11	146	4368	2.86162	85.6135
Vocational Training	162	4530	3.17523	88.7887
Diploma	85	4615	1.66601	90.4547
Certificate	19	4634	0.37240	90.8271
Missing	468	5102	9.17287	100.0000

Category	Frequency table: Race Group			
	Count	Cumulative Count	Percent	Cumulative Percent
African	342	342	6.70325	6.7033
European	2300	2642	45.08036	51.7836
Coloured	745	3387	14.60212	66.3857
Asian	1587	4974	31.10545	97.4912
Missing	128	5102	2.50882	100.0000

Variable	Descriptive Statistics : Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	32.84745	8.940359	15.00000	68.00000	4969	133



Sample composition: isiNdebele speakers

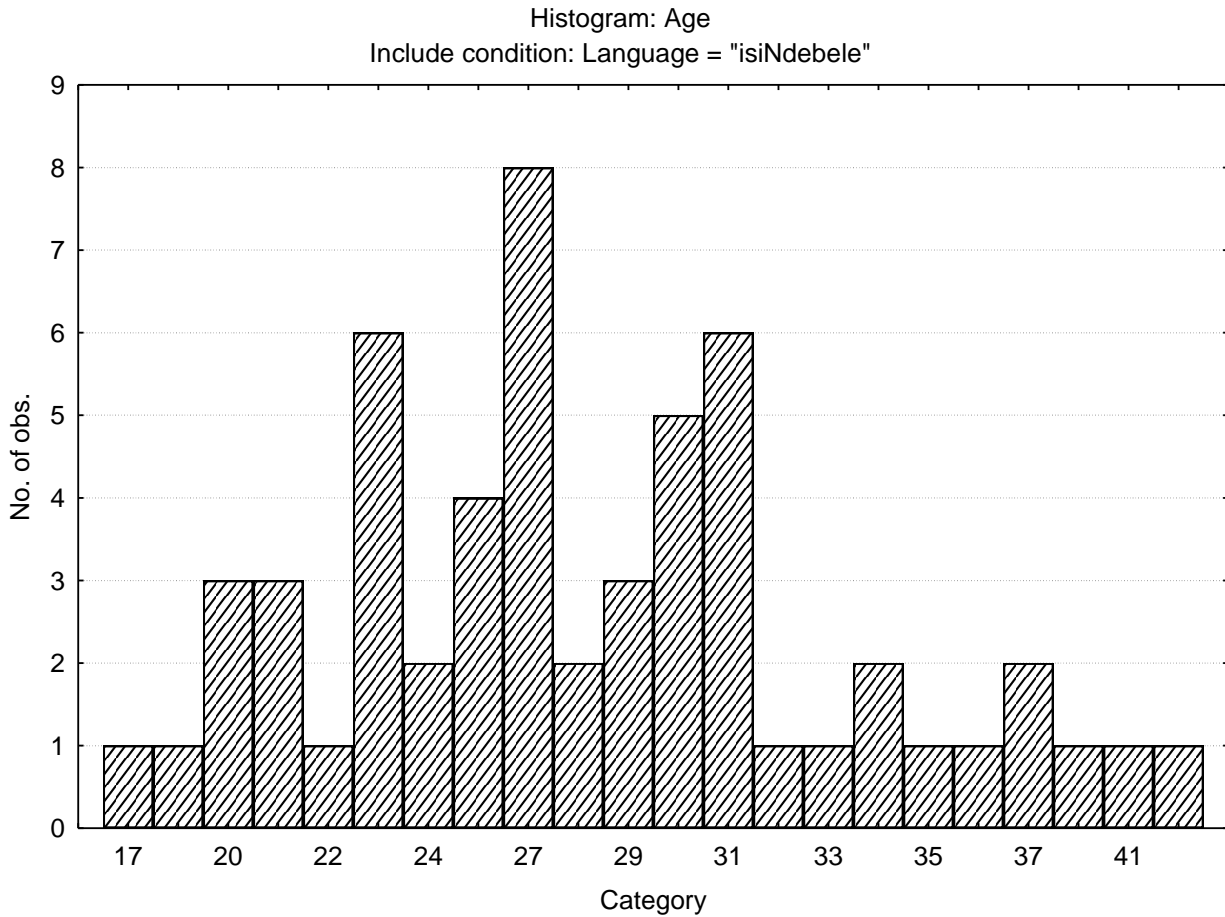
Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	23	23	41.07143	41.0714
M	33	56	58.92857	100.0000
Missing	0	56	0.00000	100.0000

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	13	13	23.21429	23.2143
Degree	13	26	23.21429	46.4286

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Post Graduate	7	33	12.50000	58.9286
Technikon	2	35	3.57143	62.5000
University diploma	11	46	19.64286	82.1429
Grade 10 or 11	1	47	1.78571	83.9286
Vocational Training	3	50	5.35714	89.2857
Diploma	1	51	1.78571	91.0714
Missing	5	56	8.92857	100.0000

Category	Frequency table: Race Group			
	Count	Cumulative Count	Percent	Cumulative Percent
African	56	56	100.0000	100.0000
Missing	0	56	0.0000	100.0000

Variable	Descriptive Statistics: Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	27.91071	5.683395	17.00000	42.00000	56	0



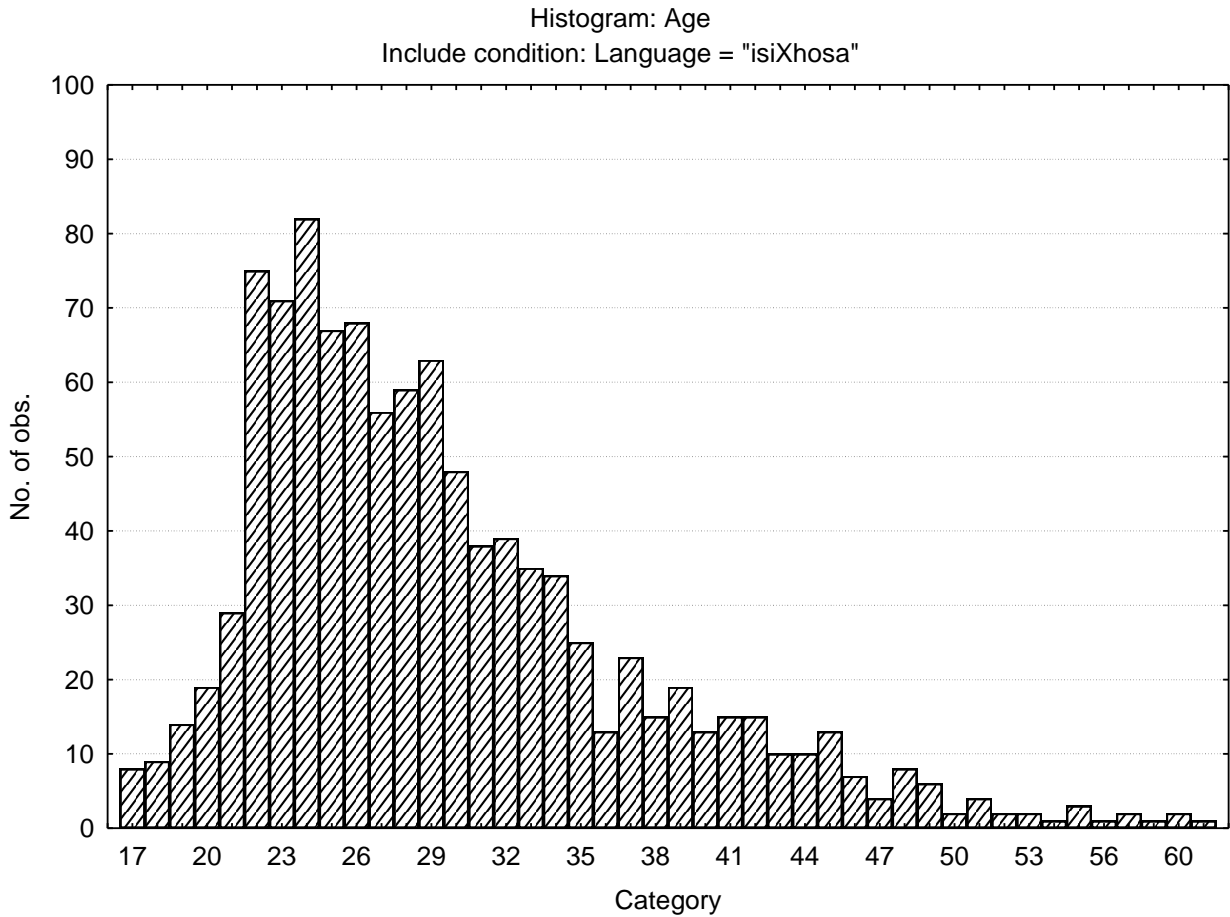
Sample composition: isiXhosa speakers

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	455	455	43.41603	43.4160
M	588	1043	56.10687	99.5229
Missing	5	1048	0.47710	100.0000

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	232	232	22.13740	22.1374
Degree	161	393	15.36260	37.5000
Post Graduate	129	522	12.30916	49.8092
Technikon	244	766	23.28244	73.0916
University diploma	94	860	8.96947	82.0611
Grade 10 or 11	20	880	1.90840	83.9695
Vocational Training	40	920	3.81679	87.7863
Diploma	23	943	2.19466	89.9809
Certificate	14	957	1.33588	91.3168
Missing	91	1048	8.68321	100.0000

Category	Frequency table: Race Group			
	Count	Cumulative Count	Percent	Cumulative Percent
African	1027	1027	97.99618	97.9962
European	5	1032	0.47710	98.4733
Coloured	1	1033	0.09542	98.5687
Asian	2	1035	0.19084	98.7595
Missing	13	1048	1.24046	100.0000

Variable	Descriptive Statistics: Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	29.55577	7.717874	17.00000	62.00000	1031	17



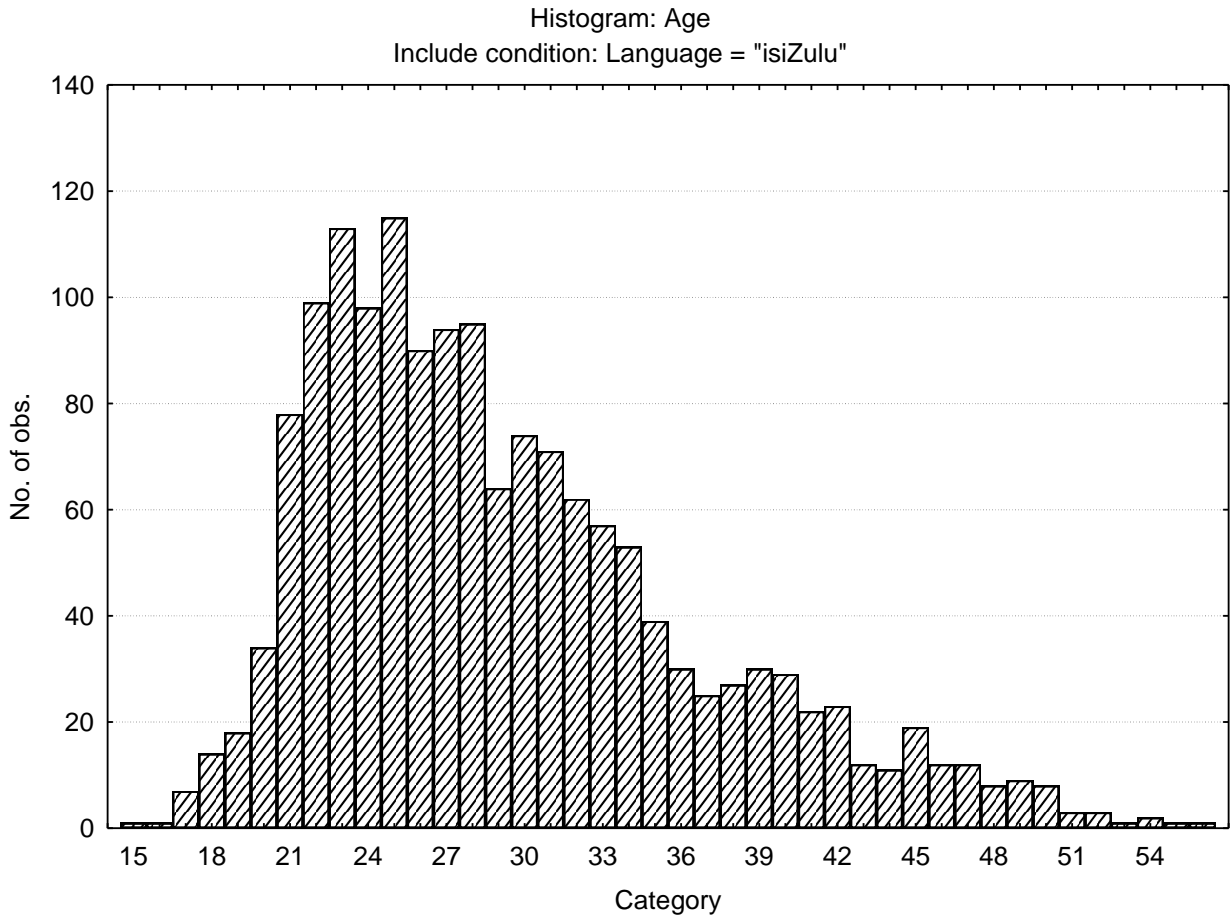
Sample composition: isiZulu speakers

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	623	623	39.20705	39.2070
M	964	1587	60.66709	99.8741
Missing	2	1589	0.12587	100.0000

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	340	340	21.39711	21.3971
Degree	271	611	17.05475	38.4519
Post Graduate	240	851	15.10384	53.5557
Technikon	264	1115	16.61422	70.1699
University diploma	158	1273	9.94336	80.1133
Grade 10 or 11	42	1315	2.64317	82.7565
Vocational Training	53	1368	3.33543	86.0919
Diploma	34	1402	2.13971	88.2316
Certificate	53	1455	3.33543	91.5670
Missing	134	1589	8.43298	100.0000

Category	Frequency table: Race Group			
	Count	Cumulative Count	Percent	Cumulative Percent
African	1565	1565	98.48962	98.4896
European	5	1570	0.31466	98.8043
Coloured	2	1572	0.12587	98.9301
Asian	5	1577	0.31466	99.2448
Missing	12	1589	0.75519	100.0000

Variable	Descriptive Statistics : Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	29.34121	7.312524	15.00000	56.00000	1565	24



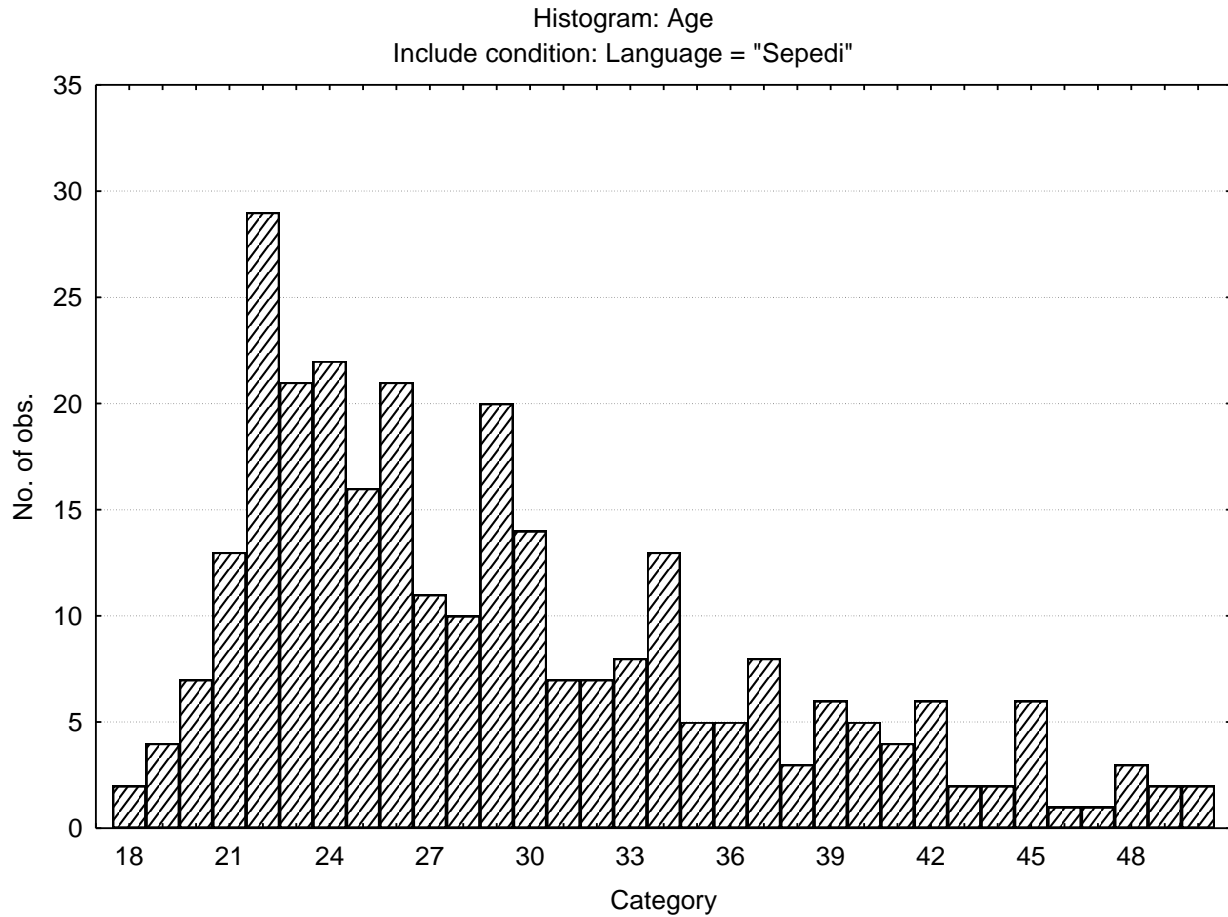
Sample composition: Sepedi speakers

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	107	107	35.90604	35.9060
M	190	297	63.75839	99.6644
Missing	1	298	0.33557	100.0000

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	67	67	22.48322	22.4832
Degree	50	117	16.77852	39.2617
Post Graduate	46	163	15.43624	54.6980
Technikon	53	216	17.78523	72.4832
University diploma	38	254	12.75168	85.2349
Grade 10 or 11	8	262	2.68456	87.9195
Vocational Training	5	267	1.67785	89.5973
Diploma	12	279	4.02685	93.6242
Certificate	6	285	2.01342	95.6376
Missing	13	298	4.36242	100.0000

Category	Frequency table: Race Group			
	Count	Cumulative Count	Percent	Cumulative Percent
African	287	287	96.30872	96.3087
European	3	290	1.00671	97.3154
Coloured	3	293	1.00671	98.3221
Asian	5	298	1.67785	100.0000
Missing	0	298	0.00000	100.0000

Variable	Descriptive Statistics : Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	29.16783	7.425878	18.00000	51.00000	286	12



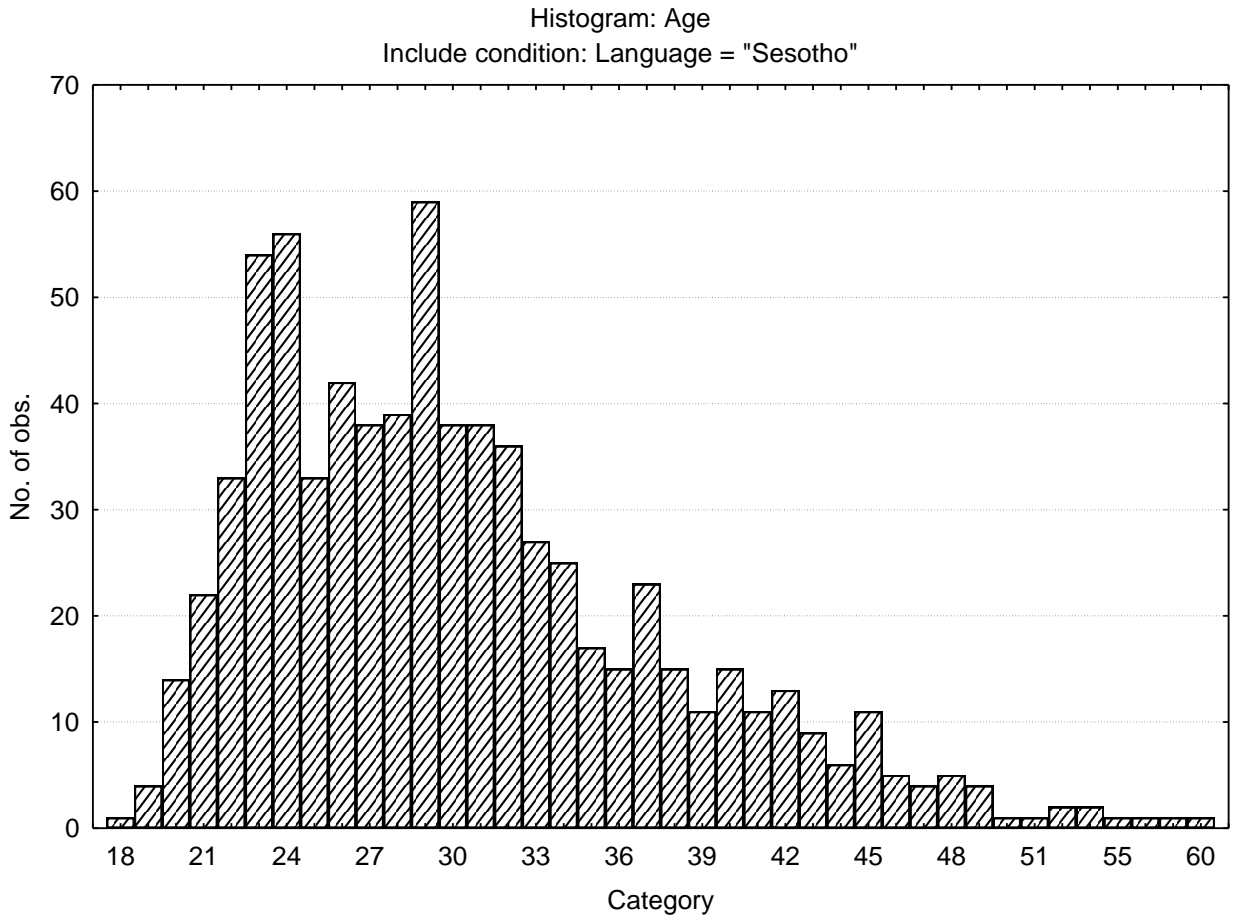
Sample composition: Sesotho speakers

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	301	301	40.02660	40.0266
M	451	752	59.97340	100.0000
Missing	0	752	0.00000	100.0000

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	186	186	24.73404	24.7340
Degree	120	306	15.95745	40.6915
Post Graduate	91	397	12.10106	52.7926
Technikon	120	517	15.95745	68.7500
University diploma	77	594	10.23936	78.9894
Grade 10 or 11	14	608	1.86170	80.8511
Vocational Training	46	654	6.11702	86.9681
Diploma	22	676	2.92553	89.8936
Certificate	18	694	2.39362	92.2872
Missing	58	752	7.71277	100.0000

Category	Frequency table: Race Group			
	Count	Cumulative Count	Percent	Cumulative Percent
African	745	745	99.06915	99.0691
European	2	747	0.26596	99.3351
Coloured	1	748	0.13298	99.4681
Missing	4	752	0.53191	100.0000

Variable	Descriptive Statistics: Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	30.32469	7.262517	18.00000	60.00000	733	19



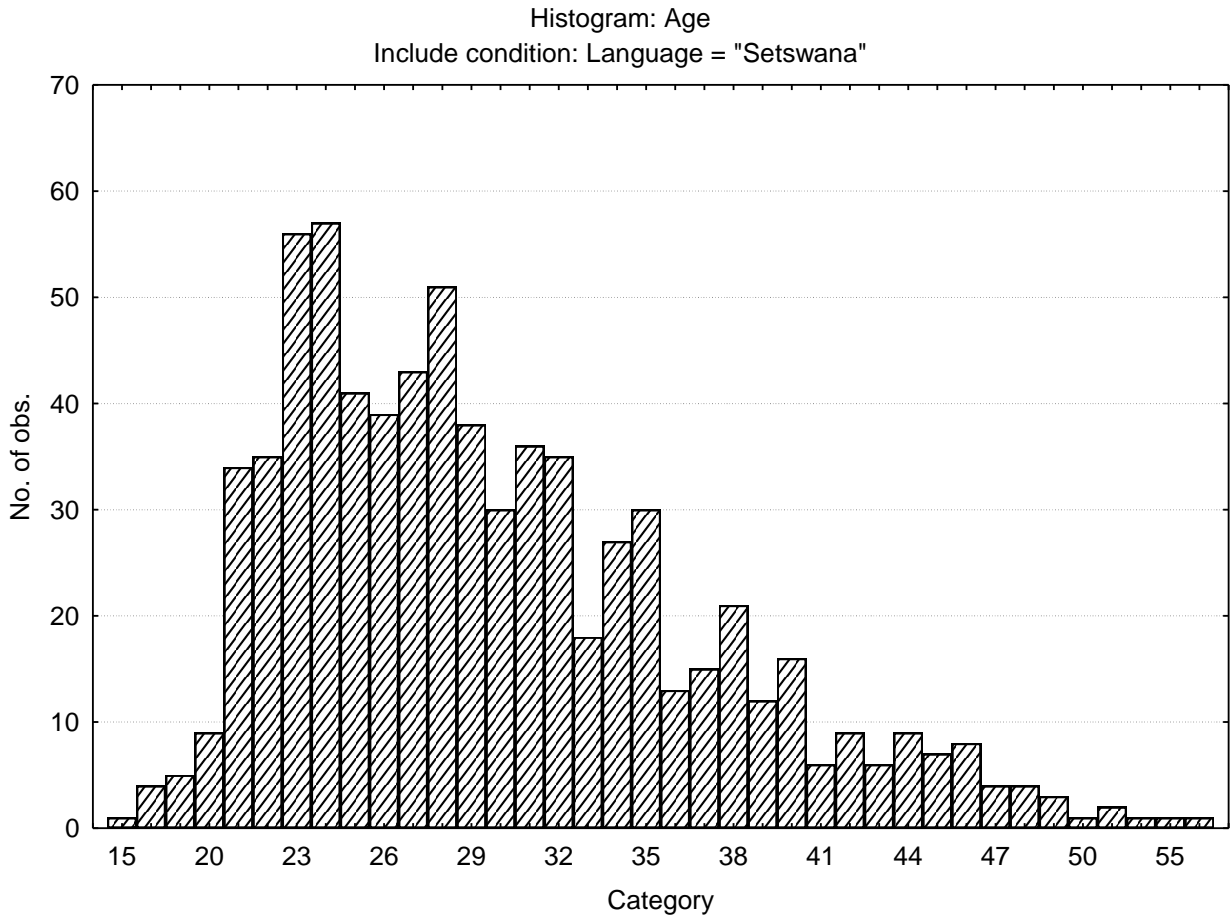
Sample composition: Setswana speakers

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	326	326	44.05405	44.0541
M	413	739	55.81081	99.8649
Missing	1	740	0.13514	100.0000

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	188	188	25.40541	25.4054
Degree	140	328	18.91892	44.3243
Post Graduate	77	405	10.40541	54.7297
Technikon	127	532	17.16216	71.8919
University diploma	64	596	8.64865	80.5405
Grade 10 or 11	13	609	1.75676	82.2973
Vocational Training	33	642	4.45946	86.7568
Diploma	32	674	4.32432	91.0811
Certificate	12	686	1.62162	92.7027
Missing	54	740	7.29730	100.0000

Category	Frequency table: Race Group			
	Count	Cumulative Count	Percent	Cumulative Percent
African	729	729	98.51351	98.5135
European	1	730	0.13514	98.6486
Coloured	3	733	0.40541	99.0541
Missing	7	740	0.94595	100.0000

Variable	Descriptive Statistics: Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	29.75824	7.045485	15.00000	56.00000	728	12



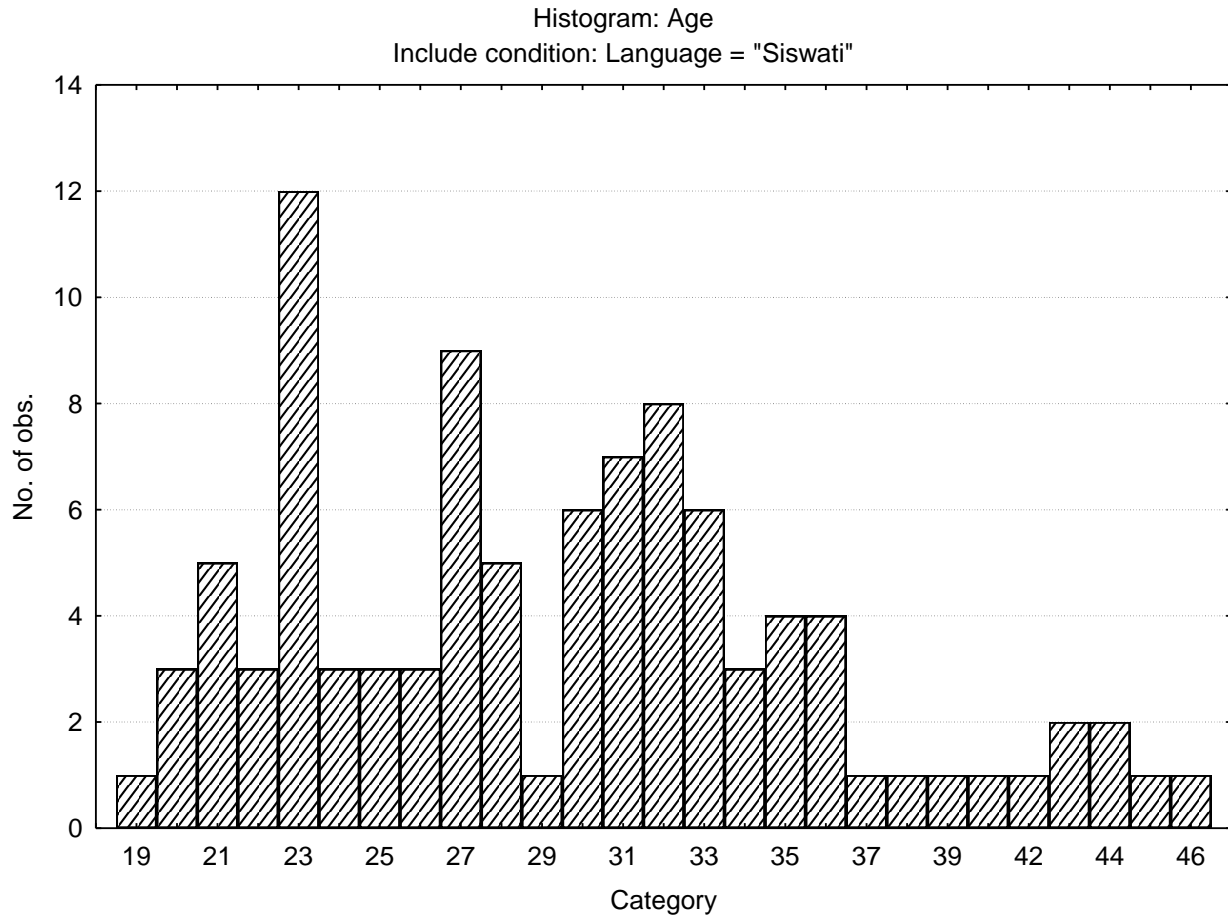
Sample composition: Siswati speakers

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	33	33	32.03883	32.0388
M	70	103	67.96117	100.0000
Missing	0	103	0.00000	100.0000

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	24	24	23.30097	23.3010
Degree	21	45	20.38835	43.6893
Post Graduate	19	64	18.44660	62.1359
Technikon	6	70	5.82524	67.9612
University diploma	18	88	17.47573	85.4369
Grade 10 or 11	1	89	0.97087	86.4078
Vocational Training	4	93	3.88350	90.2913
Diploma	4	97	3.88350	94.1748
Certificate	1	98	0.97087	95.1456
Missing	5	103	4.85437	100.0000

Category	Frequency table: Race Group			
	Count	Cumulative Count	Percent	Cumulative Percent
African	100	100	97.08738	97.0874
European	1	101	0.97087	98.0583
Coloured	1	102	0.97087	99.0291
Missing	1	103	0.97087	100.0000

Variable	Descriptive Statistics: Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	29.49485	6.413079	19.00000	46.00000	97	6



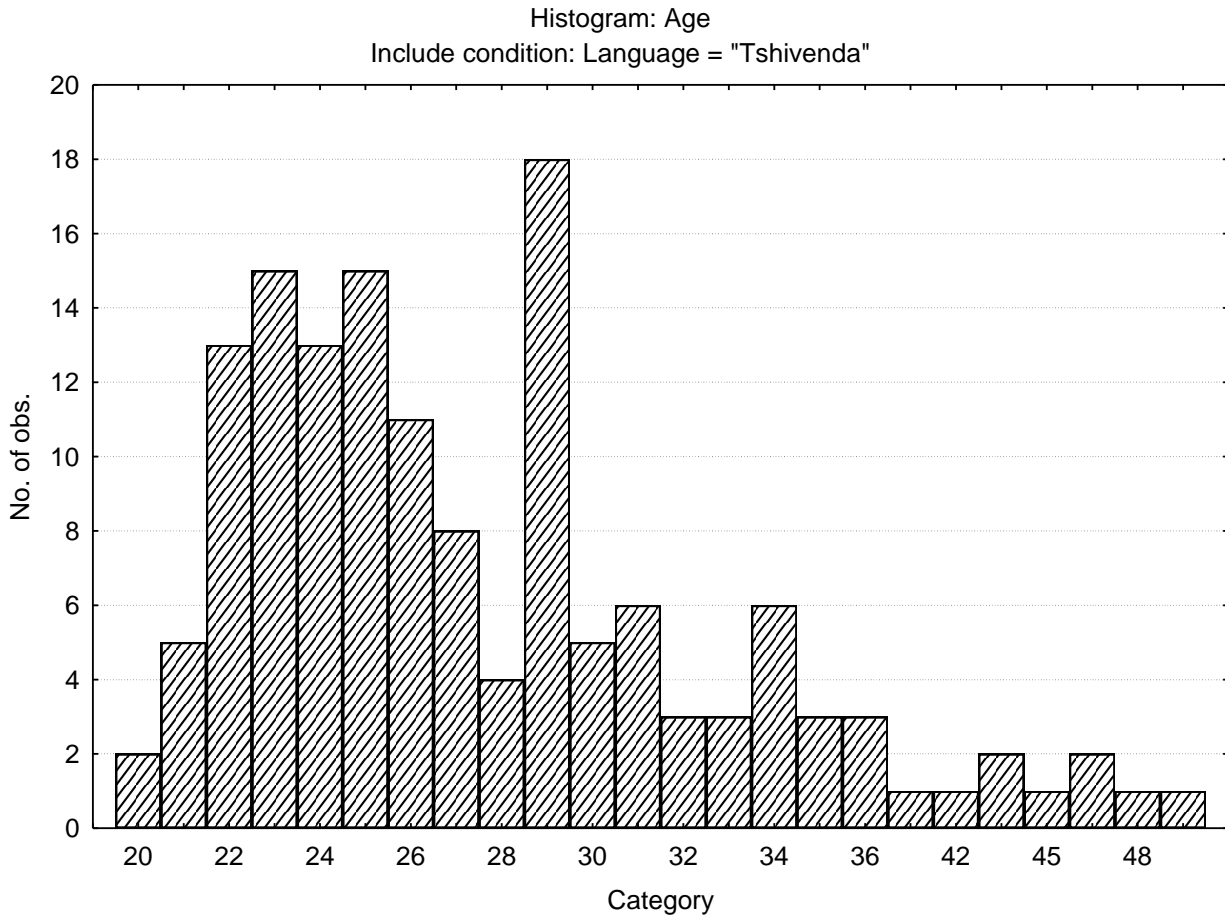
Sample composition: Tshivenda speakers

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	52	52	35.61644	35.6164
M	94	146	64.38356	100.0000
Missing	0	146	0.00000	100.0000

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	23	23	15.75342	15.7534
Degree	39	62	26.71233	42.4658
Post Graduate	17	79	11.64384	54.1096
Technikon	15	94	10.27397	64.3836
University diploma	24	118	16.43836	80.8219
Vocational Training	7	125	4.79452	85.6164
Diploma	4	129	2.73973	88.3562
Certificate	4	133	2.73973	91.0959
Missing	13	146	8.90411	100.0000

Category	Frequency table: Race Group			
	Count	Cumulative Count	Percent	Cumulative Percent
African	144	144	98.63014	98.6301
European	1	145	0.68493	99.3151
Asian	1	146	0.68493	100.0000
Missing	0	146	0.00000	100.0000

Variable	Descriptive Statistics: Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	27.82394	5.992074	20.00000	51.00000	142	4



Sample composition: Xitsonga speakers

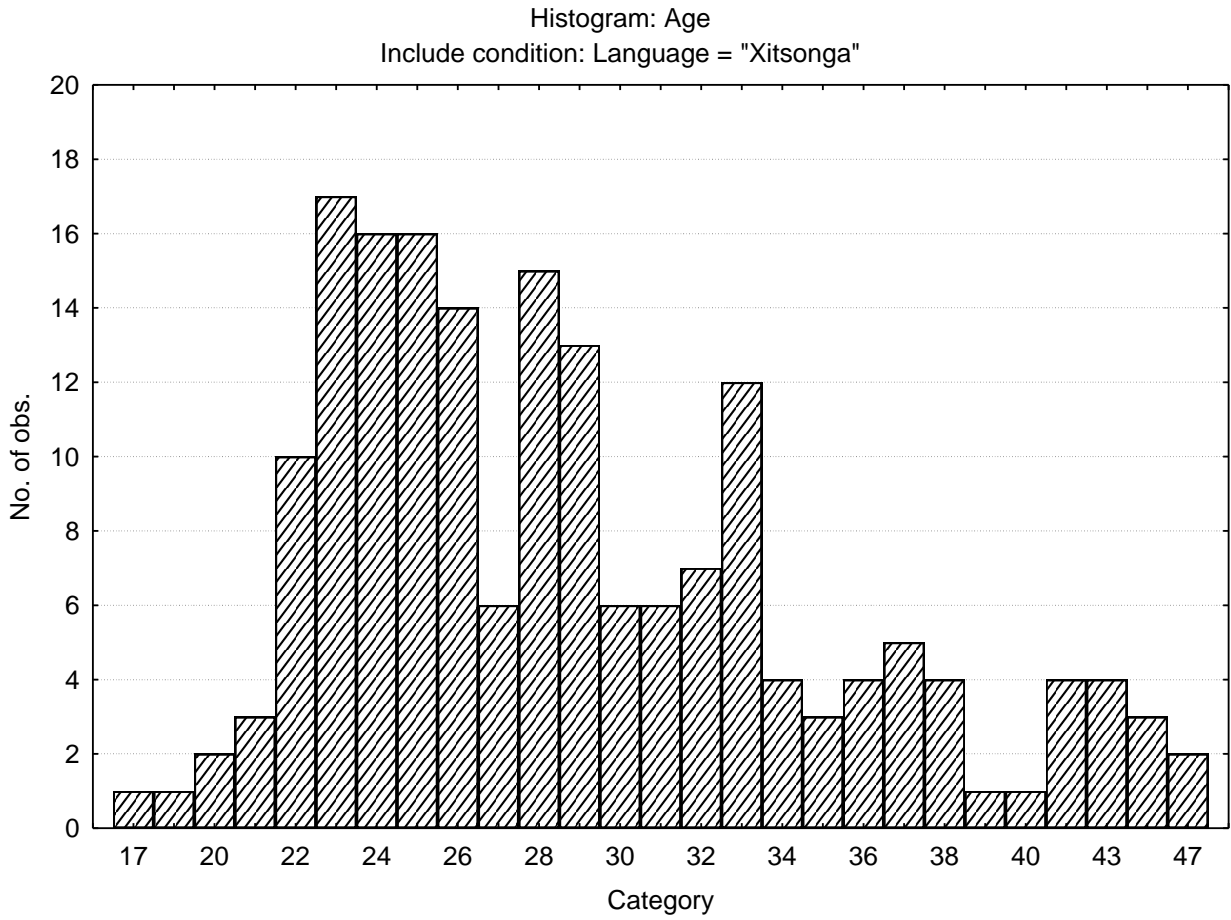
Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	60	60	32.60870	32.6087
M	124	184	67.39130	100.0000
Missing	0	184	0.00000	100.0000

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	44	44	23.91304	23.9130
Degree	34	78	18.47826	42.3913
Post Graduate	33	111	17.93478	60.3261
Technikon	23	134	12.50000	72.8261

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
University diploma	23	157	12.50000	85.3261
Vocational Training	11	168	5.97826	91.3043
Diploma	3	171	1.63043	92.9348
Certificate	1	172	0.54348	93.4783
Missing	12	184	6.52174	100.0000

Category	Frequency table: Race Group			
	Count	Cumulative Count	Percent	Cumulative Percent
African	183	183	99.45652	99.4565
European	1	184	0.54348	100.0000
Missing	0	184	0.00000	100.0000

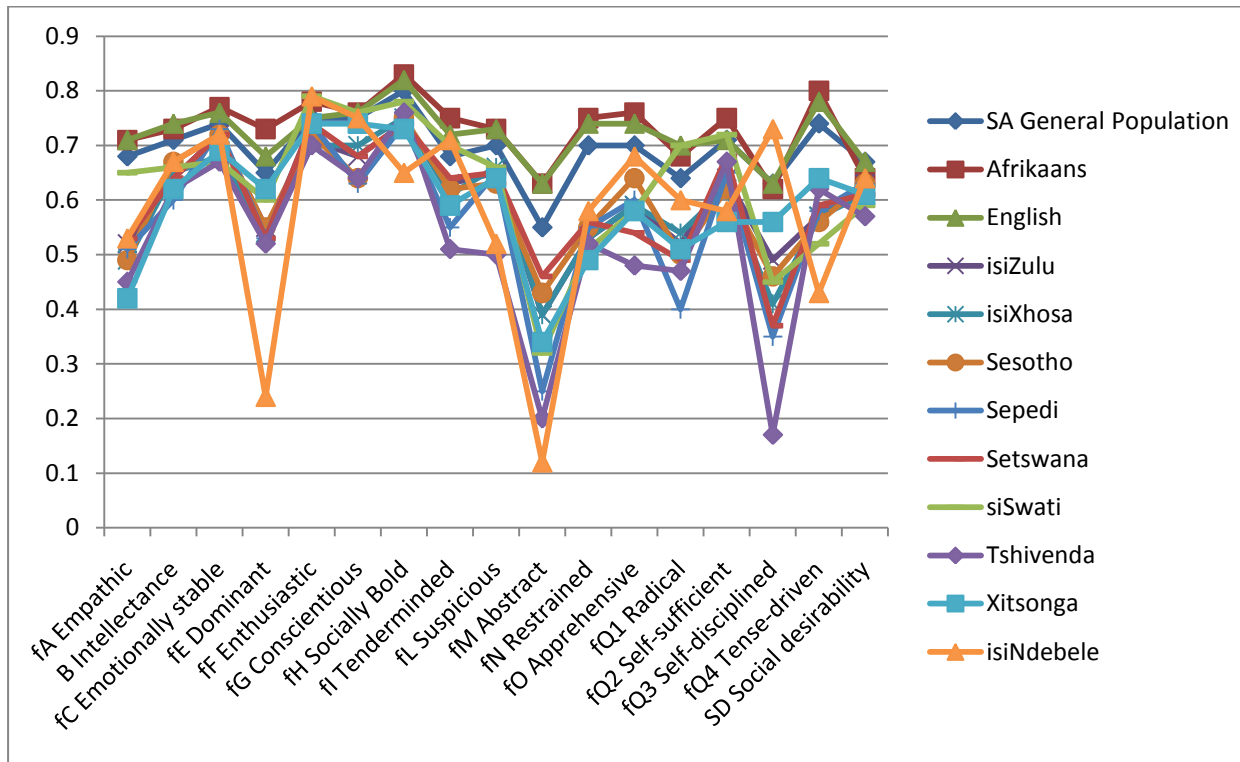
Variable	Descriptive Statistics : Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	28.94444	6.189487	17.00000	47.00000	180	4



Internal consistency reliability coefficients for speakers of different South African languages

Group	SA											
	General	Afrikaans	English	isiZulu	isiXhosa	Sesotho	Sepedi	Setswana	siSwati	Tshivenda	Xitsonga	isiNdebele
N	22948	2782	4958	1567	1039	743	294	728	103	146	183	56
fA Empathic	0.68	0.71	0.71	0.52	0.49	0.49	0.51	0.53	0.65	0.45	0.42	0.53
B Intellectance	0.71	0.73	0.74	0.64	0.65	0.67	0.6	0.64	0.66	0.62	0.62	0.67
fC Emotionally stable	0.74	0.77	0.76	0.72	0.68	0.72	0.73	0.72	0.67	0.67	0.69	0.72
fE Dominant	0.65	0.73	0.68	0.55	0.54	0.55	0.53	0.53	0.6	0.52	0.62	0.24
fF Enthusiastic	0.75	0.78	0.75	0.71	0.7	0.72	0.74	0.74	0.79	0.7	0.74	0.79
fG Conscientious	0.75	0.76	0.76	0.68	0.7	0.64	0.63	0.68	0.76	0.64	0.74	0.75
fH Socially Bold	0.8	0.83	0.82	0.74	0.75	0.75	0.74	0.74	0.78	0.76	0.73	0.65
fI Tenderminded	0.68	0.75	0.72	0.63	0.61	0.62	0.55	0.64	0.7	0.51	0.59	0.71
fL Suspicious	0.7	0.73	0.73	0.65	0.66	0.63	0.65	0.65	0.66	0.5	0.64	0.52
fM Abstract	0.55	0.63	0.63	0.39	0.39	0.43	0.25	0.46	0.32	0.2	0.34	0.12
fN Restrained	0.7	0.75	0.74	0.53	0.53	0.55	0.55	0.56	0.51	0.52	0.49	0.58
fO Apprehensive	0.7	0.76	0.74	0.59	0.59	0.64	0.6	0.54	0.58	0.48	0.58	0.68
fQ1 Radical	0.64	0.68	0.7	0.52	0.54	0.5	0.4	0.49	0.7	0.47	0.51	0.6
fQ2 Self-sufficient	0.71	0.75	0.71	0.64	0.62	0.62	0.65	0.68	0.72	0.67	0.56	0.58
fQ3 Self-disciplined	0.63	0.62	0.63	0.49	0.41	0.46	0.35	0.37	0.45	0.17	0.56	0.73
fQ4 Tense-driven	0.74	0.8	0.78	0.57	0.57	0.56	0.58	0.59	0.52	0.62	0.64	0.43
SD Social desirability	0.67	0.64	0.67	0.63	0.61	0.63	0.63	0.61	0.59	0.57	0.61	0.64

Graph comparing internal consistency reliability coefficients for speakers of different South African languages



15FQ+ Reliability: relationship to verbal reasoning: Comparison by race

Sample composition

The sample consisted of respondents tested by Psytech SA and collaborators in the period up to February 2010, and who had completed both the 15FQ+ personality questionnaire and the Verbal Reasoning test from the General Reasoning Test Battery. Biographical information is reported separately for different race groups.

Sample composition: all races combined

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	2270	2270	36.07183	36.0718
M	4001	6271	63.57858	99.6504
U	22	6293	0.34959	100.0000
Missing	0	6293	0.00000	100.0000

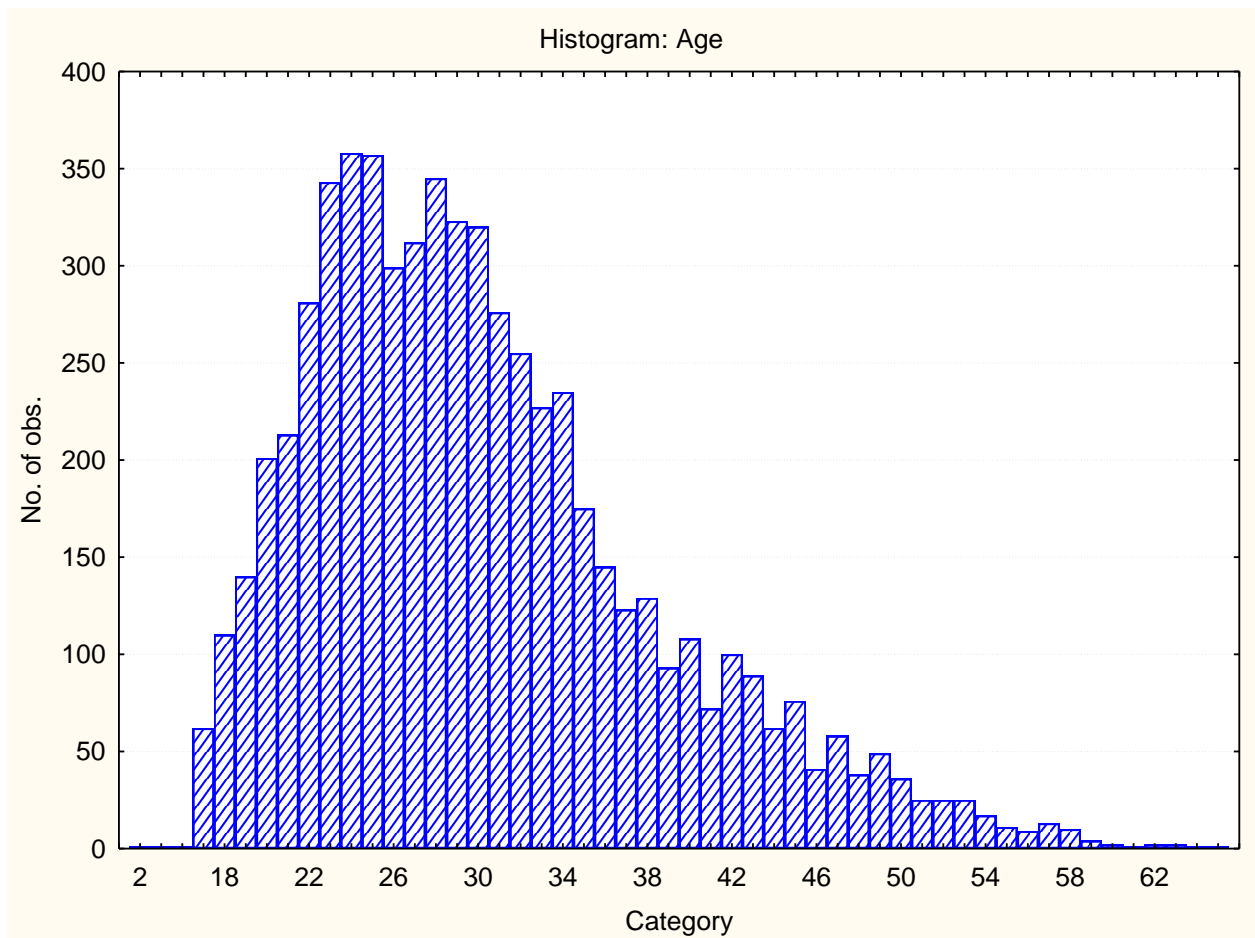
Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	1033	1033	16.41506	16.4151
Technikon	735	1768	11.67964	28.0947
Post Graduate	149	1917	2.36771	30.4624
Degree	312	2229	4.95789	35.4203
Diploma	248	2477	3.94089	39.3612
Under Grade 12	117	2594	1.85921	41.2204
Vocational Training	77	2671	1.22358	42.4440
Missing	3622	6293	57.55601	100.0000

Category	Frequency table: Language			
	Count	Cumulative Count	Percent	Cumulative Percent
isiZulu	501	501	7.96123	7.9612
Afrikaans	718	1219	11.40950	19.3707
Setswana	196	1415	3.11457	22.4853
Sesotho	235	1650	3.73431	26.2196
English	1004	2654	15.95423	42.1738
isiXhosa	391	3045	6.21325	48.3871
Xitsonga	36	3081	0.57206	48.9592
siSwati	27	3108	0.42905	49.3882
Sepedi	48	3156	0.76275	50.1510
Tshivenda	19	3175	0.30192	50.4529
isiNdebele	8	3183	0.12713	50.5800
Missing	3110	6293	49.41999	100.0000

Category	Frequency table: Language Group			
	Count	Cumulative Count	Percent	Cumulative Percent
Indigenous	1461	1461	23.21627	23.2163
Afrikaans	718	2179	11.40950	34.6258
English	1004	3183	15.95423	50.5800
Missing	3110	6293	49.41999	100.0000

Category	Frequency table: Race			
	Count	Cumulative Count	Percent	Cumulative Percent
Black	1634	1634	25.96536	25.9654
White	995	2629	15.81122	41.7766
Coloured	295	2924	4.68775	46.4643
Asian	349	3273	5.54584	52.0102
Missing	3020	6293	47.98983	100.0000

Variable	Descriptive Statistics : Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	30.21429	8.282488	2.000000	68.00000	6202	91



Sample composition: White race group

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	267	267	26.83417	26.8342
M	725	992	72.86432	99.6985
U	3	995	0.30151	100.0000
Missing	0	995	0.00000	100.0000

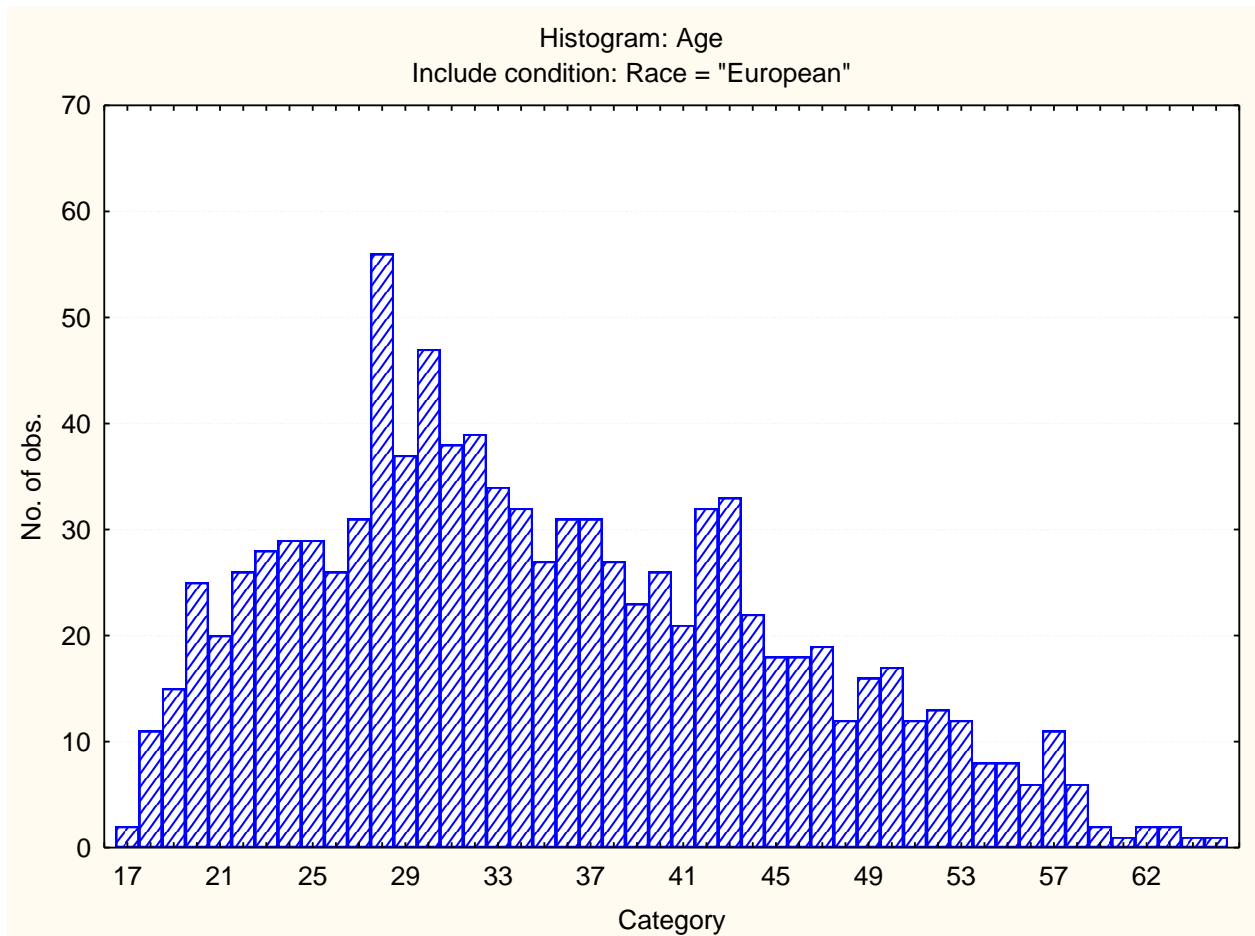
Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	356	356	35.77889	35.7789
Technikon	182	538	18.29146	54.0704
Post Graduate	49	587	4.92462	58.9950
Degree	88	675	8.84422	67.8392
Diploma	54	729	5.42714	73.2663
Under Grade 12	33	762	3.31658	76.5829
Vocational Training"	31	793	3.11558	79.6985
Missing	202	995	20.30151	100.0000

Category	Frequency table: Language			
	Count	Cumulative Count	Percent	Cumulative Percent
isiZulu	1	1	0.10050	0.1005
Afrikaans	548	549	55.07538	55.1759
English	417	966	41.90955	97.0854
isiXhosa	2	968	0.20101	97.2864
Missing	27	995	2.71357	100.0000

Category	Frequency table: Language Group			
----------	---------------------------------	--	--	--

	Count	Cumulative Count	Percent	Cumulative Percent
Indigenous	3	3	0.30151	0.3015
Afrikaans	548	551	55.07538	55.3769
English	417	968	41.90955	97.2864
Missing	27	995	2.71357	100.0000

Variable	Descriptive Statistics : Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	35.04476	10.12981	17.00000	68.00000	983	12



Sample composition: Black race group

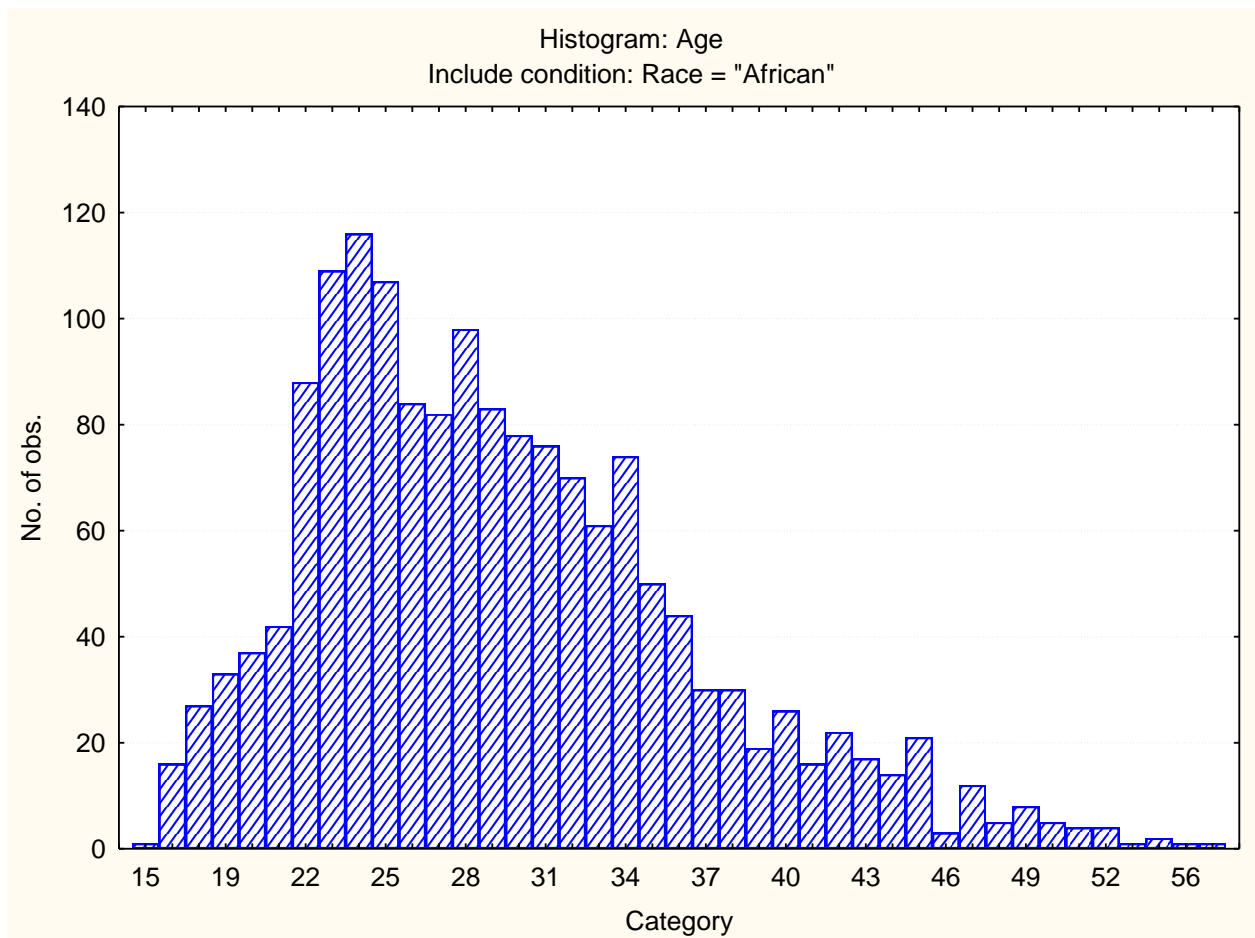
Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	520	520	31.82375	31.8237
M	1105	1625	67.62546	99.4492
U	9	1634	0.55080	100.0000
Missing	0	1634	0.00000	100.0000

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	441	441	26.98898	26.9890
Technikon	412	853	25.21420	52.2032
Post Graduate	71	924	4.34517	56.5483
Degree	155	1079	9.48592	66.0343
Diploma	146	1225	8.93513	74.9694
Under Grade 12	60	1285	3.67197	78.6414
Vocational Training"	33	1318	2.01958	80.6610
Missing	316	1634	19.33905	100.0000

Category	Frequency table: Language			
	Count	Cumulative Count	Percent	Cumulative Percent
isiZulu	490	490	29.98776	29.9878
Afrikaans	23	513	1.40759	31.3953
Setswana	191	704	11.68911	43.0845
Sesotho	231	935	14.13709	57.2215
English	61	996	3.73317	60.9547
isiXhosa	377	1373	23.07222	84.0269
Xitsonga	36	1409	2.20318	86.2301
siSwati	26	1435	1.59119	87.8213
Sepedi	48	1483	2.93758	90.7589
Tshivenda	18	1501	1.10159	91.8605
isiNdebele	8	1509	0.48960	92.3501
Missing	125	1634	7.64994	100.0000

Category	Frequency table: Language Group			
	Count	Cumulative Count	Percent	Cumulative Percent
Indigenous	1425	1425	87.20930	87.2093
Afrikaans	23	1448	1.40759	88.6169
English	61	1509	3.73317	92.3501
Missing	125	1634	7.64994	100.0000

Variable	Descriptive Statistics : Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	29.34508	7.181498	15.00000	60.00000	1617	17



Sample composition: Coloured race group

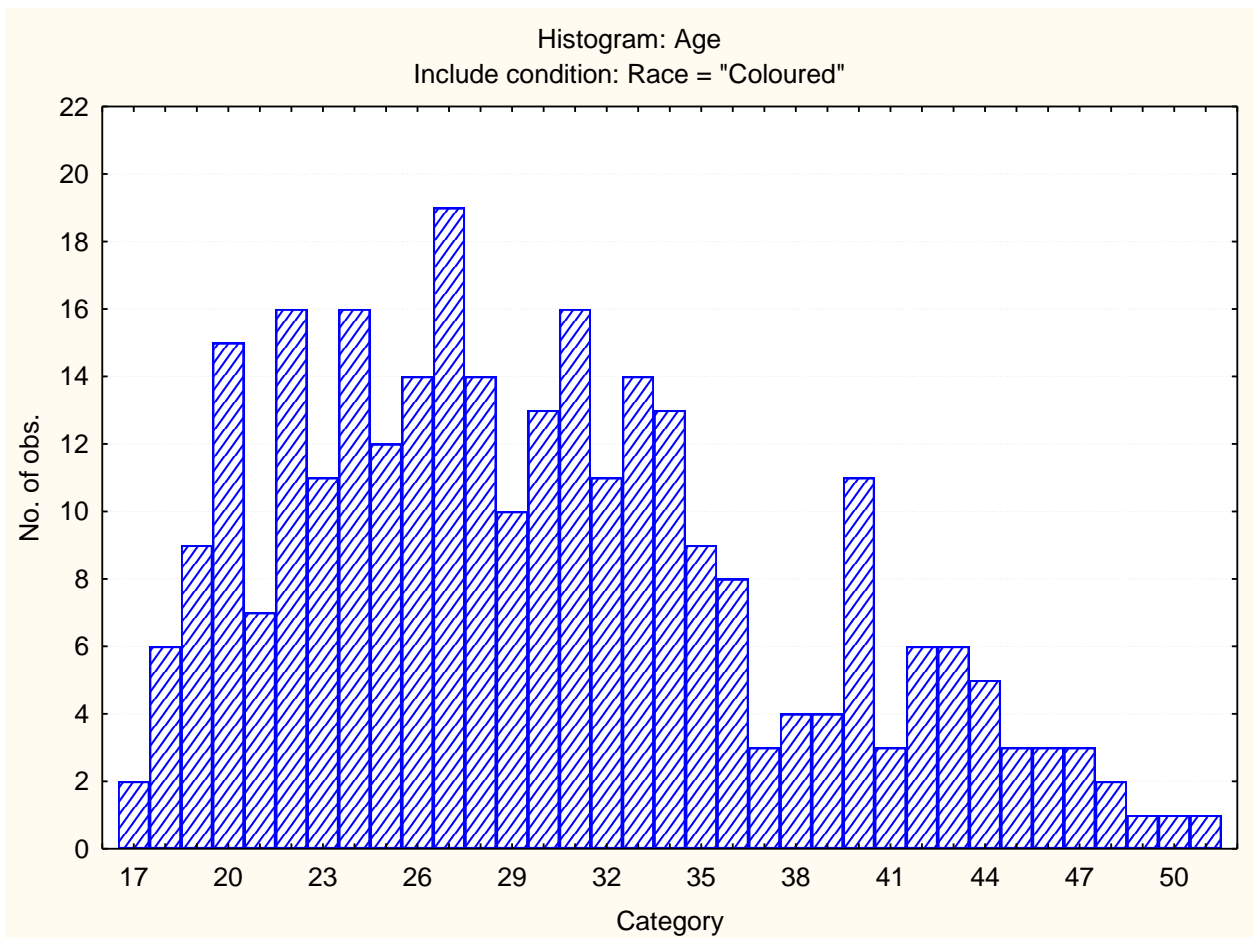
Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	86	86	29.15254	29.1525
M	208	294	70.50847	99.6610
U	1	295	0.33898	100.0000
Missing	0	295	0.00000	100.0000

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	113	113	38.30508	38.3051
Technikon	61	174	20.67797	58.9831
Post Graduate	8	182	2.71186	61.6949
Degree	16	198	5.42373	67.1186
Diploma	16	214	5.42373	72.5424
Under Grade 12	11	225	3.72881	76.2712
Vocational Training"	8	233	2.71186	78.9831
Missing	62	295	21.01695	100.0000

Category	Frequency table: Language			
	Count	Cumulative Count	Percent	Cumulative Percent
isiZulu	1	1	0.33898	0.3390
Afrikaans	129	130	43.72881	44.0678
Setswana	1	131	0.33898	44.4068
English	157	288	53.22034	97.6271
Missing	7	295	2.37288	100.0000

Category	Frequency table: Language Group			
	Count	Cumulative Count	Percent	Cumulative Percent
Indigenous	2	2	0.67797	0.6780
Afrikaans	129	131	43.72881	44.4068
English	157	288	53.22034	97.6271
Missing	7	295	2.37288	100.0000

Variable	Descriptive Statistics : Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	29.99313	7.769966	17.00000	54.00000	291	4



Sample composition: Asian Race Group

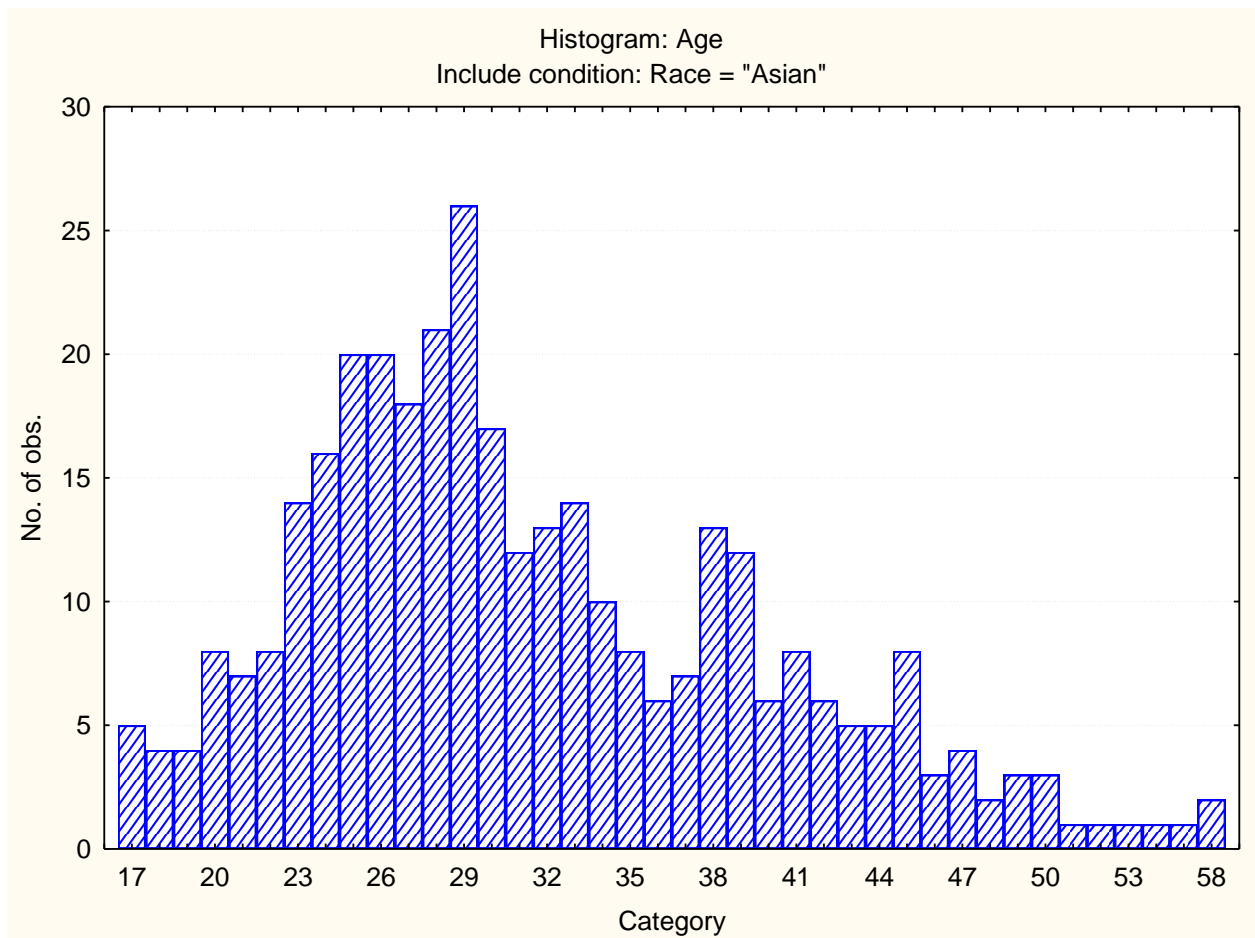
Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	125	125	35.81662	35.8166
M	224	349	64.18338	100.0000
Missing	0	349	0.00000	100.0000

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	107	107	30.65903	30.6590
Technikon	73	180	20.91691	51.5759
Post Graduate	19	199	5.44413	57.0201
Degree	43	242	12.32092	69.3410
Diploma	23	265	6.59026	75.9312
Under Grade 12	12	277	3.43840	79.3696
Vocational Training"	4	281	1.14613	80.5158
Missing	68	349	19.48424	100.0000

Category	Frequency table: Language			
	Count	Cumulative Count	Percent	Cumulative Percent
English	339	339	97.13467	97.1347
Tshivenda	1	340	0.28653	97.4212
Missing	9	349	2.57880	100.0000

Category	Frequency table: Language Group			
	Count	Cumulative Count	Percent	Cumulative Percent
Indigenous	1	1	0.28653	0.2865
English	339	340	97.13467	97.4212
Missing	9	349	2.57880	100.0000

Variable	Descriptive Statistics : Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	31.49854	8.292840	17.00000	58.00000	343	6



Method

Raw scores on the General Verbal Reasoning Test were converted to stanines, and after that into five levels as follows:

Stanine 1 and 2

Stanine 3 and 4

Stanine 5

Stanine 6 and 7

Stanine 8 and 9

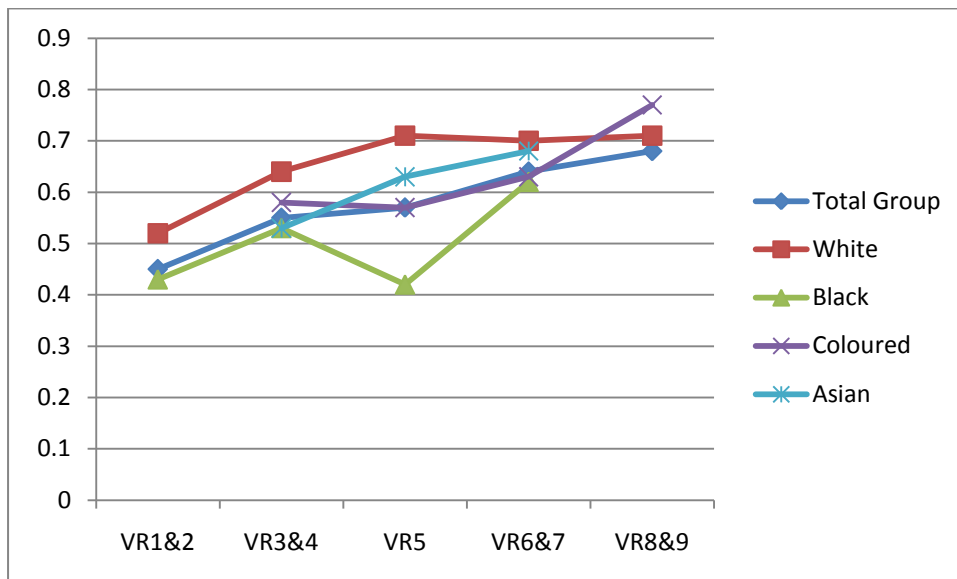
Cronbach coefficient alpha was calculated separately, by race for the different levels of verbal reasoning scores, where the available data allowed this to be calculated:

The findings are summarised graphically. Not all data points could be calculated because of the limitations on score variance imposed by sample size when the dataset is subdivided in this manner.

Summary of results: Coefficient alpha for 15FQPlus scale bu race and Verbal Reasoning level.

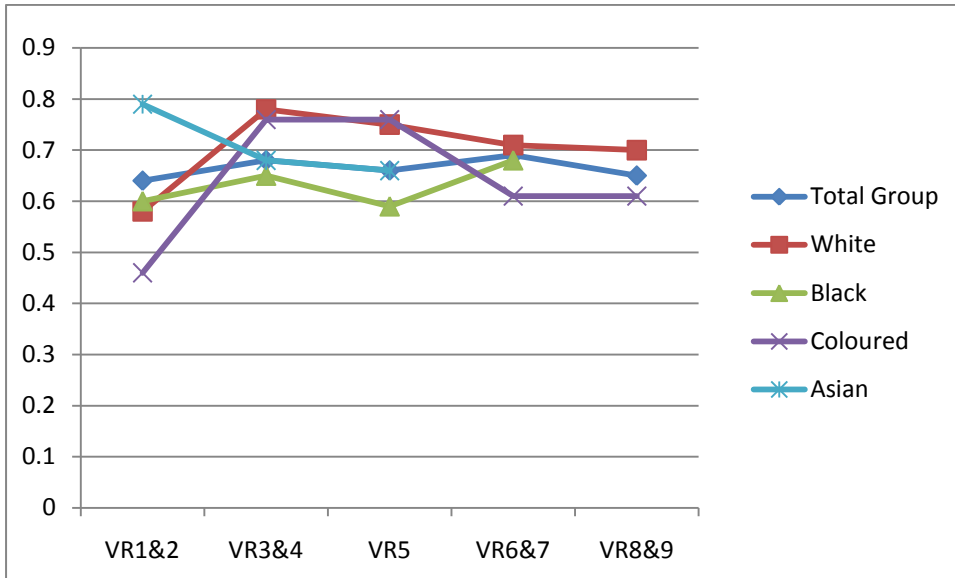
fA: Empathic

	VR1&2	VR3&4	VR5	VR6&7	VR8&9
Total Group	0.45	0.55	0.57	0.64	0.68
White	0.52	0.64	0.71	0.7	0.71
Black	0.43	0.53	0.42	0.62	
Coloured		0.58	0.57	0.63	0.77
Asian		0.53	0.63	0.68	



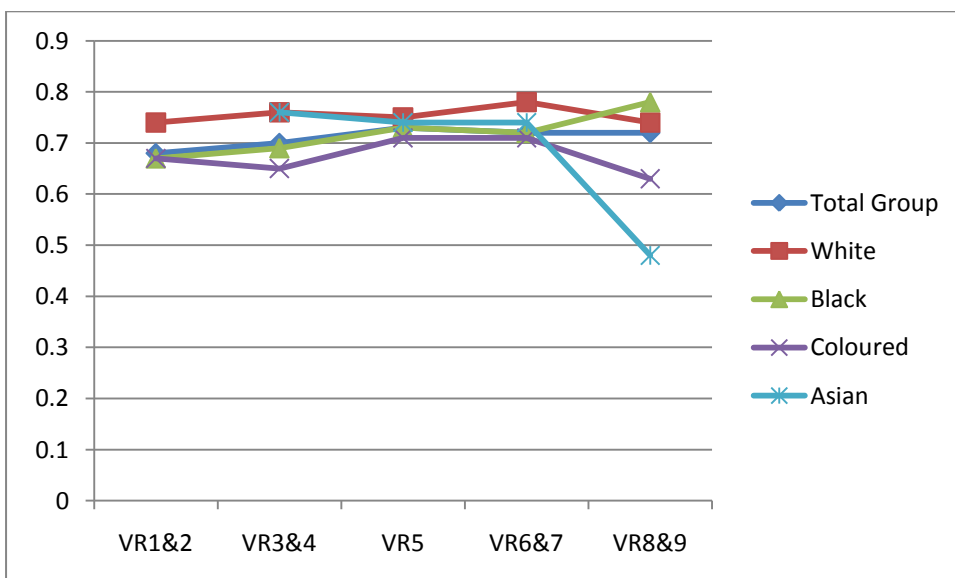
B Intellectance

	VR1&2	VR3&4	VR5	VR6&7	VR8&9
Total Group	0.64	0.68	0.66	0.69	0.65
White	0.58	0.78	0.75	0.71	0.7
Black	0.6	0.65	0.59	0.68	
Coloured	0.46	0.76	0.76	0.61	0.61
Asian	0.79	0.68	0.66		



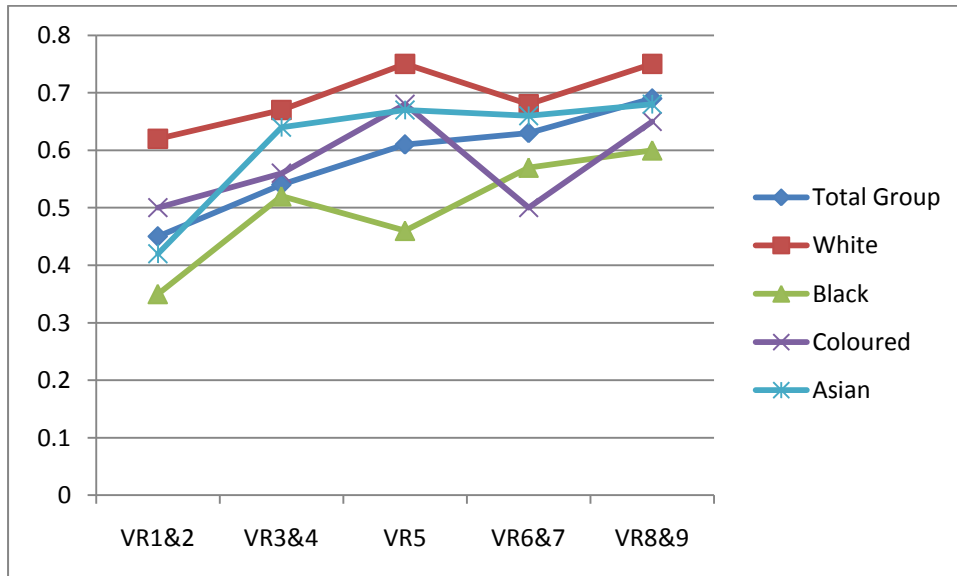
fc Emotionally stable

	VR1&2	VR3&4	VR5	VR6&7	VR8&9
Total Group	0.68	0.7	0.73	0.72	0.72
White	0.74	0.76	0.75	0.78	0.74
Black	0.67	0.69	0.73	0.72	0.78
Coloured	0.67	0.65	0.71	0.71	0.63
Asian		0.76	0.74	0.74	0.48



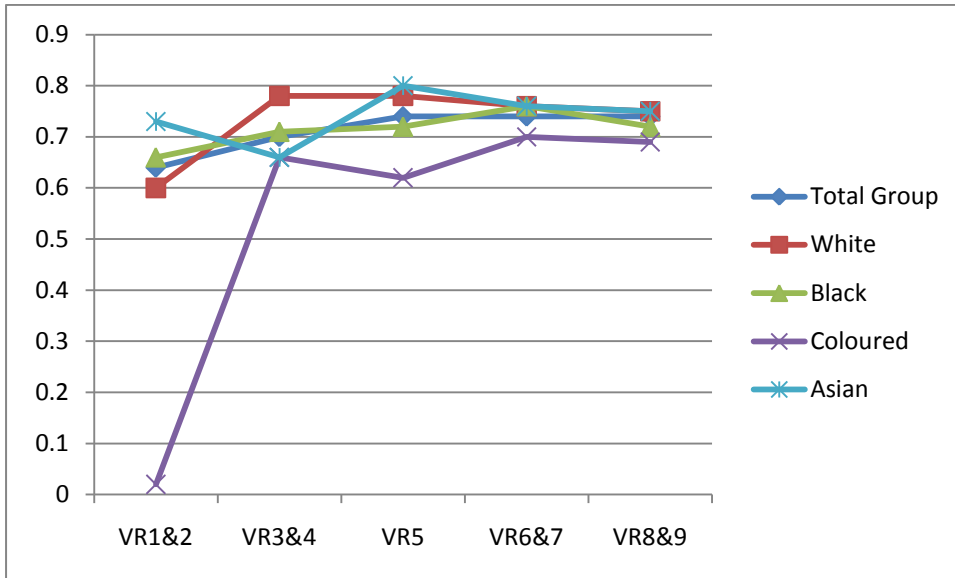
fE Dominant

	VR1&2	VR3&4	VR5	VR6&7	VR8&9
Total Group	0.45	0.54	0.61	0.63	0.69
White	0.62	0.67	0.75	0.68	0.75
Black	0.35	0.52	0.46	0.57	0.6
Coloured	0.5	0.56	0.68	0.5	0.65
Asian	0.42	0.64	0.67	0.66	0.68



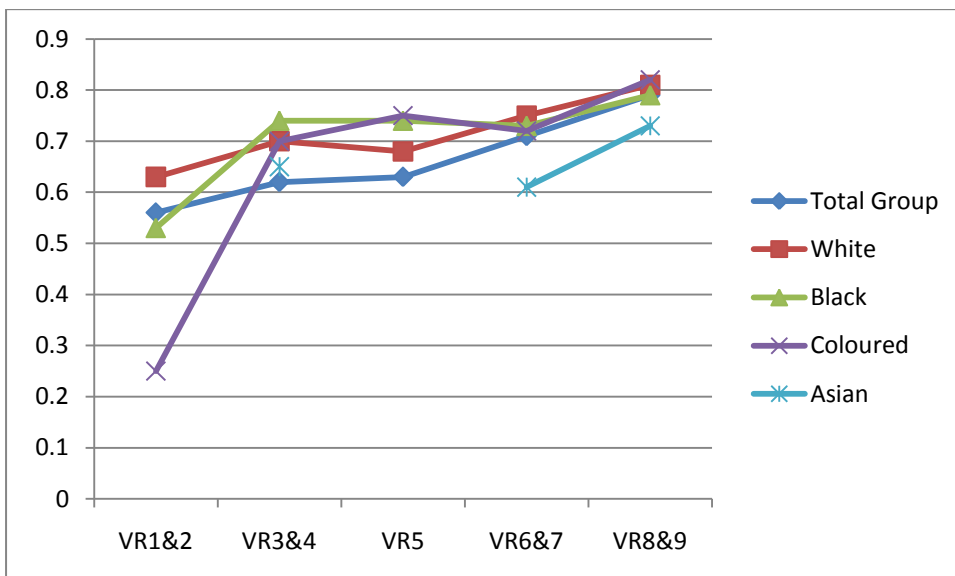
fF Enthusiastic

	VR1&2	VR3&4	VR5	VR6&7	VR8&9
Total Group	0.64	0.7	0.74	0.74	0.74
White	0.6	0.78	0.78	0.76	0.75
Black	0.66	0.71	0.72	0.76	0.72
Coloured	0.02	0.66	0.62	0.7	0.69
Asian	0.73	0.66	0.8	0.76	0.75



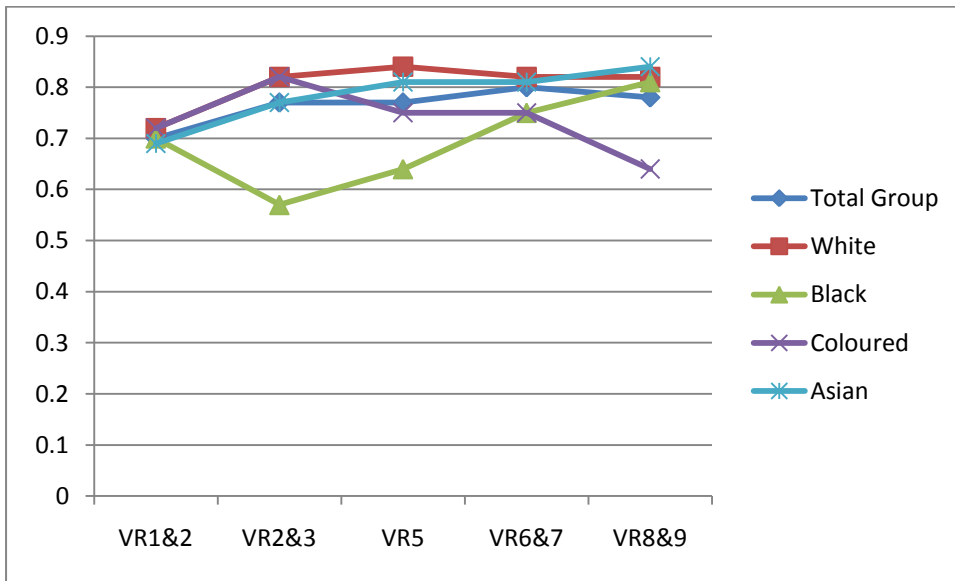
fG Conscientious

	VR1&2	VR3&4	VR5	VR6&7	VR8&9
Total Group	0.56	0.62	0.63	0.71	0.79
White	0.63	0.7	0.68	0.75	0.81
Black	0.53	0.74	0.74	0.73	0.79
Coloured	0.25	0.7	0.75	0.72	0.82
Asian		0.65		0.61	0.73



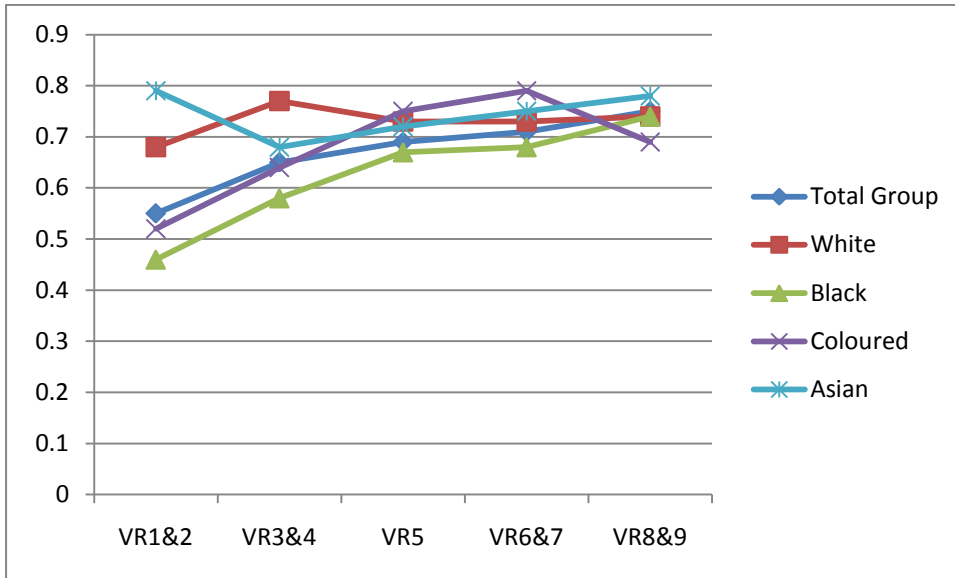
fh Socially Bold

	VR1&2	VR2&3	VR5	VR6&7	VR8&9
Total Group	0.7	0.77	0.77	0.8	0.78
White	0.72	0.82	0.84	0.82	0.82
Black	0.7	0.57	0.64	0.75	0.81
Coloured	0.72	0.82	0.75	0.75	0.64
Asian	0.69	0.77	0.81	0.81	0.84



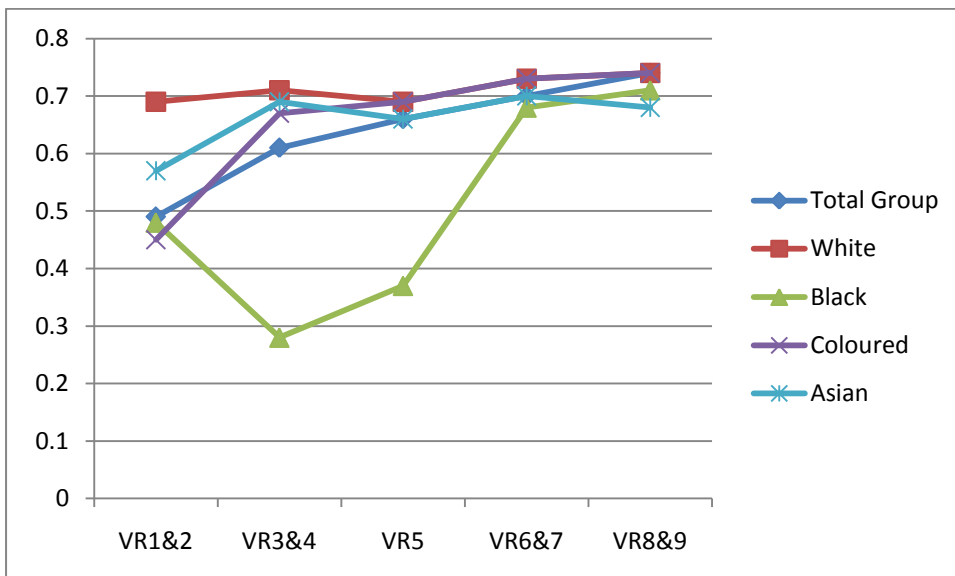
fi Tenderminded

	VR1&2	VR3&4	VR5	VR6&7	VR8&9
Total Group	0.55	0.65	0.69	0.71	0.75
White	0.68	0.77	0.73	0.73	0.74
Black	0.46	0.58	0.67	0.68	0.74
Coloured	0.52	0.64	0.75	0.79	0.69
Asian	0.79	0.68	0.72	0.75	0.78



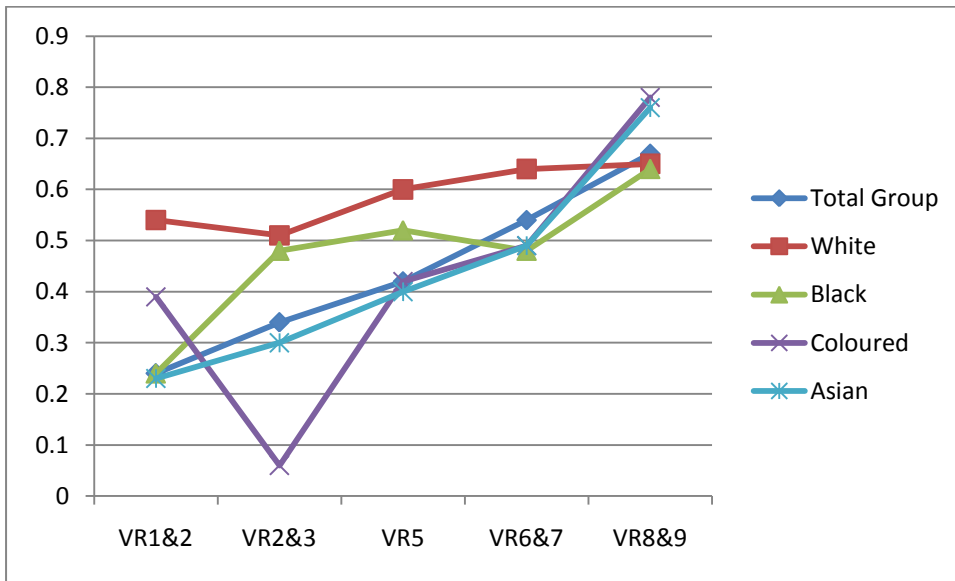
fL Suspicious

	VR1&2	VR3&4	VR5	VR6&7	VR8&9
Total Group	0.49	0.61	0.66	0.7	0.74
White	0.69	0.71	0.69	0.73	0.74
Black	0.48	0.28	0.37	0.68	0.71
Coloured	0.45	0.67	0.69	0.73	0.74
Asian	0.57	0.69	0.66	0.7	0.68



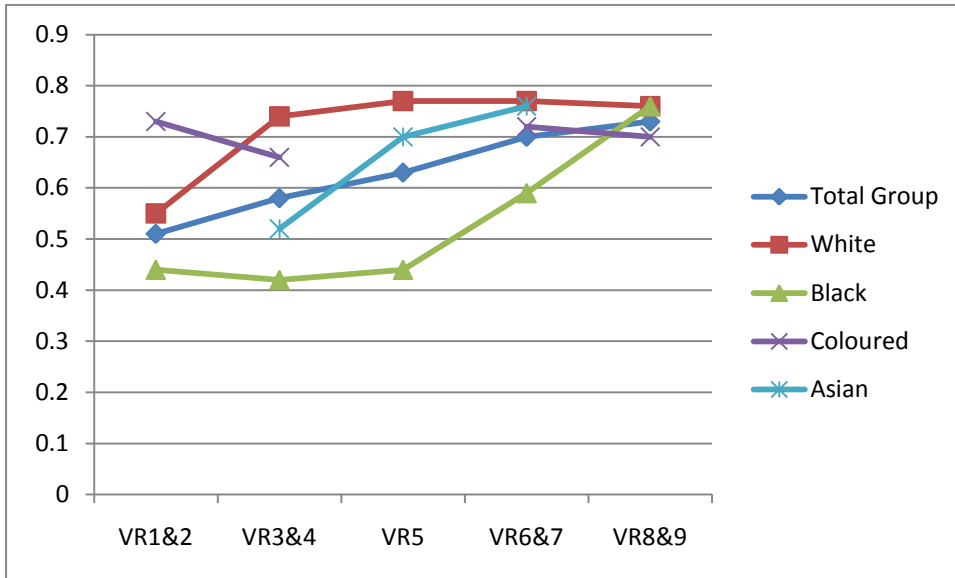
fM Abstract

	VR1&2	VR2&3	VR5	VR6&7	VR8&9
Total Group	0.24	0.34	0.42	0.54	0.67
White	0.54	0.51	0.6	0.64	0.65
Black	0.24	0.48	0.52	0.48	0.64
Coloured	0.39	0.06	0.42	0.49	0.78
Asian	0.23	0.3	0.4	0.49	0.76



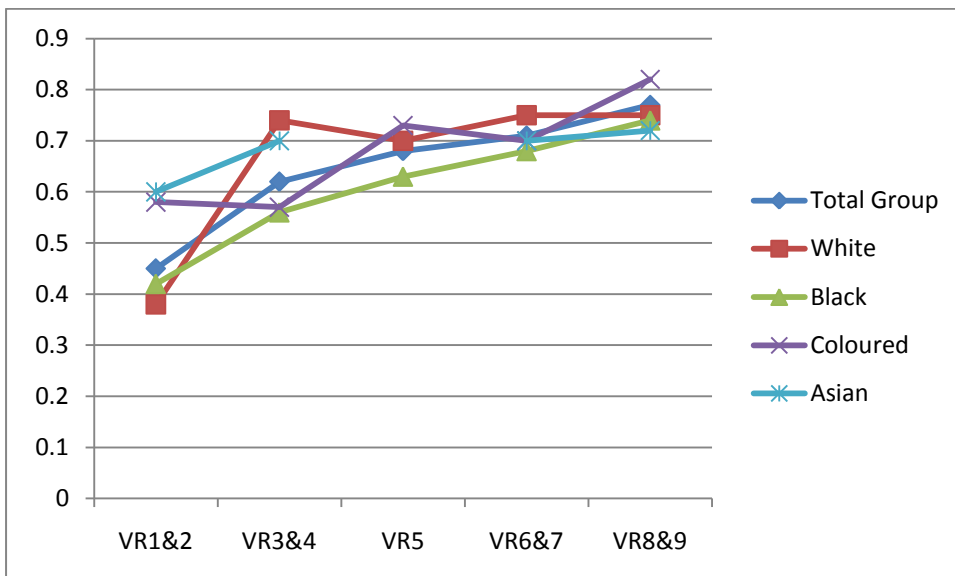
fN Restrained

	VR1&2	VR3&4	VR5	VR6&7	VR8&9
Total Group	0.51	0.58	0.63	0.7	0.73
White	0.55	0.74	0.77	0.77	0.76
Black	0.44	0.42	0.44	0.59	0.76
Coloured	0.73	0.66		0.72	0.7
Asian		0.52	0.7	0.76	



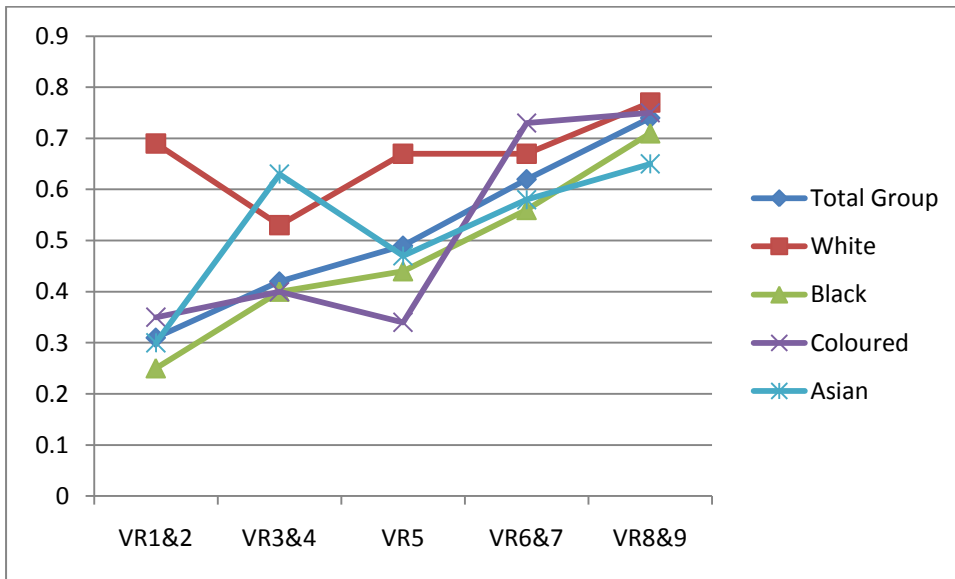
f0 Apprehensive

	VR1&2	VR3&4	VR5	VR6&7	VR8&9
Total Group	0.45	0.62	0.68	0.71	0.77
White	0.38	0.74	0.7	0.75	0.75
Black	0.42	0.56	0.63	0.68	0.74
Coloured	0.58	0.57	0.73	0.7	0.82
Asian	0.6	0.7		0.7	0.72



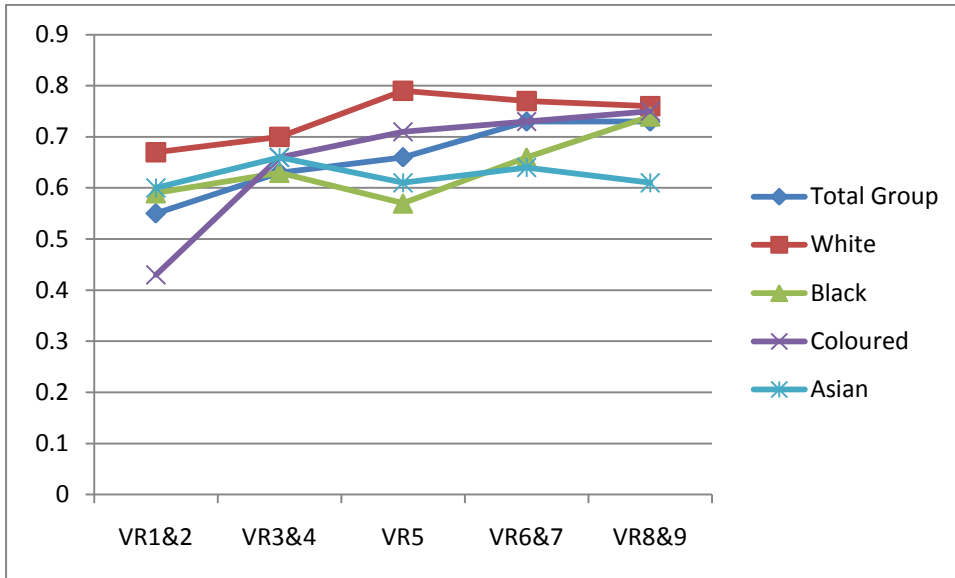
fQ1 Radical

	VR1&2	VR3&4	VR5	VR6&7	VR8&9
Total Group	0.31	0.42	0.49	0.62	0.74
White	0.69	0.53	0.67	0.67	0.77
Black	0.25	0.4	0.44	0.56	0.71
Coloured	0.35	0.4	0.34	0.73	0.75
Asian	0.3	0.63	0.47	0.58	0.65



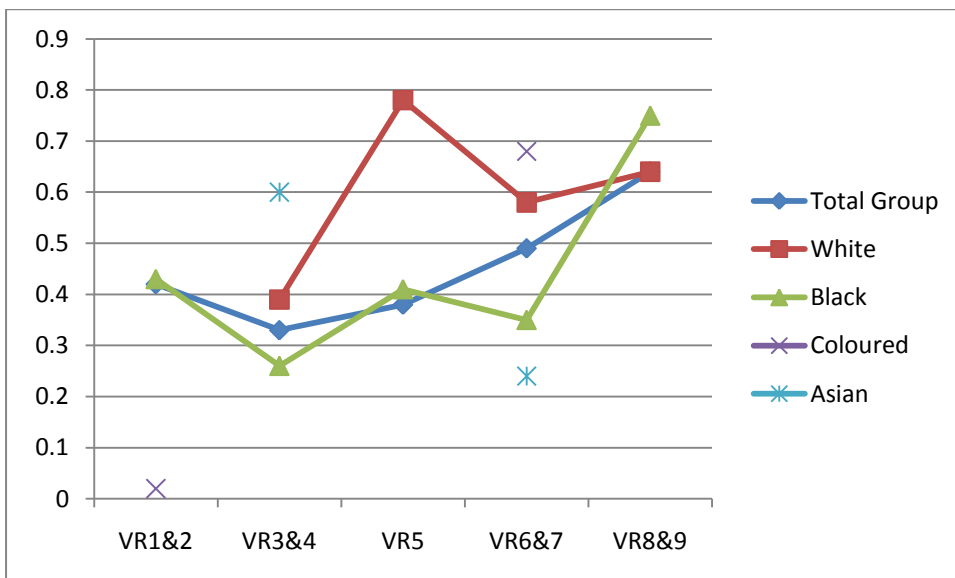
fQ2 Self-sufficient

	VR1&2	VR3&4	VR5	VR6&7	VR8&9
Total Group	0.55	0.63	0.66	0.73	0.73
White	0.67	0.7	0.79	0.77	0.76
Black	0.59	0.63	0.57	0.66	0.74
Coloured	0.43	0.66	0.71	0.73	0.75
Asian	0.6	0.66	0.61	0.64	0.61



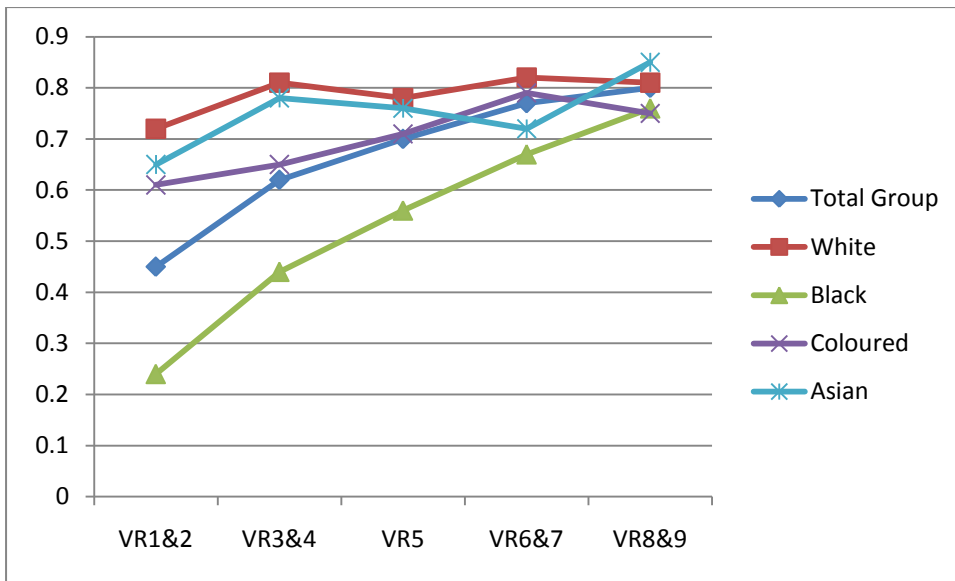
fQ3 Self-disciplined

	VR1&2	VR3&4	VR5	VR6&7	VR8&9
Total Group	0.42	0.33	0.38	0.49	0.64
White		0.39	0.78	0.58	0.64
Black	0.43	0.26	0.41	0.35	0.75
Coloured	0.02			0.68	
Asian		0.6		0.24	



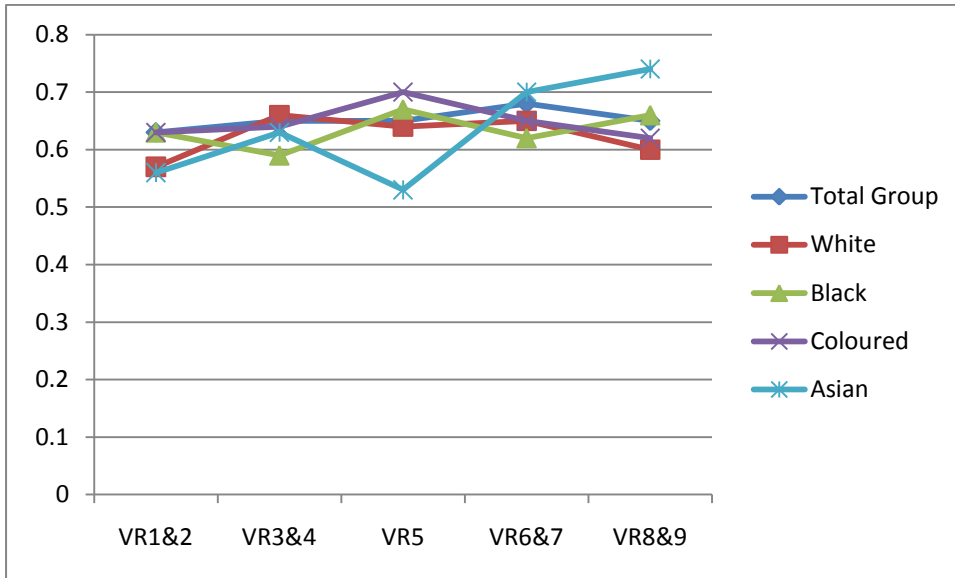
fQ4 Tense-driven

	VR1&2	VR3&4	VR5	VR6&7	VR8&9
Total Group	0.45	0.62	0.7	0.77	0.8
White	0.72	0.81	0.78	0.82	0.81
Black	0.24	0.44	0.56	0.67	0.76
Coloured	0.61	0.65	0.71	0.79	0.75
Asian	0.65	0.78	0.76	0.72	0.85



SD Social desirability

	VR1&2	VR3&4	VR5	VR6&7	VR8&9
Total Group	0.63	0.65	0.65	0.68	0.65
White	0.57	0.66	0.64	0.65	0.6
Black	0.63	0.59	0.67	0.62	0.66
Coloured	0.63	0.64	0.7	0.65	0.62
Asian	0.56	0.63	0.53	0.7	0.74



Discussion

For most of the scales, there is a consistent increase in reliability at higher levels of Verbal Reasoning. This tendency is particularly noticeable for persons belonging to the Black (African) race group. Considering that the General Verbal Reasoning Test is administered in English and also correlates significantly with specific tests for English proficiency, it can be deduced that proficiency in English is necessary for 15FQ+ results to be reliable, and this applies to all race groups. English proficiency is also probably related to education and, in the case of persons of African descent, degree of westernisation. With persons who score less than a stanine of 3 on the Verbal Reasoning test, the results of the 5FQ+ personality questionnaire should be interpreted with caution and supported by alternative evidence of typical behaviour patterns.

Fifteen Factor Questionnaire (15FQ+)

Reliability: SA Aggregate Population, Updated 2016

Composition of the Sample

Compiled from raw data on 20374 respondents submitted by various clients as well as collected by Psytech SA and collaborators, via GeneSys for Windows, in the period up to June 2015.

Gender Composition of the Sample

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	7866	7866	38,60803	38,6080
M	12279	20145	60,26799	98,8760
U	229	20374	1,12398	100,0000
Missing	0	20374	0,00000	100,0000

Educational Composition of the Sample

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	4406	4406	21,62560	21,6256
Tertiary	5926	10332	29,08609	50,7117
Post Graduate	2169	12501	10,64592	61,3576
< Matric	406	12907	1,99274	63,3503
Unknown	103	13010	0,50555	63,8559
Other	9	13019	0,04417	63,9001
Missing	7355	20374	36,09993	100,0000

It should be noted that a large number of respondents did not give their educational level. Of the remainder, the majority had a tertiary level of education.

Language Composition of the Sample

Category	Frequency table: Language			
	Count	Cumulative Count	Percent	Cumulative Percent
isiZulu	1426	1426	6,99912	6,9991
Afrikaans	2999	4425	14,71974	21,7189
Setswana	660	5085	3,23942	24,9583
English	5473	10558	26,86267	51,8209
Sesotho	664	11222	3,25906	55,0800
isiXhosa	886	12108	4,34868	59,4287
Sepedi	590	12698	2,89585	62,3245
Xitsonga	192	12890	0,94238	63,2669
Other	273	13163	1,33994	64,6069
Unknown	209	13372	1,02582	65,6327
Tshivenda	149	13521	0,73132	66,3640
siSwati	112	13633	0,54972	66,9137
isiNdebele	55	13688	0,26995	67,1837
Missing	6686	20374	32,81633	100,0000

It should be noted that, for a large number of persons, no language information was available.

Language Group Composition of the Sample

Category	Frequency table: Language Group			
	Count	Cumulative Count	Percent	Cumulative Percent
Indigenous	4734	4734	23,23550	23,2355
Afrikaans	2999	7733	14,71974	37,9552
English	5473	13206	26,86267	64,8179
Missing	7168	20374	35,18209	100,0000

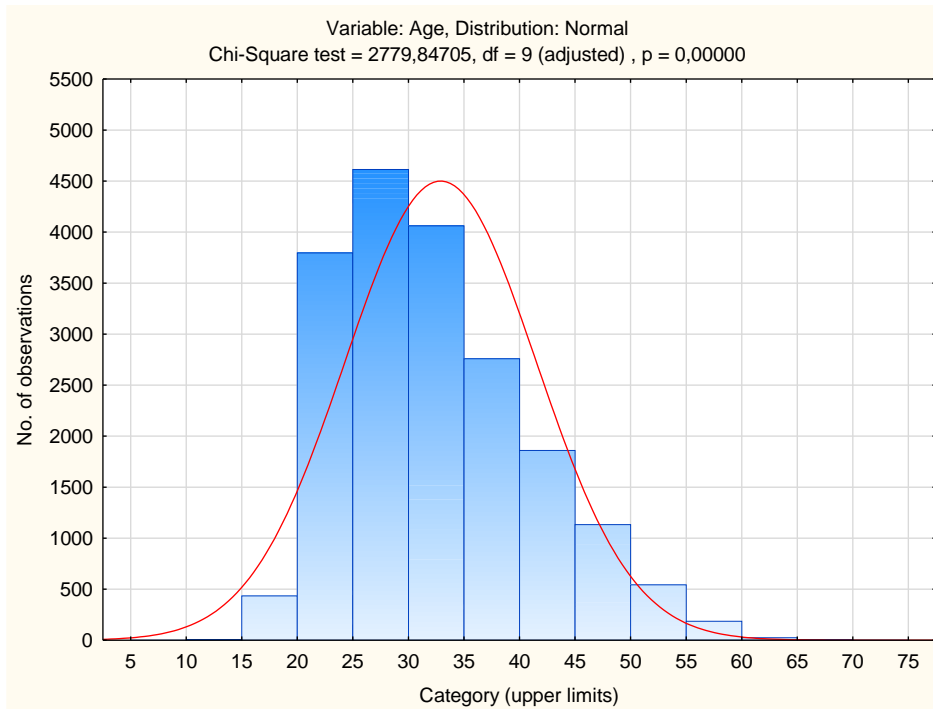
Racial Composition of the Sample

Category	Frequency table: Race			
	Count	Cumulative Count	Percent	Cumulative Percent
African	5783	5783	28,38422	28,3842
European	5365	11148	26,33258	54,7168
Coloured	1125	12273	5,52174	60,2385
Asian	1762	14035	8,64828	68,8868
Indian	44	14079	0,21596	69,1028
Other	118	14197	0,57917	69,6819
Unknown	28	14225	0,13743	69,8194
Chinese	3	14228	0,01472	69,8341
Missing	6146	20374	30,16590	100,0000

It should be noted that a large number of respondents did not provide information on race.

Age Composition and Distribution of the Sample

Variable	Descriptive Statistics: Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	32,90089	8,609117	15,00000	68,00000	19423	954



It is clear from the frequency distribution that most of the respondents were in their twenties and early thirties.

Internal Consistency Reliability on 15FQ+ Scales

Scale	Scale description	Cronbach Alpha
fA	Distant Aloof – Empathic	0,64
B	Intellectance	0,70
fC	Affected by Feelings – Emotionally Stable	0,74
fE	Accommodating – Dominant	0,66
fF	Sober Serious – Enthusiastic	0,75
fG	Expedient – Conscientious	0,74
fH	Retiring – Socially-bold	0,80
fI	Hard-headed – Tender-minded	0,69
fL	Trusting – Suspicious	0,72
fM	Concrete – Abstract	0,57
fN	Direct – Restrained	0,71
fO	Confident – Self-doubting	0,71
fQ1	Conventional – Radical	0,65
fQ2	Group-orientated – Self-sufficient	0,71
fQ3	Informal – Self-disciplined	0,60
fQ4	Composed – Tense-driven	0,74

Personality measures should always be interpreted with caution. In cases where the reliability is below 0.65, the results should be interpreted with extreme caution by using additional information for this purpose. The interview prompts report can assist the user in obtaining additional information for the purpose of triangulation, directly from the respondent.

Fifteen Factor Questionnaire (15FQ+)

Reliability: SA Afrikaans Speakers, Updated 2016

Composition of the Sample

The sample consisted of 2999 Afrikaans speaking South Africans tested by Psytech SA and collaborators in the period up to February 2016.

Gender Composition of the Sample

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	1098	1098	36,61220	36,6122
M	1893	2991	63,12104	99,7332
U	8	2999	0,26676	100,0000
Missing	0	2999	0,00000	100,0000

Educational Composition of the Sample

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	1049	1049	34,97833	34,9783
Tertiary	1048	2097	34,94498	69,9233
Post Graduate	463	2560	15,43848	85,3618
< Matric	131	2691	4,36812	89,7299
Unknown	20	2711	0,66689	90,3968
Other	4	2715	0,13338	90,5302
Missing	284	2999	9,46982	100,0000

Language Composition of the Sample

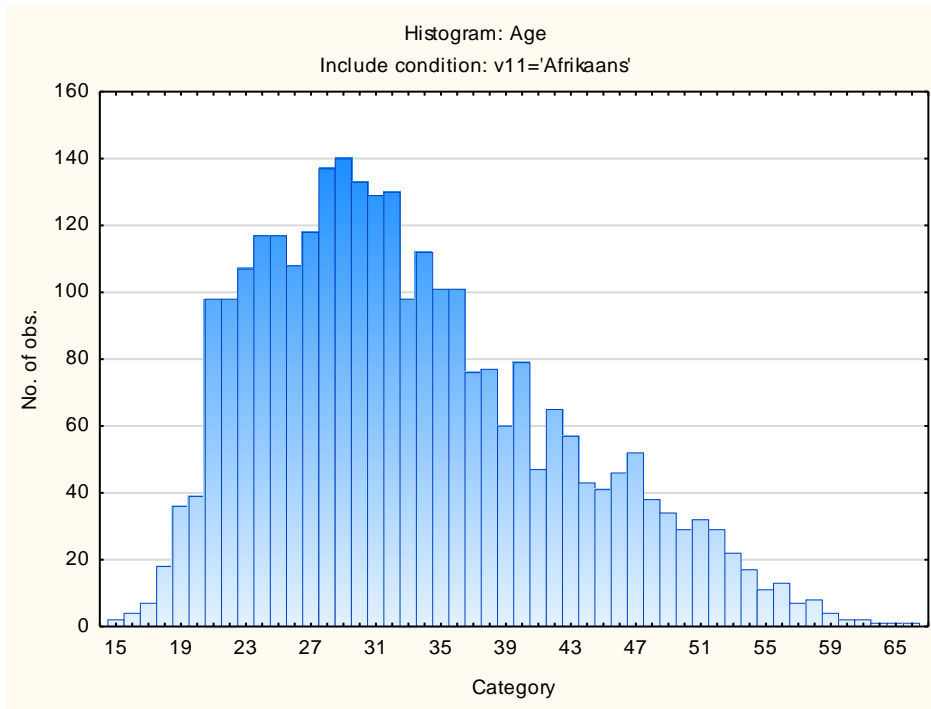
Category	Frequency table: Language			
	Count	Cumulative Count	Percent	Cumulative Percent
Afrikaans	2999	2999	100,0000	100,0000
Missing	0	2999	0,0000	100,0000

Racial Composition of the Sample

Category	Frequency table: Race			
	Count	Cumulative Count	Percent	Cumulative Percent
African	69	69	2,30077	2,3008
European	2567	2636	85,59520	87,8960
Coloured	288	2924	9,60320	97,4992
Asian	5	2929	0,16672	97,6659
Other	33	2962	1,10037	98,7663
Unknown	3	2965	0,10003	98,8663
Missing	34	2999	1,13371	100,0000

Age Composition and Distribution of the Sample

Variable	Descriptive Statistics: Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	33,17053	9,156249	15,00000	67,00000	2844	155



Internal consistency reliability on 15FQ+ scales

Scale	Scale description	Cronbach Alpha
fA	Distant Aloof – Empathic	0,73
B	Intellectance	0,74
fC	Affected by Feelings – Emotionally Stable	0,78
fE	Accommodating – Dominant	0,74
fF	Sober Serious – Enthusiastic	0,79
fG	Expedient – Conscientious	0,77
fH	Retiring – Socially-bold	0,83
fI	Hard-headed – Tender-minded	0,74
fL	Trusting – Suspicious	0,74
fM	Concrete – Abstract	0,65
fN	Direct – Restrained	0,75
fO	Confident – Self-doubting	0,76
fQ1	Conventional – Radical	0,69
fQ2	Group-orientated – Self-sufficient	0,77
fQ3	Informal – Self-disciplined	0,63
fQ4	Composed – Tense-driven	0,79

Personality measures should always be interpreted with caution. In cases where the reliability is below 0.65, the results should be interpreted with extreme caution by using additional information for this purpose. The interview prompts report can assist the user in obtaining additional information for the purpose of triangulation, directly from the respondent.

Fifteen Factor Questionnaire (15FQ+)

Reliability: SA English Speakers, Updated 2016

Composition of the Sample

The sample consisted of 5473 English speaking South Africans tested by Psytech SA and collaborators, via GeneSys for Windows, in the period up to February 2015.

Gender Composition of the Sample

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	2206	2206	40,30696	40,3070
M	3249	5455	59,36415	99,6711
U	18	5473	0,32889	100,0000
Missing	0	5473	0,00000	100,0000

Educational Composition of the Sample

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	1841	1841	33,63786	33,6379
Tertiary	2177	4018	39,77709	73,4149
Post Graduate	884	4902	16,15202	89,5670
< Matric	141	5043	2,57628	92,1432
Unknown	11	5054	0,20099	92,3442
Other	1	5055	0,01827	92,3625
Missing	418	5473	7,63749	100,0000

Language Composition of the Sample

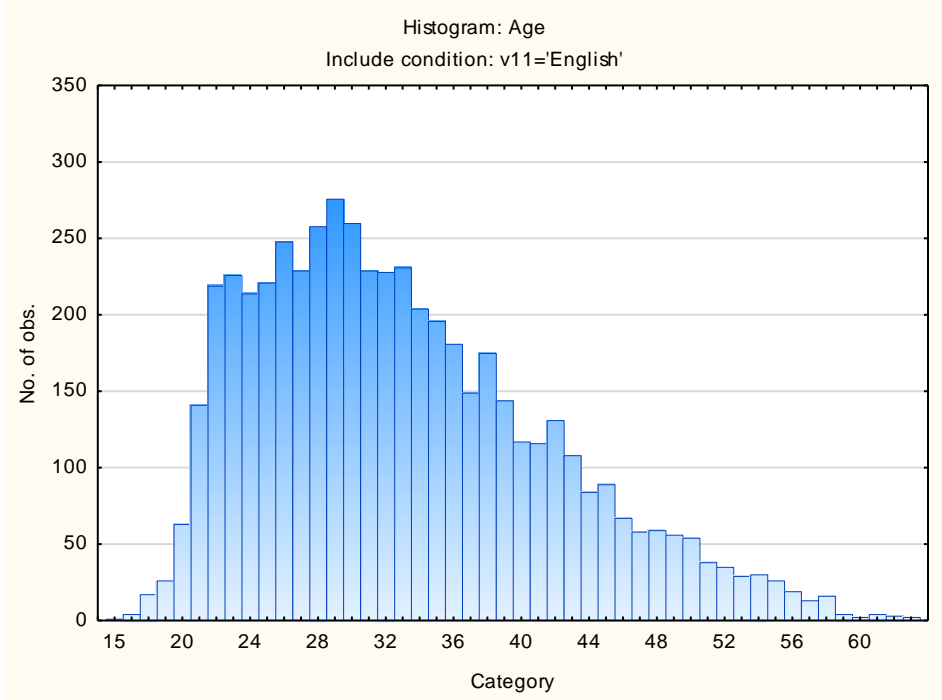
Category	Frequency table: Language			
	Count	Cumulative Count	Percent	Cumulative Percent
English	5473	5473	100,0000	100,0000
Missing	0	5473	0,0000	100,0000

Racial Composition of the Sample

Category	Frequency table: Race			
	Count	Cumulative Count	Percent	Cumulative Percent
African	421	421	7,69231	7,6923
European	2487	2908	45,44126	53,1336
Coloured	760	3668	13,88635	67,0199
Asian	1627	5295	29,72775	96,7477
Indian	38	5333	0,69432	97,4420
Other	72	5405	1,31555	98,7575
Unknown	3	5408	0,05481	98,8124
Chinese	3	5411	0,05481	98,8672
Missing	62	5473	1,13283	100,0000

Age Composition of the Sample

Variable	Descriptive Statistics: Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	33,00113	8,645587	15,00000	63,00000	5300	173



Internal consistency reliability on 15FQ+ scales

Scale	Scale description	Cronbach Alpha
fA	Distant Aloof – Empathic	0,67
B	Intellectance	0,73
fC	Affected by Feelings – Emotionally Stable	0,75
fE	Accommodating – Dominant	0,69
fF	Sober Serious – Enthusiastic	0,76
fG	Expedient – Conscientious	0,75
fH	Retiring – Socially-bold	0,82
fI	Hard-headed – Tender-minded	0,72
fL	Trusting – Suspicious	0,73
fM	Concrete – Abstract	0,62
fN	Direct – Restrained	0,74
fO	Confident – Self-doubting	0,75
fQ1	Conventional – Radical	0,71
fQ2	Group-orientated – Self-sufficient	0,72
fQ3	Informal – Self-disciplined	0,63
fQ4	Composed – Tense-driven	0,79

Personality measures should always be interpreted with caution. In cases where the reliability is below 0.65, the results should be interpreted with extreme caution by using additional information for this purpose. The interview prompts report can assist the user in obtaining additional information for the purpose of triangulation, directly from the respondent.

Fifteen Factor Questionnaire (15FQ+)

Reliability: SA Indigenous Language Speakers, Updated 2016

Composition of the sample

Compiled from raw data on 4734 respondents submitted by various clients as well as collected by Psytech SA and collaborators, via GeneSys for Windows, in the period up to June 2015.

Gender Composition of the Sample

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	1971	1971	41,63498	41,6350
M	2752	4723	58,13266	99,7676
U	11	4734	0,23236	100,0000
Missing	0	4734	0,00000	100,0000

Educational Composition of the Sample

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	1286	1286	27,16519	27,1652
Tertiary	2341	3627	49,45078	76,6160
Post Graduate	684	4311	14,44867	91,0646
< Matric	111	4422	2,34474	93,4094
Unknown	28	4450	0,59147	94,0008
Other	4	4454	0,08450	94,0853
Missing	280	4734	5,91466	100,0000

Language Composition of the Sample

Category	Frequency table: Language			
	Count	Cumulative Count	Percent	Cumulative Percent
isiZulu	1426	1426	30,12252	30,1225
Setswana	660	2086	13,94170	44,0642
Sesotho	664	2750	14,02619	58,0904
isiXhosa	886	3636	18,71567	76,8061
Sepedi	590	4226	12,46303	89,2691
Xitsonga	192	4418	4,05577	93,3249
Tshivenda	149	4567	3,14744	96,4723
siSwati	112	4679	2,36586	98,8382
isiNdebele	55	4734	1,16181	100,0000
Missing	0	4734	0,00000	100,0000

Language Group Composition of the Sample

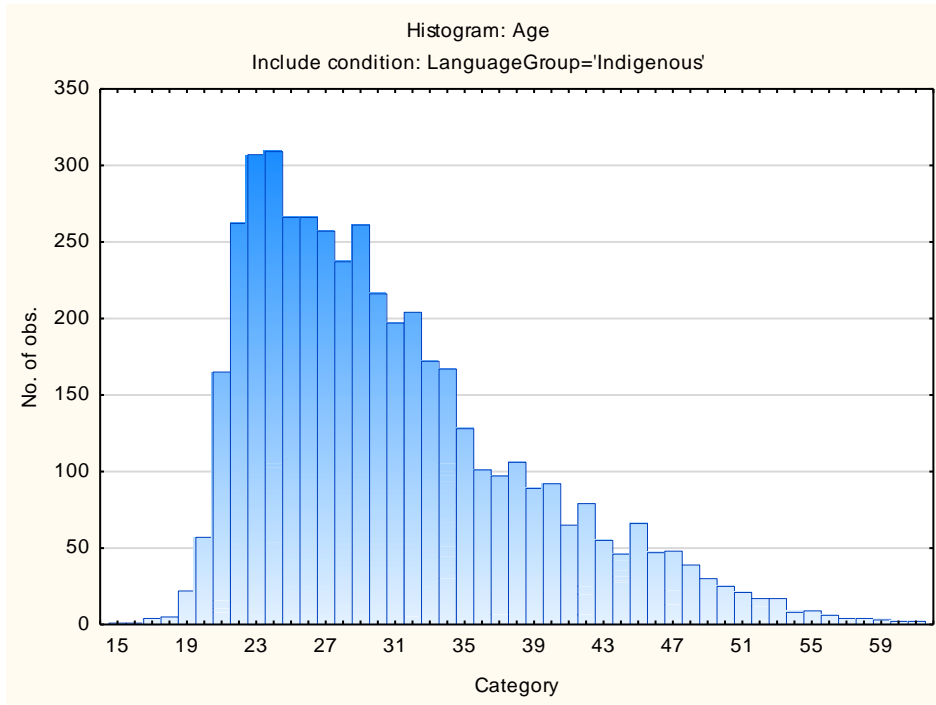
Category	Frequency table: Language Group			
	Count	Cumulative Count	Percent	Cumulative Percent
Indigenous	4734	4734	100,0000	100,0000
Missing	0	4734	0,0000	100,0000

Race Composition of the Sample

Category	Frequency table: Race			
	Count	Cumulative Count	Percent	Cumulative Percent
African	4668	4668	98,60583	98,6058
European	21	4689	0,44360	99,0494
Coloured	14	4703	0,29573	99,3452
Asian	13	4716	0,27461	99,6198
Indian	1	4717	0,02112	99,6409
Unknown	7	4724	0,14787	99,7888
Missing	10	4734	0,21124	100,0000

Age Composition and Distribution of the Sample

Variable	Descriptive Statistics: Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	30,74378	7,864732	15,00000	62,00000	4582	152



Internal consistency reliability on 15FQ+ scales

Scale	Scale description	Cronbach Alpha
fA	Distant Aloof – Empathic	0,51
B	Intellectance	0,66
fC	Affected by Feelings – Emotionally Stable	0,72
fE	Accommodating – Dominant	0,56
fF	Sober Serious – Enthusiastic	0,72
fG	Expedient – Conscientious	0,69
fH	Retiring – Socially-bold	0,74
fI	Hard-headed – Tender-minded	0,63
fL	Trusting – Suspicious	0,66
fM	Concrete – Abstract	0,39
fN	Direct – Restrained	0,55
fO	Confident – Self-doubting	0,60
fQ1	Conventional – Radical	0,52
fQ2	Group-orientated – Self-sufficient	0,65
fQ3	Informal – Self-disciplined	0,49
fQ4	Composed – Tense-driven	0,59

Personality measures should always be interpreted with caution. In cases where the reliability is below 0.65, the results should be interpreted with extreme caution by using additional information for this purpose. The interview prompts report can assist the user in obtaining additional information for the purpose of triangulation, directly from the respondent.

Fifteen Factor Questionnaire (15FQ+)

Reliability: SA isiXhosa Speakers, Updated 2016

Composition of the sample

The sample consisted of 886 isiXhosa speaking South Africans tested by Psytech SA and collaborators, via GeneSys for Windows, in the period up to June 2015.

Gender composition of the sample

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	396	396	44,69526	44,6953
M	488	884	55,07901	99,7743
U	2	886	0,22573	100,0000
Missing	0	886	0,00000	100,0000

Educational Composition of the Sample

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	255	255	28,78104	28,7810
Tertiary	454	709	51,24153	80,0226
Post Graduate	118	827	13,31828	93,3409
< Matric	12	839	1,35440	94,6953
Unknown	5	844	0,56433	95,2596
Missing	42	886	4,74041	100,0000

Language composition of the sample

Category	Frequency table: Language			
	Count	Cumulative Count	Percent	Cumulative Percent
isiXhosa	886	886	100,0000	100,0000
Missing	0	886	0,0000	100,0000

Language Group Composition of the Sample

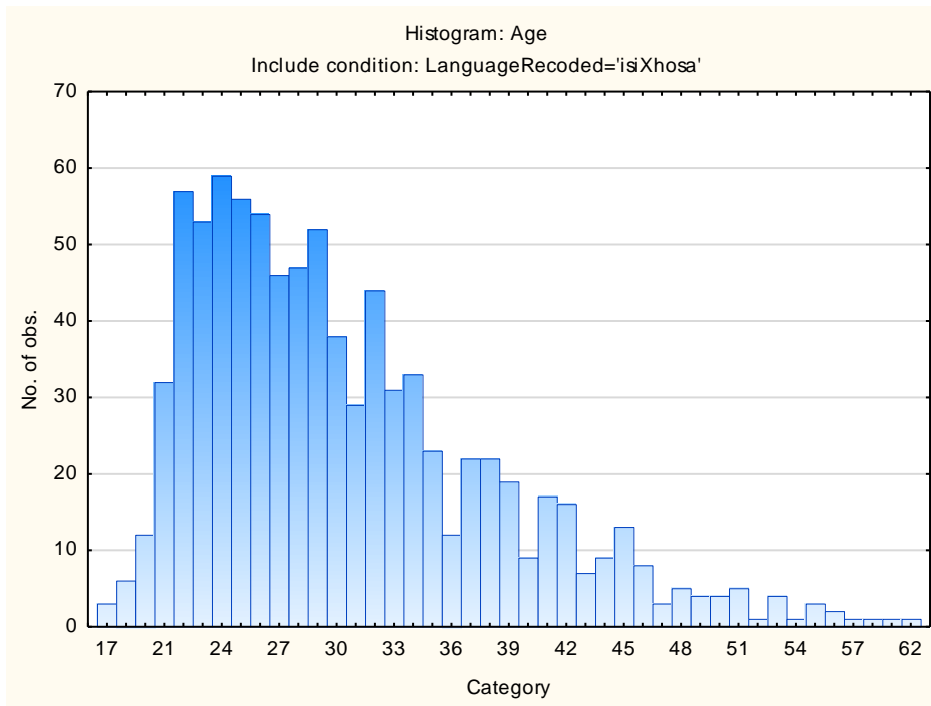
Category	Frequency table: Language Group			
	Count	Cumulative Count	Percent	Cumulative Percent
Indigenous	886	886	100,0000	100,0000
Missing	0	886	0,0000	100,0000

Racial composition of the sample

Category	Frequency table: Race			
	Count	Cumulative Count	Percent	Cumulative Percent
African	879	879	99,20993	99,2099
European	3	882	0,33860	99,5485
Coloured	1	883	0,11287	99,6614
Asian	2	885	0,22573	99,8871
Missing	1	886	0,11287	100,0000

Age Composition and Distribution of the Sample

Variable	Descriptive Statistics: Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	30,40462	7,834248	17,00000	62,00000	865	21



Internal consistency reliability on 15FQ+ scales

Scale	Scale description	Cronbach Alpha
fA	Distant Aloof – Empathic	0,50
B	Intellectance	0,67
fC	Affected by Feelings – Emotionally Stable	0,68
fE	Accommodating – Dominant	0,57
fF	Sober Serious – Enthusiastic	0,70
fG	Expedient – Conscientious	0,70
fH	Retiring – Socially-bold	0,74
fI	Hard-headed – Tender-minded	0,64
fL	Trusting – Suspicious	0,67
fM	Concrete – Abstract	0,41
fN	Direct – Restrained	0,56
fO	Confident – Self-doubting	0,60
fQ1	Conventional – Radical	0,55
fQ2	Group-orientated – Self-sufficient	0,64
fQ3	Informal – Self-disciplined	0,46
fQ4	Composed – Tense-driven	0,57

Personality measures should always be interpreted with caution. In cases where the reliability is below 0.65, the results should be interpreted with extreme caution by using additional information for this purpose. The interview prompts report can assist the user in obtaining additional information for the purpose of triangulation, directly from the respondent.

Fifteen Factor Questionnaire (15FQ+)

Reliability: SA isiZulu Speakers, Updated 2016

Composition of the Sample

The sample consisted of 1426 isiZulu speaking South Africans tested by Psytech SA and collaborators, via GeneSys for Windows, in the period up to June 2015.

Gender Composition of the Sample

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	576	576	40,39271	40,3927
M	848	1424	59,46704	99,8597
U	2	1426	0,14025	100,0000
Missing	0	1426	0,00000	100,0000

Educational Composition of the Sample

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	337	337	23,63254	23,6325
Tertiary	698	1035	48,94811	72,5806
Post Graduate	257	1292	18,02244	90,6031
< Matric	31	1323	2,17391	92,7770
Unknown	5	1328	0,35063	93,1276
Missing	98	1426	6,87237	100,0000

Language Composition of the Sample

Category	Frequency table: Language			
	Count	Cumulative Count	Percent	Cumulative Percent
isiZulu	1426	1426	100,0000	100,0000
Missing	0	1426	0,0000	100,0000

Language Group Composition of the Sample

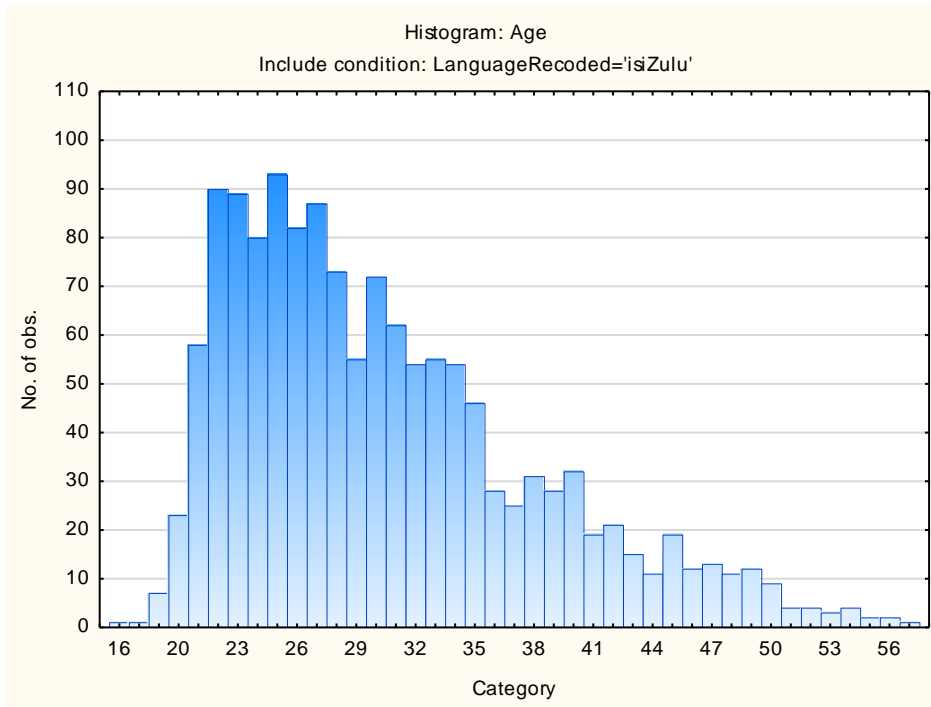
Category	Frequency table: Language Group			
	Count	Cumulative Count	Percent	Cumulative Percent
Indigenous	1426	1426	100,0000	100,0000
Missing	0	1426	0,0000	100,0000

Racial Composition of the Sample

Category	Frequency table: Race			
	Count	Cumulative Count	Percent	Cumulative Percent
African	1408	1408	98,73773	98,7377
European	5	1413	0,35063	99,0884
Coloured	3	1416	0,21038	99,2987
Asian	5	1421	0,35063	99,6494
Indian	1	1422	0,07013	99,7195
Unknown	2	1424	0,14025	99,8597
Missing	2	1426	0,14025	100,0000

Age Composition and Distribution of the Sample

Variable	Descriptive Statistics: Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	30,42651	7,677883	16,00000	58,00000	1388	38



Internal consistency reliability on 15FQ+ scales

Scale	Scale description	Cronbach Alpha
fA	Distant Aloof – Empathic	0,54
B	Intellectance	0,65
fC	Affected by Feelings – Emotionally Stable	0,72
fE	Accommodating – Dominant	0,56
fF	Sober Serious – Enthusiastic	0,71
fG	Expedient – Conscientious	0,71
fH	Retiring – Socially-bold	0,74
fI	Hard-headed – Tender-minded	0,63
fL	Trusting – Suspicious	0,67
fM	Concrete – Abstract	0,38
fN	Direct – Restrained	0,54
fO	Confident – Self-doubting	0,60
fQ1	Conventional – Radical	0,52
fQ2	Group-orientated – Self-sufficient	0,65
fQ3	Informal – Self-disciplined	0,52
fQ4	Composed – Tense-driven	0,60

Personality measures should always be interpreted with caution. In cases where the reliability is below 0.65, the results should be interpreted with extreme caution by using additional information for this purpose. The interview prompts report can assist the user in obtaining additional information for the purpose of triangulation, directly from the respondent.

Fifteen Factor Questionnaire (15FQ+)

Reliability: SA Sepedi Speakers, Updated 2016

Composition of the sample

The sample consisted of 590 Sepedi speaking South Africans tested by Psytech SA and collaborators, via GeneSys for Windows, in the period up to June 2015.

Gender composition of the sample

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	258	258	43,72881	43,7288
M	330	588	55,93220	99,6610
U	2	590	0,33898	100,0000
Missing	0	590	0,00000	100,0000

Educational Composition of the Sample

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	224	224	37,96610	37,9661
Tertiary	229	453	38,81356	76,7797
Post Graduate	54	507	9,15254	85,9322
< Matric	33	540	5,59322	91,5254
Unknown	15	555	2,54237	94,0678
Other	2	557	0,33898	94,4068
Missing	33	590	5,59322	100,0000

Language composition of the sample

Category	Frequency table: Language			
	Count	Cumulative Count	Percent	Cumulative Percent
Sepedi	590	590	100,0000	100,0000
Missing	0	590	0,0000	100,0000

Language Group Composition of the Sample

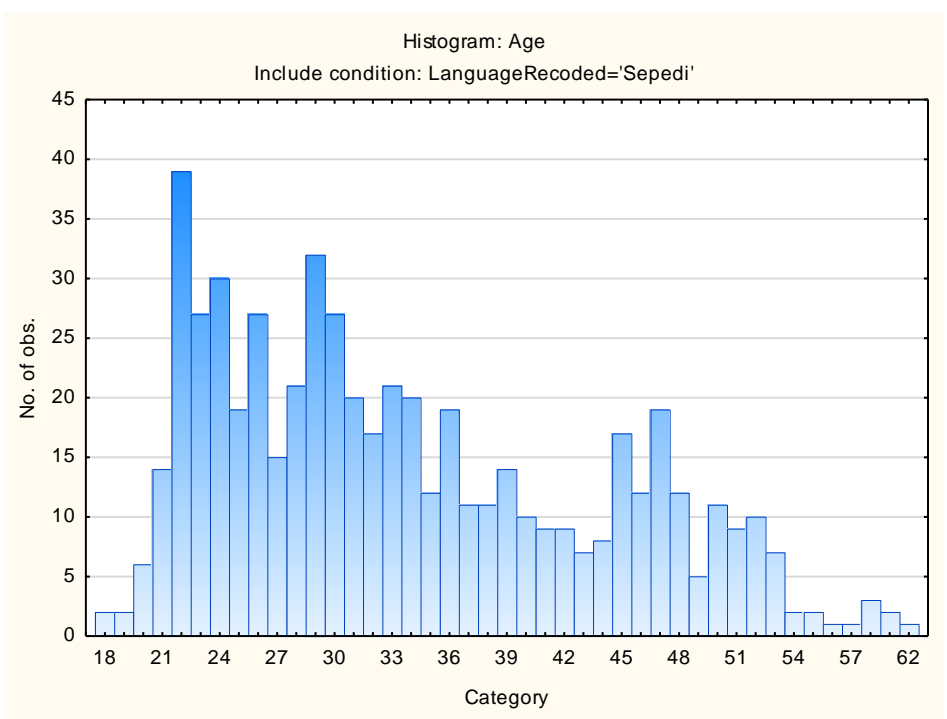
Category	Frequency table: Language Group			
	Count	Cumulative Count	Percent	Cumulative Percent
Indigenous	590	590	100,0000	100,0000
Missing	0	590	0,0000	100,0000

Racial composition of the sample

Category	Frequency table: Race			
	Count	Cumulative Count	Percent	Cumulative Percent
African	570	570	96,61017	96,6102
European	6	576	1,01695	97,6271
Coloured	5	581	0,84746	98,4746
Asian	4	585	0,67797	99,1525
Unknown	5	590	0,84746	100,0000
Missing	0	590	0,00000	100,0000

Age Composition and Distribution of the Sample

Variable	Descriptive Statistics: Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	33,78863	9,819714	18,00000	62,00000	563	27



Internal consistency reliability on 15FQ+ scales

Scale	Scale description	Cronbach Alpha
fA	Distant Aloof – Empathic	0,52
B	Intellectance	0,68
fC	Affected by Feelings – Emotionally Stable	0,73
fE	Accommodating – Dominant	0,53
fF	Sober Serious – Enthusiastic	0,72
fG	Expedient – Conscientious	0,58
fH	Retiring – Socially-bold	0,74
fI	Hard-headed – Tender-minded	0,54
fL	Trusting – Suspicious	0,64
fM	Concrete – Abstract	0,28
fN	Direct – Restrained	0,54
fO	Confident – Self-doubting	0,60
fQ1	Conventional – Radical	0,39
fQ2	Group-orientated – Self-sufficient	0,66
fQ3	Informal – Self-disciplined	0,36
fQ4	Composed – Tense-driven	0,58

Personality measures should always be interpreted with caution. In cases where the reliability is below 0.65, the results should be interpreted with extreme caution by using additional information for this purpose. The interview prompts report can assist the user in obtaining additional information for the purpose of triangulation, directly from the respondent.

Fifteen Factor Questionnaire (15FQ+)

Reliability: SA Sesotho Speakers, Updated 2016

Composition of the sample

The sample consisted of 664 Sesotho speaking South Africans tested by Psytech SA and collaborators, via GeneSys for Windows, in the period up to June 2015.

Gender composition of the sample

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	262	262	39,45783	39,4578
M	401	663	60,39157	99,8494
U	1	664	0,15060	100,0000
Missing	0	664	0,00000	100,0000

Educational Composition of the Sample

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	170	170	25,60241	25,6024
Tertiary	344	514	51,80723	77,4096
Post Graduate	99	613	14,90964	92,3193
< Matric	13	626	1,95783	94,2771
Unknown	2	628	0,30120	94,5783
Other	1	629	0,15060	94,7289
Missing	35	664	5,27108	100,0000

Language composition of the sample

Category	Frequency table: Language			
	Count	Cumulative Count	Percent	Cumulative Percent
Sesotho	664	664	100,0000	100,0000
Missing	0	664	0,0000	100,0000

Language Group Composition of the Sample

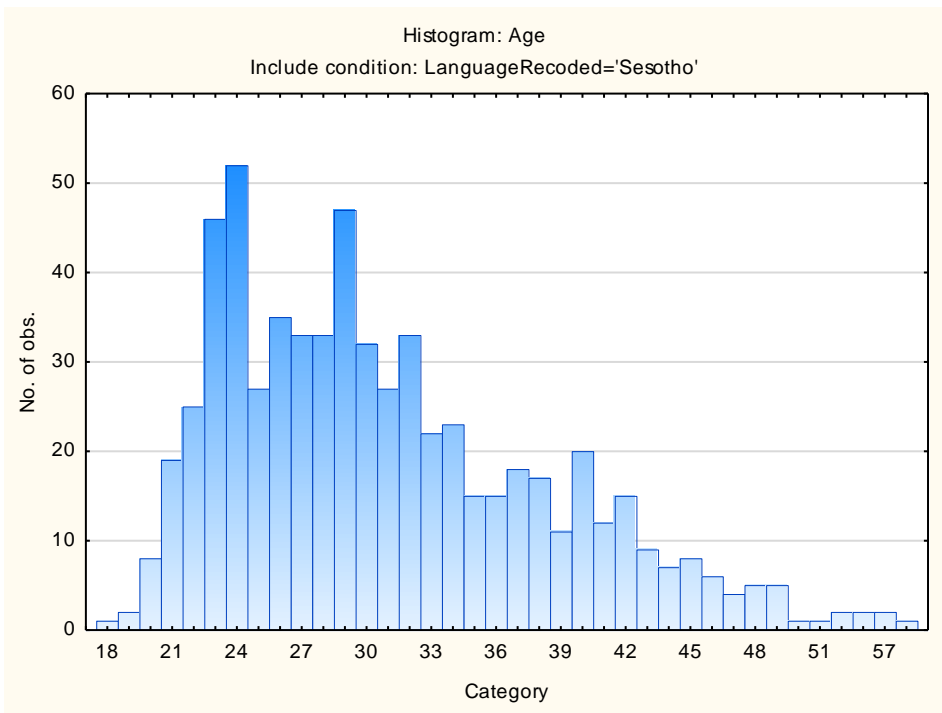
Category	Frequency table: Language Group			
	Count	Cumulative Count	Percent	Cumulative Percent
Indigenous	664	664	100,0000	100,0000
Missing	0	664	0,0000	100,0000

Racial Composition of the Sample

Category	Frequency table: Race			
	Count	Cumulative Count	Percent	Cumulative Percent
African	657	657	98,94578	98,9458
European	2	659	0,30120	99,2470
Coloured	1	660	0,15060	99,3976
Missing	4	664	0,60241	100,0000

Age Composition and Distribution of the Sample

Variable	Descriptive Statistics: Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	30,90796	7,477212	18,00000	60,00000	641	23



Internal consistency reliability on 15FQ+ scales

Scale	Scale description	Cronbach Alpha
fA	Distant Aloof – Empathic	0,43
B	Intellectance	0,66
fC	Affected by Feelings – Emotionally Stable	0,74
fE	Accommodating – Dominant	0,58
fF	Sober Serious – Enthusiastic	0,72
fG	Expedient – Conscientious	0,71
fH	Retiring – Socially-bold	0,74
fI	Hard-headed – Tender-minded	0,63
fL	Trusting – Suspicious	0,64
fM	Concrete – Abstract	0,44
fN	Direct – Restrained	0,58
fO	Confident – Self-doubting	0,66
fQ1	Conventional – Radical	0,52
fQ2	Group-orientated – Self-sufficient	0,61
fQ3	Informal – Self-disciplined	0,53
fQ4	Composed – Tense-driven	0,56

Personality measures should always be interpreted with caution. In cases where the reliability is below 0.65, the results should be interpreted with extreme caution by using additional information for this purpose. The interview prompts report can assist the user in obtaining additional information for the purpose of triangulation, directly from the respondent.

Fifteen Factor Questionnaire (15FQ+)

Reliability: SA siSwati Speakers, Updated 2016

Composition of the sample

The sample consisted of 112 siSwati speaking South Africans tested by Psytech SA and collaborators, via GeneSys for Windows, in the period up to June 2015.

Gender composition of the sample

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	44	44	39,28571	39,2857
M	68	112	60,71429	100,0000
Missing	0	112	0,00000	100,0000

Educational Composition of the Sample

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	33	33	29,46429	29,4643
Tertiary	56	89	50,00000	79,4643
Post Graduate	18	107	16,07143	95,5357
< Matric	2	109	1,78571	97,3214
Missing	3	112	2,67857	100,0000

Language composition of the sample

Category	Frequency table: Language			
	Count	Cumulative Count	Percent	Cumulative Percent
siSwati	112	112	100,0000	100,0000
Missing	0	112	0,0000	100,0000

Language Group Composition of the Sample

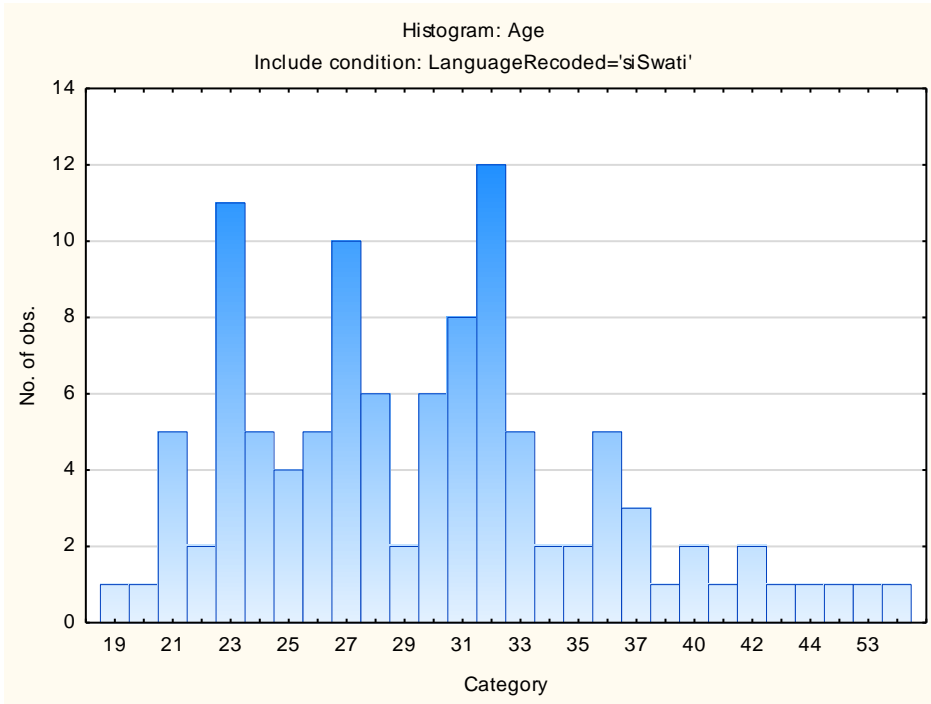
Category	Frequency table: Language Group			
	Count	Cumulative Count	Percent	Cumulative Percent
Indigenous	112	112	100,0000	100,0000
Missing	0	112	0,0000	100,0000

Racial composition of the sample

Category	Frequency table: Race			
	Count	Cumulative Count	Percent	Cumulative Percent
African	109	109	97,32143	97,3214
European	2	111	1,78571	99,1071
Missing	1	112	0,89286	100,0000

Age Composition and Distribution of the Sample

Variable	Descriptive Statistics: Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	29,98113	6,721651	19,00000	55,00000	106	6



Internal consistency reliability on 15FQ+ scales

Scale	Scale description	Cronbach Alpha
fA	Distant Aloof – Empathic	0,65
B	Intellectance	0,69
fC	Affected by Feelings – Emotionally Stable	0,75
fE	Accommodating – Dominant	0,58
fF	Sober Serious – Enthusiastic	0,80
fG	Expedient – Conscientious	0,74
fH	Retiring – Socially-bold	0,77
fI	Hard-headed – Tender-minded	0,64
fL	Trusting – Suspicious	0,63
fM	Concrete – Abstract	0,42
fN	Direct – Restrained	0,57
fO	Confident – Self-doubting	0,61
fQ1	Conventional – Radical	0,66
fQ2	Group-orientated – Self-sufficient	0,70
fQ3	Informal – Self-disciplined	0,45
fQ4	Composed – Tense-driven	0,56

Personality measures should always be interpreted with caution. In cases where the reliability is below 0.65, the results should be interpreted with extreme caution by using additional information for this purpose. The interview prompts report can assist the user in obtaining additional information for the purpose of triangulation, directly from the respondent.

Fifteen Factor Questionnaire (15FQ+)

Reliability: SA Tshivenda Speakers, Updated 2016

Composition of the sample

The sample consisted of 149 Tshivenda speaking South Africans tested by Psytech SA and collaborators, via GeneSys for Windows, in the period up to June 2015.

Gender composition of the sample

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	51	51	34,22819	34,2282
M	98	149	65,77181	100,0000
Missing	0	149	0,00000	100,0000

Educational Composition of the Sample

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	21	21	14,09396	14,0940
Tertiary	94	115	63,08725	77,1812
Post Graduate	19	134	12,75168	89,9329
< Matric	1	135	0,67114	90,6040
Missing	14	149	9,39597	100,0000

Language composition of the sample

Category	Frequency table: Language			
	Count	Cumulative Count	Percent	Cumulative Percent
Tshivenda	149	149	100,0000	100,0000
Missing	0	149	0,0000	100,0000

Language Group Composition of the Sample

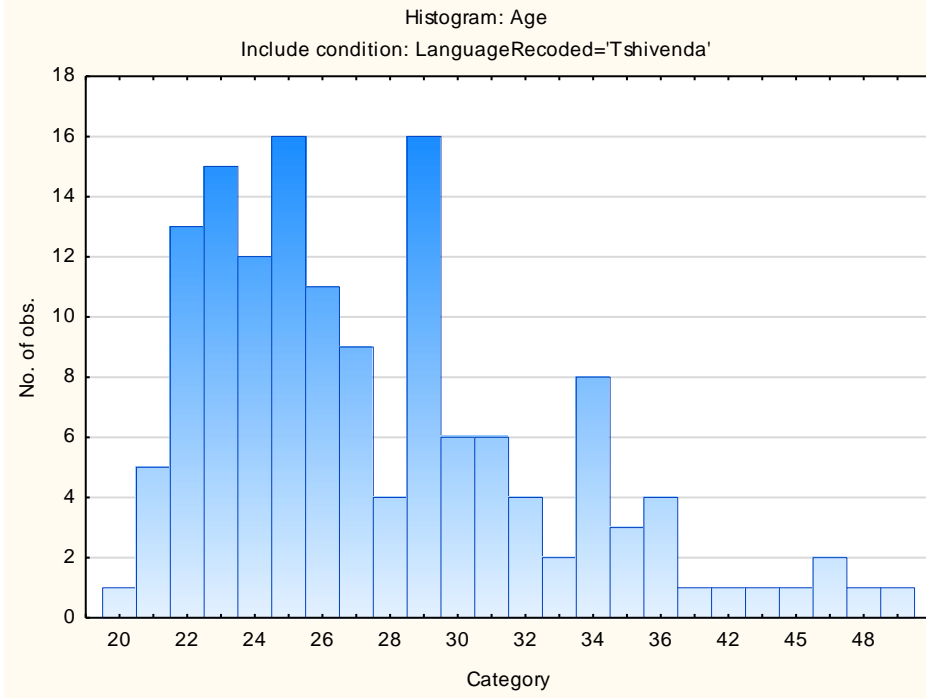
Category	Frequency table: Language Group			
	Count	Cumulative Count	Percent	Cumulative Percent
Indigenous	149	149	100,0000	100,0000
Missing	0	149	0,0000	100,0000

Racial composition of the sample

Category	Frequency table: Race			
	Count	Cumulative Count	Percent	Cumulative Percent
African	147	147	98,65772	98,6577
European	1	148	0,67114	99,3289
Asian	1	149	0,67114	100,0000
Missing	0	149	0,00000	100,0000

Age Composition and Distribution of the Sample

Variable	Descriptive Statistics: Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	27,90909	5,874161	20,00000	51,00000	143	6



Internal consistency reliability on 15FQ+ scales

Scale	Scale description	Cronbach Alpha
fA	Distant Aloof – Empathic	0,40
B	Intellectance	0,63
fC	Affected by Feelings – Emotionally Stable	0,71
fE	Accommodating – Dominant	0,57
fF	Sober Serious – Enthusiastic	0,69
fG	Expedient – Conscientious	0,64
fH	Retiring – Socially-bold	0,76
fI	Hard-headed – Tender-minded	0,54
fL	Trusting – Suspicious	0,54
fM	Concrete – Abstract	0,21
fN	Direct – Restrained	0,56
fO	Confident – Self-doubting	0,52
fQ1	Conventional – Radical	0,44
fQ2	Group-orientated – Self-sufficient	0,68
fQ3	Informal – Self-disciplined	0,19
fQ4	Composed – Tense-driven	0,61

Personality measures should always be interpreted with caution. In cases where the reliability is below 0.65, the results should be interpreted with extreme caution by using additional information for this purpose. The interview prompts report can assist the user in obtaining additional information for the purpose of triangulation, directly from the respondent.

Fifteen Factor Questionnaire (15FQ+)

Reliability: SA Xitsonga Speakers, Updated 2016

Composition of the Sample

The sample consisted of 192 Xitsonga speaking South Africans tested by Psytech SA and collaborators, via GeneSys for Windows, in the period up to June 2015.

Gender Composition of the Sample

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	64	64	33,33333	33,3333
M	128	192	66,66667	100,0000
Missing	0	192	0,00000	100,0000

Educational Composition of the Sample

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	56	56	29,16667	29,1667
Tertiary	89	145	46,35417	75,5208
Post Graduate	37	182	19,27083	94,7917
< Matric	2	184	1,04167	95,8333
Missing	8	192	4,16667	100,0000

Language Composition of the Sample

Category	Frequency table: Language			
	Count	Cumulative Count	Percent	Cumulative Percent
Xitsonga	192	192	100,0000	100,0000
Missing	0	192	0,0000	100,0000

Language Group Composition of the Sample

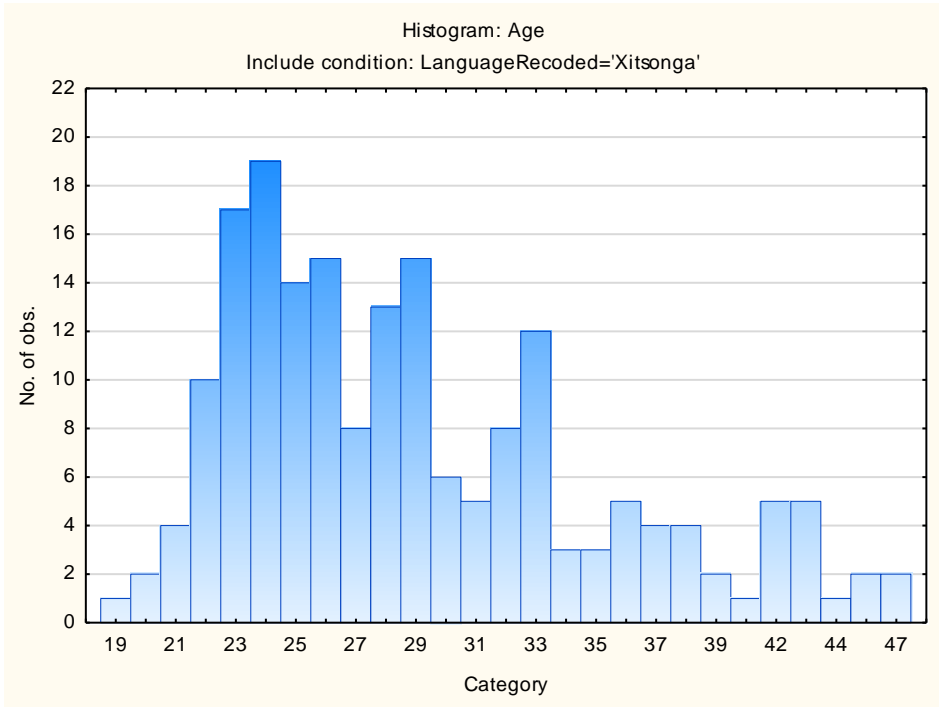
Category	Frequency table: Language Group			
	Count	Cumulative Count	Percent	Cumulative Percent
Indigenous	192	192	100,0000	100,0000
Missing	0	192	0,0000	100,0000

Racial Composition of the Sample

Category	Frequency table: Race			
	Count	Cumulative Count	Percent	Cumulative Percent
African	191	191	99,47917	99,4792
European	1	192	0,52083	100,0000
Missing	0	192	0,00000	100,0000

Age Composition and Distribution of the Sample

Variable	Descriptive Statistics: Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	29,08602	6,293121	19,00000	47,00000	186	6



Internal consistency reliability on 15FQ+ scales

Scale	Scale description	Cronbach Alpha
fA	Distant Aloof – Empathic	0,44
B	Intellectance	0,62
fC	Affected by Feelings – Emotionally Stable	0,68
fE	Accommodating – Dominant	0,57
fF	Sober Serious – Enthusiastic	0,76
fG	Expedient – Conscientious	0,72
fH	Retiring – Socially-bold	0,73
fI	Hard-headed – Tender-minded	0,62
fL	Trusting – Suspicious	0,65
fM	Concrete – Abstract	0,43
fN	Direct – Restrained	0,42
fO	Confident – Self-doubting	0,60
fQ1	Conventional – Radical	0,53
fQ2	Group-orientated – Self-sufficient	0,60
fQ3	Informal – Self-disciplined	0,55
fQ4	Composed – Tense-driven	0,63

Personality measures should always be interpreted with caution. In cases where the reliability is below 0.65, the results should be interpreted with extreme caution by using additional information for this purpose. The interview prompts report can assist the user in obtaining additional information for the purpose of triangulation, directly from the respondent.

Fifteen Factor Questionnaire (15FQ+)

Reliability: SA Setswana Speakers, Updated 2016

Composition of the Sample

Compiled from raw data on 660 respondents submitted by various clients as well as collected by Psytech SA and collaborators, via GeneSys for Windows, in the period up to June 2015.

Gender Composition of the Sample

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
F	299	299	45,30303	45,3030
M	358	657	54,24242	99,5455
U	3	660	0,45455	100,0000
Missing	0	660	0,00000	100,0000

Educational Composition of the Sample

Category	Frequency table: Education			
	Count	Cumulative Count	Percent	Cumulative Percent
Grade 12	173	173	26,21212	26,2121
Tertiary	352	525	53,33333	79,5455
Post Graduate	75	600	11,36364	90,9091
< Matric	16	616	2,42424	93,3333
Unknown	1	617	0,15152	93,4848
Missing	43	660	6,51515	100,0000

Language Composition of the Sample

Category	Frequency table: Language			
	Count	Cumulative Count	Percent	Cumulative Percent
Setswana	660	660	100,0000	100,0000
Missing	0	660	0,0000	100,0000

Language Group Composition of the Sample

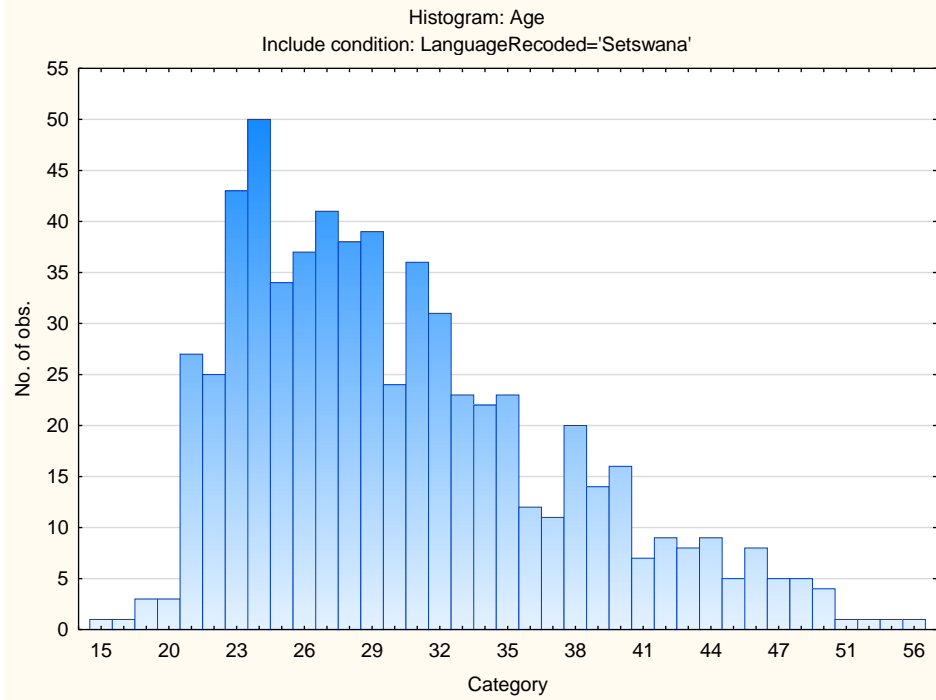
Category	Frequency table: Language Group			
	Count	Cumulative Count	Percent	Cumulative Percent
Indigenous	660	660	100,0000	100,0000
Missing	0	660	0,0000	100,0000

Racial Composition of the Sample

Category	Frequency table: Race			
	Count	Cumulative Count	Percent	Cumulative Percent
African	652	652	98,78788	98,7879
European	1	653	0,15152	98,9394
Coloured	4	657	0,60606	99,5455
Asian	1	658	0,15152	99,6970
Missing	2	660	0,30303	100,0000

Age Composition and Distribution of the Sample

Variable	Descriptive Statistics: Age					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	30,37618	7,107132	15,00000	56,00000	638	22



Internal Consistency Reliability on 15FQ+ Scales

Scale	Scale description	Cronbach Alpha
fA	Distant Aloof – Empathic	0,52
B	Intellectance	0,64
fC	Affected by Feelings – Emotionally Stable	0,73
fE	Accommodating – Dominant	0,55
fF	Sober Serious – Enthusiastic	0,73
fG	Expedient – Conscientious	0,70
fH	Retiring – Socially-bold	0,75
fI	Hard-headed – Tender-minded	0,66
fL	Trusting – Suspicious	0,66
fM	Concrete – Abstract	0,47
fN	Direct – Restrained	0,60
fO	Confident – Self-doubting	0,54
fQ1	Conventional – Radical	0,50
fQ2	Group-orientated – Self-sufficient	0,65
fQ3	Informal – Self-disciplined	0,41
fQ4	Composed – Tense-driven	0,62

Personality measures should always be interpreted with caution. In cases where the reliability is below 0.65, the results should be interpreted with extreme caution by using additional information for this purpose. The interview prompts report can assist the user in obtaining additional information for the purpose of triangulation, directly from the respondent.

The Fifteen Factor Questionnaire Plus (15FQ+)

Validity Introduction

The 15FQ+ technical manual covers the concept of validity, the different types of validity and refers to a range of validation studies done internationally with the 15FQ+. Users are encouraged to familiarise themselves with this information and to use the South African studies mentioned here, as supplementary information.

Recommendations

Users are strongly encouraged to do validation studies on the instruments they use within their organisations or within their industry sectors, by co-operating with other organisations in the same industry. In some cases this may mean sharing information with organisations that are potential competitors. In the interest of professionalism, users are encouraged to overcome their reservations in this regard, since co-operation is in their interest. Psytech South Africa provides extensive support for validation studies done on its instruments, and users are welcome to contact their representatives in this regard.

For construct validation studies, it is necessary to assess the domain of personality with more than one instrument on the same respondents. This may seem like an unnecessary expense at first, but it is worthwhile to verify how personality questionnaires relate to one another, particularly if one is still introducing a new questionnaire.

Predictive validation studies can be done against competency ratings, or against 'hard' data like production or sales figures. It is preferable to use both types of criterion information, because that enables one to validate the competency ratings as well.

List of South African validity studies done on the 15FQ+

Study	Validity type	Number
Predicting insurance sales success	Predictive	V1
Predicting managerial competency ratings	Predictive	V2
Correlations with OPQ32n	Construct	V3
Correlations with VMI	Construct	V4
Correlations with OPP	Construct	V5
Predicting performance ratings in petrochemical industry	Predictive	V6
Predicting managerial performance ratings – manufacturing industry	Predictive	V7
Predicting interview ratings	Predictive	V8
Correlations with OPP	Construct	V9
Predicting accidents and sick leave	Predictive	V10

15FQ+ Predictive validity

Prediction of insurance sales success with the 15FQ+ and Critical Reasoning Test Battery version 2.

The sample consisted of 84 insurance sales agents working for a major South African insurance group.

The 15FQ+ and Critical Reasoning Test Version 2 battery were used to predict production and the number of policies sold. A full year's production was taken into account for every respondent.

Prediction of Production

Multiple R: .662025378

Multiple R-Square: .438277601

Adjusted R-Square: .369960012

Number of cases: 84

F (9, 74) = 6.415297 **p < .000001**

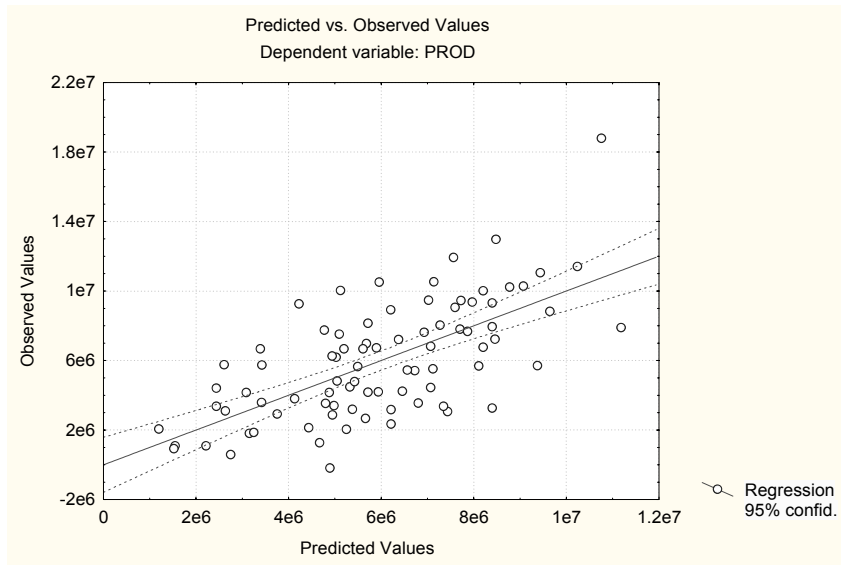
Standard Error of Estimate: 2660025.8945

Intercept: 24530.615142 Std.Error: 2315844. t(74) = .01059 p < .991577

no other F to enter exceeds specified limit

N=84	Agents with high production have these characteristics	BETA	St. Err. ofBETA	B	St .Err. ofB	t(74)	p-level
Intercpt				24531.	2315843.	.01059	.991577
F	Enthusiastic	.329522	.107186	229170.	74544.	3.07431	.002954
NCR2	High numerical critical reasoning	.277234	.100438	194493.	70462.	2.76026	.007277
B	Intellectually modest	-.341892	.099295	-210758.	61210.	-3.44320	.000950
A	Cool	.329152	.111062	259242.	87473.	2.96369	.004087
I	Tough Minded	-.312510	.113120	-195430.	70740.	-2.76264	.007229
M	Abstract	.075830	.108079	53750.	76609.	.70162	.485120
L	Trusting	-.168135	.103560	-106352.	65506.	-1.62355	.108725
Q2	Self sufficient	.187102	.115164	124872.	76861.	1.62466	.108487
H	Socially bold	.130365	.116878	70204.	62941.	1.11539	.268293

The accuracy of the prediction is depicted in the following graph



Prediction of the number of policies sold

Multiple R: .624855694

Multiple R-Square: .390444638

Adjusted R-Square: .326280916

Number of cases: 85

F (8, 76) = 6.085131 **p < .000005**

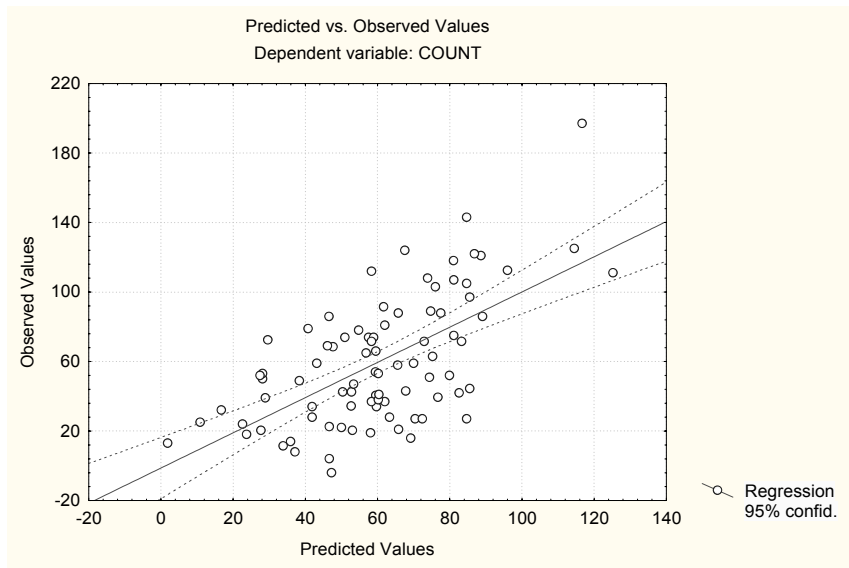
Standard Error of Estimate: 30.038621198

Intercept: -7.297868241 Std.Error: 28.43678 t(76) = -.2566 p < .798154

no other F to enter exceeds specified limit

N=85	Agents who sell large numbers of policies have the following characteristics	BETA	St. Err. Of BETA	B	St. Err. Of B	t(76)	p-level
Intercpt				-7.29787	28.43678	-.25663	.798154
F	Enthusiastic	.465582	.108981	3.55321	.83172	4.27213	.000055
B	Intellectually modest	-.325062	.095154	-2.19870	.64361	-3.41617	.001023
O	Apprehensive	.177561	.107015	.96604	.58222	1.65922	.101193
H	Socially bold	.249469	.120482	1.46669	.70834	2.07060	.041792
I	Tough minded	-.258900	.111130	-1.77866	.76347	-2.32971	.022479
Q2	Self sufficient	.240870	.116654	1.74725	.84620	2.06482	.042351
A	Warmhearted	.210390	.115689	1.80150	.99061	1.81858	.072915
L	Trusting	-.124439	.104357	-.86217	.72303	-1.19244	.236799

The accuracy of the prediction is shown in the following graph



15FQ+ Concurrent Validity: Using 15FQ+ and Values and Motives Inventory to predict managerial competency ratings in the insurance industry

Sample composition

Sample consisted of a group of senior managers with a major South Africa insurance company. Data were collected between 2001 and 2003.

Frequency table: Sex				
Category	Count	Cumulative Count	Percent	Cumulative Percent
F	24	24	15.00000	15.0000
M	136	160	85.00000	100.0000
Missing	0	160	0.00000	100.0000

Descriptive Statistics						
Variable	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	39.78750	6.572659	25.00000	56.00000	160	0

Conceptual

Discriminant Function Analysis Summary						
Step 15, N of vars in model: 15; Grouping: Conceptual (4 grps)						
Wilks' Lambda: .30478 approx. F (45,187)=2.0538 p< .0004						
N=81	Wilks' Lambda	Partial Lambda	F-remove (3,63)	p-level	Toler.	1-Toler. (R-Sqr.)
VMI_ALTR	0.363332	0.838834	4.034742	0.010903	0.564744	0.435256
15FQ+ fL	0.354459	0.859833	3.423345	0.022412	0.657354	0.342646
15FQ+ fQ3	0.351524	0.867012	3.221103	0.028500	0.643694	0.356306
15FQ+ fQ4	0.348255	0.875152	2.995838	0.037284	0.637467	0.362533
VMI_AFFE	0.346882	0.878613	2.901297	0.041744	0.510245	0.489755
VMI_NACH	0.335745	0.907760	2.133872	0.104786	0.807657	0.192343
VMI_INDE	0.332497	0.916627	1.910075	0.137012	0.620678	0.379322
VMI_SAFE	0.329510	0.924935	1.704299	0.175158	0.697943	0.302057
15FQ+ fF	0.328825	0.926863	1.657082	0.185278	0.604100	0.395900
15FQ+ fG	0.328680	0.927271	1.647104	0.187489	0.702627	0.297373
15FQ+ fI	0.325701	0.935754	1.441803	0.239046	0.677581	0.322419
15FQ+ B	0.322215	0.945877	1.201612	0.316509	0.561416	0.438584
15FQ+ fO	0.320761	0.950163	1.101479	0.355233	0.480968	0.519033
15FQ+ fM	0.319441	0.954091	1.010470	0.394100	0.598480	0.401520
VMI_ETHI	0.313796	0.971255	0.621510	0.603701	0.719505	0.280495

The Lambda statistic indicates a reasonably strong relationship, highly statistically significant. The following variables made the greatest contribution to classifying the respondents into categories for this competency:

- Altruism
- Trusting-suspicious fL
- Self-disciplined fQ3
- Tense-driven fQ4

The way in which the psychometric variables should be used to calculate the percentage probability with which a given respondent would fall in a given category, is different for every category, as the table below shows:

The weights differ for each of the categories, and the constants to be added differ considerably.

Variable	Classification Functions; grouping: Conceptual				
	Description	Concrete p=.02469	Analytical p=.23457	Integrative p=.46914	Abstract p=.27160
VMI_NACH	Achievement	3.897	3.416	3.141	3.379
VMI_ETHI	Ethical-transcendental	1.294	0.961	0.955	0.946
VMI_ALTR	Altruism	1.834	1.185	1.434	1.413
VMI_AFFE	Affection	0.530	0.508	0.274	0.373
15FQ+ fQ4	Tense-driver	0.906	0.356	0.512	0.445
15FQ+ fQ3	Self-disciplined	1.989	1.903	1.622	1.790
15FQ+ fL	Trusting-suspicious	-0.386	-0.037	0.002	0.235
15FQ+ fO	Self-assured	-0.459	-0.061	-0.084	-0.138
15FQ+ fF	Sober-serious	-0.605	-0.177	-0.152	-0.132
15FQ+ fI	Tender minded	1.000	0.728	0.595	0.708
15FQ+ fM	Concrete	-0.876	-0.664	-0.558	-0.534
VMI_INDE	Independence	2.101	1.711	1.802	1.491
VMI_SAFE	Security	0.385	0.706	0.652	0.792
15FQ+ fG	Expedient	-0.094	-0.338	-0.250	-0.402
15FQ+ B	Intellectance	2.541	2.859	2.632	2.901
Constant		-221.847	-163.398	-151.634	-165.498

The following table indicates the accuracy with which it is possible to classify respondents in each of the categories, using the classification formulas above:

Group	Classification Matrix				
	Percent Correct	Concrete p=.02469	Analytical p=.23457	Integrative p=.46914	Abstract p=.27160
Concrete thinking and processing	100.0000	2	0	0	0
Analytical and explorative thinking	68.4210	0	13	5	1
Integrative style	84.2105	0	1	32	5
Abstract conceptualisation	40.9091	0	5	8	9
Total	69.1358	2	19	45	15

Note that while the accuracy for category Concrete is 100%, there were only two people who fell in that category. For the more populous categories (Analytical and integrative), reasonably good accuracy was achieved.

Networking

Discriminant Function Analysis Summary Step 10, N of vars in model: 10; Grouping: Networking (4 grps) Wilks' Lambda: .44373 approx. F (30,200)=2.1291 p< .0012						
N=81	Wilks' Lambda	Partial Lambda	F-remove (3,68)	p-level	Toler.	1-Toler. (R-Sqr.)
VMI_AFFI	0.531592	0.834716	4.488272	0.006207	0.675813	0.324188
VMI_TRAD	0.520196	0.853001	3.906174	0.012338	0.713441	0.286560
VMI_AEST	0.507069	0.875084	3.235616	0.027496	0.365030	0.634970
VMI_ALTR	0.498059	0.890915	2.775341	0.047882	0.537946	0.462054
15FQ+_fQ4	0.494270	0.897744	2.581808	0.060499	0.770921	0.229079
15FQ+_fO	0.490216	0.905168	2.374718	0.077716	0.615056	0.384944
15FQ+_fA	0.486187	0.912669	2.168928	0.099664	0.666973	0.333027
15FQ+_fI	0.483843	0.917091	2.049166	0.115166	0.453508	0.546492
VMI_INDE	0.479306	0.925772	1.817409	0.152226	0.613750	0.386250
15FQ+_fN	0.470969	0.942160	1.391529	0.252858	0.723656	0.276344

A reasonably strong relationship was found, highly statistically significant. The variables, which were most important in classifying people into categories on the Networking competency, were:

- Affiliation
- Traditional
- Aesthetic
- Altruism

Classification Functions; grouping: Networking					
Variable	Description	Transactional p=.03704	Functional p=.46914	Shared values p=.43210	Collaborative p=.06173
VMI_AFFI	Affiliation	0.313	0.442	0.609	0.651
15FQ+_fQ4	Tense-driven	0.382	0.347	0.429	0.670
15FQ+_fO	Self-assured	-0.756	-1.095	-1.153	-1.195
VMI_TRAD	Traditional	2.036	2.549	2.351	2.320
15FQ+_fI	Tender-minded	0.681	1.098	1.167	1.296
15FQ+_fN	Restrained	1.300	1.600	1.633	1.655
VMI_AEST	Low aesthetic	-0.412	-0.859	-0.750	-0.737
VMI_INDE	Independence	3.652	4.240	4.051	4.014
VMI_ALTR	Altruism	1.906	2.108	1.917	1.805
15FQ+_fA	Distant-alooof	-0.525	-0.552	-0.393	-0.246
Constant		-103.953	-125.282	-122.849	-128.576

Group	Classification Matrix (Leadership-data merged.sta)				
	Percent Correct	Transactional p=.03704	Functional p=.46914	Shared values p=.43210	Collaborative p=.06173
Transactional relationship building	66.66666	2	1	0	0
Functional	81.57895	0	31	7	0
Shared values networker	77.14286	0	7	27	1
Collaborative networker	40.00000	0	0	3	2
Total	76.54321	2	39	37	3

The classification functions classified the respondents in the more populous categories (Functional and Shared Values) with a good degree of accuracy.

Results orientation

N=81	Discriminant Function Analysis Summary				
	Wilks' Lambda	Partial Lambda	F-remove (2,72)	p-level	Toler.
VMI_AFFE	0.724293	0.969042	1.150080	0.322358	0.676544
VMI_ETHI	0.740522	0.947804	1.982522	0.145169	0.852859
VMI_SAFE	0.725235	0.967783	1.198424	0.307614	0.906536
VMI_AFFI	0.737891	0.951184	1.847579	0.165013	0.653493
15FQ+_fC	0.740326	0.948056	1.972441	0.146563	0.698582
15FQ+_fQ4	0.733487	0.956896	1.621651	0.204705	0.730742
15FQ+_B	0.728859	0.962972	1.384273	0.257092	0.937848

The relationship for Results Orientation was modest but still highly statistically significant. None of the psychometric variables achieved statistical significance in their own right, but the combined effect was significant.

Variable	Classification Functions; grouping: Results Orientation			
	Description	Driver p=.34568	Sense of urgency p=.56790	Passion for results p=.08642
VMI_AFFE	Affection	0.5116	0.5692	0.6383
VMI_ETHI	Ethical-transcendental	0.9289	0.9154	0.7135
VMI_SAFE	Security	0.4341	0.5195	0.5062
VMI_AFFI	Affiliation	0.5384	0.5036	0.6636
15FQ+_fC	Emotionally stable	0.9299	1.0444	0.9317
15FQ+_fQ4	Tense-driver	0.7698	0.8573	0.9159
15FQ+_B	Intellectance	2.7951	2.6436	2.7352
Constant		-74.2361	-75.2468	-82.0991

Group	Classification Matrix			
	Percent Correct	Driver p=.34568	Sense of urgency p=.56790	Passion for results p=.08642
Driver	39.28571	11	17	0
Sense of urgency	86.95652	6	40	0
Passion for results	42.85714	1	3	3
Total	66.66666	18	60	3

Only three rating categories were represented. Most ratings gravitated towards ‘sense of urgency’, which was very accurately predicted. The other categories were not predicted as well.

Client and people orientation

Discriminant Function Analysis Summary						
Step 13, N of vars in model: 13; Grouping: Client and People (3 grps)						
Wilks' Lambda: .48915 approx. F (26,132)=2.1821 p< .0022						
N=81	Wilks' Lambda	Partial Lambda	F-remove (2,66)	p-level	Toler.	1-Toler. (R-Sqr.)
VMI_TRAD	0.561377	0.871348	4.872364	0.010625	0.616114	0.383886
VMI_ETHI	0.556070	0.879664	4.514343	0.014536	0.604932	0.395068
VMI_AFFI	0.545567	0.896598	3.805779	0.027273	0.234809	0.765192
15FQ+ fL	0.542803	0.901164	3.619328	0.032249	0.660810	0.339190
VMI_SAFE	0.538986	0.907547	3.361763	0.040708	0.745708	0.254292
15FQ+ fN	0.535224	0.913925	3.107983	0.051292	0.574705	0.425295
15FQ+ fG	0.525696	0.930490	2.465190	0.092786	0.764452	0.235548
VMI_INDE	0.525078	0.931585	2.423491	0.096460	0.578457	0.421543
15FQ+ fl	0.524895	0.931909	2.411170	0.097573	0.724822	0.275178
15FQ+ fQ3	0.521719	0.937582	2.196926	0.119208	0.499601	0.500400
15FQ+ fA	0.520382	0.939991	2.106721	0.129742	0.633084	0.366916
15FQ+ fQ2	0.511036	0.957183	1.476175	0.235956	0.262254	0.737746
15FQ+ fF	0.508124	0.962668	1.279727	0.284923	0.410089	0.589911

A reasonably strong relationship was found, highly significant.

The variables that were important in predicting Client and People orientation were:

- Traditional
- Ethical
- Affiliation
- Trusting-suspicious
- Safety

Classification Functions; grouping: Client and People Orientation				
Variable	Description	Reconciler p=.46914	Champion p=.44444	Advocate p=.08642
15FQ+ fN	Restrained	1.525	1.608	1.283
15FQ+ fA	Empathic	0.416	0.410	0.692
VMI_TRAD	Traditional	2.235	2.094	1.733
15FQ+ fQ3	Informa	-0.810	-0.742	-0.466
VMI_SAFE	Security	-0.014	0.144	0.190
VMI_ETHI	Ethical/transcendental	1.134	0.934	0.845
15FQ+ fl	Tender mindec	0.281	0.391	0.525
VMI_AFFI	Affiliation	2.568	2.619	3.021
15FQ+ fQ2	Self-sufficient	3.212	3.168	3.444
15FQ+ fG	Expedient	-0.063	-0.086	-0.336
15FQ+ fL	Trusting	-1.244	-1.208	-0.818
VMI_INDE	Independence	4.896	4.843	4.361
15FQ+ fF	Enthusiastic	0.572	0.527	0.333
Constant		-160.537	-158.478	-160.869

Group	Classification Matrix			
	Percent Correct	Reconciler p=.46914	Champion p=.44444	Advocate p=.08642
Reconciler	76.31579	29	9	0
Champion	58.33333	13	21	2
Advocate	85.71429	1	0	6
Total	69.13580	43	30	8

Facilitating

N=82	Discriminant Function Analysis Summary					
	Wilks' Lambda	Partial Lambda	F-remove (3,69)	p-level	Toler.	1-Toler. (R-Sqr.)
VMI_ALTR	0.656841	0.780444	6.470420	0.000635	0.682598	0.317402
15FQ+ fE	0.570599	0.898402	2.601000	0.058982	0.749812	0.250188
15FQ+ fF	0.562280	0.911694	2.227762	0.092680	0.468161	0.531839
15FQ+ fI	0.556852	0.920581	1.984218	0.124395	0.372818	0.627182
VMI_AEST	0.556119	0.921794	1.951343	0.129426	0.359398	0.640602
VMI_ETHI	0.552488	0.927852	1.788422	0.157463	0.677210	0.322790
VMI_MORA	0.549412	0.933048	1.650391	0.185790	0.772359	0.227641
VMI_AFFI	0.536676	0.955190	1.078972	0.363829	0.275967	0.724033
15FQ+ fQ2	0.535327	0.957596	1.018474	0.389907	0.292921	0.707079
15FQ+ fM	0.535150	0.957913	1.010523	0.393455	0.749451	0.250549

A moderate relationship was found, statistically significant at the 1% level.

Variables that were important in classifying people into groups on the Facilitating competency were:

- Altruism
- Dominant fE
- Enthusiastic fF

Variable	Classification Functions; grouping: Facilitating				
	Description	Output p=.03659	Project p=.45122	Cont Improv p=.48780	Chall limits p=.02439
VMI_ALTR	Altruism	2.797	2.192	2.374	2.120
15FQ+ fQ2	Self-sufficient	3.691	3.423	3.534	3.427
15FQ+ fE	Dominant	1.773	1.784	1.924	1.330
VMI_MORA	Moral	2.561	2.554	2.567	3.127
15FQ+ fF	Enthusiastic	0.574	0.393	0.384	0.866
15FQ+ fI	Tender-mindec	0.466	0.896	0.989	0.896
VMI_ETHI	Ethical/transcendental	0.625	0.455	0.359	0.682
VMI_AEST	Low aesthetic	-0.298	-0.439	-0.549	-0.340
VMI_AFFI	Affiliation	2.012	2.262	2.324	2.137
15FQ+ fM	Concrete	-0.302	-0.152	-0.107	-0.355
Constant		-186.572	-157.418	-166.848	-177.169

Group	Classification Matrix				
	Percent Correct	Output p=.03659	Project p=.45122	Cont improv p=.48780	Chall limits p=.02439
Output focus	66.6667	2	0	1	0
Project driver	64.8649	0	24	13	0
Continuous improvement	70.0000	0	12	28	0
Challenges the limits	100.0000	0	0	0	2
Total	68.2927	2	36	42	2

The category 'challenges the limits' only had two representatives, while 'Output focus' had three. Classification accuracy for the categories 'project driver' and 'continuous improvement' was reasonably good.

Influencing

Discriminant Function Analysis Summary						
Step 11, N of vars in model: 11; Grouping: Influencing (4 grps)						
Wilks' Lambda: .47203 approx. F (33,201)=1.7681 p< .0094						
N=82	Wilks' Lambda	Partial Lambda	F-remove (3,68)	p-level	Toler.	1-Toler. (R-Sqr.)
VMI_ALTR	0.529786	0.890983	2.773388	0.047995	0.729123	0.270877
VMI_FINS	0.512639	0.920785	1.950014	0.129786	0.726157	0.273843
15FQ+_fH	0.512614	0.920830	1.948808	0.129974	0.597999	0.402001
15FQ+_fF	0.512344	0.921315	1.935846	0.132019	0.451617	0.548383
15FQ+_fQ4	0.507558	0.930003	1.706019	0.173974	0.738986	0.261014
VMI_ETHI	0.505342	0.934081	1.599603	0.197557	0.712090	0.287911
VMI_AFFE	0.502303	0.939732	1.453682	0.234954	0.566347	0.433653
15FQ+_fQ3	0.501674	0.940911	1.423460	0.243504	0.777320	0.222680
15FQ+_fG	0.497770	0.948290	1.235998	0.303461	0.857676	0.142324
VMI_NACH	0.497353	0.949086	1.215962	0.310627	0.830558	0.169442
VMI_AFFI	0.493100	0.957272	1.011720	0.393016	0.507606	0.492394

A moderate strong relationship was found, highly statistically significant. The only variable, which attained statistical significance in its own right, was Altruism.

Variable	Classification Functions; grouping: Influencing				
	Description	Persuasive p=.09756	Motivational p=.41463	Value driven p=.42683	Inspirational p=.06098
VMI_ALTR	Altruism	1.288	1.1454	1.150	1.4949
15FQ+_fH	Retiring-socially bold	-0.127	-0.0275	0.040	0.1778
VMI_NACH	Achievement	2.536	2.3996	2.451	2.0637
VMI_FINS	Financial	0.942	0.9322	0.931	0.7123
15FQ+_fQ4	Composed-tense driver	-0.133	0.0526	-0.039	0.0481
VMI_AFFE	Affection	0.001	-0.0108	0.102	0.1050
VMI_ETHI	Ethical-transcendental	1.129	1.0968	1.001	0.8431
15FQ+_fF	Sober-serious/enthusiastic	-0.060	0.1093	0.015	-0.2036
15FQ+_fG	Expedient-conscientious	0.201	0.2059	0.162	-0.0271
15FQ+_fQ3	Self-disciplined	0.285	0.4988	0.493	0.4878
VMI_AFFI	Tense-driver	0.218	0.0672	0.123	0.1946
Constant		-109.135	-98.9229	-101.914	-97.4455

Group	Classification Matrix (Leadership-data merged.sta)				
	Percent Correct	Persuasive p=.09756	Motivational p=.41463	Value driven p=.42683	Inspirational p=.06098
Persuasive	50.00000	4	3	1	0
Motivational	58.82353	1	20	13	0
Value driven	57.14286	2	12	20	1
Inspirational	60.00000	0	0	2	3
Total	57.31707	7	35	36	4

The accuracy of prediction obtained for Influencing can be described as moderate.

Business acumen

N=81	Discriminant Function Analysis Summary					
	Wilks' Lambda	Partial Lambda	F-remove (3,68)	p-level	Toler.	1-Toler. (R-Sqr.)
VMI_ALTR	0.493402	0.881070	3.059635	0.033980	0.756488	0.243512
VMI_NACH	0.488862	0.889253	2.822892	0.045209	0.847510	0.152490
VMI_FINS	0.488113	0.890617	2.783848	0.047392	0.773221	0.226779
VMI_AFFI	0.476339	0.912631	2.169963	0.099540	0.571719	0.428281
15FQ+_fH	0.471265	0.922457	1.905386	0.136949	0.494837	0.505163
15FQ+_fE	0.469515	0.925895	1.814153	0.152822	0.589049	0.410951
15FQ+_fG	0.466211	0.932458	1.641847	0.187846	0.879818	0.120182
15FQ+_fM	0.461741	0.941485	1.408782	0.247762	0.806207	0.193793
15FQ+_fF	0.461688	0.941591	1.406056	0.248561	0.506649	0.493351
VMI_ETHI	0.456424	0.952452	1.131549	0.342561	0.803353	0.196647

A reasonably strong relationship was found, highly statistically significant.

Variables important in predicting business acumen were

- Altruism
- Achievement
- Financial security

Variable	Classification Functions; grouping: Business Acumen				
	Description	Maintainer p=.02469	Profit manager p=.34568	Deal maker p=.59259	Industry player p=.03704
VMI_NACH	Achievement	3.404	2.660	2.760	2.202
15FQ+_fF	Sober Serious	-0.475	-0.381	-0.319	-0.046
VMI_ALTR	Altruistic	2.058	1.457	1.442	1.570
VMI_FINS	Financial	0.138	0.458	0.490	0.645
15FQ+_fG	Conscientious	0.592	0.430	0.460	0.156
15FQ+_fH	Retiring	-0.853	-0.452	-0.384	-0.318
15FQ+_fE	Dominant	1.192	0.863	0.702	0.678
15FQ+_fM	Abstract	0.554	0.810	0.806	0.552
VMI_AFFI	Affiliation	0.236	0.425	0.458	0.155
VMI_ETHI	Ethical/transcendental	1.591	1.273	1.261	1.447
Constant		-158.513	-111.859	-114.981	-107.196

Group	Classification Matrix				
	Percent Correct	Maintainer p=.02469	Profit manager p=.34568	Deal maker p=.59259	Industry player p=.03704
Maintainer	100.0000	2	0	0	0
Profit manager	35.7143	0	10	16	2
Deal maker	85.4167	0	7	41	0
Industry player	66.6667	0	1	0	2
Total	67.9012	2	18	57	4

The classification function was only 35.7% accurate in predicting who would be classified as a 'profit manager'. Overall accuracy of classification was 67%.

Opportunism

N=82	Discriminant Function Analysis Summary					
	Wilks' Lambda	Partial Lambda	F-remove (3,68)	p-level	Toler.	1-Toler. (R-Sqr.)
VMI_ALTR	0.553184	0.858702	3.729756	0.015220	0.595070	0.404930
VMI_NACH	0.543534	0.873948	3.269281	0.026406	0.804838	0.195162
15FQ+_fC	0.525801	0.903424	2.423072	0.073302	0.486210	0.513790
15FQ+_fQ4	0.525056	0.904705	2.387550	0.076519	0.634920	0.365080
15FQ+_fN	0.515996	0.920590	1.955226	0.128974	0.627834	0.372166
VMI_TRAD	0.507556	0.935898	1.552495	0.208956	0.637684	0.362316
15FQ+_fO	0.505046	0.940549	1.432744	0.240846	0.469506	0.530494
VMI_AFFI	0.504170	0.942183	1.390948	0.253031	0.555479	0.444521
15FQ+_fF	0.500539	0.949019	1.217648	0.310018	0.558122	0.441879
15FQ+_fQ3	0.497595	0.954634	1.077167	0.364690	0.543145	0.456855
15FQ+_fA	0.496069	0.957569	1.004373	0.396314	0.585225	0.414775

A reasonably strong relationship was found, highly statistically significant.

Important predictors of Opportunism were:

- Altruism
- Achievement

Emotional stability (fC) and Tense-driven (fQ4) also played a role, but were not statistically significant in their own right.

Classification Functions; grouping: Opportunism (Leadership-data merged.sta)					
Variable	Description	Maintainer p=.03659	Improver p=.36585	Balanced risk p=.48780	Entrepreneur p=.10976
VMI_ALTR	Altruism	2.349	1.846	1.959	2.109
VMI_NACH	Achievement	3.675	3.103	3.214	2.807
15FQ+_fF	Sober-serious/enthusiastic	-0.196	0.014	0.041	0.147
15FQ+_fN	Direct/restrained	-0.398	0.005	0.012	0.080
15FQ+_fA	Empathic	-0.396	-0.474	-0.580	-0.591
15FQ+_fQ4	Tense-driver	1.636	1.285	1.289	1.443
15FQ+_fC	Emotionally stable	2.325	1.910	1.818	1.930
15FQ+_fO	Apprehensive	0.832	0.660	0.568	0.521
VMI_AFFI	Low affiliation need	-0.496	-0.224	-0.199	-0.203
VMI_TRAD	Traditional	2.085	1.885	1.754	1.884
15FQ+_fQ3	Informal	-0.329	-0.443	-0.335	-0.501
Constant		-172.590	-124.389	-127.355	-130.756

Self renewal

Discriminant Function Analysis Summary						
Step 6, N of vars in model: 6; Grouping: Self Renewal (3 grps)						
Wilks' Lambda: .75140 approx. F (12,148)=1.8947 p< .0392						
N=82	Wilks' Lambda	Partial Lambda	F-remove (2,74)	p-level	Toler.	1-Toler. (R-Sqr.)
15FQ+_fO	0.869912	0.863768	5.835595	0.004433	0.683449	0.316551
15FQ+_fI	0.812283	0.925049	2.997877	0.055988	0.515274	0.484726
VMI_ALTR	0.812141	0.925210	2.990903	0.056351	0.707944	0.292056
15FQ+_fL	0.799419	0.939935	2.364445	0.101067	0.864457	0.135543
VMI_AEST	0.794496	0.945759	2.122013	0.127022	0.414454	0.585546
15FQ+_B	0.782528	0.960224	1.532685	0.222731	0.733088	0.266912

A moderately low relationship was found, statistically significant at the 3% level.

Factor fO, Self-assured/apprehensive, was the most important personality variable.

Note, in the table below, that the direction of the variable changes between Continuous Learning and Re-inventive learning.

Classification Functions; grouping: Self Renewal				
Variable	Description	Ad Hoc learner p=.35366	Continuous learner p=.62195	Re-inventive learner p=.02439
15FQ+_fO	Self-assured/apprehensive	0.3156	0.1886	-0.1528
15FQ+_B	Intellectance	2.4244	2.3720	1.8637
15FQ+_fI	Hard-headed	-0.1911	-0.0171	-0.1022
VMI_ALTR	Altruistic	1.5136	1.5810	1.9491
15FQ+_fL	Trusting	0.3944	0.4926	0.7871
VMI_AEST	High/low Aesthetic values	0.1058	0.0014	-0.0960
Constant		-62.8630	-61.6665	-65.8455

Group	Classification Matrix			
	Percent Correct	Ad Hoc learner p=.35366	Continuous learner p=.62195	Re-inventive learner p=.02439
Ad Hoc learner	48.27586	14	15	0
Continuous learner	86.27451	7	44	0
Re-inventive learner	50.00000	0	1	1
Total	71.95122	21	60	1

There were only data for three categories of Self-Renewal. Classification accuracy for 'Ad Hoc learner' was not particularly good, but good accuracy was obtained for 'Continuous learner'.

15FQ+ Construct Validity: Multiple Regression with OPQ 32n

(OPQ is a trademark of the SHL group)

Multiple regression of OPQ 32n on 15FQPlus variables

87 Managers and supervisors in a South African manufacturing company, assessed during year 2000.

15FQPlus scale	Multiple Correlation	OPQ Scales and the direction of the relationship
fA Empathic	.69	Behavioural, Rule Following, Adaptable, Vigorous, Low Modest
B Intellectance	.69	Low Conventional, Low Independent Minded, Low Democratic, Competitive, Conceptual, Behavioural, Trusting,
fC Emotionally stable	.65	Data rational, Low worrying, Optimistic, Emotionally Controlled, Relaxed.
fE Dominant	.82	Persuasive, Outspoken, Forward Thinking,
fF Enthusiastic	.78	Outgoing, Socially Confident, Competitive,
fG Conscientious	.64	Detail Conscious, Low variety seeking, Modest, Low emotionally controlled, Low tough minded.
fH Socially Bold	.85	Low Conventional, Low variety seeking, Low affiliative
fI Tender minded	.59	Worrying, Low emotionally controlled, Low innovative, Behavioural
fL Suspicious	.71	Low Trusting, Low Conscientious, Low relaxed, Low controlling, Low Emotionally Controlled, Low Socially Confident
fM Abstract	.65	Low Conventional, Conceptual, Adaptable
fN Restrained	.64	Low Outspoken, Rule Following, Data Rational, Affiliative, Conscientious
fO Self-doubting	.67	Worrying, Conceptual
fQ1 Radical	.74	Low Conventional, Persuasive, Low Rule Following, Outspoken
fQ2 Self sufficient	.74	Low affiliative, worrying, Independent minded, Caring, Relaxed, Evaluative
fQ3 Self disciplined	.51	Rule Following, Low variety seeking
fQ4 Tense driven	.66	Evaluative, Modest, Low data rational, Detail Conscious

The results are supportive of construct validity for both of the personality questionnaires used in this analysis. The OPQ scales that predicted the 15FQPlus scales make conceptual sense in terms of what the scales claim to measure, and the relationships are particularly strong. One would not normally use one personality questionnaire to predict scores on another, but these results give insight into the relationships of the constructs measured by the two questionnaires.

15FQ+ Construct Validity: Multiple Regression with MMPI

Multiple regression of 15FQPlus on MMPI scales

The respondent group consisted of 102 managers and supervisors in a SA manufacturing company.

Only 15FQPlus scales with beta values significant at p-levels less than .05 are reported.

MMPI Scale	Multiple R	15FQPlus scales, beta values and descriptions
ES Ego Strength Tolerance Balanced Attitude	.63	<ul style="list-style-type: none"> • β .23 Intellectance • <i>fC</i> .34 Emotionally stable • <i>fI</i> -.20 Hard-headed
DO Dominance	.24	<ul style="list-style-type: none"> • <i>fC</i> .32 Emotionally stable • <i>fQ1</i> .23 Radical • <i>fA</i> -.19 Distant-Aloof • <i>fL</i> -.17 Trusting
HS Physical Symptoms	.54	<ul style="list-style-type: none"> • <i>fC</i> -.35 Affected by feelings • <i>fO</i> -.26 Confident • <i>fF</i> -.31 Sober -serious • <i>fH</i> .4 Retiring
D Depression	.22	<ul style="list-style-type: none"> • <i>fF</i> -.35 Sober -serious • <i>fG</i> .24 Expedient
HY Psychological Denial	.65	<ul style="list-style-type: none"> • <i>fL</i> -.28 Suspicious • <i>fO</i> -.33 Confident • <i>fF</i> -.36 Sober -serious • <i>fQ3</i> -.19 Informal • <i>fH</i> .31 Socially Bold • <i>fE</i> -.18 Accommodating
PD Anti-social behaviour	.40	<ul style="list-style-type: none"> • <i>fH</i> .27 Socially Bold • <i>fN</i> -.2 Direct
SC Unusual thought patterns	.32	<ul style="list-style-type: none"> • <i>fQ4</i> -.26 Composed
SI Introversion	.82	<ul style="list-style-type: none"> • <i>fH</i> -.31 Retiring • <i>fF</i> -.35 Sober -serious • <i>fO</i> .2 Self-doubting

For the most part, the relationships make conceptual sense. One would not use the 15FQPlus to substitute for the MMPI, which is an instrument intended to predict pathology. The results should be seen merely as supporting the constructs measured by the two questionnaires.

15FQ+ Construct Validity: Correlations with OPP

Sample Composition

Senior technical officers with a major South African electricity supplier tested in 2003

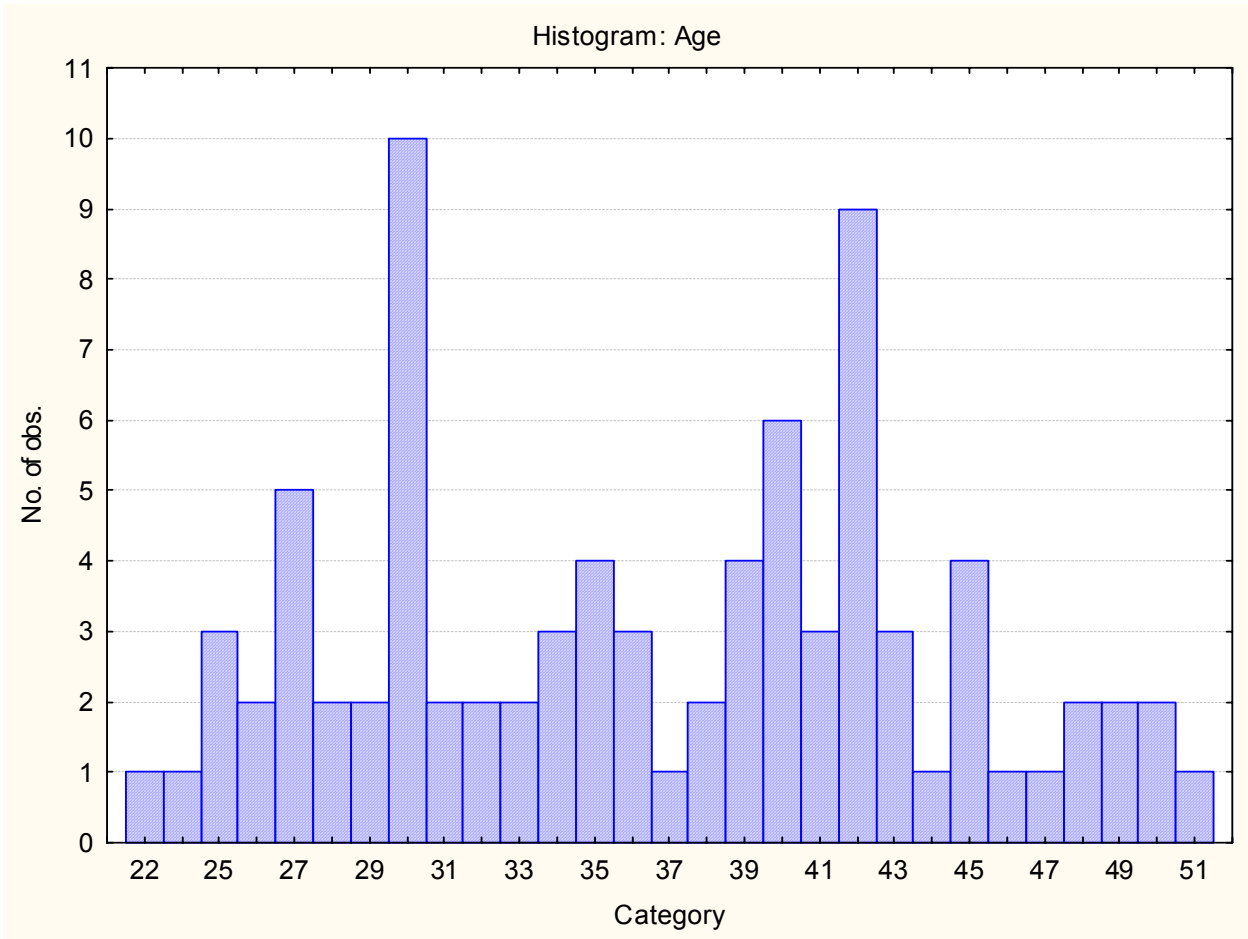
Frequency table: Sex				
Category	Count	Cumulative Count	Percent	Cumulative Percent
Male	87	87	100.0000	100.0000
Missing	0	87	0.0000	100.0000

Frequency table: Education				
Category	Count	Cumulative Count	Percent	Cumulative Percent
Technikon	1	1	1.14943	1.1494
Vocational Training	41	42	47.12644	48.2759
Grade 12	14	56	16.09195	64.3678
Grade 10 or 11	2	58	2.29885	66.6667
Missing	29	87	33.33333	100.0000

Frequency table: First Language				
Category	Count	Cumulative Count	Percent	Cumulative Percent
isiZulu	8	8	9.19540	9.1954
isiXhosa	2	10	2.29885	11.4943
Afrikaans	29	39	33.33333	44.8276
English	8	47	9.19540	54.0230
Sesotho	8	55	9.19540	63.2184
Xitsonga	1	56	1.14943	64.3678
Setswana	1	57	1.14943	65.5172
isiNdebele	1	58	1.14943	66.6667
Missing	29	87	33.33333	100.0000

Frequency table: Race				
Category	Count	Cumulative Count	Percent	Cumulative Percent
African	21	21	24.13793	24.1379
European	32	53	36.78161	60.9195
Coloured	5	58	5.74713	66.6667
Missing	29	87	33.33333	100.0000

Variable	Descriptive Statistics					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Age	36.48810	7.386888	22.00000	51.00000	84	3



Correlations between 15FQ+ and OPP scales

Only correlations that are significant at p-levels less than 0.05 are reported.

In the case of negative correlations, the description of the low end of the OPP scale is used, and the correlation reported as positive, to facilitate interpretation.

15FQ+ Scale	OPP Scale and correlation
FA Empathic	Detail Conscious 0.25 Abstract .34
β Intellectance	Assertive 0.26 Phlegmatic 0.37 Optimistic 0.25
FC Emotionally Stable	Phlegmatic 0.59 Optimistic 0.34
FE Dominant	Assertive 0.66 Phlegmatic 0.23 Gregarious 0.23 Persuasive 0.33 Contesting 0.28
fF Enthusiastic	Gregarious 0.60
FG Conscientious	Detail Conscious 0.44
FH Socially Bold	Phlegmatic 0.31 Gregarious 0.47 Persuasive 0.51 Abstract 0.33
FI Tender Minded	Abstract 0.63
FL Suspicious	Detail Conscious 0.33 Cynical 0.54 Contesting 0.24 Pessimistic 0.23 Pragmatic 0.22
FM Abstract	Assertive 0.26 Flexible 0.26 Persuasive 0.38 Abstract 0.34
FN Restrained	Accommodating 0.39 Detail Conscious 0.31
FO Apprehensive	Accommodating 0.23 Pessimistic 0.29
FQ1 Radical	Persuasive 0.27
FQ2 Self-sufficient	Cynical 0.25 Reserved 0.64 Contesting 0.26 Pragmatic 0.24
FQ3 Self-disciplined	Accommodating 0.22 Detail Conscious 0.41 Genuine 0.26 Pragmatic 0.25
FQ4 Tense - Driven	Emotional 0.35 Pragmatic 0.27

15FQ+ Validity: Predicting performance ratings for employees in a petrochemical manufacturing organisation

Introduction

The study was conducted in order to identify variables that could be used as predictors of performance in a petrochemical manufacturing organisation. Data obtained from existing personnel were used for the study.

Available predictor variables were:

- The 15FQ+ Personality Questionnaire from Psytech International.
- Matric results on a variety of subjects.

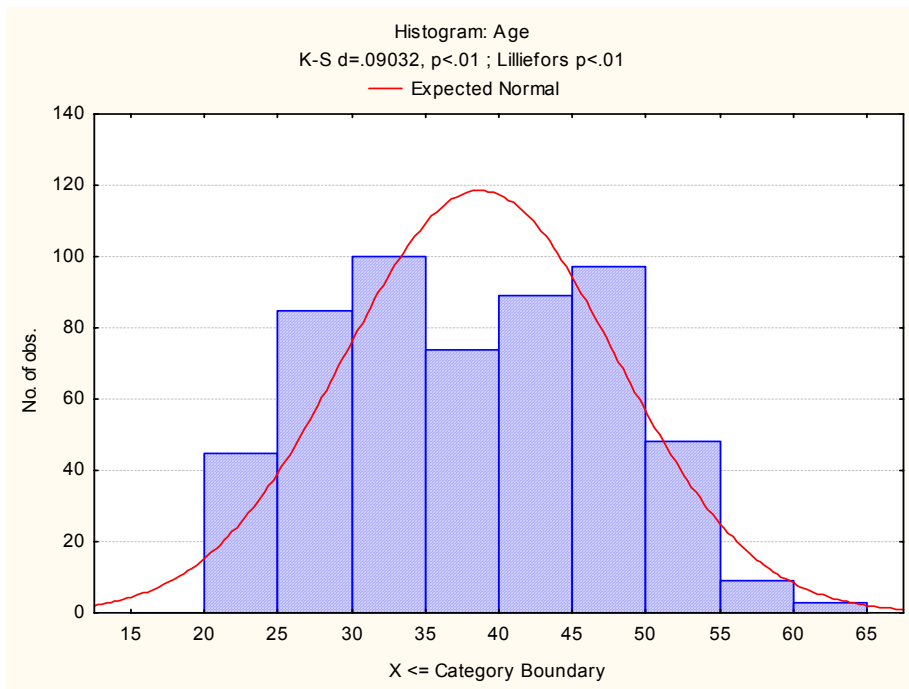
Available criterion variables were:

Performance appraisal ratings for a maximum of four years – depending on how long the person concerned had been working for the company.

Sample composition

No information on gender, race, home language, level or job was supplied. Names were not supplied, and thus no deduction could be made from names with regard to race.

Variable	Descriptive Statistics AGE				
	Valid N	Mean	Minimum	Maximum	Std.Dev.
Age	550	38.73091	22.00000	63.00000	9.254170



Descriptive statistics on Matric results:

Matric results were provided by subject, with codes indicating firstly whether the subject was taken on Higher, Lower or Standard level, followed by the symbol obtained. No percentage scores were available.

Category	Frequency table: English			
	Count	Cumulative Count	Percent	Cumulative Percent
HB	49	49	8.90909	8.9091
SF	2	51	0.36364	9.2727
HC	58	109	10.54545	19.8182
HD	65	174	11.81818	31.6364
LE	4	178	0.72727	32.3636
HA	23	201	4.18182	36.5455
HE	44	245	8.00000	44.5455
SD	3	248	0.54545	45.0909
LF	3	251	0.54545	45.6364
HG	1	252	0.18182	45.8182
SC	1	253	0.18182	46.0000
HF	8	261	1.45455	47.4545
LC	1	262	0.18182	47.6364
SB	1	263	0.18182	47.8182
SE	2	265	0.36364	48.1818
LD	1	266	0.18182	48.3636
Missing	284	550	51.63636	100.0000

Frequency table: Afrikaans				
Category	Count	Cumulative Count	Percent	Cumulative Percent
HB	51	51	9.27273	9.2727
SD	4	55	0.72727	10.0000
HA	26	81	4.72727	14.7273
HD	75	156	13.63636	28.3636
HE	33	189	6.00000	34.3636
HC	61	250	11.09091	45.4545
HF	5	255	0.90909	46.3636
SF	1	256	0.18182	46.5455
SC	2	258	0.36364	46.9091
SE	4	262	0.72727	47.6364
Missing	288	550	52.36364	100.0000

Frequency table: Maths				
Category	Count	Cumulative Count	Percent	Cumulative Percent
HC	36	36	6.54545	6.5455
SD	9	45	1.63636	8.1818
HA	53	98	9.63636	17.8182
HD	35	133	6.36364	24.1818
HE	31	164	5.63636	29.8182
HB	32	196	5.81818	35.6364
SE	15	211	2.72727	38.3636
HG	2	213	0.36364	38.7273
SC	11	224	2.00000	40.7273
SG	1	225	0.18182	40.9091
SA	2	227	0.36364	41.2727
SB	3	230	0.54545	41.8182
SF	8	238	1.45455	43.2727
HF	4	242	0.72727	44.0000
Missing	308	550	56.00000	100.0000

Frequency table: Science				
Category	Count	Cumulative Count	Percent	Cumulative Percent
HB	45	45	8.18182	8.1818
SF	6	51	1.09091	9.2727
HA	51	102	9.27273	18.5455
HD	31	133	5.63636	24.1818
HC	30	163	5.45455	29.6364
HE	22	185	4.00000	33.6364
SD	12	197	2.18182	35.8182
SC	7	204	1.27273	37.0909
HF	2	206	0.36364	37.4545
HG	1	207	0.18182	37.6364
SE	9	216	1.63636	39.2727
SA	1	217	0.18182	39.4545
Missing	333	550	60.54545	100.0000

Frequency table: Biology				
Category	Count	Cumulative Count	Percent	Cumulative Percent
HA	27	27	4.90909	4.9091
HE	19	46	3.45455	8.3636
SD	7	53	1.27273	9.6364
HB	31	84	5.63636	15.2727
HC	26	110	4.72727	20.0000
SA	2	112	0.36364	20.3636
HD	22	134	4.00000	24.3636
SC	5	139	0.90909	25.2727
SE	6	145	1.09091	26.3636
HF	2	147	0.36364	26.7273
SF	1	148	0.18182	26.9091
Missing	402	550	73.09091	100.0000

Frequency table: Geography				
Category	Count	Cumulative Count	Percent	Cumulative Percent
HC	9	9	1.63636	1.6364
HE	7	16	1.27273	2.9091
SB	2	18	0.36364	3.2727
SC	4	22	0.72727	4.0000
HA	11	33	2.00000	6.0000
HD	10	43	1.81818	7.8182
HB	12	55	2.18182	10.0000
SF	1	56	0.18182	10.1818
SD	2	58	0.36364	10.5455
SA	1	59	0.18182	10.7273
Missing	491	550	89.27273	100.0000

Frequency table: Accounting				
Category	Count	Cumulative Count	Percent	Cumulative Percent
SB	4	4	0.72727	0.7273
HE	7	11	1.27273	2.0000
HA	31	42	5.63636	7.6364
HC	19	61	3.45455	11.0909
SC	4	65	0.72727	11.8182
HF	1	66	0.18182	12.0000
HB	27	93	4.90909	16.9091
HD	12	105	2.18182	19.0909
SD	4	109	0.72727	19.8182
SA	3	112	0.54545	20.3636
SE	3	115	0.54545	20.9091
LF	1	116	0.18182	21.0909
Missing	434	550	78.90909	100.0000

Frequency table: Computer Science				
Category	Count	Cumulative Count	Percent	Cumulative Percent
HA	8	8	1.45455	1.4545
HE	3	11	0.54545	2.0000
HB	9	20	1.63636	3.6364
HC	4	24	0.72727	4.3636
SB	1	25	0.18182	4.5455
HD	2	27	0.36364	4.9091
Missing	523	550	95.09091	100.0000

Frequency table: Economics				
Category	Count	Cumulative Count	Percent	Cumulative Percent
HD	5	5	0.90909	0.9091
HC	5	10	0.90909	1.8182
HA	3	13	0.54545	2.3636
HB	4	17	0.72727	3.0909
SA	1	18	0.18182	3.2727
SC	1	19	0.18182	3.4545
Missing	531	550	96.54545	100.0000

Frequency table: Business Economics				
Category	Count	Cumulative Count	Percent	Cumulative Percent
SD	5	5	0.90909	0.9091
HD	1	6	0.18182	1.0909
SC	1	7	0.18182	1.2727
SB	1	8	0.18182	1.4545
HB	3	11	0.54545	2.0000
SE	3	14	0.54545	2.5455
HA	2	16	0.36364	2.9091
SA	1	17	0.18182	3.0909
HC	1	18	0.18182	3.2727
Missing	532	550	96.72727	100.0000

Frequency table: Fitter & Turner				
Category	Count	Cumulative Count	Percent	Cumulative Percent
SB	1	1	0.18182	0.1818
SA	1	2	0.18182	0.3636
HD	1	3	0.18182	0.5455
SC	1	4	0.18182	0.7273
SD	1	5	0.18182	0.9091
HA	1	6	0.18182	1.0909
Missing	544	550	98.90909	100.0000

Frequency table: Typing				
Category	Count	Cumulative Count	Percent	Cumulative Percent
SC	1	1	0.18182	0.1818
SE	1	2	0.18182	0.3636
SA	4	6	0.72727	1.0909
SB	2	8	0.36364	1.4545
SD	4	12	0.72727	2.1818
HF	1	13	0.18182	2.3636
Missing	537	550	97.63636	100.0000

Frequency table: History				
Category	Count	Cumulative Count	Percent	Cumulative Percent
HB	7	7	1.27273	1.2727
SE	4	11	0.72727	2.0000
HA	8	19	1.45455	3.4545
HD	4	23	0.72727	4.1818
SC	2	25	0.36364	4.5455
HC	10	35	1.81818	6.3636
SB	1	36	0.18182	6.5455
HE	3	39	0.54545	7.0909
SD	1	40	0.18182	7.2727
SF	1	41	0.18182	7.4545
SA	1	42	0.18182	7.6364
Missing	508	550	92.36364	100.0000

Frequency table: Woodwork				
Category	Count	Cumulative Count	Percent	Cumulative Percent
SA	8	8	1.45455	1.4545
HD	3	11	0.54545	2.0000
SE	3	14	0.54545	2.5455
SD	3	17	0.54545	3.0909
SB	4	21	0.72727	3.8182
SF	1	22	0.18182	4.0000
SC	5	27	0.90909	4.9091
HC	2	29	0.36364	5.2727
Missing	521	550	94.72727	100.0000

Frequency table: Machine Drawing				
Category	Count	Cumulative Count	Percent	Cumulative Percent
HD	3	3	0.54545	0.5455
HC	1	4	0.18182	0.7273
HE	1	5	0.18182	0.9091
Missing	545	550	99.09091	100.0000

Frequency table: Technical Drawing				
Category	Count	Cumulative Count	Percent	Cumulative Percent
HC	8	8	1.45455	1.4545
SE	2	10	0.36364	1.8182
SF	3	13	0.54545	2.3636
HB	8	21	1.45455	3.8182
HD	5	26	0.90909	4.7273
HA	10	36	1.81818	6.5455
HE	2	38	0.36364	6.9091
SD	1	39	0.18182	7.0909
SB	1	40	0.18182	7.2727
Missing	510	550	92.72727	100.0000

Frequency table: Mercantile Law				
Category	Count	Cumulative Count	Percent	Cumulative Percent
HE	1	1	0.18182	0.1818
SA	1	2	0.18182	0.3636
SC	1	3	0.18182	0.5455
Missing	547	550	99.45455	100.0000

Frequency table: Electrician Work				
Category	Count	Cumulative Count	Percent	Cumulative Percent
SC	1	1	0.18182	0.1818
HB	1	2	0.18182	0.3636
SA	1	3	0.18182	0.5455
SB	2	5	0.36364	0.9091
Missing	545	550	99.09091	100.0000

The subject categories “Other Language” and “Other” were not considered, since we do not know what the subjects were for those categories.

From the tables reported above it is clear that many of the subjects were taken by so few students that there is not enough useful information. In order to convert the subject information to a useful quantitative scale, it was decided to use only the following subject categories:

- English Higher Grade
- Afrikaans Higher Grade
- Mathematics Higher Grade
- Science Higher Grade
- Biology Higher Grade
- Accounting Higher Grade

The symbols for these subjects were coded as follows:

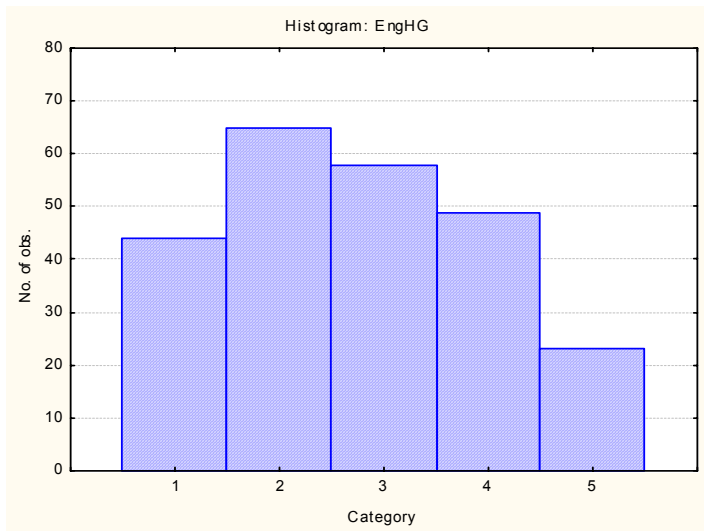
- A = 5
- B = 4
- C = 3
- D = 2
- E = 1

These quantitative variables were used for for the regression analysis to predict performance ratings.

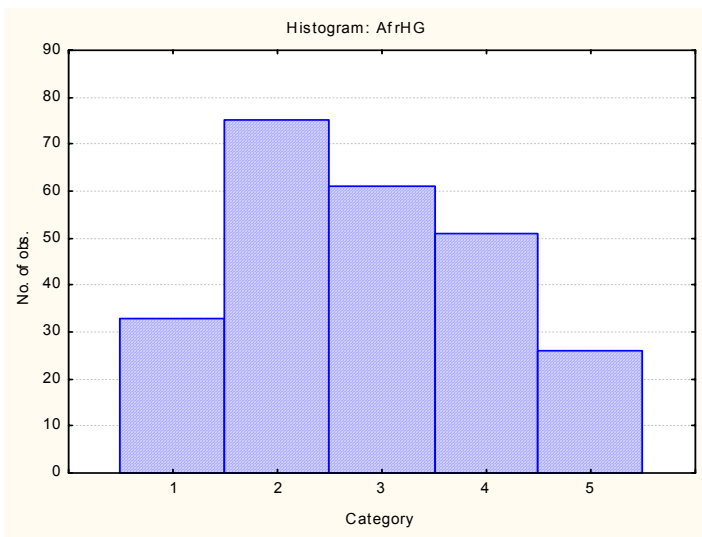
Descriptive statistics on quantified school subject information

Variable	Descriptive Statistics on school subjects quantified					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
EngHG	2.757322	1.243343	1.000000	5.000000	239	311
AfrHG	2.845528	1.205650	1.000000	5.000000	246	304
MathsHG	3.219251	1.455451	1.000000	5.000000	187	363
ScienceHG	3.402235	1.380114	1.000000	5.000000	179	371
BiolHG	3.200000	1.367833	1.000000	5.000000	125	425
AccHG	3.656250	1.255121	1.000000	5.000000	96	454

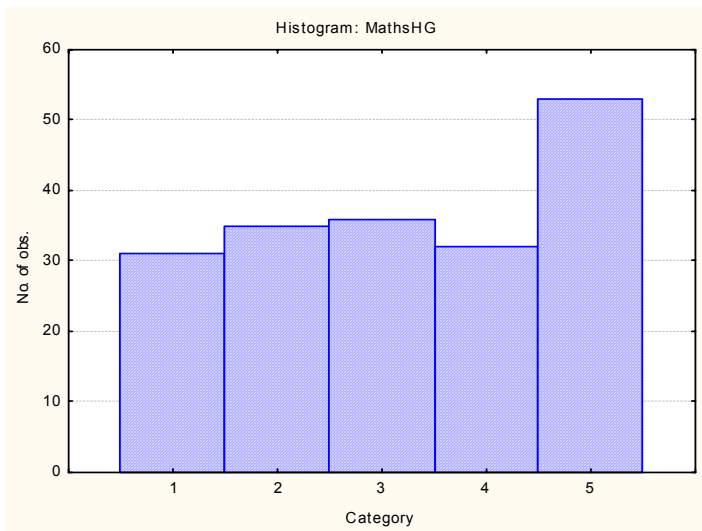
English



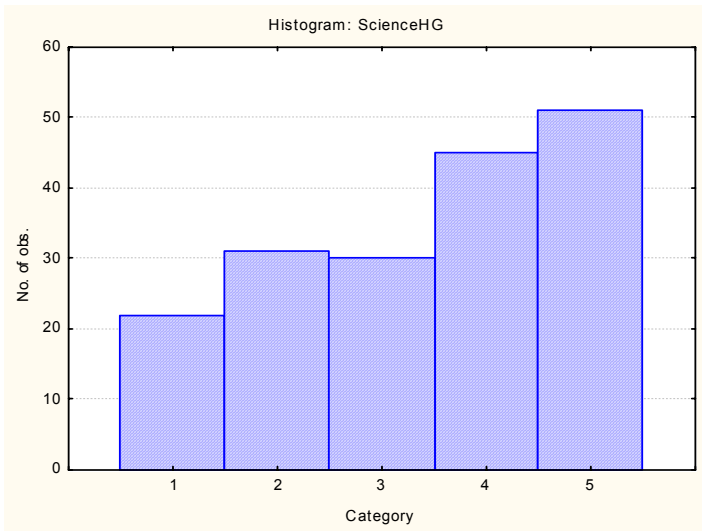
Afrikaans



Mathematics



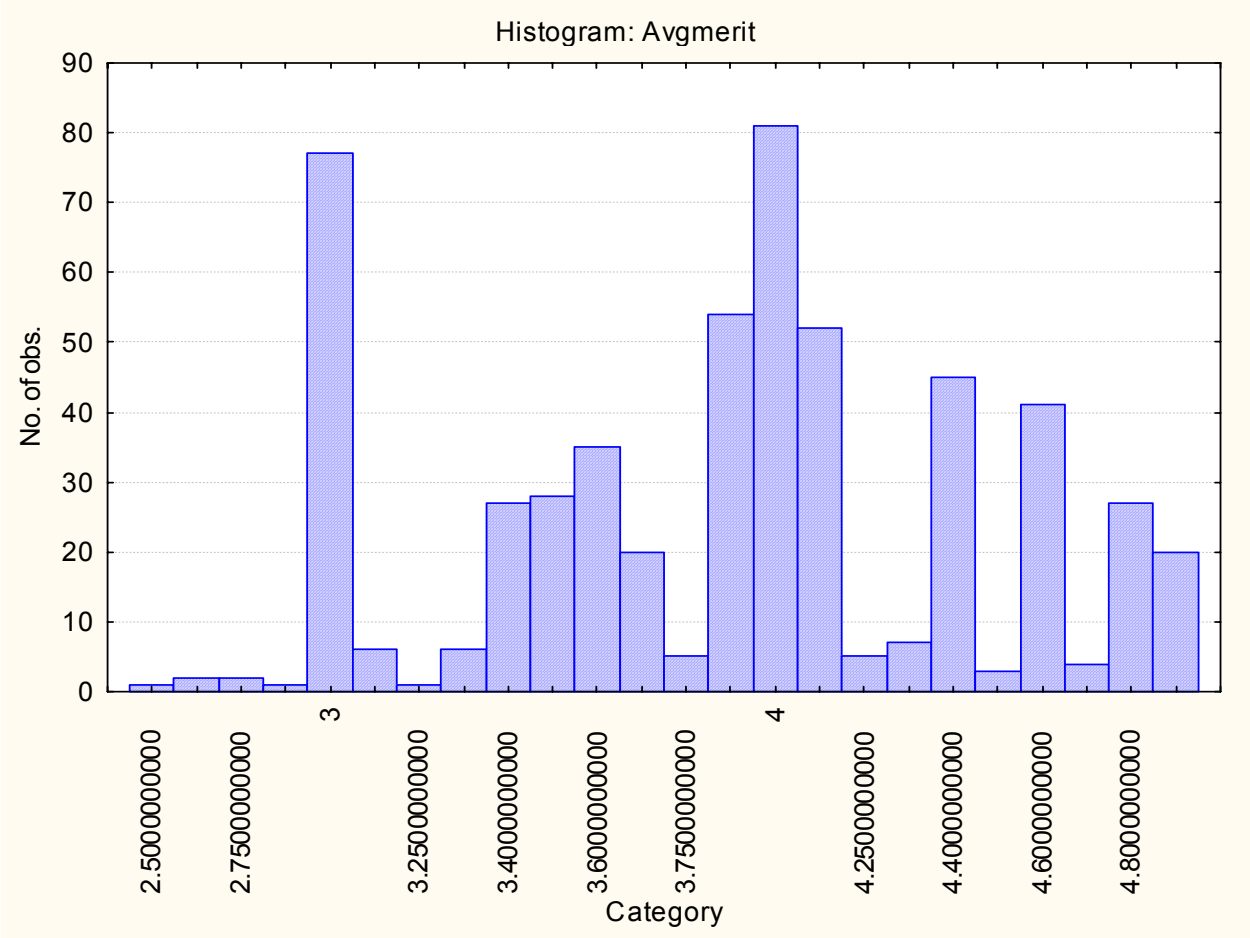
Science



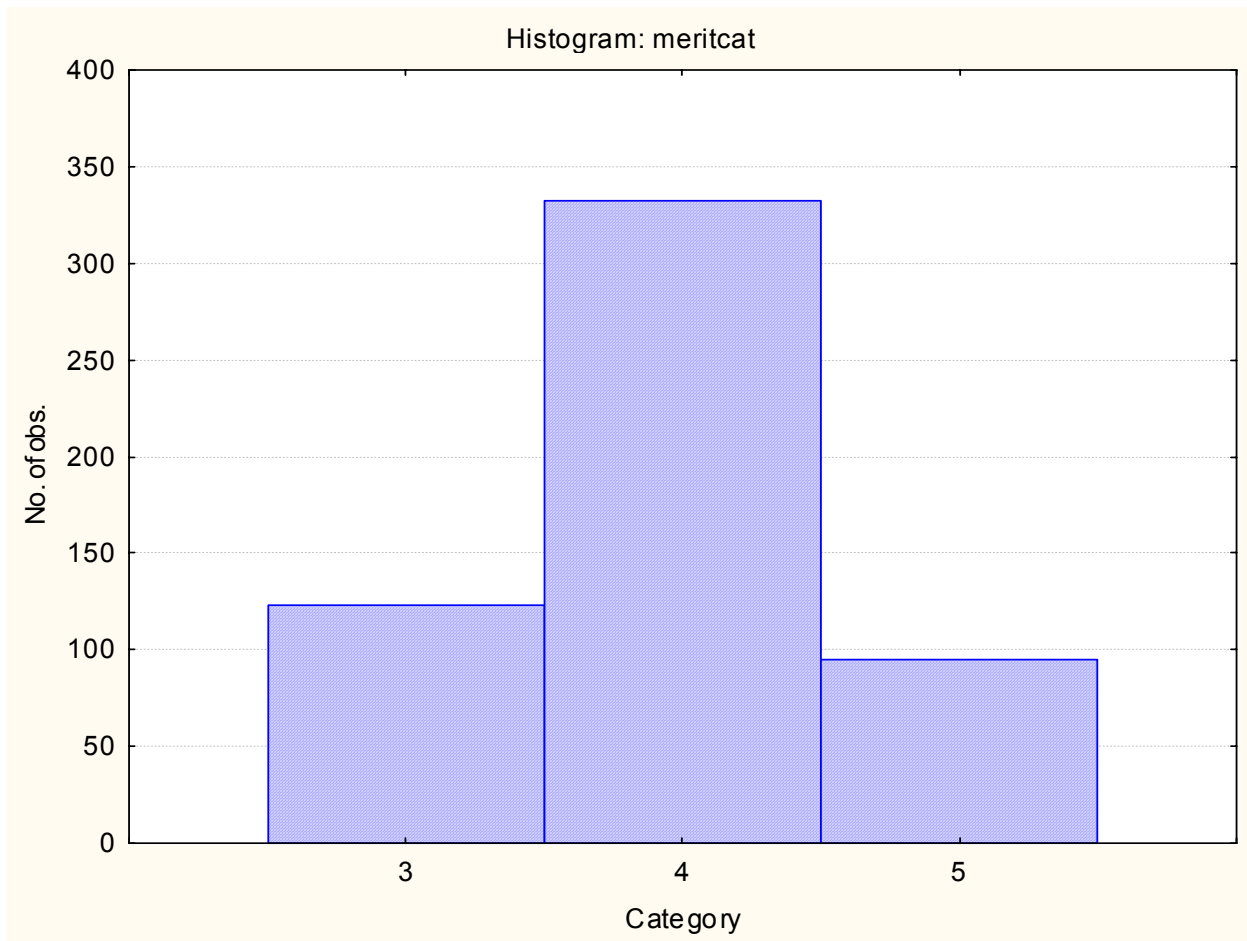
Descriptive statistics on performance appraisal ratings

Where ratings for multiple years were available, an average rating was computer for that individual.

Variable	Descriptive Statistics Average merit ratings					
	Mean	Std.Dev	Minimum	Maximum	N	No.cases Missing
Avgmerit	3.900030	0.574021	2.500000	5.000000	550	0



To provide discrete categories for prediction, the average ratings were rounded, giving the following distribution



From these graphs it is clear that there are very few respondents who were given low merit ratings. Most people's ratings averaged out at around 4. For analysis purposes, it was decided to try and distinguish between those who received an average rating of 5 and those who received an average rating of 3, which would be considered a low rating in this context.

Descriptive statistics on the 15FQ+ scales

The descriptive statistics on the 15FQ+ scales were as follows:

Variable	Descriptive Statistics				
	Valid N	Mean	Minimum	Maximum	Std.Dev.
fA Distant aloof - empathic	550	17.40727	2.000000	24.00000	4.545414
fB Intellectance	550	20.13455	4.000000	24.00000	3.834947
fC Affected by feelings - emotionally stable	550	18.63273	3.000000	24.00000	4.301017
fE Accommodating - dominant	550	17.46545	1.000000	24.00000	4.211798
fF Sober serious - enthusiastic	550	12.50545	0.000000	24.00000	5.616377
fG Expedient - conscientious	550	17.92182	1.000000	24.00000	5.131715
fH Retiring - socially bold	550	13.93818	0.000000	24.00000	6.570051
fI Hard headed - tender minded	550	13.42727	1.000000	24.00000	4.787391
fL Trusting - suspicious	550	6.85636	0.000000	22.00000	4.636446
fM Concrete - abstract	550	10.84182	0.000000	24.00000	4.461378
fN Direct - restrained	550	17.78182	0.000000	24.00000	4.646682
fO Self assured - apprehensive	550	11.75818	0.000000	24.00000	5.596779
fQ1 Conventional - radical	550	9.54182	0.000000	24.00000	5.435587
fQ2 Group Orientated - self sufficient	550	8.39273	0.000000	24.00000	5.456430
fQ3 Informal - self disciplined	550	19.25091	0.000000	24.00000	3.627806
fQ4 Composed - tense driven	550	9.36909	0.000000	24.00000	5.462586

Variable	Descriptive Statistics				
	Valid N	Mean	Minimum	Maximum	Std.Dev.
SD Social Desirability	550	11.60545	2.000000	16.00000	2.98490
CT Central Tendency	550	17.09455	0.000000	91.00000	15.47918
Infrequency	550	1.87273	0.000000	12.00000	1.82429
EQ Emotional Intelligence	550	23.72364	5.000000	30.00000	4.37162
WA Work attitude	550	26.50727	6.000000	32.00000	4.77804
FG Faking good	550	7.09455	0.000000	12.00000	2.64784
FBFaking Bad	550	3.90909	0.000000	11.00000	2.22400

Correlations: Predicting average performance ratings

Correlations with school subjects

The product-moment correlations between the school subjects and performance ratings were as follows:

Variable	Correlations	
	Marked correlations are significant at $p < .05000$	
	Avgmerit	
English	-.1183	
	N=239	
	p=.068	
Afrikaans	-.0699	
	N=246	
	p=.275	
Mathematics	-.0763	
	N=187	
	p=.299	
Science	-.0428	
	N=179	
	p=.569	
Biology	-.1361	
	N=125	
	p=.130	
Accounting	.0055	
	N=96	
	p=.957	

None of the correlations were significant.
 All the correlations were either low negative or close to zero.

These results clearly indicate that based on the information available, which is admittedly reduced because only symbols are available and not marks, school achievement is not contributing to the prediction of merit ratings.

Correlations with 15FQ+ scales

The product – moment correlations of the personality scale variables with average merit ratings were as follows:

Variable	Correlations	
	Marked correlations are significant at $p < .05000$	
	Avgmerit	
fA Distant aloof - empathic	-0.08	
fB Intellectance	-0.02	
fC Affected by feelings - emotionally stable	0.08	
fE Accommodating - dominant	0.19	
fF Sober serious - enthusiastic	-0.09	
fG Expedient - conscientious	-0.03	
fH Retiring - socially bold	0.03	
fI Hard headed - tender minded	-0.03	
fL Trusting - suspicious	-0.18	
fM Concrete - abstract	0.05	
fN Direct - restrained	-0.14	
fO Self assured - apprehensive	-0.05	
fQ1 Conventional - radical	0.02	
fQ2 Group Orientated - self sufficient	0.01	
fQ3 Informal - self disciplined	-0.08	
fQ4 Composed - tense driven	0.13	

Five correlations were significant – one of them (fE) was very low and negative.

According to these results, persons who achieve good merit ratings are:

Dominant, trusting, direct and tense driven. The relationships are however not strong, and these simple correlations do not account for the interactions between personality factors.

Multiple regression of 15FQ+ variables on average merit ratings

With multiple regression, the interaction between personality variables can be examined, and their combined predictive power can be brought to bear on the criterion variable. Using this analysis, we arrive at a formula with which we can obtain some degree of prediction of the variable we are interested in, in this case the merit rating.

N=550	Regression Summary for Dependent Variable: Avgmerit					
	R= .34473908 R ² = .11884504 Adjusted R ² = .10746481 F(7,542)=10.443 p<.00000 Std.Error of estimate: .54230					
	Beta	Std.Err. of Beta	B	Std.Err. of B	t(542)	p-level
Intercept						
fE Accommodating - dominant						
fL Trusting - suspicious						
fF Sober serious - enthusiastic						
fQ4 Composed - tense driven						
fC Affected by feelings - emotionally stable						
fB Intellectance	-0.071429	0.044319	-0.010692	0.006634	-1.61171	0.107608
fA Distant aloof - empathic	-0.062984	0.046918	-0.007954	0.005925	-1.34245	0.180012

With multiple regression, using the appropriate weights, a reasonable prediction of the average merit rating can be achieved – explaining about 12% of the variance.

The multiple regression is based on the assumption that there is a single best personality profile for a worker in this organisation, and that all the relationships are linear. This implies that it would always be best to have either a high score or a low score on a particular personality attribute. Multiple regression copes poorly with situations where there are many possible good personality profiles, and where it may be best to have a moderate amount of a given personality attribute, rather than an extreme score.

Given the size and diversity of the organisation, it is highly unlikely that a single best personality profile would be realistically proven. Common sense also indicate to us that we expect that it would be better to have a moderate level of some attributes – for instance dominance.

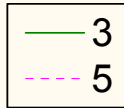
Classification tree analysis to identify personality profiles that are related to high or low merit ratings

In order to identify which personality profiles lead to high or low ratings, a different approach from the usual correlational approach was followed. It was decided to use classification analysis.

To this end, sten values were calculated for all the raw scores on the personality scales. The rounded merit ratings were used as the dependent variable, and the sten values on the personality scales as the predictors.

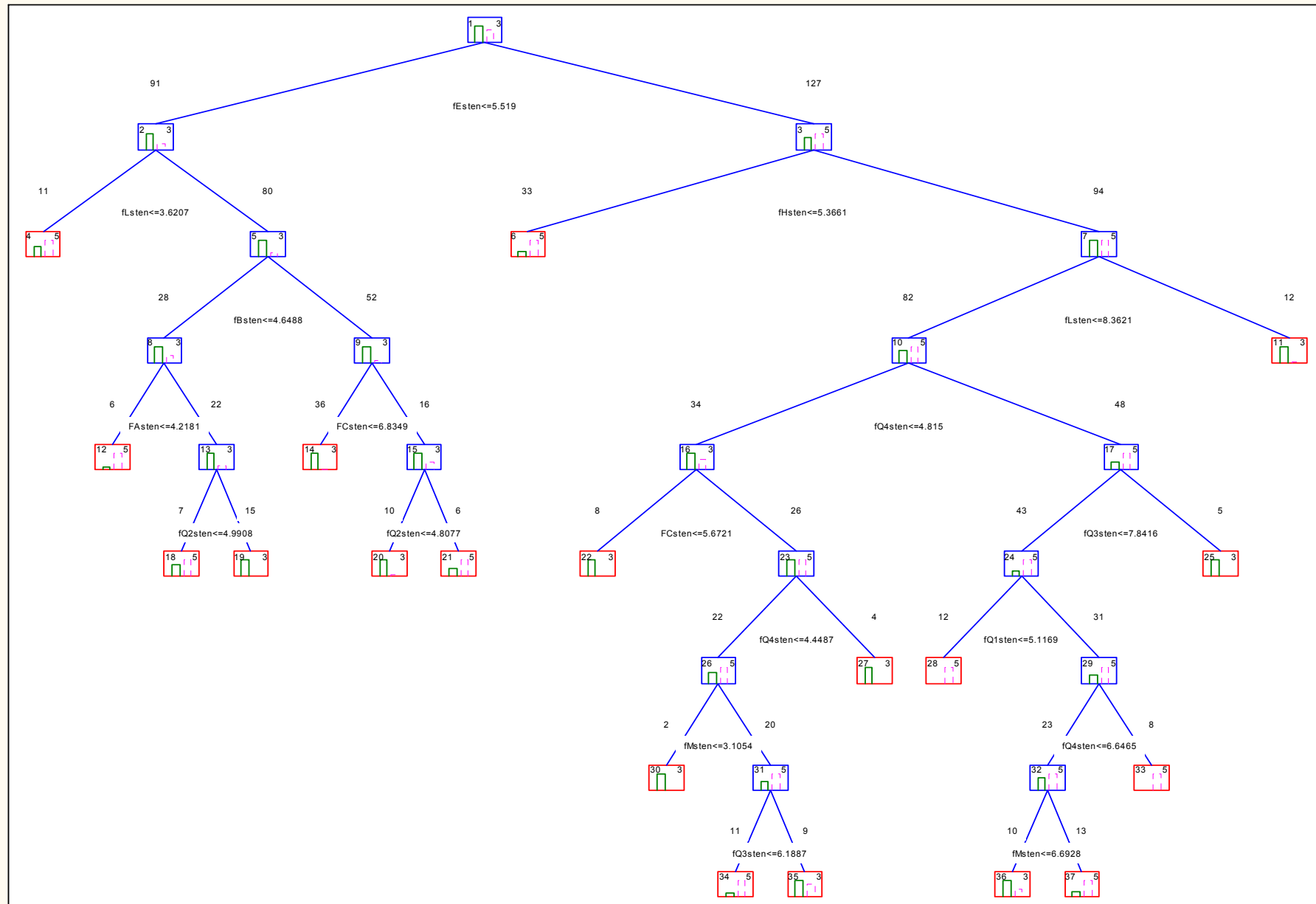
The classification method chosen was the C&RT (Classification and regression testing) approach, which looks at predictor variables one by one, and allows for curvilinear relationships, where the most desirable level of a value could be moderate rather than high or low. The FACT direct stopping method was selected.

The obtained classification tree is as depicted on the following page:



Classification Tree for meritcat

Number of splits = 18; Number of terminal nodes = 19



A tabular description of the classification tree follows:

Tree Structure							
Child nodes, observed class n's, predicted class, and split condition for each node							
Node	Left branch	Right branch	n in cls 3	n in cls 5	Predict. class	Split constant	Split variable
1	2	3	123	95	3	-5.51900	fEsten
2	4	5	69	22	3	-3.62069	fLsten
3	6	7	54	73	5	-5.36606	fHsten
4			4	7	5		
5	8	9	65	15	3	-4.64883	fBsten
6			7	26	5		
7	10	11	47	47	5	-8.36207	fLsten
8	12	13	19	9	3	-4.21806	FAsten
9	14	15	46	6	3	-6.83488	FCsten
10	16	17	36	46	5	-4.81502	fQ4sten
11			11	1	3		
12			1	5	5		
13	18	19	18	4	3	-4.99084	fQ2sten
14			35	1	3		
15	20	21	11	5	3	-4.80769	fQ2sten
16	22	23	21	13	3	-5.67209	FCsten
17	24	25	15	33	5	-7.84160	fQ3sten
18			3	4	5		
19			15	0	3		
20			9	1	3		
21			2	4	5		
22			8	0	3		
23	26	27	13	13	5	-4.44872	fQ4sten
24	28	29	10	33	5	-5.11694	fQ1sten
25			5	0	3		
26	30	31	9	13	5	-3.10538	fMsten
27			4	0	3		
28			0	12	5		
29	32	33	10	21	5	-6.64652	fQ4sten
30			2	0	3		
31	34	35	7	13	5	-6.18871	fQ3sten
32	36	37	10	13	5	-6.69283	fMsten
33			0	8	5		
34			2	9	5		
35			5	4	3		
36			7	3	3		
37			3	10	5		

By identifying terminal nodes on the classification tree, the cut-offs can be traced back to determine the profiles that give a clear classification.

Summary of found profiles:

Based on node		6									
Predicting group:		High merit rating									
No. conforming to profile who were rated high		26									
No. conforming to profile who were rated low		7									
Scale	Cut-off condition	1	2	3	4	5	6	7	8	9	10
fE Dominant	>5.519										
fH Retiring	<=5.3661										

Based on node		11									
Predicting group:		Low merit rating									
No. conforming to profile who were rated high		1									
No. conforming to profile who were rated low		11									
Scale	Cut-off condition	1	2	3	4	5	6	7	8	9	10
fE Dominant	> 5.519										
fH Retiring	<=5.3661										
fL Highly Suspicious	>8.3621										

Based on node		12									
Predicting group:		High merit rating									
No. conforming to profile who were rated high		5									
No. conforming to profile who were rated low		1									
Scale	Cut-off condition	1	2	3	4	5	6	7	8	9	10
fA Distant Aloof	<=4.2181										
fB Low Intellectance	<=4.6488										
fE Accommodating	<=5.519										
fL Not highly trusting	>3.6207										

Based on node		14									
Predicting group:		Low merit rating									
No. conforming to profile who were rated high		1									
No. conforming to profile who were rated low		35									
Scale	Cut-off condition	1	2	3	4	5	6	7	8	9	10
fB High Intellectance	>4.6488										
fC Affected by feelings	<=6.8439										
fE Accommodating	<=5.519										
fL Not highly trusting	>3.6207										

Based on node		19									
Predicting group:		Low merit rating									
No. conforming to profile who were rated high		0									
No. conforming to profile who were rated low		15									
Scale	Cut-off condition	1	2	3	4	5	6	7	8	9	10
fA Not very aloof	> 4.2181										
fB Low Intellectance	<= 4.6488										
fE Accommodating	<= 5.519										
fL Not very trusting	> 3.6207										
fQ2 Self sufficient	>4.9908										

Based on node		20									
Predicting group:		Low merit rating									
No. conforming to profile who were rated high		9									
No. conforming to profile who were rated low		1									
Scale	Cut-off condition	1	2	3	4	5	6	7	8	9	10
fB Average+ intellectance	> 4.6488										
fC Emotionally stable	> 6.8349										
fE Accommodating	<=5.519										
fL Not very trusting	>3.6207										
fQ2 Group-Orientated	< = 4.8077										

Based on node		22									
Predicting group:		Low merit rating									
No. conforming to profile who were rated high		0									
No. conforming to profile who were rated low		8									
Scale	Cut-off condition	1	2	3	4	5	6	7	8	9	10
fC Affected by feelings	<=5.6721										
fE Dominant	> 5.519										
fH Socially bold	> 5.3661										
fL Not very suspicious	<=8.3621										
fQ4 Composed	<= 4.815										

Based on node		28									
Predicting group:		High merit rating									
No. conforming to profile who were rated high		12									
No. conforming to profile who were rated low		0									
Scale	Cut-off condition	1	2	3	4	5	6	7	8	9	10
fE Dominant	>5.519										
fH Socially Bold	>5.3661										
fL Not highly suspicious	<=8.3621										
fQ2 Group Orientated	<=5.1169										
fQ3 Not highly self-disciplined	<=7.8416										
fQ4 Tense-driven	> 4.815										

Based on node		33									
Predicting group:		High merit rating									
No. conforming to profile who were rated high		8									
No. conforming to profile who were rated low		0									
Scale	Cut-off condition	1	2	3	4	5	6	7	8	9	10
fE Dominant	>5.519										
fH Socially Bold	>5.3661										
fL Not highly suspicious	<=8.3621										
fQ1 Radical	>5.1169										
fQ3 Not highly self-disciplined	<=7.8416										
fQ4 Tense-driven	>6.6465										

Based on node		34									
Predicting group:		High merit rating									
No. conforming to profile who were rated high		9									
No. conforming to profile who were rated low		2									
Scale	Cut-off condition	1	2	3	4	5	6	7	8	9	10
fC Emotionally stable	>5.6721										
fE Dominant	>5.519										
fG											
fL Not highly suspicious	<=8.6321										
fM Not very concrete thinking	>3.1054										
fQ3 Informal	<=6.1887										
fQ4 Composed	<=4.4487										

Based on node		37									
Predicting group		High merit rating									
No. conforming to profile who were rated high		10									
No. conforming to profile who were rated low		3									
Scale	Cut-off condition	1	2	3	4	5	6	7	8	9	10
fE Dominant	> 5.519										
fH Socially Bold	> 5.3661										
fL Not highly suspicious	<=8.3621										
fM Abstract	> 6.6928										
fQ1Radical	>5.1169										
fQ3 Not highly formal	<=7.8416										
fQ4 Average tense-driven	> 4.815 <=6.6465										

Discussion of classification tree results

Number of profiles giving a clear prediction of a high merit rating: 6

Number of profiles giving a clear prediction of a low merit rating: 5

Profiles that contained very few cases or where the difference between high and low rated respondents were not clear, were not reported here, but they can be seen on the graph and in the summary tree structure table.

These results support the hypothesis that there are several possible profiles that could predict success. There were also several profiles that indicated a probability of a low merit rating. It would be advisable to consider a respondent's similarity to these profiles when interviewing.

Predicting performance appraisal scores from personality questionnaire results:

15FQ Plus (Psytech)

Occupational Personality Questionnaire 32n (SHL)

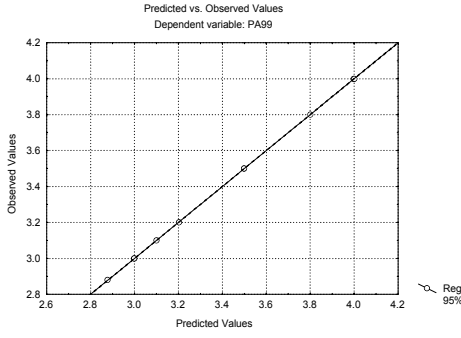
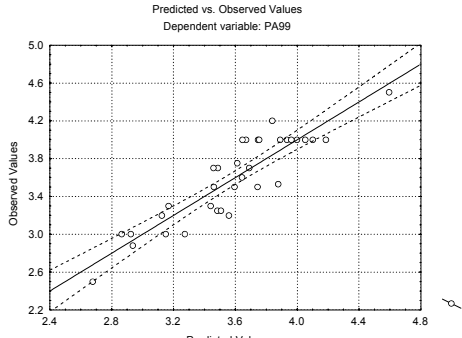
Sample: Managers and supervisors in a South African Manufacturing Company.

Criterion used: Performance appraisal scores from the previous year.

In the Scales sections of the results tables, the scale abbreviation is followed by the beta value, and then a descriptive label for the behaviour that is indicated.

Note: for the 15FQ Plus, the low end of the scale is used to describe the desired behaviour indicated by a negative beta value. If the relationship is negative, this is reflected in the descriptive label. Thus OPQ scales with negative beta values are described as Low, followed by the scale label.

Subgroup: Managers

	15FQ+	OPQ 32n
Multiple Correlation	.999	.899
Sample size	10	34
Significance	P < .007	.0001
Scales	C.34 Emotionally stable E.96 Dominant I -.28 Tough Minded Q3-.40 Undisciplined Q1 .29 Radical O .29 Self-assured	TS3 .68 Behavioural RP3 .85 Outspoken RP5 -.55 Low outgoing TS9 -.39 Low Forward Thinking FE10 -.43 Low Decisive RP10 -.50 Low Caring FE5 .47 Trusting TS11 .41 Conscientious FE3 .38 Tough Minded
Accuracy of prediction	 <p>Predicted vs. Observed Values Dependent variable: PA99</p>	 <p>Predicted vs. Observed Values Dependent variable: PA99</p>

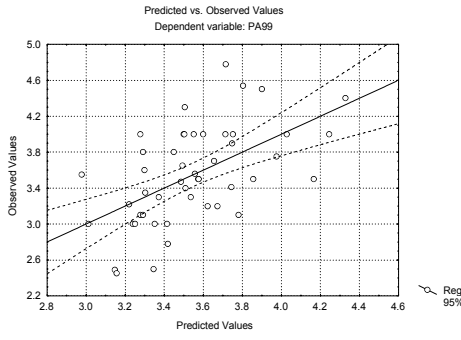
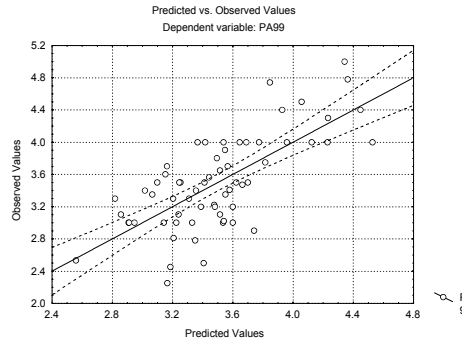
Note that the sample size for the 15FQ+ was extremely small, in fact, too small to perform a multiple regression reliably. The relationships between performance ratings and measured personality could change in subsequent studies. These particular results should only be viewed as tentative and exploratory.

Subgroup: Supervisors

	15FQ+	OPQ 32n
Multiple Correlation	.62	.93
Sample size	27	42
Significance	P<.06	P<.0004
Scales	F .30 Enthusiastic Q4 -.55 Relaxed C -.42 Affected by feelings E -.33 Accommodating H -.41 Retiring	FE9 .54 Achieving FE4 -.34 Low Optimistic TS6 .49 Innovative TS12 .52 Rule Following TS5 -.42 Low Conceptual RP8 -.62 Low Modest FE8 -.65 Low Competitive RP1 -.63 Low Persuasive TS7 -.56 Low Variety Seeking TS10 -.72 Low Detail Conscious TS8 -.38 Low Adaptable TS9 .44 Forward Thinking FE3 -.46 Low Tough Minded TS2 -.31 Low Evaluative
Accuracy of prediction	<p>Predicted vs. Observed Values Dependent variable: PA99</p>	<p>Predicted vs. Observed Values Dependent variable: PA99</p>

Once again, it should be pointed out that the sample is small, so these results should merely be taken as an indication.

Subgroup: Equity

	15FQ+	OPQ 32n
Multiple Correlation	.56	.71
Sample size	48	63
Significance	P<.03	P<0004
Scales	Q3 -.27 Undisciplined Q4 .27 Relaxed O -.25 Self-Assured A .25 Warmhearted H -.24 Retiring E .22 Accommodating L -.17 Trusting	FE1 .25 Relaxed FE7 .44 Vigorous TS11 -.34 Low Conscientious FE2 -.20 Low worrying RP9 -.23 Low Democratic FE3 -.26 Low Tough Minded FE9 -.25 Low Achieving FE6 -.22 Low Emotionally Controlled
Accuracy of prediction		

Once again, it should be pointed out that the sample is small, so these results should merely be taken as an indication.

Comments and recommendation

The relationship between performance appraisal results and personality measurement is markedly strong for both questionnaires, particularly bearing in mind the small sample size. These results should only be viewed as a pilot study.

It should be mentioned that the relationships found between performance appraisal and OPQ variables are in some cases counterintuitive, even though they are pronounced. If an automated person-job match is used, it is recommended that the person-specification be revisited. On the other hand, it may also be necessary to ascertain the relationship between the performance appraisal and the behavioural competencies that are desired. If it is found that the performance appraisal is not in line with the desired behavioural competencies, it is recommended that the study be supplemented with a 360 degree rating of performance or a competency based behavioural rating scale.

15FQ Validity: Predicting interview ratings from 15FQ+ scores

Sample description

125 Senior technical officers in the electricity supply industry. Data collected in 2003-2004.

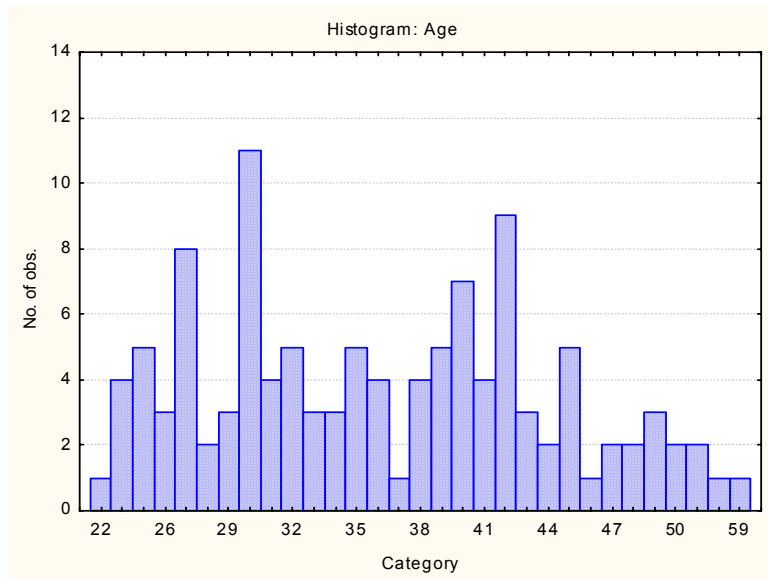
Ability tests included with the 15FQ+:

General Reasoning Test Battery (Numerical, Verbal and Abstract Reasoning)
Technical Test Battery (Mechanical Reasoning, Visual Acuity and Spatial Reasoning)

Category	Frequency table: Race			
	Count	Cumulative Count	Percent	Cumulative Percent
W	56	56	44.80000	44.80000
B	46	102	36.80000	81.60000
?	2	104	1.60000	83.20000
C	3	107	2.40000	85.60000
Missing	18	125	14.40000	100.00000

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
M	118	118	94.40000	94.40000
Missing	7	125	5.60000	100.00000

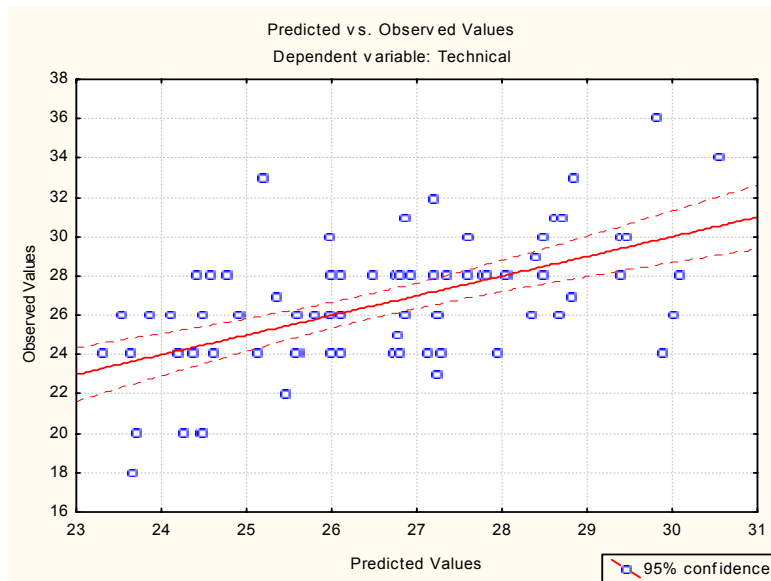
Category	Frequency table:			
	Count	Cumulative Count	Percent	Cumulative Percent
isiZulu	17	17	13.60000	13.60000
isiXhosa	3	20	2.40000	16.00000
Afrikaans	34	54	27.20000	43.20000
English	17	71	13.60000	56.80000
Sesotho	8	79	6.40000	63.20000
Xitsonga	1	80	0.80000	64.00000
Setswana	1	81	0.80000	64.80000
isiNdebele	1	82	0.80000	65.60000
Missing	43	125	34.40000	100.00000



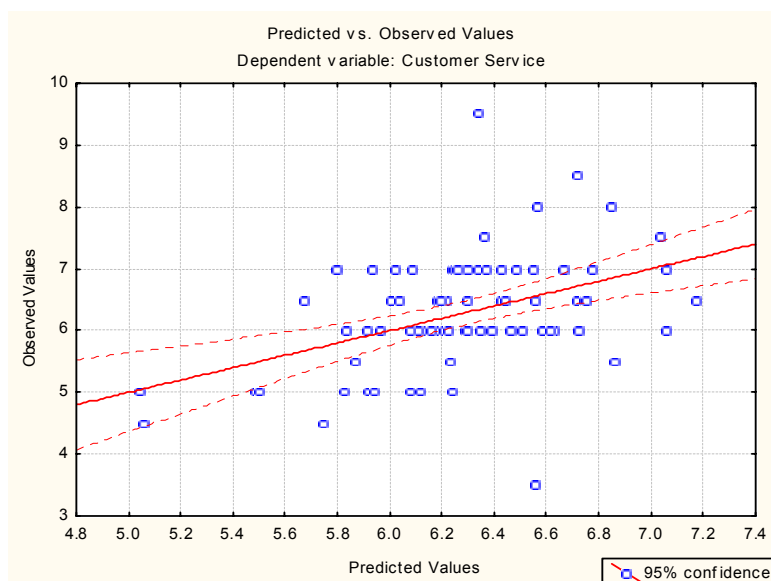
Summary of multiple regression results predicting Interview dimensions from 15FQ+ scores

Interview dimension	Multiple R (p-level)	Significant scales (Beta values)
Technical	.56 (00082)	Tense-driven (.39) Conventional (.38) Retiring (.59) Accommodating (.33)
Customer service	.48 (.0097)	Empathic (.32) Verbal Reasoning (.25)
Coaching	.57 (.002)	Visual Acuity (.44) Socially Bold (.49) Informal (.26) Accommodating (.31) Numerical reasoning (.33)
Innovation	.49 (.014)	Accommodating (.35) Socially Bold (.37) Visual Acuity (.31)
Motivational competency	.43 (.023)	Accommodating (.36)

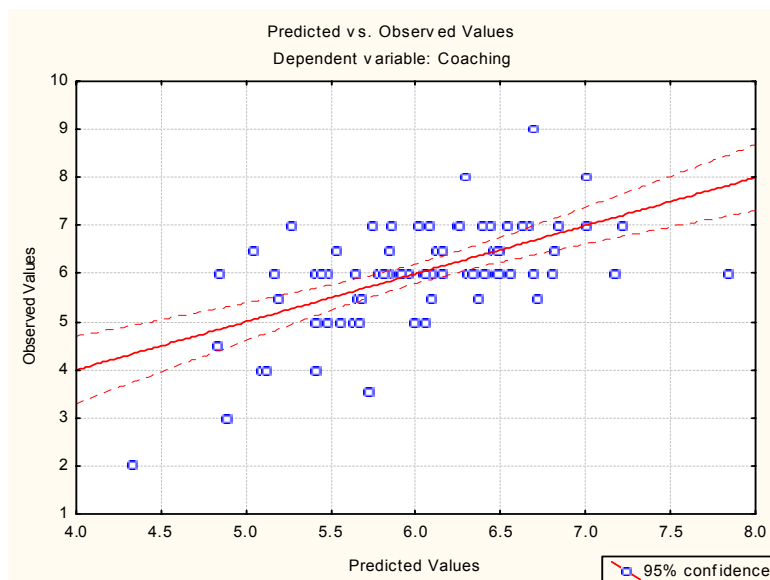
N=76	Regression Summary for Dependent Variable: Technical R= .56286903 R ² = .31682154 Adjusted R ² = .23524800 F(8,67)=3.8839 p<.00082 Std.Error of estimate: 2.8925					
	Beta	Std.Err. of Beta	B	Std.Err. of B	t(67)	p-level
Intercept			24.82543	2.600758	9.54546	0.000000
15FQ+_fQ4	0.389162	0.109848	0.22174	0.062589	3.54273	0.000727
15FQ+_fQ1	-0.376510	0.122809	-0.33424	0.109021	-3.06580	0.003128
15FQ+_fH	0.586491	0.157642	0.32498	0.087350	3.72041	0.000409
15FQ+_fE	-0.333782	0.130823	-0.24726	0.096913	-2.55141	0.013018
VAC_VAC	0.185854	0.105208	0.19251	0.108974	1.76654	0.081861
15FQ+_fQ2	0.221176	0.126146	0.13103	0.074731	1.75334	0.084118
15FQ+_fG	-0.159544	0.114543	-0.12507	0.089794	-1.39288	0.168261
15FQ+_fL	0.142060	0.104636	0.12405	0.091372	1.35765	0.179129



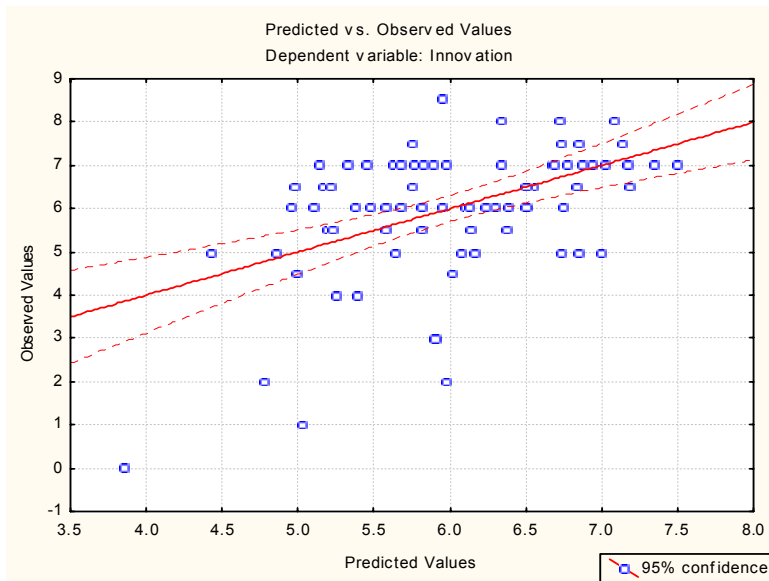
		Regression Summary for Dependent Variable: Customer Service					
		R= .43708982 R ² = .19104752 Adjusted R ² = .13326519					
		F(5,70)=3.3063 p<.00974 Std.Error of estimate: .87134					
N=76		Beta	Std.Err. of Beta	B	Std.Err. of B	t(70)	p-level
	Intercept						
	15FQ+_fA						
	GRT2V_VR2						
	15FQ+_fQ3	-0.186143	0.112392	-0.065981	0.039839	-1.65620	0.102158
	15FQ+_fI	-0.145339	0.109640	-0.028704	0.021653	-1.32560	0.189281
	15FQ+_fQ1	-0.146141	0.114884	-0.036710	0.028858	-1.27207	0.207557



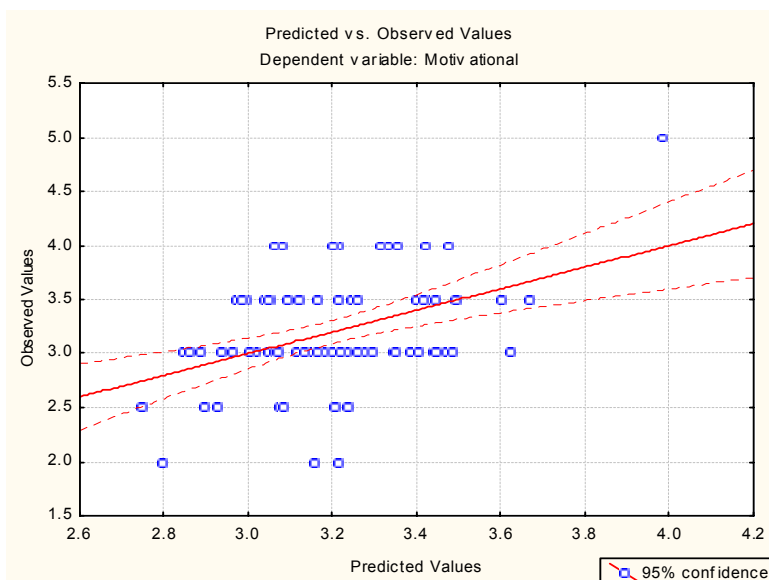
		Regression Summary for Dependent Variable: Coaching R= .57436620 R ² = .32989653 Adjusted R ² = .22680369 F(10,65)=3.2000 p<.00213 Std.Error of estimate: .96317					
N=76		Beta	Std.Err. of Beta	B	Std.Err. of B	t(65)	p-level
	Intercept			7.865086	1.177363	6.68026	0.000000
	VAC_VAC	0.444399	0.151560	0.152437	0.051988	2.93217	0.004643
	15FQ+_fH	0.488210	0.143925	0.089587	0.026410	3.39211	0.001185
	15FQ+_B	-0.199604	0.137937	-0.043520	0.030074	-1.44707	0.152684
	15FQ+_fQ3	-0.264244	0.112108	-0.109621	0.046508	-2.35705	0.021443
	15FQ+_fQ1	-0.212126	0.112215	-0.062361	0.032989	-1.89035	0.063171
	15FQ+_fE	-0.309840	0.135895	-0.076011	0.033338	-2.28000	0.025897
	GRT2N_NR2	0.335523	0.165261	0.072867	0.035890	2.03026	0.046426
	GRT2A_AR2	-0.346297	0.178728	-0.069163	0.035696	-1.93757	0.057023
	15FQ+_fQ4	0.187499	0.126931	0.035379	0.023951	1.47717	0.144458
	15FQ+_fC	0.166496	0.128349	0.034107	0.026293	1.29721	0.199145



		Regression Summary for Dependent Variable: Innovation R= .49025995 R ² = .24035482 Adjusted R ² = .14965091 F(8,67)=2.6499 p<.01375 Std.Error of estimate: 1.4056					
N=76		Beta	Std.Err. of Beta	B	Std.Err. of B	t(67)	p-level
	Intercept						
	GRT2V_VR2	0.255215	0.140954	0.075780	0.041853	1.81062	0.074684
	15FQ+_fO	-0.122853	0.115388	-0.039405	0.037011	-1.06470	0.290834
	15FQ+_fE						
	15FQ+_fH						
	15FQ+_fF	-0.251491	0.127565	-0.070583	0.035802	-1.97147	0.052802
	VAC_VAC						
	GRT2A_AR2	-0.289127	0.184323	-0.080354	0.051227	-1.56859	0.121455
	GRT2N_NR2	0.196037	0.179958	0.059243	0.054384	1.08935	0.279903



		Regression Summary for Dependent Variable: Motivational				
N=76		R= .43168938 R ² = .18635572 Adjusted R ² = .11560404 F(6,69)=2.6339 p<.02332 Std.Error of estimate: .48543				
	Beta	Std.Err. of Beta	B	Std.Err. of B	t(69)	p-level
Intercept			2.429251	0.440990	5.50864	0.000001
15FQ+ _fI	0.204381	0.113314	0.022262	0.012342	1.80367	0.075648
15FQ+ _fE	-0.357098	0.142328	-0.041283	0.016454	-2.50899	0.014460
MRT2_MRT2	0.230539	0.117687	0.017080	0.008719	1.95892	0.054165
15FQ+ _fH	0.276075	0.153545	0.023873	0.013278	1.79801	0.076550
15FQ+ _fQ2	0.184576	0.128699	0.017065	0.011899	1.43417	0.156039
15FQ+ _fA	0.146449	0.118672	0.020559	0.016659	1.23407	0.221364



15FQ Validity: Correlations with Occupational Personality Profile

Sample description

125 Senior technical officers in the electricity supply industry. Data collected in 2003-2004.

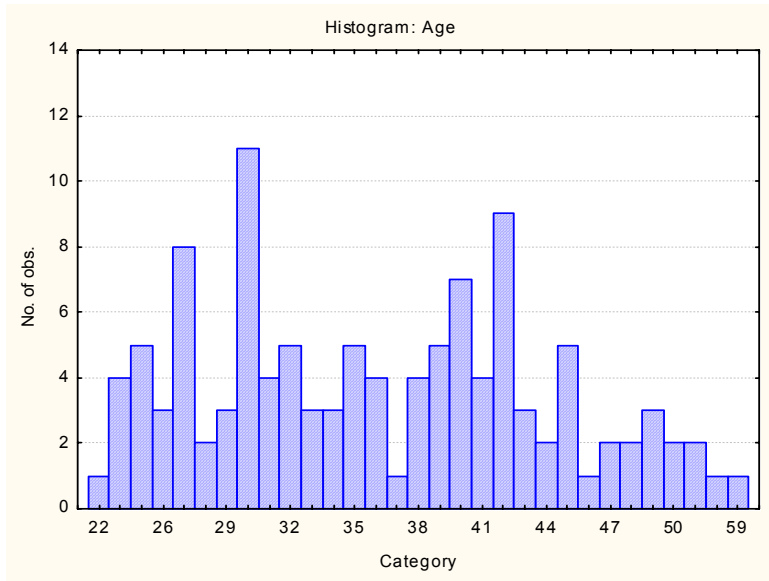
Ability tests included with the 15FQ+:

General Reasoning Test Battery (Numerical, Verbal and Abstract Reasoning)
 Technical Test Battery (Mechanical Reasoning, Visual Acuity and Spatial Reasoning)

Category	Frequency table: Race			
	Count	Cumulative Count	Percent	Cumulative Percent
W	56	56	44.80000	44.80000
B	46	102	36.80000	81.60000
?	2	104	1.60000	83.20000
C	3	107	2.40000	85.60000
Missing	18	125	14.40000	100.00000

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
M	118	118	94.40000	94.40000
Missing	7	125	5.60000	100.00000

Category	Frequency table:			
	Count	Cumulative Count	Percent	Cumulative Percent
isiZulu	17	17	13.60000	13.60000
isiXhosa	3	20	2.40000	16.00000
Afrikaans	34	54	27.20000	43.20000
English	17	71	13.60000	56.80000
Sesotho	8	79	6.40000	63.20000
Xitsonga	1	80	0.80000	64.00000
Setswana	1	81	0.80000	64.80000
isiNdebele	1	82	0.80000	65.60000
Missing	43	125	34.40000	100.00000



Correlations with Occupational Personality Profile Scales

OPP Scale	15FQ+ Correlates
Assertive	High Intellectance 0.26 Dominant .66 Socially Bold .45 Abstract .26 Direct .39 Self assured .23 Informal .22
Flexible	Distant aloof .25 Expedient .44 Trusting .33 Concrete .26 Direct .31 Informal .41
Trusting	Trusting .54 Group-orientated .25
Phlegmatic	High intellectance .37 Emotionally stable .59 Dominant .23 Socially Bold .31 Self-assured .52 Composed .35
Gregarious	Dominant .23 Enthusiastic .60 Socially Bold .47 Group-Orientated .64

15FQ Validity: Predicting accidents and sick leave

Sample description

125 Senior technical officers in the electricity supply industry. Data collected in 2003-2004.

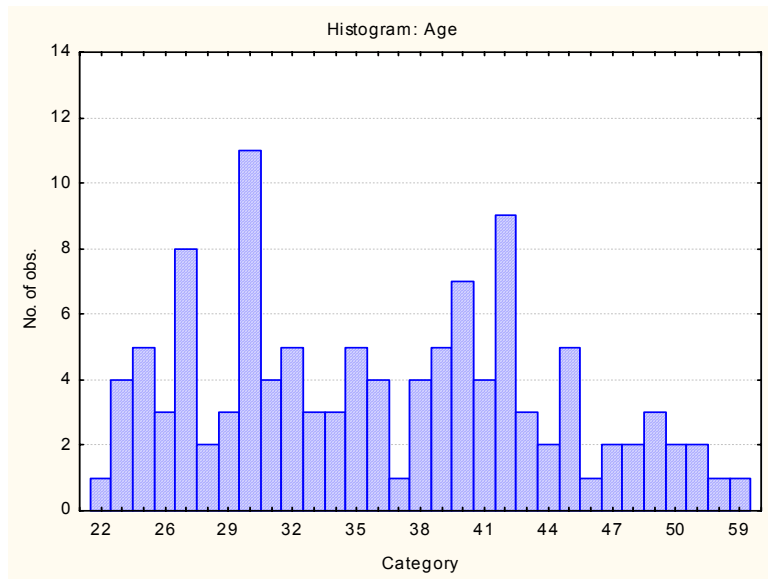
Ability tests included with the 15FQ+:

General Reasoning Test Battery (Numerical, Verbal and Abstract Reasoning)
Technical Test Battery (Mechanical Reasoning, Visual Acuity and Spatial Reasoning)

Category	Frequency table: Race			
	Count	Cumulative Count	Percent	Cumulative Percent
W	56	56	44.80000	44.80000
B	46	102	36.80000	81.60000
?	2	104	1.60000	83.20000
C	3	107	2.40000	85.60000
Missing	18	125	14.40000	100.00000

Category	Frequency table: Sex			
	Count	Cumulative Count	Percent	Cumulative Percent
M	118	118	94.40000	94.40000
Missing	7	125	5.60000	100.00000

Category	Frequency table:			
	Count	Cumulative Count	Percent	Cumulative Percent
isiZulu	17	17	13.60000	13.60000
isiXhosa	3	20	2.40000	16.00000
Afrikaans	34	54	27.20000	43.20000
English	17	71	13.60000	56.80000
Sesotho	8	79	6.40000	63.20000
Xitsonga	1	80	0.80000	64.00000
Setswana	1	81	0.80000	64.80000
isiNdebele	1	82	0.80000	65.60000
Missing	43	125	34.40000	100.00000



Correlations of 15FQ+ scales with sick leave taken over the past two years and number of accidents

Variable	Correlations Marked correlations are significant at p < .05000	
	Sick2yrs	Accidents
15FQ+_fA	0.05	0.20
15FQ+_B	-0.11	0.06
15FQ+_fC	-0.33	-0.21
15FQ+_fE	0.05	0.09
15FQ+_fF	0.15	-0.07
15FQ+_fG	-0.01	-0.01
15FQ+_fH	0.01	0.10
15FQ+_fI	-0.03	0.11
15FQ+_fL	0.06	-0.07
15FQ+_fM	-0.01	0.22
15FQ+_fN	-0.04	-0.16
15FQ+_fO	0.28	0.08
15FQ+_fQ1	0.04	0.32
15FQ+_fQ2	-0.08	0.07
15FQ+_fQ3	-0.01	0.05
15FQ+_fQ4	0.14	-0.03