TITLE PAGE

APPLICATION OF ITEM RESPONSE THEORY IN THE DEVELOPMENT OF STUDENTS' ATTITUDE TOWARDS MATHEMATICS SCALE

A

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BY

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CERTIFICATION

The undersigned certify that they have read and recommended to the college of Graduate studies for the acceptance of this dissertation titled:

Application of Item Response Theory to the development of students' attitude towards mathematics (SATM) scale.

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DECLARATION

This is to certify that I am responsible for this work submitted in this dissertation, that the original work is mine except as specified in acknowledgement and references and that neither the dissertation nor the original work contained herein has been submitted to this University or any other Institution for the award of a degree.

BOMO, CAROLINE ASEBH

DEDICATION

This dissertation is dedicated to the Almighty God who gave me the grace and wisdom to face all the odds to accomplish this work successfully, and for giving me a pastor; Pastor David Ibiyeomie whose teachings have built me up to face challenges with a positive attitude.

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ABSTRACT

In every psychological measurement situation there is an underlying variable of interest which cannot be directly measured. The goal of Educational Measurement is to determine how much of this variable a person possesses. Scales are developed to measure this variable. The development of a scale is based on Classical Test Theory (CTT) and Item Response Theory (IRT). CTT is based on the idea that an observed score is composed of true score and an error score. IRT is a set of mathematics models that describe in probability terms the relationship between an examinee response to an item and his/her ability level measured by the scale. This study was aimed at applying IRT to the development of Students' Attitude Towards Mathematics (SATM) scale. Ten research questions were drawn to guide the study. Attitude was theoretically defined to have seven components, items were generated and validated, a content validity index (CVI) was computed as .99. The sample consisted of 2400 students from 16 sampled schools, from Bayelsa and Rivers state. A multi-stage sampling procedure was employed. Assumptions were evaluated with Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA). Graded Response Model (GRM) was employed for the IRT analysis. 50 items were selected and calibrated, Item and scale properties were estimated and produced. Construct validity was established using the multi-method procedure with CFA. A reliability index was computed for the SATM estimates as .98. The result revealed that the scale has high content and construct validities, items and scores were estimated with high rate of precision, the scale is well matched with SATM values, items will measure SATM with high level of precision, information provided by the scale is 76 at SATM= -0.15, items and students were placed on the same metric scale . From the result it is concluded that IRT is a powerful, flexible and elegant tool to use for development of instruments with maximum precision. Hence IRT should be employed by researchers to construct their instruments for accurate results in order to make reliable and valid conclusions.

CHAPTER ONE

INTRODUCTION

1.1 Background to the study

In every psychological measurement situation, there is an underlying variable of interest which could be attitude, ability. This variable is unobservable and cannot be directly measured; it is referred to as latent construct, latent trait, latent variable, ability or proficiency. The primary goal of educational and psychological measurement is the determination of how much of this variable a person possesses. Scales are developed to create a valid and reliable measure of this latent construct. The development of a scale is based on two test theories. The Classical Test Theory (CTT), and Item Response Theory (IRT). These approaches differ in their ways of item analysis, item selection, establishing reliability, scoring, and interpretation of scores.

CTT is a more traditional framework. CTT is of the idea that a respondent or test taker's observed test score is not a true representative of his/her performance, that random error impacts on test performance to either increase or decrease the observable test score. Hence, the most fundamental assumption of the CTT is that a respondents' observed score X on a scale or test represents his /her true score T plus random error score E ($X = T + E$). It is base on weak assumptions that can easily be met by data sets. There are a countless number of achievement, aptitude, and personality tests that have been constructed with this model and procedure. However, there are lots of limitations. The true score is not an absolute characteristic of the test taker because it depends on the content of the test items and are summed across items to get the score, and so it is not an accurate measure of an individual's ability or trait level. Item parameters are also sample dependent; Hence, it is difficult to compare test takers results between different tests. Test or scale reliability and standard error of measurement (SEM) are estimated as a constant for all respondents and so can only address one source of measurement error at a time. Thus, cannot provide information about the effect of multiple sources of error and how these differ. Hence, CTT fails to provide a satisfactory solution to many testing problems like designs of test, identification of biased items, equating of test scores. Also it does not inform test developers about the location of the minimum discriminating power of items on test or scale. Score interpretation is not related to the underlying construct. It is based on the standing of the individual in the group. Scores are not also placed on a metric scale and so scale score are normative. In order to overcome these limitations the IRT was developed. IRT is a powerful tool for use in scale development. It has been the preferred method in standardized testing since the development of computer programs which could perform the complicated calculations that it requires (Sharkness & Angelis, 2011) . This study therefore was based on IRT.

IRT is a probabilistic model for expressing the relationship between an individual's response to an item and the underlying latent variable often called trait or ability measured by the instrument.(Reeve,2002). It relates item performance to the ability measured by the whole scale. The ability is denoted by θ. IRT uses the ability scale to determine the amount of latent trait (ability) an individual possesses. The ability scale is an interval scale with a midpoint of zero and standard deviation of one. It ranges from plus infinity to minus infinity, but practical consideration is usually from -3 to +3, in some cases from -4 to +4. The relationship between the probability of responding to an item and the ability scale is called item response function. The higher the ability, the higher the probability of getting a right response or responding to a higher category. IRT model θ by using mathematical equations that relate response patterns to a set of items. A trace line called the item Characteristic Curve (ICC) or the category response curve (CRC) is used to describe the item response function. IRT framework encompasses a group of models and the applicability of each model depends on the nature of the test items. Models could be unidimensional; i.e models measuring one construct or multi-dimensional; i.e models measuring more than one construct. Unidimensional models are either dichotomously scored (wrong/right, yes/no) or polytomously scored (eg. Likert scale).

IRT makes strict assumptions that are difficult to meet. It needs large sample size, more difficult to use, because computer programs are not readily available. Models are complex and difficult to understand. Model outputs are also difficult to interpret. Yet, it has a lot of advantages that attract it usage; IRT makes more accurate estimate of ability, measures precision at each level of ability, design informative test, can tailor test to need, can assess the contribution of each item to the precision of the total test score. Ability on different test can be easily compared, select items that behave similarly across population, item parameters are sample independent, estimation of ability is item independent, produces scale at interval level of measurement, handles cases with missing data, measures the consistency of pattern of response for each item, reliability is replaced by test information function. Hence, IRT is a more powerful tool for scale development. Despite the advantages of IRT most Pychometricians and psychologist are not familiar with the application and procedures of IRT in test development and psychological measurement. This study was therefore aimed at applying the procedures of IRT to the development of attitude towards mathematics scale for secondary school students.

Secondary education is the period of education when students are prepared for higher education and useful living within the society. (National Policy on Education, 2004). With the increase in technology advancement and the Nation's goal of becoming one of the 20 most developed economy by the year 2020, students need to be well equipped to cope with the changes in the society. There is the need therefore to increase the number and competent of students entry and succeeding in science technology, Engineering and mathematics fields in the higher institution, in other to meet these goals. This can only be achieved if students have the right attitude towards mathematics.

Mathematics is a very important subject, it is often called the mother of all sciences and its knowledge is necessary for the study of science technology, Engineering and mathematics courses in higher education. It is compulsory for every student in the secondary school; it is one of the requirements for admission in the higher institution. However, the rate of failure of students in mathematics in the SSCE is very alarming. The interest in mathematics is also very poor. Most students have low concept of their ability to learn mathematics and so lack confidence of themselves, which has resulted to their fear and anxiety in learning mathematics. Some of them also do not understand the usefulness , relevance and worth of mathematics in their present and future lives and so there is no motivation to persevere and develop likeness for the subject, parents and teachers also do not have confidence in the students and so they provide them with everything they need, instead of encouraging and motivating them to persevere and be independent learners. It is therefore necessary to encourage and motivate students to have the right attitude towards mathematics in other to produce a generation of people who can cope with the changing needs of the society.

Attitude are internal characteristics or dispositions that are most affected by individuals internal perception, it can determine the extent to which learning occur and how learning occur and impact students ability to function generally (Goodykoontz,2009; Marzona, 2001; Anderson et al, 2002). Various studies have shown that students attitude in mathematics is strongly related to their learning outcomes and success in mathematics. (lepman & Afansjev,2005; Kirsti,2006; lader & kloosterman, 2004). Hence students' negative disposition towards mathematics results in high level of failures and lack of interest and motivation in any course involving mathematics. As a consequence many students find themselves unable to pursue a degree in mathematics or any area that relies heavily on using mathematics, resulting in many different career and academic opportunities being closed for them. Hence it is necessary for teachers to foster positive attitude in students towards mathematics. Fostering positive attitude towards mathematics is highly recognized as one critical component in developing student's mathematical ability. Many countries have set it as one of the aims of mathematics education in schools. In the case of Singapore, the national mathematics curriculum stated that mathematics education includes confidence, enjoyment, value, motivation and perseverance. Without the development of the right attitude and skills, individuals will not be well prepared to acquire the new knowledge and skills necessary for successful adaptation to changing circumstances. It is necessary therefore to measure the attitude of students to understand their dispositions in mathematics in order to foster and strengthened the disposition of their attitude towards mathematics.

Several scales have been developed to measure students' attitude towards mathematics. Upon examination of this scale, it was clear that they do not actually reflect the complexity of students' disposition on mathematics. However the instrument by Tapia and Marsh (2004) measured dispositions like confidence, anxiety, value ,enjoyment, motivation and parent/teachers expectations, but most of the items do not reflect the disposition of students in the Nigerian set up. Perseverance which is an important disposition for mathematics achievement is not also measured. This study therefore was designed to develop mathematics attitude scale that would measure students' dispositions such as; confidence, anxiety, value, enjoyment, motivation, perseverance, and teachers contributions, to help develop favorable dispositions in mathematics and mathematics related courses

All the scales developed to measure students' attitude towards mathematics employed the procedures of CTT. Considering the importance in addressing students' attitude towards mathematics, it is necessary to ensure that measures of students' attitude towards mathematics are as precise as possible. Given the limitations of CTT it is obvious that existing scales on students' attitude towards mathematics do not possess the required psychometric properties needed for precise measures, to allow good diagnosis of students' attitude towards mathematics, and so an explicit model is needed to relate the latent variable in attitude towards mathematics to item response behavior. IRT therefore offers a useful fundamental tool for relating latent variable to observed scores, and so the researcher deemed it fit to develop students' attitude towards mathematics scale that would have required psychometrics properties needed for precise measure and allow good diagnosis of students' attitude towards mathematics, and hence the study 'Application of IRT in the development of students' attitude towards mathematics scale for secondary school 5students.

1.2 Statement of problem

One of the problems with CTT in test construction is the fact that the values of item statistics depend on the particular sample in which they are obtained. The average level of ability and the range of ability scores in a sample, influence the values of item statistics. Hence item statistics are useful only in item selection when constructing scales for a population that is very similar to the sample of respondents in which the item statistics were obtained. Therefore items from different subset of an item bank cannot be easily compared because their item statistics were obtained from different sub-set of the population.

Furthermore, comparing respondents' ability, by a set of items comprising a scale, is limited to situations in which respondents are administered the same items, an so when items are selected to match the ability levels of the respondents, the task of comparing respondents becomes a difficult problem which cannot be handled by CTT.

Another problem is the fact that CTT fails to provide a basis for determining how a respondent might perform when confronted with an item. Such information is necessary to design scales with particular characteristics for certain population of respondents. Also in CTT items cannot be selected to yield a scale that meets a fixed specification in terms of precision of measurement. The contribution of an item to the reliability of a scale does not also depend on the characteristics of the item alone, but also on the relationship between the item and the other items in the scale. Thus, it is not possible to isolate contribution of an item to the reliability and hence standard error of the scale. Another problem is that estimation of ability in CTT does not reflect the true characteristics of the individual been measure, the scores of all items are summed to give the ability estimate.

All the existing scales used to measure students' attitude towards mathematics (SATM) applied the procedures of CTT, which failed to provide a basis for accurate measurement of SATM, failed to provide improvement in scaling person and item, and to provide flexibility were different samples and test forms are used. Therefore an explicit model is needed to relate the latent variable in attitude towards mathematics to item response behavior, that will identify students' attitude levels with accuracy in order to help foster positive attitude towards mathematics, to develop their mathematical ability.

1.3 The aim and objectives

The aim of this study was to apply IRT to the development of Students' Attitude towards Mathematics (SATM) Scale for secondary school students.

The objectives to be achieved in this study were to:

I. Generate items for the scale

II. Carry out content validity of the items

III. Administer the validated scale to the selected sample

IV. Evaluate assumptions of the data

V. Carry out item analysis using the GRM

VI. Select items of appreciable quality

VII. Calibrate the selected items

VIII. Establish construct validity

IX. Compute the reliability of theta estimates

X. Prepare the score manual

1.4 Significance of the study

This study will be significant to Students, Teachers, Counselling Psychologist and School Administrators. The scale will be a source of instrument for Teachers to identify Students strengths and weaknesses in Mathematics in order to help foster and strengthen their mathematics abilities by encouraging them to have positive attitude towards Mathematics , in order to have a good background in Mathematics. It will also help the Counsellor to diagnose students' mathematics ability levels with precision, in order to encourage them and guide them properly in their career choices. For the Students these processes will help them develop the right attitude and skills to prepare them acquire the needed skills and knowledge necessary for successful adaptation to changing circumstances. It could also be used to get valid and reliable information about students for administrative purposes.

The Theoretical, Conceptual and Empirical reviews, methods, procedures and the result will provide information to the Researchers, the Psychometricians and the Examination bodies. For the researcher this information will help in developing and evaluating instruments for their studies for quality results and so make valid and reliable conclusions. For the Psychometricians the information will help them understand the concept and intricacies of IRT, an how to apply these procedures to develop quality instruments. It will also help them develop instruments that are tailored to the need of a particular population. To the Examination bodies this information will help them build up their item banks and also help them assess their candidate with short tests by selecting items that match their ability.

In conclusion this study could also be a source of empirical literature and a basis for further studies.

1.5 Research questions

This study was aimed at answering the following questions:

1. What is the content validity of the SATM scale
2. What is the spread of category difficulties?
3. How discriminating is each item?
4. What is the distribution of traits (SATM) in this group of respondents?
5. How does the ability (SATM) distribution compare to the item difficulty distribution?
6. How much information does the test provide over the ability (SATM) range?
7. How does each item contribute to the test information?
8. How does the scale measure the construct SATM?
9. How reliable are the trait (SATM) estimates ?
10. What is the score manual?

1.6 Scope

- The scope of this study is to develop a SATM scale for secondary school students using the polytomous IRT. Analysis will be done using EFA,, CFA and GRM.

- The technicality of ability estimation and paramerter estimation is beyond this study. Xcalibre software was used for all the estimations under the GRM

1.7 Assumptions

This study assumes local independence and unidimensionlity

CHAPTER TWO

LITERATURE REVIEW

This chapter is concerned with literature review, and it is organized under the following sub-headings

2.1 Theoretical framework

2.1.1 Theoretical framework of scale development

2.1.2 Theoretical framework of students' attitude towards mathematics

2.2 Conceptual framework

2.2.1 Concept of IRT

2.2.2 Concept of students' attitude towards mathematics

2.3 Review of related literature

2.4 Summary of related literature

2.1 Theoretical framework

2.1.1 Theoretical framework of scale development

The development of a scale is based on two test theories; the classical test theory (CTT) and item response theory (IRT). The development of a scale differs with these two theories in their item analysis, item selection, establishing reliability, scoring and score interpretation.

CTT was originally the leading framework for analyzing and development of standardized tests. It could be traced back to Spearman's conception of the observed test score as a composite of true and error components and which was introduced to psychologists at the beginning of the 20th century. (Linder & Glas, 2000; Haiyang, 2010; Junker & Sijsma,2006; Croker & Algina, 2006). Fundamental to classical test theory is the idea that if the same test is given, on repeated measure, to the same testee, in the same testing situation, that factors such as the testees physical and mental well-being and the testing conditions in the room are liable to exert impact on the performance to either increase or decrease the test score (Sijam & Junker, 2006; Hambleton & Swamminathan, 2010). Hence CTT rest on the idea that due to random error E an observable test score X often is not the value representative of the testees performance on the test T and so , it expressed observed score as the sum of random error and true score. $X = T + E$.

CTT assumes that each individual has a true score which would be obtained if there were no errors in measurement; hence the difference between observed score and true score results from random error . Errors are randomly distributed around the true score, and so on repeated measures, the expected mean of error score is zero, and the observed score equal the true score. Error scores and true score are uncorrelated. Two tests are parallel when the true score and error variances are equal; two tests are equivalent when they have the same true scores. The expected variance of the observed score is the variance of the true score plus the error variance, the implication is if error variances are reduced, the observed score variance will move closely approximate the true score variance. The main purpose of CTT is to determine the degree in which test score are influence by random errors which has led to multiple methods of estimating test reliability (Groper,2008; Wren, 2005; Shultz & Whitney, 2005; Haiyang, 2010; Croker & Algina 2008).

IRT originated and was developed in psychology and sociology in the 1940s and 1950s and the first half of 1960s. It was first formalized in the work of Lord and Novick in 1968 to allow the evaluation of both student's ability and item properties, such as item difficulty and discrimination capability. The popularity came much more lately in the 1970s with the inception of computers (Van der Linden & Hambleton, 2010; Ham & Hambleton, 2007). It was initially used for dichotomous responses alone until very recently when polytomous models were formulated.

IRT was originally developed to overcome the limitations of CTT. A major part concerning the theoretical work was provided in the 1960's (Wiberg, 2006). It is a probabilistic model for expressing the relationship between an individual's response to an item and the underlying latent variable often called trait or ability measured by the instrument. (Reeve,2002). It relates item performance to the ability measured by the scale. The ability is denoted by $\boldsymbol{\theta}$. IRT uses the ability scale to determine the amount of latent trait an individual possesses. The ability scale is an interval scale with a midpoint of zero and standard deviation of one. It ranges from plus infinity to minus infinity, but practical consideration is usually from -3 to +3. (Barker, 2002; Barker & Kin, 2004; Reeve, 2002; Hambleton & Swamminathan, 2010).

It is assumed that every examinee or respondent responding to an item has an ability to get a score that places him/her on the ability scale and so at every ability level there is a probability of answering an item correctly $\boldsymbol{P(\theta)}$ or responding to a particular category . Hence IRT is of the idea that the probability of answering an item correctly or responding to an item is a function of the item characteristics and the ability or level of the construct the person possesses. The relationship between the probability of correct response or probability of responding to an item and the ability scale is called item response function. The higher the ability, the higher the probability of getting a right response, for a cognitive item, or endorsing a higher category for a polythomous item. A trace line called the item Characteristic Curve (ICC) or category response curve (CRC) is used to describe the item response function. IRT could be dichotomously score or polytomously scored.

There are three parameters used to describe the ICC for the dichotomous responses; The difficulty parameter ***b*** of an item which describes where the items function in the ability scale. It is the point on the ability scale where the probability of correct response to an item is **0.5**. The more difficult an item is, the higher an examinee's ability must be in order to answer the item correctly. Items with high ***b*** values are hard items, which low-ability examinees are unlikely to answer correctly. Items with low ***b*** values are easy items, which most examinees, including those with low ability, will have at least a moderate chance of answering correctly. Discrimination parameter ***a*** which describes how an item can differentiate between examinee having ability above or below the item location. This reflect the steepness of the ICC in its middle section, the steeper the curve the better the item can discriminate. High discrimination indicates that higher-scoring examinees tend to answer the item correctly, while lower-scoring examinees tend to answer it incorrectly, the guessing parameter ***c*** is introduce in the model to account for the performance of low ability examinees on multiple choice test items, where the low ability students can choose the correct answer by guessing. ***C*** values are usually close to the reciprocal of the number of answer choices, a ***c***-value for a four point item will be .25. The ***c*** value can be influenced by random and non-random factors. It is also called the item lower asymptote, because the ICC does not get lower than ***c*** no matter how low the students ability.

Polytomous models are models with more than two response category for each item , such as likert scale. They are derived from the dichotomous models and are relatively new. They are scored in a way that reflects the particular score category that a respondent has selected. Each item has m-1 threshold parameters, or m-1 step difficulty, where m is the number of categories. Hence an item with 5 response categories will have four threshold parameters. In the polytomous models the ***b*** parameters are called threshold parameters because they indicate the thresholds at which respondents have equal probability of responding to a particular category or higher. Item step-difficulty parameters indicates on the latent continuum where the category response curves intersect, it indicates the relative difficulty of each step within an item, and the discrimination parameter indicates how rapidly the response probability change as theta changes, it indicates the degree to which category response vary among items as theta changes. These item parameters are used to describe the category response curve (CRC). Each response category has a unique probability associated with it. In most polytomous models the response categories are ordered according to the level of agreement with a particular statement.

Item analysis in CTT involves determining item parameters which are dependent on the sample, by using simple mathematical techniques with small sample size. Item parameters in CTT are item difficulty, item discrimination and item distracters for a dichotomous response scale, Mean, standard deviation, item total correlation, biserial correlation for a polytomous response scale. Item analysis in IRT involves estimating item parameters that are sample independent by using complicated mathematical techniques with very large sample size. Item parameters are discrimination indices, item difficulty and guessing parameter depending on the model, for dichotomous models employed. For polytomous models item parameters are discrimination parameter, m-1 threshold parameters or m-1 step difficulties parameters depending on the model employed.

Reliability in CTT employs one of the following methods; parallel-form, test-retest, split-half, cronbach alpha, kuder-Richerson which are all sample specific. Reliability and SEM are estimated as a constant for all respondents so can only address one source of measurement error at a time and cannot provide information about the effect of multiple sources of errors and how these differ. In IRT reliability is replaced by information function. Information function indicates the range over theta for which an item or scale is most useful (reliable) for measuring persons levels. Higher information denotes more precision (reliability).. The test information function is the sum of all the items information. The information function is used to calculate the SEM and the reliability of theta scores. The SEM is the reciprocal of the square root of the information. The information function can also be calculated in item level, and so the contribution of each item to the precision of the total score can be assessed. The slope of an item information function is defined by the item discrimination and threshold parameters. Information function is the precision with which ability is estimated, high information means high precision. IRT measures precision at each level of ability.

Item selection is based on the item difficulty and discrimination for dichotomous scale and mean and item -total correlation for the polytomous scale for CTT. The choice of item difficulty is always governed by the purpose of the test and anticipated ability distribution of the group the test is intended. IRT offers test developers a more powerful method of item selection. Selection of items depend on the amount of information an item contributes to the amount of information supplied by the scale. This allows the test developer select items that can tailor test to need, select items that behave similarly across population, design informative test. Hence produce a test that will very precisely fulfil any set of desired test specification.

In CTT trait levels are scored by summing responses across items. Responses are summed into a total score and then converted into a standard score. In IRT a person trait level is estimated in a model for a person's responses. The trait level that yield the highest likelihood for a response pattern is sought. Hence to find the appropriate level, one most represent the likelihood of a response pattern under various trait levels and conduct a search process that yield the trait level that gives the highest likelihood. The estimated trait level for a person maximizes the likelihood of his or her response pattern given the item properties.

Scores obtain meaning in CTT by comparing its position on a standard namely a norm group. The comparison between two different scores exhibit ordinal properties. Test scores are compared to the mean and standard deviation of the norm group. Norm reference score have no meaning for what the person virtually can do. In IRT trait levels have meaning in comparing to items. Person and items are placed on a common scale in IRT models. The numerical bases of comparison is a difference or a ratio depending on the scale unit in the model. The difficulty of item is located on a continuum typically ranging from -4 to +4 which is similar in magnitude to z- score. The difference between a person's trait level and item difficulty has direct meaning for performance. Hence meaning is referenced to the items. A norm reference interpretation can also be given in IRT but for it to be valuable it is essential to show that the values of the item parameters are not dependent of the characteristics of the sample in which items are calculated such as race, sex, geographical location etc. The theta values are converted to scale scores and percentiles.

IRT models are more stringent and complex and the model outputs and procedures of analysis are difficult to understand than CTT. It also require special software for the estimation of parameter, yet it has a lot of advantages over CTT that warrant its usages. CTT scale score is the sum of all the items in the scale and so it is not an accurate measure of an individual's ability, The scale score in IRT has a major advantage over CTT. It estimates individuals latent trait level scores based on all the information in a participants response pattern, and it takes into consideration which items were answered correctly and which ones were answered incorrectly or the category responses for each item, and utilizes the item parameters when estimating ability levels. This gives a more accurate estimate of ability

The problem of reliability in CTT is addressed by the information function in IRT. While CTT yields only a single estimation of reliability and corresponding standard error of measurement, IRT provides a test information function and test standard error function to index the degree of measurement precision across the full range of the latent trait construct. An instrument can be evaluated in terms of the amount of information and precision they provide at specific ranges of test scores that are of particular interest. This feature can be used for selection of quality items for particular purposes. High level of precision is usually in the middle of the scale where information is high and low ends of the scale where information is low (Tripple & Harey, 2002; Hambleton & Swaminathan, 2010; DeVillis, 2012; Embreton & Reise, 2010;; Reeve,2005). Through information function, the test developer can precisely assess the contribution of each item to the precision of the total test, and hence choose items in a manner that is not contradictory with the aspect of test construction.

One of the interesting features of IRT is that the item parameters are not dependent upon the ability level of the examinee's responding to the items like the CTT. If two groups of examinee are drown from the same population of examinee with different ability levels, the two groups will yield the same values of the item parameters. Hence item parameters are group invariance. This item invariance principle has the importance practical consequence that the parameters of large numbers of items can be estimated, even though each item is not answered by every examinee.(item calibration). IRT Puts all individual scores on standardized interval level scale while CTT often use ordinal scale of measurements for test.

Ability estimation is also invariance with respect to the items used to determine it. The principal rest on the condition that all items are measuring the same construct and the values of all the item parameters are in a common metric. The practical implication of this principle is that a test located anywhere along the ability scale can be used to estimate examinee ability, whether the test items are easy or hard. This makes it possible to compare individual\s results from different versions of a test, which is test equating. This principle also resulted to adaptive testing where different individuals are administered different tests according to their ability levels.

In conclusion, IRT method can be used to: determine a test or scale accuracy for any value of the latent trait. It can also be used to determine how measurement accuracy varies across ability levels for a given test and construct a test with nearly constant measurement accuracy across a broad range of ability levels. Furthermore, it can be used to construct a peaked test that maximally discriminates in a very narrow range, detect bias, provide a powerful method for identifying inappropriate response pattern and select items at appropriate difficulty levels for respondents so that different individuals respond to different sets of items. This study therefore was based on the IRT.

2.1.2 Theoretical framework of students' attitude towards mathematics

This study focused on the theory that attitude affects the way a person views a subject pursuit and achievement within that subject area. Early studies conducted by Thurstone in 1926 on attitude domain paved way for research on the interaction between attitude and other educational factors such as achievement and performance, (Bramlettt & Herron, 2006). Several studies and researches conducted found that students' attitude towards mathematics is a significant factor in whether or not students pursue a career in mathematics. They also found that there is a high correlation between mathematics achievement, future aspiration in mathematics and attitude towards mathematics. (Yee, 2013; Mensal et al, 2013; mohammed & Ismail, 2011; Branlett & herron,2009; Nicolaidu & Philippou, 2003). Hence students' attitude towards mathematics is a major factor that might influence the performance of the students.

Numerous studies, focused on achievement, mathematics and attitude also found that when students believe that they are incapable of achieving in mathematics, their attitude towards mathematics become a self-fulfilling prophecy that result in high level of failure and lack of interest in any course involving mathematics (Tahor, Ismail, Zamani & Adanan, 2010; Tezer & Kansel, 2010; Maat & Zakans,2010; Bramlett & Herron, 2009; Kogce, Yildez, Aydm & Altindaz,2009; Tapia & Marsh, 2004). As a consequence many students find themselves unable to pursue a degree in mathematics or any area that relies heavily on using mathematics, resulting in many different careers and academic opportunities being closed for them. The Fennema –Sherman attitude scale was developed in 1976 and over the past three decades has become one of the most popular instruments used in research on attitude towards mathematics. (Tapia & Marsh, 2004; Forgaz, leder & Klasterman, 2004). The Fenneman-Sherman mathematics attitude scales have been used over the last three decades to evaluate students of various ethnic backgrounds and gender and at various academic grade levels, from middle school and to college level. From research using the Fennema-Sherman mathematics attitude scale come what Tapia and Marsh (2004) called Fennema's theory which explains the belief that performance in mathematics is an interaction of attitude, mathematics anxiety and behaviour.

This study was also based on the social learning theory by Albert Bandura. Social learning theory teaches that the individual and the environment interact to define each other. This implies that the mathematics classroom environment can shape the student as an individual and therefore his/her attitude towards mathematics and classroom environment is shaped by the students in it. Bandura also put forth the concept of model: another person whose actions and the results of those actions inform the individual's behavioural decisions The theory presumes that individuals will only adopt the behaviour of models they deem similar to themselves or whom they esteem. Since teachers are the persons who are active for the success of students during the education process, they are automatically role models to their students and so they have a great role to play in the display of either positive or negative attitude of students towards mathematics (Akay & Box, 2011; Celik & Bundak, 2005; Baser & Yavuz ,2003).

Another concept in social learning theory is self-efficacy which is the perception of an individual that s/he can successfully achieve a particular outcome. The concept of self-efficacy is important in the classroom context because it determines the extent to which an individual will persist in any tasks,(Santrack, 2004). Bandura stressed that self-efficacy has a powerful influence over behavior, for example a student who has low self-efficacy might not necessarily study for a test because he does not believe it will do him any good (Santrack, 2004). Various studies and researches carried out found that self-efficacy is a major determinant of the choices that individuals make, the effort they expend, the perseverance they exert in the face of difficulties and the thought patterns and emotional reactions they experience. Furthermore, self-efficacy beliefs play an essential role in achievement, motivation, interact with self-regulated learning process and mediate academic achievement. (Phan, 2012; Bumhen, 2011; Joel, Usher & Bressouv,2011;Louse & Misteli,2011; Pampaka, Kleanthons & Hutchesim & Wake,2011; Puzzer,2011; Jones, Baretti, Henn & Knott,2010; Hodges & Murphy, 2009; Usher,2009; Hutchisom-Gram, Follman & Bodner,2008; Lienn, Lau & Nice,2008; Vogt,2008; Britner,2006)

Students' attitude plays a central role in mathematics learning and achievement. Attitude impacts students' ability to function generally. It determines how an individual views a subject pursuit and achievements within the subject area. If students are made to belief that when they complete learning a task in mathematics successfully , the outcomes they achieve are meaningful, useful and worthy for their future careers, they will be motivated to persevere when faced with difficult situations in mathematics, in other to understand the concept and therefore gain confidence, which will make them enjoy solving mathematics. While a student who do not belief the usefulness of mathematics in their future career will be faced with fear and anxiety when faced with difficult task in mathematics. Hence student attitude could have positive or negative effects on achievement and could be the crucial factor behind their success or failure within the subject. Positive attitude leads to motivation, perseverance, confidence and enjoyment of mathematics while negative attitude leads to fear , anxiety in mathematics. It is therefore the responsibility of teachers to foster positive attitude of students towards mathematics.

Teachers are recognized as those who provide support, encourage students and their value for love and eradicate unwanted behaviour in students. They are invariably role models whose behaviours are easily copied by students (Mensal et al ,2013; Yara, 2009). It is inferred that they can foster in students the positive attitude towards mathematics that helps to build confidence by encouraging the belief that everyone can do mathematics, emphasizing efforts not innate ability, modelling enthusiasm for teaching and learning mathematics, addressing the learning styles of students by providing a variety of ways for students to gain understanding of difficult concepts, helping students to appreciate the value of mathematics in their lives and choosing activities carefully so that students can both be challenged and successful (Mensal et al, 2013; Ontano, 2004). Learning environment, teachers' quality and meaningful teaching methods have been considered as factors of change in students on modification of attitude. But a recent study shows no direct association between learning environment and student attitude towards mathematics. The result suggested that learning environment is associated with the enjoyment of mathematics and students enjoy mathematics to a higher extent when the teacher motivates to extent learning, activities towards self-regulatory learning and provides feedback. (vandecandelaeres et al 2012, Maat & Zakaria,2010; Tezer & Karsel, 2010)

Self efficacy reflects individual's beliefs of achieving a given level of success at a particular task. Students with self-efficacy are more confident in their ability to be successful when compared to their peers with low self-efficacy. It has proven useful for understanding students' motivation and achievement in academics context. Higher level of self- efficacy has been associated with greater choice, persistence and with more effective strategy used. Hence self- efficacy is associated with confidence, motivation and perseverance of students in mathematics. The success or failure in mathematics performance is greatly determined by personal belief, regardless of the teaching method used. Students are likely to exert effort according to the effects they anticipate, which is regulated by personal beliefs about their ability, the importance they attach to mathematics, enjoyment of the subject matter and the motivation to succeed

From these approaches distinct construct on which to base the assessment of mathematics attitude are identified as ,students motivation in mathematics, confidence in mathematics, usefulness in mathematics, enjoyment in mathematics, perseverance in mathematics, anxiety in mathematics and teachers' contribution to students' attitude towards mathematics

Several instruments have been constructed to measure students' disposition in mathematics. The Fennema-Shermar mathematic scale which was developed in 1976 is one of the most popular instruments used in mathematics education research over the last three decades (Tapia & Marsh, 2004). The scale consists of a group of nine components with 106 items. This scale includes factors such as attitude towards success in mathematics, mathematics anxiety, confidence in mathematics, perception of teacher, motivation, usefulness of mathematics, gender roles (Wong and Chem,2012; Bramlett & Herron, 2006; Elaine, 2003)

Another scale is the Aikens mathematics attitude scale which has also enjoyed some popularity in mathematics education research. This scale comprises two subscales of 10 items each, which assess students enjoyments of mathematics and perception of its values as a subject area. Upon examination of these scales, it is clear that although they were relevant to that investigation at the time, some are not relevant for the assessment of students' attitude towards mathematics in the Nigerian set up. Some of the other instruments also do not actually reflect the complexity of students' dispositions with respect to mathematics. However the instrument by Tapia and Marsh (2004) measured dispositions like confidence, anxiety, value ,enjoyment, motivation and parent/teachers expectations, but most of the items do not reflect the disposition of students in the Nigerian set up. Perseverance which is an important disposition for mathematics achievement is not also measured. All the instruments were constructed using the CTT procedures . This study therefore was designed to develop students' attitude towards mathematics scale that would measure students dispositions such as; confidence, anxiety. value, enjoyment, motivation, perseverance, and Teachers contribution to students attitude towards mathematics using the IRT procedure.

2.2 Conceptual framework

2.2.1 Concept of IRT

IRT framework encompasses a group of models and the applicability of each model depends on the nature of the test items and the viability of different theoretical assumptions about the test items. IRT could be multi-dimentional; measuring more than one construct or unidimentional; measuring one construct (Devillis, 2012; Croker & Algina, 2008; Hambleton & Swaminathan,2010). This study is therefore based on unidimentional models. Unidimentional models could be dichotomously scored (wrong/right, yes/no); have two response categories or polytomously score (eg. Likert scale); more with than two response categories.

Dichotomous models

Dichotomous models are described by the number of parameter they employ**.**

I. **One parameter logistic model (1-PL**) which employ the ***b*** parameter assumes that item discriminates equally and there is no guessing but varies with difficulty, the \probability of an individual with ability level θ responding correctly to item *i* is given

as in Eq2.1

$$Pi(\theta) = \frac{1}{1+ e^{-(\theta-\mathbf{bi})}} \qquad \text{Eq 2.1}$$

Where $Pi(\theta)$ is the probability of examinee with ability level θ responding to item ***i*** and ***b*** is the difficult parameter.

II. **The two parameter logistic model (2-PL**) which employs the ***a*** and ***b*** parameters assume that items varies with discrimination and difficulty and there is no guessing. The probability of an individual with ability level θ responding correctly to item *i* is given as in Eq 2.2

$$Pi(\theta) = \frac{1}{1+ e^{-ai(\theta-\mathbf{bi})}} \qquad \text{Eq 2.2}$$

Where ***b*** is the difficulty parameter, ***a*** is the discrimination parameter and θ is the ability of the examinee

III. **The three parameter logistic model (3-PL)** employs the three parameters; it assumes that the low ability examinee will answer a difficult item correctly by guessing. The probability of an individual with ability level θ responding correctly to item *i* is given as in Eq 2.3

:

$$Pi(\theta) = ci + \frac{1-ci}{1+ e^{-ai(\theta-\mathbf{bi})}} \qquad \text{Eq 2.3}$$

where θ is the person (ability) parameter and a_i, b_i, and c_i are the item parameters. Fig2.1 shows the Item Characteristic Curve for the three parameter model.

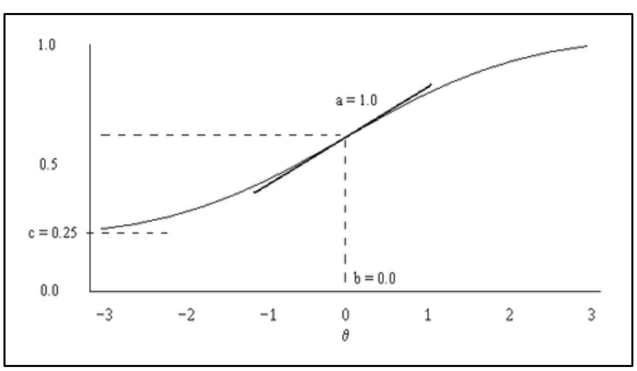


Fig 2.1 Item Characteristic curve (ICC) For 3-PLM.

The other two models have the b parameter at the point where the probability of correct response is .5, but with the three parameter model, the lower limit of the ICC is the value c rather than zero. Hence the difficulty parameter is at the point on the ability scale where the probability of correct response is (1 + c)/2, while the slope of the ICC at $\theta = b$ is actually a(1 + c)/4 (Baker,2001; Baker & Akin, 2004; Hambleton & Swaminathan, 2010).

Polytomous models

Polytomous IRT models are mathematical models used to help understand the interaction between respondents and scale items where the scale items have various response categories. They are derived from the dichotomouse models. The scale items are not scored in a single dichotomous manner (correct/incorrect). They are scored in a way that reflects the particular score category that a respondent has selected. Polytomous items can take various forms such as likert type, written prompts. These models can be used for any scale items where there are several response categories. Several item response models are developed to enable uses of polytomous response within an IRT framework. Many of the polytomous items response are basically generalization of the dichotomous item response models. (Nering & Ostini, 2010; Van der Linden & Hambleton 2010). These models are partial credit model (PCM), generalized partial credit model (GPCM), rating scale model (RSM), graded response model (GRM) and the nominal response model (NRM). This study focused on polytomous models with the graded response model (GRM). This is because the GRM is used for ordered responses with more than two categories such as the likert scale. The polytomous models are:

I. The partial credit model (PCM)

PCM was formulated by Masters in 1982 with the assumption that the discriminating power is common for all items. It is extremely flexible polytomous model that can be applied to any polytomous response data including data from tests that have items within different categories, from questionnaire using rating scale or both. The Partial Credit Model is an extension of the Rasch model (1PLM). It is the model for the analysis of response. It is a model for the analysis of response recorded in ordered categories labelled 0, 1, 2, . . .k. each person n is imagined to have an ability θ and each item i is imagined to have a set of k parameters d_1, d_2, d_3, ...d_k called step-difficulty, each of which can be represented as a location on the variable being measured θ where d_{ik} governs the probability of scoring k rather than k-1 on item i. Therefore the probability of responding to category k (k=0,1,..,m) of item i is given as in Eq 2.4

$$P_{ik}\ (\theta) = \frac{Exp\ \sum_{j=0}^{k}(\theta - b_{ik})}{\sum_{i=0}^{m-1}\ \exp\sum_{j=0}^{i}(\theta - b_{ik})} \qquad \text{Eq 2.4}$$

Where

b_{ik} is the difficulty (location) parameter for category boundary parameter k of item i (Ham & Hambleton, 2007; Van der Linden & Hambleton, 2010; Guyer & Thomson, 2012; Nering & Ostini,2010)

II. Generalised partial credit model (GPCM)

This model was formulated by Muraky in 1992 based on Masters' partial credit model (PCM) by relating the assumptions of uniform discriminating power of test items. An item response model is viewed here as a member of a family of latent variable models which also includes the linear or nonlinear factor analysis models, the latent class model and the latent profile model (van der Linden & Hambleton, 2010). Hence the probability of responding to category k of item I is given in Eq 2.5

$$P_{ik}(\theta) \ = \ \frac{exp\left[\sum_{j=1}^{k} Z_{iv}\,(\Theta)\right]}{\sum_{j=i}^{mi} exp\{\sum_{v=1}^{k} Z_{iv}\ (\Theta)\}} \qquad \text{Eq 2.5}$$

And $Z_{iv}(\theta) = Da_i\ (\theta - b_{ik}) = Da_i(\theta - b_i + di_k)$ Eq 2.6

Where D is a scaling constant that puts the ability scale in the same metric as the normal ogive model (D=17), a_i is a slope parameter , b_{ik} is an item category parameter , d_i is an item location parameter and b_{ik} is a category parameter. The slope parameter ***a*** indicates the degree to which categorical responses vary among items as θ level changes. This concept of item discriminating power is closely related to the item reliability in CTT. This parameter captures information about different items. The $P_{ik}(\theta)$ is called item category response function (ICRF) of the GPCM ((Ham & Hambleton, 2007; van der Linden & Hambleton, 2010; Guyer & Thomson, 2012; Nering & Ostini,2010).

III. **The rating scale model (RSM)**

The rating scale model is a special case of polytomous model, first presented in Rasch (1961), it was constructed as a rating model by Andrich (1978). (Van der Linden & Hambleton, 2010). The rating scale model is based on the assumption that the category score w1,...wk are equal distance; the values must increase by a constant. The response function is assumed to depend for each individual on the values of an ability parameter θ, describing the individual. The response function for RSM is as in Eq 2.7

$$P_{ik}(\theta) = \frac{\mathrm{e}^{\mathrm{wi}\theta-\mathrm{a}_{\mathrm{ik}}}}{\sum_{\mathrm{x}=1}^{\mathrm{m}} \mathrm{e}^{\mathrm{wi}\theta-\mathrm{a}_{\mathrm{ik}}}} \qquad \text{Eq 2.7}$$

Where w_1, w_2, are the category scores which describes how the m response category are scored and a $_{ik}$ are items parameter connected with the items and categories. RSM is applicable to a scale in which all items have the same number of categories. (Ham & Hambleton, 2007; Van der Linden & Hambleton, 2010; Guyer & Thomson, 2012; Baker & Kim,2004)

IV. The nominal response model

This model was introduced by Bock 1972. They are unordered; even though responses are often coded numerically the values of the responses do not represent some score on items, but just nominal indications for response categories. Some applications of the NRM are found in uses with multiple choice items. The category function of NRM can be express as in Eq. 2.8

$$P_{ik}\ (\theta) = \frac{\mathrm{e}^{Z_{\mathrm{ik}}}}{\sum_{\mathrm{k=i}}^{\mathrm{m}} \mathrm{e}^{Z_{\mathrm{ik}}}} \qquad \text{Eq 2.8}$$

Where $z_{ik} = a_{ik}\,\theta + c_{ik}$

A_{ik} and c_{ik} are called the slope and intercept parameters, respectively and they are related with item discrimination and location. The sum of ***a*** parameter and the sum of ***c*** parameters across response categories are constrained to be zero ***a*** and c parameters in equation 2 can be written as $z_{ik} = a_{ik}(\theta + b_{ik})$ when $b_{ik} = \frac{a_{ik}}{c_{ik}}$ can be written as in Eq 2.9

$$P_{ik}(\theta) = \frac{e^{a_{ik}(\theta-\mathrm{b}_{\mathrm{ik}})}}{\sum_{\mathrm{j=1}}^{\mathrm{m}} \mathrm{e}^{\mathrm{n}_{\mathrm{ik}}(\theta-\mathrm{b}_{\mathrm{ik}})}} \qquad \text{Eq. 2.9}$$

In which a and b parameters can be interpreted as slope and location of items like other IRT models

V. Graded response model

The graded response model developed by Samejima in 1969 is an extension of the two parameter logistic model for dichotomously scored items to the polytomous case. The model deals with responses in ordered categories such as the rating scale with the grading 1,2,3,4, &5 used in the evaluation of student's attitude with options ranging from strongly disagreed, disagreed, indifferent, agreed and strongly agreed. The model does not require the same number of categories for all the items; each item i has a number of response alternatives equal to $\boldsymbol{m}$ Each item is described by a slope parameter $\boldsymbol{\alpha}$ and by $\boldsymbol{m-1}$ threshold parameters $\boldsymbol{\beta}$, where $\boldsymbol{m}$ is the number of categories within the item . A respondent is assigned only one category of an item where the lowest category is assigned the least weight and the highest category highest weight. Hence the row score of a respondent is the sum of weights assigned to the item response categories chosen by the respondent for each of the items in the instrument. . If $\boldsymbol{\theta}$ is the latent trait or ability, and $\mathbf{k}$ is a random variable denoting the graded item response to item i and $k = 1,...,m$ denoting the actual responses. The probability $P_{ik}(\theta)$ of a respondent with ability $\boldsymbol{\theta}$ to receive a score $\boldsymbol{k}$ to the item i , with $k = 1,...,m$, can be expressed as in Eq 2.10

$$P_{ik}(\theta) = P^*_{ik-1}(\theta) - P^*_{ki}(\theta) \qquad \textbf{Eq. 2.10}$$

where $P_{ik}^*(\theta)$ represents the probability of a respondent's item response $\boldsymbol{k}$ falling in or above the score $\boldsymbol{k}$, conditional on the latent trait level $\boldsymbol{\theta}$ s , $P_{ik}^*(\theta)$ given by Eq 2.11

$$P_{ik}^{*}(\theta) = \frac{\exp(\,ai(\theta - b_{ik})}{1+\exp(\,ai(\theta - b_{ik})} \qquad \textbf{Eq. 2.11}$$

for k=2,...,m.The probability of responding in or above the lowest score is in Eq 2.12

P_{i1}*(θ)=1 Eq.2.12

while the probability of responding above the highest category is in Eq 2.13

P_{im+1}* (θ) = 0 **Eq. 2.13.**

The response categories in an item are demarcated by boundary location. The values of item variables demarcating the response categories are denoted by $\boldsymbol{r_k}$ where $\boldsymbol{r_0}$ = -∞ and $\boldsymbol{r_m}$ = +∞ and the regression of the item variable on the ability scale is denoted by $\boldsymbol{r}/\theta$. At each ability level there exists a conditional normal distribution of the responses of the examinees which are intersected by the response category boundaries. Thus the probability of respondents response falling in category **k** is denoted by the area of the conditional distribution falling between the limits of $\mathbf{r_{k-1}}$ and $\mathbf{r_k}$ and is denoted $P_{ik}(\theta)$. At each ability level the sum of the probabilities of all the categories equal to one as in Eq 2.14

$$\sum_{k=1}^{m} P_{ik}(\theta) = 1. \qquad \text{Eq. 2.14.}$$

The computation of the conditional response probability P_{ik} (θ) requires two steps.

The first step is to use the category limits and dichotomize the options for a given item. Thus for an item rated 1 to 5 scale, has 4 response dichotomies . if unit r4 is used then category 5 would be the correct response and the remaining m-1 categories would be incorrect . if r3 is used then 4,5, will be the correct response and 1,2,3 will be incorrect. If r2 is used then 1,2, will be incorrect and 3,4,5, will be correct response, if1 is used then 1 will be incorrect and 2,3,4,5, will be correct , if 0 is used then 1,2,3,4,5, will be regarded as correct and there will be no incorrect, if 5 is used then there will be no correct response. Hence when the cumulative probability of the response categories as a function of ability is plotted, the form will be that of a normal ogive, which represent the boundary on the cumulative probabilities of the response categories also called operating characteristic curve (OCC).. fig 2.2 shows the OCC. Which is computed from $P^*_{ik}(\theta)$

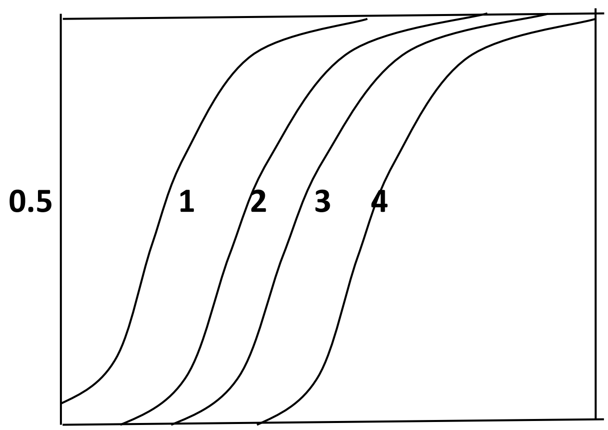


Fig.2.2 operating characteristics curve (OCC) for the GRM

Where 1 is category 1, the cumulative probability of the dichotomy 1 vs 2,3,4,5 ;;

category 2 is the of 1,2,vs 3,4,5,; category 3 is that of 1,2,3, vs 4,5 and category 4 vs

1,2,3,4,vs 5

$P^*_{i5}(\theta) = 0$ Eq. 2.15

$P^*_{i4}(\theta) = P_{i5}(\theta)$ Eq. 2.16

$P^*_{i3}(\theta) = P_{i5}(\theta) + P_{i4}(\theta)$ Eq. 2.17

$P^*_{i2}(\theta) = P_{i5}(\theta) + P_{i4}(\theta) + P_{i2}(\theta)$ Eq. 2.18

$P^*_{i1}(\theta) = P_{i5}(\theta) + P_{i4}(\theta) + P_{i3}(\theta) + P_{i2}(\theta)$ Eq. 2.19

$P^*_{0,}(\theta) = P_{i5}(\theta) + P_{i4}(\theta) + P_{i3}(\theta) + P_{i2}(\theta) + P_{i1}(\theta) = 1$ Eq. 2.20

And $P^*_{ik}(\theta) = \sum_{k'=k+1}^{m} P_{ik}(\theta)$ Eq. 2.21

In general $P_{ik}(\theta) = P^*_{ik-1}(\theta) - P^*_{ik}(\theta)$ Eq. 2.22

The second step is the computation of the item category response curves (ICRC) through the P_{ik} (θ for all the *m* response categories within an item *i* . **fig 2.3 shows the ICRC**

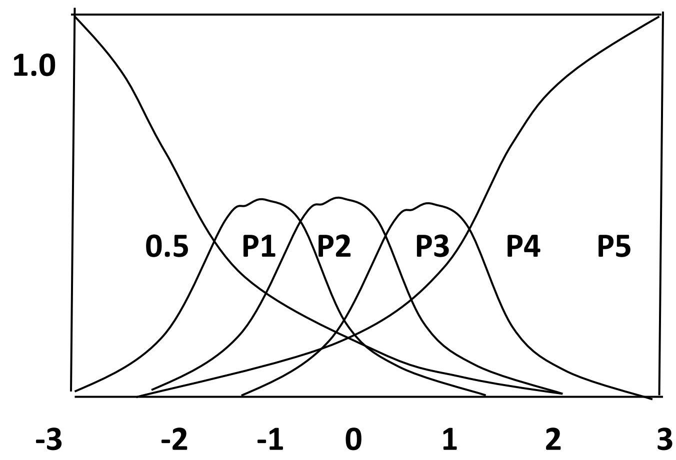


Fig. 2.3 Item categoty response curve (ICRC) for the GRM

The category response curves (CRC) do not share a common form. The ones at the extremes are monotonically functions, with that at the highest extreme monotone increasing and that at the least end monotone decreasing function of θ similar to the usual ICC for correct response and incorrect response respectively to a dichotomously scored item. While the non-extreme categories behave in a non-monotone fashion. Hence the probability of choosing an intermediate category increases with increasing ability up to a point and then decreases. For each item, *m-1* between category "threshold" parameters β*ir* are estimated.

The β*ir* parameters represent the trait level necessary to respond above threshold *r* with .50 probability. One goal of fitting the GRM is to determine the location of these thresholds on the latent trait continuum. A single slope parameter *i* α is estimated for each item, representing the capability of the item to distinguish between examinees with different ability levels. High values of the slope parameters α are associated with steep OCC's and with narrow and peaked CRC's. In particular, the threshold parameters determine the location of the curves P_{ik}* (θ) and where each of the curves P_{ik} (θ) for the middle answer options peaks; exactly in the middle of two adjacent threshold parameters. However the xcalibre software does not plot the OCC, it only plot the CRC. Hence this study shows the plots of the CRCs only.

Analysis with GRM

The GRM item analysis supplies m-1 threshold parameters, item discrimination, plots of item CRC and item information function for each item. The threshold parameter represent the point along the latent trait scale which the respondent has a 50% probability of responding above a category threshold, and it is also the point at which the probability of a category or higher is changing most rapidly. A b_{i1} parameter represent the point on the ability scale of item 1 where respondents have a .5 probability of responding in or above category 1. The number of threshold parmeters for each item is the number of categories minus one. The higher the threshold parameter the higher the measured construct a person must have to endorse the category. Threshold parameters in GRM are ordered but not in equal intervals. They are given on the same metric as the underlying construct which for model identification purposes is fixed to have a standard deviation of 1 and a mean of 0. Knowing the estimated ***b***-parameters is useful in judging the difficulty or appropriateness of the instrument for a given group. An instrument that is intended to measure θ across a wide range should have a range of ***b***-parameters, perhaps from –2 to 2. To measure equally well at all points, the ***b***-parameters should be uniformly distributed across the desired range, but more often a greater number of middle-difficulty items are selected to measure most of the respondents more precisely while losing some measurement precision for the smaller number of respondents at the extremes (de Ayala,2012; Reeve, 2007; Baker & Akin, 2004; Ntaranji 2009; Embretson & Reise 2010). Each polytomous item can measure across a wider range of θ, if the ***b*** parameters within the item are spread out (DeMars, 2010). If the ***b***-parameters are in a narrow range, it functions more like a dichotomous item. Sometimes one of the middle categories will contain very few of the examinees. With the GRM, the thresholds for the adjacent categories will be very close, and the confidence intervals around the ***b***-parameters will likely overlap, suggesting that the categories are indistinguishable.

Item discrimination

The slope parameter ***a*** in a polytomous model indicates how rapidly the probability of category responses change as the trait level increases. It indicates how an item taps into the underlying trait of interest; how an item is related to the underlying construct. A high level of a-parameter indicates that the probability of category response will increase very rapidly with increasing levels of the construct and so the item will measure the construct well. Item discrimination depends on a combination of slope parameter and the spread of the category thresholds. A steeper slope indicates a closer relationship to the construct and therefore a more discriminating item. A higher discrimination means that the item differentiates (discriminates) between respondents with different levels of the construct. Thus, high discrimination is desirable. An a-parameter of 1.7 and above is considered very high, those between 1.35 and 1.7 are considered high, those between .65 and 1.35 are considered moderate while those below .65 are considered low. (Ham & Hambleton, 2007; Van der

Linden & Hambleton, 2010; Guyer & Thomson, 2012; Baker & Kim, 2004; de Ayala 2010; DeMars 2010).

The category response curve (CRC)

The CRC or the trace line is the basics of IRT and is most commonly defined as logistics function that models the relationship between a person's response to an item and his/her level on the construct measured by the scale. The trace line is a function of item parameters. Each curve (one for each category) represents the probability of a respondent selecting a particular category given his/her level of the underlying construct. The item parameter dictates the slope and the location of CRC. The higher the slope parameter the steeper more narrow and peaked the CRCs, indicating that the response categories differentiate among trait levels fairly well.

Information functions

The information function indicates the range of θ where an item is best at discriminating among individuals. Higher information denotes more precision for measuring a person's trait level. The information an item provides is a function of the item discrimination parameter and the threshold parameters. The height of the curve is a function of item discrimination while the location is determined by the threshold parameters. Items with threshold parameters that span a wide range provide information across a wide range of the θ scale than items with threshold parameters that span a smaller range. The maximum amount of information an item provides is also a function of the discrimination power. Items with higher discrimination power provide more accurate measurement of trait levels in the range of the threshold parameters than items with low discrimination powers. Some item information functions are quite peaked while some are relatively flat across levels of θ, and some are multimodal.The item information function indicates which items are most useful in measuring different levels of the measured construct. This is critical for the item selection process in scale development. For polytomous items, each category provides information. The item information can be partitioned to obtain the category information share functions. If categories within an item are close together, the item information will be peaked near the centre of the b-parameters. But if the categories are spread further apart, each can add information at a different location. Thus, the item information for a polytomous item can have multiple peaks and can be spread over a broader extent of the θ range. Thus, a polytomous item can potentially provide much more information than a dichotomouse item.

Samejima in 1974 defined information for polytomous item response theory models as:

$$\mathrm{I_i}(\theta) = \sum_{k=1}^{mi} \frac{\mathrm{P'_{iik}}(\theta)^2}{\mathrm{P_{ik}}(\theta)} \qquad \text{Eq 2.23}$$

Where $\mathrm{P_{ik}}(\theta)$ is the probability of receiving category score ki conditional on θ, and

$\mathrm{P'_{ik}}(\theta)$ is the first derivative of $\mathrm{P_{ik}}(\theta)$

For the logistic form of GRM the functional element can be defined as:

$$\frac{\mathrm{P'_{iik}}(\theta)^2}{\mathrm{P_{ik}}(\theta)} = \frac{P^*_{ik}(\theta)[1 - P^*_{ik}(\theta)] - P^*_{ik+1}(\theta)[1 - P^*_{ik+1}(\theta)]}{\mathrm{P_{ik}}(\theta)} \qquad \text{Eq 2.24}$$

The test information function is the sum of the information function of all the items

$$\mathrm{I}\,(\theta) = \sum_{i=1}^{m} \mathrm{I_i}(\theta) \qquad \text{Eq 2.25}$$

. .(Ham & Hambleton, 2007; Baker & Kim, 2004; de Ayala 2010; DeMars 2010; de Ayala & Sava-Bolosta, 2009; Oshima & Morris, 2008; Embretson & Reise 2010)

Scale information function

With the assumption of the local independence the item information functions can be summed across all the items in the scale to form the scale information curve.(Reeve, 2003) The scale information function is an extremely useful feature of IRT. It indicates how well the scale is doing in estimating ability over the whole range of ability scores. The amount of information yielded by the test at any ability level can also be obtained. It also predicts the accuracy to which any value of the latent trait can be measured

Since a scale is used to estimate the ability of a respondent, the amount of information yielded by the scale at any ability level can also be obtained. A scale is a set of items; therefore, the scale information at a given ability level is simply the sum of the item information at that level. The most important thing about the scale information function is that it predicts the accuracy to which the latent ability can be measured. The general level of the scale information function will be much higher than that for a single item information function. Thus, a scale measures ability more precisely than does a single item. Hence, the more the items in a scale, the greater the amount of information. Longer scales will measure a respondent's ability with greater precision than will shorter scale. While the shape of the desired scale information function depends upon the purpose for which a scale is designed, some general interpretations can be made. A scale information function that is peaked at some point on the ability scale measures ability with unequal precision along the ability scale. Such a scale would be best for estimating the ability of respondents whose abilities fall near the peak of the scale information function. In some scales, the scale information function is rather flat over some region of the ability scale. Such scale estimate some range of ability scores with nearly equal precision and outside this range with less precision. Thus, the scale would be a desirable one for those respondents whose ability falls in the given range. When interpreting a scale information function, it is important to keep in mind the reciprocal relationship between the amount of information and the variability of the ability estimates. To translate the amount of information into a standard error of estimation, the reciprocal of the square root of the amount of scale information is taken.

The standard error of measurement (SEM) describes how an expected observed score fluctuation due to error in the measurement about and estimated score. It evaluates the precision of the scale to measure people at different levels along the construct continuum. SEM is simply defined as :

$$SEM = \frac{1}{\sqrt{\text{information}}} \qquad \text{Eq. 2.26}$$

It varies conditional on θ. This curve is similar to the scale information function curve, but expressed in terms of standard error.(Ham & Hambleton, 2007; Van der Linden & Hambleton, 2010; Guyer & Thomson, 2012; Baker & Kim, 2004; de Ayala 2010; DeMars 2010; de Ayala & Sava-Bolosta, 2009; Oshima & Morris, 2008; Embretson & Reise 2010)

Group reliability estimates

The group reliability estimate is the θ relaibility of the set of responded. To calculate this Green & Colleagues (1984) as quoted by DeMars (2010) proposed integrating the squared standard error of measurement from the information function over the θ distribution. The reliability for the ML θ scores can then be calculated as: reliability = $\frac{s_\theta^2 - s_e^2}{s_\theta^2}$ Eq2.27

where s_θ^2 is the variance of the score estimate in other words, the observed score variance and s_e^2 is the marginal (average) squared standard error. Because Rasch model users most commonly use ML scores, reliability of person separation is calculated using this formula, too (Bond & Fox, 2001, ; Wilson, 2005,). If the metric is standardized such that the variance of the score estimates, instead of the direct estimate of the variance of θ, is fixed to 1, then the reliability is more simply: $1 - s_e^2$ Eq 2.28

(Thissen & Orlando, 2007,). For the empirical reliability of ML scores, s_e^2 for the formula above is calculated as the mean of the squared standard errors for the examinees in the sample. More precisely, the mean of 1/(squared standard error) is calculated, and then s_e^2 = 1/(this result). This value will be close to, but not precisely equal to, the mean of the squared standard errors). The empirical reliability for Bayesian scores is calculated slightly differently, because the variance of the score estimates underestimates the θ variance. Mislevy, Beaton, Kaplan, and Sheehan (1992) as quoted by Demars (2010) showed a similar formula, substituting the direct estimate of the θ variance (usually 1) for the denominator. On average, this will be equivalent because the expected value of the variance of the Bayesian score estimates plus the error variance = the direct estimate of the variance. In other words, the Bayesian estimates are shrunken proportionally to their reliability. If the metric is scaled such that the direct estimate of the variance of θ = 1, then the variance of the Bayesian score estimates is an estimate of the reliability When the direct estimate of the variance (estimated true score variance) of the θ distribution is fixed to 1, the calculated value of this index should be close to the value obtained from Green and colleagues' definition, because the expected value of the variance of the ML estimates = the variance of θ + error variance. In summary, each of the estimation methods gives slightly different results , but the estimates are not far apart.

Interpreting parameter values

The metric of the parameters is somewhat arbitrary. The metric is indeterminate until the centre (zero-point) of the scale and the unit size are fixed. Most frequently, in a reference population, perhaps represented by the norming sample, the estimated mean of θ is set to 0 and the estimated standard deviation of θ is set to 1. Theta (θ) can then be interpreted similarly to a z-score. Because θ is not a linear function of the number-correct (raw or observed) score, θ will not be exactly the same as the z-score on the number-correct metric, but the interpretation is similar. When n respondent is 1 standard deviation above the mean in the reference population, the respondent's θ = 1. There is no assumption that the scores are normally distributed, so the θ does not necessarily translate to a percentile score in the normal distribution. Values for θ theoretically range from –∞ to +∞; most examinees will have values between –3 and 3.

The ***b***-parameters, are on the same metric as θ. Like θ***, b's*** have a theoretical range from –∞to +∞ but are generally between –2 and 2 so it will not be too easy or too hard for the intended test population. The metric for the item discrimination, slope, or ***a***-parameter, is less intuitive and it takes experience to get used to. The theoretical range is again from –∞to +∞, but the practical range is from 0 to 3. Items with negative discrimination may be screened out by some estimation programs, and they should certainly be removed by the test developers. A negative discrimination, like a negative discrimination in CTT, would mean that examinees with higher θ were less likely to answer the item correctly. Such items should be checked for errors in the scoring key, and unless the item is keyed incorrectly it should be revised or dropped from the test. Similarly, discriminations less than 0.4 or so are unlikely on an operational test because they should have been screened out during the test development process .(Ham & Hambleton, 2007; Van der Linden & Hambleton, 2010; Guyer & Thomson, 2012; Baker & Kim, 2004; de Ayala 2010; DeMars 2010)

Item selection in IRT

Items selection in CTT is based on item difficulty and item discrimination. Iitems with highest discrimination are always chosen. The choice of item difficulty is usually based on the purpose of the test and the anticipated ability distribution of the group the test is intended to measure. For a polytomous scale items selection is based on item mean and item total correlation. A test design to discriminate among examinee is chosen to have a medium level and narrow range of difficulty, while that designed to select a small group of higher ability examinees are selected such that an examinee whose ability places him or her at exactly a desired cut-off score on the ability scale would have a probability of .50 of answering that item correctly. Item parameters in CTT are not sample invariance and so the success of the technique depend directly on how closely the sample used to determine the item parameter employed in the item selection process matches the population for which the test is intended. IRT offers the test developer a far more powerful method of item selection. Although item selection is also based on the intended purpose of the test, the selection of items depend on the amount of information they contribute to the total amount of information supplied by the test (Hambletson & Swaminathan, 2010).

Lord (1977) as quoted by Hambleton and Swaminathan (2010) outlined a procedure, originally conceptualzed by Bimbaum (1968) for the use of item information function in the test building process. This procedure basically entails that a test developer takes the following steps.:

- Describe the shape of the desired test information called the target information function.
- Select items with item information functions that will fill up the hard-to-fill areas under the target information function.
- After each item is added to the test, calculate the test information function for the selected test items.
- Continue selecting test items until the test information approximates the target information function to a satisfactory degree.

This process allows the test that will precisely fulfil any set of desired test specification. One of the useful features of item information function is that the contribution of each item to the scale information function can be determined independently of the other items in the scale. (Hambleton & Swaminathan, 2010). Using this procedure it is possible to construct a test that discriminates well at one particular region or another on the trait level, which will contribute substantially to the precision with which ability scores are estimated.

A test developed for a typical norm-referenced may probably provide maximum discrimination or information in the ability range of -2 to +2 or the ability scale with a mean of zero and standard deviation of 1. This ability range would contain approximately 95 percent of examinee's ability, if the ability is normally distributed. Once the area of maximum test information is determined the next decision to be made is the accuracy with which it is desired to estimate ability within this range. Suppose the test developer could tolerate an error of .40 (standard error of estimate =.40), then the desired information function will be 6.25. Hence to obtain estimates of ability to the desired degree of precision across the ability scale from -2 to +2, items must be selected from the item pool to produce a test information function with a height of over 6.25 from -2 to +2 on the ability scale. The tails of target information function , those section below -2 and above +2 are of no interest to the test developer and can take on any form. After the target information is specified, items with ordinates that summed up to approximates the target information function as closely as possible are selected.

The target information function for a test designed as a scholarship examination would be one that produces substantial information at the high end of the ability scale. Suppose the ability will be estimated with accuracy of .3, the information level desired in the area will be approximately equal to 9. Hence the target information function will be one with an ordinate of 9 at high level of ability. The height of the target information function at other points on the ability scale is of considerably less interest. Items will then be selected to fill the requirement of this scale. A scale that measures the low level of the construct provides more precise ability examinee or respondent at the low end of the ability scale. This scale will have more items with ***b*** values less than zero. A test used to measure respondent with high level of the construct estimates ability score at the high end of the scale continuum. This will have more ***b*** values greater than zero. While a test that will be used to measure a wide-range of the ability will have more ***b*** values ranging from -2 to +2. .(Ham & Hambleton, 2007; Van der Linden & Hambleton, 2010; de Ayala 2010; DeMars 2010; Embretson & Reise 2010).

Scoring in IRT

Score interpretation with IRT

IRT trait levels differ qualitatively from CTT scores in the bases of comparison. They differ in both standard and numerical bases of comparison. In CTT the meaning of scores results from comparing its position on a standard namely norm group. Comparison between two different scores exhibites ordinal properties. The position of one score is greater than the position of the other on the norm. The raw score distribution are always normalized by finding the standard normal distribution score that corresponds to the observed percentile ranks of raw score. The relationship of raw score to standard score is nonlinear which is the characteristics of normalizing. Hence the relative distances between scores are changed by normalizing. Norm reference scores have no meaning for what the person actually can do.

In IRT trait levels have meaning in comparison to items. Persons and items are placed on a common scale in IRT models. The difficulty of item is located on a continuum, typically ranging from -3 to +3 or -4 to +4 which is similar in magnitude to z-score The numerical basis of the comparison is a different or a ratio depending on the scale units in the model. The difference between a person trait level and the items difficulty has direct meaning for performance. Items at a person trait level have a probability of .50 for endorsement or success. Hence a person trait level has meaning by explicating the items that fall at his or her threshold. Item trait level is interpreted with direct reference to the items. The trait level can be compared to a fixed standard. (Ham & Hambleton, 2007; Van der Linden & Hambleton, 2010; Guyer & Thomson, 2012; Baker & Kim, 2004; de Ayala 2010; DeMars 2010,; Embretson & Reise 2010)

Evaluation of assumptions in IRT

(Reeve, 2003) pointed out that parametric unidimensional IRT models make three assumptions; the unidimensionality, local independence and that the Model fit the data. She stressed the need for the assumptions to be evaluated and emphasized that the IRT models are robust to minor violations and that real data never meet the assumption perfectly. Van der Linden & Hambleton (2010) also stated that IRT application requires a number of assumptions, and the usefulness of the IRT model is contingent on the extent to which these assumptions are met.

Unidimensionality

One important assumption of unidimensional parametric IRT models is that the construct being measured is in fact unidimensional which implies that the scale is measuring a single construct; . Examination of output from an exploratory factor analysis, including Eigen values, screen plots, and the magnitude of item loadings on the first factor can help in evaluating this assumption. (Reeve, 2003; Hambleton & Swaminathan, 2010; Baker & Kim, 2004; Nering & Ostini, 2010). In addition, the fit of a one-factor confirmatory factor analysis (CFA) model can also be examined. Whether an exploratory or confirmatory approach is taken, the factor analysis estimation method should appropriately model the ordinal nature of the item responses. In cases where the unidimensionality assumption may be tentative, it is important to check the IRT model results for any anomalies that may arise due to violation of this assumption. A lack of unidimensionality may also occur in cases where item properties differ according to some grouping variable. When this occurs, response patterns are a function of both the underlying dimension that is being measured as well as group membership. This type of violation is difficult to discern with single group factor analytic methods but can be examined with methods that evaluate differential item functioning (DIF). This topic is beyond the scope of this study.

Local independence

A second assumption of IRT models is that the items display local independence. This is technically subsumed under the unidimensionality assumption and requires that, given their relationship to the underlying construct being measured, there is no additional systematic covariance among the items. Local dependence (LD) can potentially arise among subsets of items that have a similar stem. Items that have very similar content, or items that are presented sequentially. Local independence means that the response to any item is unrelated to any other item when trait level is controlled. The items may be highly interconnected in the while sample, however if trait level is controlled, local independence implies that no relationship exists between the items. There are different ways of assessing local independence; local independence can be evaluated by assessing the fit and residual covariation matrix of a single factor confirmatory factor analysis (CFA). A bad fit and high item covariation of greater than 0.2 is an indication of violation of local independence

(Reeve, 2003; Hambleton & Swaminathan, 2010; Baker & Kim, 2004; Nering & Ostini, 2010). The indices of model fit examine are; the minimum value of discrepancy between observed data and hypothesize data divided by degree of freedom (CMIN/DF), a value less than 5 is considered acceptable, Goodness of fit index (GFI), the comparative fit index (CFI), the tucker-lewis index (TLI), these usually vary from 0 to 1 continuum in which values greater than 0.9 and .95 are typically taken to reflect acceptable and excellent fit to the data. A root mean square error of approximation (RMSEA), a value less than 0.05 is an indication of a closer fit and values up to 0.08 represent reasonable error of approximation. (Rahman el al,2013; Bomo & Tiebowei, 2012; Hair etal, 2010; Harrington, 2010 and Devon et al 2007).

Other methods of assessing local independence are the Yen's Q3 statistics and Chen and Thissens LD indices. These statistics are based on a process that involves fitting a unidemensional IRT model to the data and then examining the residual covariation between pairs of item which should be one if the unidimentional model fits the data . It is also useful to examine the output from an IRT calibration. Often if there is LD in a pair of items they will have inflated slope estimates. This is especially true with short scales. Violation of Local Independence may result to biased parameter estimates, leading to erroneous decisions when selecting items for scale construction.

Model choice

One of the most basic assumptions of the application of parametric IRT models is that the model is appropriate for the data. This assumption involves choosing the right model and evaluating model fit. In choosing the right IRT model, there are several different parametric unidimensional IRT models to choose from (Nering & Ositini, 2010). The first consideration when choosing the right model involves the number of item response categories. For dichotomous items, the 1, 2, and 3 parameter logistic models are most common (1PLM, 2PLM, 3PLM), and models including an upper asymptote parameter (e.g., 4PLM) are also possible. For polytomous items, variations of the Partial Credit Model (PCM) . Rating Scale Model, RSM, Generalized Partial Credit Model, GPCM as well as the Graded Response Model (GRM) are available for ordered responses, and the Nominal Model is appropriate for items with a non-specified response order.

A second important consideration when choosing the right model is whether the item discrimination parameters, or slopes, should be free to vary across items, or whether a model from the Rasch family is more appropriate. The distinguishing characteristic of the Rasch family of models is that they estimate a common discrimination parameter for all items. Each class of models has advantages. The main benefit of the Rasch models is their parsimony, and the ensuing computational advantages, it has software with extensive interpretative output, straightforward assessment of item fit. However, it is often the case that a less constrained model that estimates separate slopes for each item is a more accurate reflection of the data (Embretson & Reise, 2010). Apart from the issue of varying versus constrained slopes, there is also the option with dichotomous items to estimate a non-zero lower asymptote the 3PLM. This ‘‘guessing’’ parameter was introduced in models of educational test items to characterize respondents’ probability of getting a question correct simply by chance. The utility of this parameter has been explored for non-educational items (Reise & Water, 2003), but is not commonly estimated in this context, as its interpretation is somewhat unclear. A non-zero upper asymptote is also possible. Its use has been explored both in lieu of and in conjunction with the non-zero lower asymptote (Reise & Water, 2003).

For polytomous items, the nominal model is appropriate if the item responses do not have a specified order, or if a researcher wants to confirm a response order. When the item responses are polytomous and ordered, either the GPCM (or Rasch-family constrained PCMs) or the GRM is the suitable model. The choice between these two models is somewhat arbitrary, as they generally produce nearly identical results, with slightly different parameterizations (Guyer & Thompson, 2012; Ham & Hambleton 2007). Choosing one of these models over the other tends to be primarily a result of personal preference and familiarity with software (PARSCALE is set up to estimate the PCMs more easily, whereas MULTILOG favours the GRM) (De Tori, 2003). Although there is now the X-Calibre and Wengen which can estimate the two models with ease. Generating descriptive item plots can also be a useful tool in determining the appropriate model for a particular set of data. The software program TESTGRAF generates non-parametric ICC plots describing the relationship between the probability of an item response and the construct being measured. Examination of these plots can provide some insight into the suitability of various parametric models. This study therefore is based on GRM because the data is polytomous and response categories are ordered.

Evaluating IRT model fit

All applications of IRT implicitly assume that the model is correct; the utility of the IRT model is dependent upon the extent to which the model accurately reflects the data. Generally, parametric models attempt to characterize data in a parsimonious fashion, and some extent of misfit is inherent in every unsaturated model. As with any parametric model, however, considerable misfit in an IRT model implies model misspecification, and the usefulness of inferences based on parameters from an unspecified model is negligible. As part of the process of model fitting in IRT, it is therefore desirable to employ some diagnostic tool to evaluate the degree of model-data misfit. The fit of the model can be examined through the comparison of model predictions and the observed data in various ways. The direct assessment of overall model fit poses challenges and is seldom directly evaluated in non-Rasch model applications. However, the relative IRT model-data fit can be assessed through the comparison of nested models such as the 2PLM vs. the 3PLM. In addition to examining the overall fit of the model to the data, it is also possible to examine the fit for each item. This is useful because an IRT model may be an accurate representation of the data in general, but a poor reflection of the observed responses to a particular item. The item's responses do not conform to the specified logistic function.

Item goodness of fit statistics for the Rasch family of models is relatively straightforward to construct. Several indices for this family of models have been proposed and are available as standard output in the Rasch-oriented software packages (Edelen & Reeve, 2007). Item goodness of fit statistics for non-Rasch models are also available, although their construction is rather complex. Most work in this area has been restricted to dichotomous items and many of the more traditional indices do not perform optimally. A new class of item fit statistics based on an alternative approach tends to perform better (Orlando & Thiessen, 2003) and has recently been extended with polytomous items (Bjorner, Cristnsen, Orlando & Thissen, 2005). Several graphical representations of item fit have also been proposed, to be used in conjunction with a fit statistic, or as an exploratory diagnostic for item fit (Hambleton & Swaminathan, 2010). It is also possible to examine model-data fit at the individual level with person fit indices. Person fit indices evaluate the consistency of individual response patterns. With a proposed model of valid responding based on the IRT model Embretson & Reise, 2010). There are a number of different types of person fit indices that vary in their applicability (Karabatsos, 2003). They are often used to detect guessing and have also been applied to personality inventories (Mcleod, Lewis & Thissen, 2003; Hendrawan & Meijer, 2005; Edelen & Reeve, 2007).

2.2.2 Concept of Students' Attitude towards mathematics

Defination of attitude

Attitude is an important concept affecting human behaviour. Aiken (2003) defined attitude as an inclination or as a pre-disposition that had been learned to respond in the individual sense in a positive or negative way towards an object, a situation, notion or a person. Petty and Caciopo (1986) as quoted by Memnun & Akkaya (2012) see attitude as a general evaluation of individuals with regards to themselves others or with regards to other objects, event or problems that rely on many different cognitive, affective and behaviour constitutive and has effect on development, change and formation of things. Ozgwun (1999) also defined attitude as the effective state of readiness or the inclination of individuals which is observed in a form where individuals accept or refuse a certain person, group, an institution or a thought (Memnun & Akkaya, 2012). Memnun and Akkaya (2012) also defined attitude as the intellectual, emotional and behavioural response, inclinations that the individual has toward himself/herself or towards any kind of facts or object being present around. Zan and

Martin (2007) defined attitude as the positive or negative degree of affect associated with a certain subject. Attitude is also defined as a mental and neutral state of readiness organized through experiences exerting a directive or dynamic influence upon the individual response to all objects and situations with which it is related.

Mensah, Okyere and Karanchie, (2013) also defined attitude as a psychological tendency that is expressed by evaluating a particular entity with some degree of favour or disfavour and stressed that it is a predisposition or tendency to respond positively or negatively towards a certain idea, object, person or situation or an attitude object. Attitude influences an individual choice of actions and responses to challenges, incentives and reward (Business Dictionary). Zelly, Mananne and Ekaine (2005) postulated that attitude are generally positive or negative views about a person, place, thing or event which are often referred to as attitude objects. Gomez-chocum and Haines (2008) defined attitude as evaluation of ideas, event, object or people and stressed that attitude are generally positive or negative but can be uncertain. These definitions above imply that, attitude is a response to an object, referred to as attitude object, which can be negative, positive or neutral response, is an emotional response to an object, belief regarding an object and behaviour towards an object , it is formed through life experiences, and it affects individual actions. Therefore attitude can be defined as the emotions associated with an object which could be negative, positive or neutral, the belief regarding an object and behaviour towards an object which affects individual actions.

Researchers suggested that every attitude has three components, the emotional, the cognitive and the behavioural components, (Mensah, Okyere & Karanchie, 2013; Memnun & Akkaya, 2012; Maio & Haiddock, 2010). The affective component of attitude is the feelings or emotions of the individual associated with the attitude object. It stems from one's emotions and values. The behavioural component is the tendency to response in a certain way to an attitude object, it stems from one's observation of one's own behaviour. The cognitive component is what the individual thinks or believes about the object. It stems from one's thought about the properties of an object. Hence the cognitive , behavioural and affective component of attitude are interrelated and interconnected. (Mensah et al 2013; Faroog & Shah, 2008; Maio & Haiddock, 2010; Ntim,2010; Schenkel,2009; Yara,2009; Zan & Martino, 2007)

Students' attitude towards mathematics

Nicolaidu and Philipou (2010) defined attitude towards mathematics as a measure of liking or disliking of mathematics, a tendency to engage in or avoid mathematical activities, a belief that one is good or bad in mathematics and belief that mathematics is useful or useless. Attitude towards mathematics from the multi-dimensional point of view is defined by Gromez-Chocom and Haines (2008) as the emotions associated with mathematics which however have positive or negative values, the beliefs that the individual has regarding mathematics and how the individual behaves toward mathematics, stressing that a negative attitude is not only an attitude characterized by a negative emotional dispositions but also an attitude characterized by an epistemologically incorrect view; a vision of the discipline that is not shared among experts. Hence the attitude of a student who likes mathematics is negative, if this positive emotions is associated with a vision of mathematics as a set of rules to be memorized. (Khanseh, 2011; Yara, 2009; Memnun & Akkaya, 2012; Mensah et al, 2012; Maio & Haddock, 2010; Nicolaidu & Philipou ,2010; Kadjah 2008)

Behaviour towards mathematics can be defined as the inclination of the individual towards mathematics, whether to like it or not , towards dealings with the mathematics activities or to run away from them. Behaviour of students like doing mathematics homework and studying, like continuing with lessons can constitute cognitive component of the students for the attitude towards mathematics. Hence behaviour is based on affective and cognitive component. It is expressions of behavioural intensions or acting behaviours that represents the tendency to act or resolve in a specific way. Like when a student enjoys solving, mathematics, h/she will be interested or motivated to solve mathematics. (Khanseh, 2011; Yara, 2009; memnun & Akkaya, 2012; Mensah et al, 2012; Maio & Haddock, 2010; Nicolaidu & Philipou ,2010; Kadjah 2008).

Cognitive skill has to do with the perception of one's capacity for knowledge and thinking skill in mathematics, the values as the usefulness , the relevance and perceived values of mathematics in common life, the contribution for technological development and being helpful in future career. Cognitive skills that has to do with persistence in solving difficult problems in mathematics are all cognitive component of attitude towards mathematics. Emotional component depend on the previous experiences of the individual. Positive affect like the pleasure derived in solving mathematics, negative affect like fear, anxiety in learning mathematics hating to do mathematics homework, getting bored in mathematics classes can be considered as emotional components about the attitude towards mathematics. (Khanseh, 2011; Yara, 2009; memnun & Akkaya, 2012; Mensah et al, 2012; Maio &

Haddock, 2010; Nicolaidu & Philipou ,2010; Kadjah 2008). Under the light of these definitions and explanations of components of the attitude towards mathematics, attributes such as interest, value, usefulness, confidence, persistence, pleasure, motivation, teachers were identified as factors that affect students achievement in mathematics.

Confidence in learning mathematics is the degree to which a person feels certain of his/her ability to do well in mathematics. (Norton & Rennie, 2008). Successful learners are not only confidence of their abilities. They also believe that investment in learning can make a difference and help them to overcome difficulties. They have a strong sense of their own efficacy, while students who lack confidence in their ability to learn what they judge to be important and overcome difficulties are exposed to failure, not only at school but also in their adult lives. Self- confidence, goes beyond how good students think they are in subjects such as mathematics.. It is more concerned with the kind of confidence that is needed for them to successfully master specific learning task that aids understanding, but to be able to see connections between ideas and to imagine possible avenue for exploration. Several studies have shown that there is a strong positive correlation between self- confidence and academic achievement (,Stankov,2013; Stankoy, Morony & Lee, 2013; Smal-Hebarsh,2012Fewing, 2011; Rowe (2008). Meyer and Koehler (2003) also believed that confidence is essential to the autonomous learner because there is little certainty of achieving success when doing high level tasks and stressed that without confidence students are less likely to persevere. Hence confidence is an important prerequisite for choosing and persisting with more difficult mathematics causes.

Motivation is regarded as a driving force behind learning. It describes the internal process that allows a person to initiates, presents and complete activities. This includes student's interest in mathematics. A genuine interest in school subjects is important as well, students with interest in mathematics are likely to be more motivated to manage their own learning and develop their requisite skills to become effective learners of the subjects. Hence motivation of student towards mathematics is relevant when considering the development of effective learning strategies for mathematics. Increasing student's motivation has been directly linked to how well students learn. Gaining strong foundation in mathematics concepts develops students' positive attitude towards learning about mathematics and fuels confidence necessary for future success in school. (Azer,2013;; Ahmed & Rana,2012; Tarric and staib,2009; Tller,2007; Debelis & Goldin, 2006; Zan, et al, 2006)

Anxiety is described as discomfort characteristic by feeling of panic, helplessness paralysis and mental disorganized when confronted with mathematics problems (Hunt, 2005). Most of the relevant educational research have negative effects upon students' performance. Fenna and Sherman (1977) as quoted by Norton and Rennie (2007) founded that high anxiety was associated with lower achievement and self- esteem. Roy (2006) also reported that 21% of nine years old students stated that doing mathematics makes them nervous. Isaach (2005) also suggested that fear and anxiety are wholly negative damaging emotions that should have no place in mathematics classes. Hence excess anxiety that causes mental disorientation is likely to inhibit cognitive performance. Asheeft and Kirk (2001) also found that higher level of mathematics anxiety are related to lower available working memory capacity, their work also indicated that while the anxiety exist, the students may find it difficult to focus their attention on the task at hand or may have distracting thoughts which may prevents them from engaging with the task, militating against the development of competence. Minimizing the chances of developing mathematics anxiety is a worthy goal in itself. Kasavea (2006) pointed out that anxiety about learning mathematics can act as a banner to effective learning and stressed that students who feel anxious about their ability to cope in mathematics learning situations may avoid them and thus lose important carrier and life opportunities.

Enjoyment in learning is the act of learning with pleasure and kin interest. Interest in and enjoyment in mathematics affects both the degree and continuity of engagement in learning and the depth of understanding reached. Thus, effect has been shown to operate largely independently of students' general motivation to learn. A student who is interested in mathematics and therefore tends to study diligently may or may not show a high level of general learning motivation, and vice versa. Hence an analysis of the pattern of students' interest in mathematics is important. Such an analysis can reveal significant strength and weaknesses in attempts by education system to promote motivation to learn in various subjects among different subjects of students.

Perseverance has to do with the learner holding on learning, in trying to solve a difficult problem in Mathematics. Perseverance is therefore considered as one of the factors that affect student's attitude towards mathematics. Most people equate learning mathematics with intelligence but is very dependent on developing an attitude, one that includes perseverance, tenacity and fearlessness. Too many students give up upon encountering difficulties in mathematics, when just trying a few strategies could mean the difference between succeeding and failing. Even though, some people are more gifted than others, and so achieve success faster and with less frustration. Those who are not as gifted can compensate with perseverance and tenacity. The efforts and perseverance required to achieve proficiency is often overlooked as we are rarely witness to the years of hard work that takes place behind the scenes. In the classroom, attributing success or failure to ability over the value of hard work and perseverance could have negative implications for student motivation and performance. Students need to develop the attitude of perseverance in working through hard problems on their own. Attributing failure to a lack of ability as quoted by Folmer, Cole , Sigal, Benbow, Satterwhite, Swygert and Ciesla, (2008) can lead to what Abramson, Metalsky and Alloy (1989) term 'learned helplessness' and feeling disempowered to improve. On the contrary, attributing poor performance to low effort has been linked with maintenance of motivation and an ability to recover more quickly from a negative outcome.

The value of mathematics is the usefulness, worth and its relevance to students and society as a hold. Students who choose to ignore Mathematics, or not take it seriously in secondary School, forfeit many future career opportunities that they could have. They essentially turn their backs on more than half of the job market. The vast majority of university degrees require Mathematics knowledge or a good pass in it. The importance of Mathematics for potential future careers cannot be over emphasized. Degrees in the following areas require good knowledge of Mathematics and Statistics:

I. The physical sciences such as Chemistry, Physics, Engineering

II. The life and health sciences such as Biology, Psychology, Pharmacy, Nursing, Optometry

III. The social sciences such as Anthropology, Communications, Economics, Linguistics,

IV. Education, Geography

V. The tech sciences such as Computer Science, Networking, Software development

VI. Business and Commerce,

VII. Actuarial science, used by insurance companies

VIII. Medicine

Students need to be encouraged to enter the higher institution with good backgrounds in Mathematics. Experience has shown that students who entered the university with poor Mathematics background always have difficult time progressing in the disciplines they have chosen to major in. It is necessary therefore for students to take Mathematics seriously during their secondary school years to be able to cope in the higher institution.. Students are encouraged to give serious attention to their future. The career world is competitive. The competition and the opportunities in the career world become a serious problem for students if they do not do well in Mathematics, because then they are excluding themselves from the many career paths that need Mathematics. They are therefore exhorted to take matters in their own hands, to study hard, achieve a level of excellence, and take such a fundamental discipline like Mathematics seriously. For this nation to become one of the 20 most developed economy, it most attain a high level of industrialisation and appreciable improvement in all sectors of the economy. Industrialisation plays a significant role in economic development. Industrialisation acts as a catalyst that accelerates the pace of structural transformation and diversification of economic, enable a country to fully utilize its factor endowment and to depend less on foreign supply of finished goods or raw materials for its economic growth, development and sustainability. (Obasan, K.A & Adedriran, O. A; 2010). Studentstherefore should be urged to take mathematics seriously in order to do well in their careers and become part of this transformation.

2.2.3 Procedure for constuction of a scale using the GRM

The following are steps to in the construction of a scale using GRM

Specify and defining the construct to be measured

The construct to be measure should be specified. There should be an operational or conceptual definition of the construct in order to cover all the various aspects of the construct in the scale to be constructed. DeVellis(2012) stated that the development of a scale involves conceptualisation of major behaviours components of the construct. Croker and Algina, (2008) emphasized that conceptualised behaviours believed to manifest the construct and items required to manifest these behaviours be written out. They however stressed that the method could result in omission of important areas of the behaviours or inclusion of areas that are relevant to the scale developer only, pointing out that such approach may result in a highly subjective and idiosyncratic definition of the construct and suggested one of the following methods:

I. Content analysis where open ended questions are posed to subjects about the construct of interest and their responses sorted into topical categories and then taken as major components of the construct

II. Review of related literature where behaviours frequently studied by others about the

III. construct are used to defined the construct of interest, eclectic approach or work of a

IV. particular theorist could be used to specify behavioural categories to be presented by

V. the items

VI. Critical incident which has to do with identifying a list of behaviours that

VII. characterized extremes of the performance continuum for the construct of interest.

VIII. Direct observation which is to directly observe the behaviour in other to get the

IX. components of the construct of interest

X. Experts judgment which is obtaining impact from one or more individuals who have firsthand experience with the construct, where written questions or personal interviews are used to collect information.

Item pool generation

After identifying the components of the construct, statements that captured the components of the construct should be written out, as many questions as possible without restriction. DeVellis (2012) pointed out that statements can be written based on literature review, examination of existing scales related to the construct and expert judgment. Hardesty and Bearde (2010) also added that items can be derived from analysis of interviews, web pages and statement from audiences. In writing out the items some statements should be avoided.

1. Statements that :

   I. Refer to the past rather than the present

   II. May be interpreted in more than one way

   III. Are irrelevant to the construct

IV. Are likely to be endorsed by all or by none

2. Statements that believed to cover the entire range of the construct under investigation
3. should be selected.
4. The language of the statements should be simple, clear and direct
5. Statements should be short
6. Each statement should contain only one component thought
7. Statements containing universal such as all , always, none and never should be avoided
8. Words such as only, merely, and others of similar nature should be used with care and
9. moderation in written statements
10. Double negative statements should be avoided

Choosing scale point and response options

Likert type scale have various point scale, it can vary from 3 to 7. Onunkwu (2005) and DeVellis (2012) both emphasized that the higher the scale point the more refined the questionnaire will be. Hence a 5 point scale is better than a 3 point scale. After choosing a scale point for the scale, the response .options can then be determined. The response options can be strongly disagree, agree, undecided, disagree and strongly disagreed. The options scores decrease from 5 to 1 for positive items and from increase from 1 to 5 for negative items. Item options could be more than 5 or less than 5.

Face and content validity evaluation

Content validity refers to the degree to which elements of a measurement instrument are relevant to and representative of the target construct for a particular assessment purpose.

(Croker & Algina, 2008; Raykoy & Marcoulides, 2011; Allen & Yen, 2002). It is a logical analysis of a scale by subject experts to ascertain that items adequately cover all the component of a construct Element of measurement instrument includes item response formants and instructions. In the representativeness criteria the elements of the construct should be proportional to the facets of the target construct (Slavec & Drnovsek, 2012). Content validity indicates if the items in the tool sample the complete range of the attribute under study.(DeVon et al 2007). The basic objective of content validity is to analyze to what extent the items created are representative of the target construct and the degree to which such items represent the facet of the construct they were developed for, that is, their relevance (Beck & Gable,2001; Mastaglia, Toye, & Kristjanson, 2003; Delgodo-Rico et al 2012)

Content validity is applied to scales made up of several items, which together form a composite index. It has two meanings. One is that the instrument appears valid to an expert, the other is that it covers all the required aspects of the concept being measured. Content validity is, therefore, one type of validity. More specifically, the content validity of a measurement instrument for a theoretical construct reflects the degree to which the measurement instrument spans the domain of the construct's theoretical definition; it is the extent to which a measurement instrument captures the different facets of a construct. In theory, a measurement instrument designed to measure a specific construct has content validity if the items in the measurement instrument constitute a randomly chosen subset of the universe of items that represent the construct's entire domain. To establish a content validity a panel of content experts is asked to review the potential scale items and validate that they are appropriate indicators of the construct ((Hardesly & Benden, 2010; DeVillis, 2012; Schutz & Whirney, 2005). Different methods have been proposed to quantify the process of content analysis. Lawshe(1995) as expounded by DeVon, Block,Moyle-Wright, Ernest, Hayder, Lazzarus, Savoy and Kostas-Polston, (2007) and Brinkman (2009) proposed a method where in experts rate each item on a 3 point scale. The experts are asked to indicate for each item whether is 'essential' , useful, but not essential or not necessary' to measure the underling construct. She argued that at least half of the experts should rate an item as essential and to express this he derived the following content validity ratio (CVR).

$$\text{CVR} = \frac{ne - N/2}{N/2} \qquad \textbf{Eq. 2.29}$$

Where ***ne*** is the number of experts that rated the item as essential and ***N*** is the number of experts. CVR ranges from -1 to +1. A zero value means that half the panel rated it as essential and the other half did not. A value less than zero means fewer than half of the panel rated the items as essential and a value of more than zero means more than half of the panel rated the items as essential. Due to the fact that the rating of the experts include an element of random error (Brinkman,2009). To have an acceptable level of confidence in a majority, Lawshe(1975) developed a table of minimum CVR score for item inclusion based on one tailed test at the 0.05 level of significance. The score for the entire instrument called the content validity index (CVI) can be calculated by determining the mean CVR for all the retained items.

Lynn (1986) also proposed a two-step method for determining content validity. A 4-point scale ranging from 1=not relevant to 4- very relevant is used for determining whether items should be retained or rejected. A CVI is computed on the remaining items. The summary of CVI is the proportion of experts whose endorsement is required to establish content validity beyond the .05 level of significance. Lynn (1986) stressed that complete agreement must exist among the reviewers to retain an item with seven or fewer experts. Ribio, Berg-Weger, Tebb, Lee and Rauch (2003) also proposed a method of calculating the CVI of an instrument. According to them the CVI for each item should be calculated by dividing the number of judges issuing a judgment of 3 or 4 on the corresponding likert scale by the total number of judges. The CVI for the scale is then calculated after making the relevant decisions on the items. This is done by calculating the mean of the CVI for all the items conserved. As a general criteria, it is considered that CVI values should be ≥ .70 (Delgodo-Rio et al, 2012). When there is a high number of items or the initial intention is to obtain clearly differentiated dimensions, a more restrictive criteria is recommended with values of .80 (Beckstead, 2009; Landsheer & boeijie,2010). Wynd et al, (2003) and Delgodo-Rico et al (2012) also recommended to include an index of inter-judge agreement that takes into account the number of judges and the number of classification possibilities as well as the total number of items when analyzing the whole scale. To use the inter-judge agreement kappa index with a value of ≥ .40. The types of kappa index used is that applied to categorical judgment made by multiple judges. Delgodo-Rico et al (2012) and Beckstead (2009) also stressed that decisions on items (elimination, modification, or conservation etc) should not exclusively be based on empirical but should be subject to overall consideration by the authors depending on the objective intended when they were created and should always be based on the definition of the construct.

Sangoseni, Helman and Hill (2013) carried out a study to validate an instrument. The content validity of the instrument was established based on the magnitude of the content validity index (CVI) values, as it relates to degree of agreement among the experts. Based on recommendations from previous studies at ≥ 0.78 at, 05 level of significance (Polit & Beck, 2006; Rubio et al (2003). This implies that seven of the nine judges must agree in order for the items to be part of the final instrument. Items CVI score of less than .78 were considered either not relevant to the domain or the item required revision to remove ambiguity and ensure an accurate response. A dichotomous rating of favorable and unfavorable was used. Favorable denote items that were deemed either as relevant, needed minor rewarding for relevance, succinct and concise as it is. The items were arranged in scores of +0.0(unfavorable) and +1(favorable. A favorable rating by seven or more members of the panel yielded a CVI of greater than 78% or .78 denoted a high level of agreement, is a high value. The 2007 Microsoft excel for windows was used for the analysis. This study adopted the method proposed by DeVon et al (2007) and Brinksman (2009)

Field study

The validated scale is administered to the target population. With CTT a pilot study is taken on a target population to test the proposed questionnaire in other to identify potential problems with the questionnaire, compute the psychometric properties of the scale, select items based on the psychometric properties, retest the scale with the selected items and established reliability and construct validity of the scale. With IRT the instrument is administered once to the target population with heterogeneous sample that will accurately reflect the range of the population characteristics. .

Sample size consideration

Although there are no definitive answers regarding sample size requirements, there are some general statements and guidelines that can be outlined. First, sample size needs increase with the complexity of the model. Sample sizes as small as 100 are often adequate for estimating stable Rasch-model parameters (Edelen & Reeve, 2007). It was shown that the GRM can estimate with 250 responded but around 500 are recommended for accurate parameter estimation (Embreston & Reise, 2010). Complexity aside, the better the item response data meet the IRT assumptions, the smaller the sample size need be. The relationship between the items and the measured construct is also important as precise parameter estimates for poorly related items may require larger sample sizes (Thissen, 2003). Another consideration is the purpose of the calibration IRT item parameter estimates and scores will have smaller standard errors as sample size increases., if the items are being calibrated as a basis for producing accurate individual IRT scores or to generate parameters for an item bank, samples over 500 are required. However, smaller samples may be adequate to evaluate questionnaire properties. Another related consideration is the sampling distribution of the respondents. In all calibrations, item properties only generalize to the population represented by the sample of respondents. A very large sample of homogeneous respondents that do not reflect the population of interest may result in highly precise parameter estimates, but only for a limited range of the construct being measured, and possibly relative to a mean that is not a good estimate of the population mean. Thus the sample should reflect the population of interest and contain enough respondents so that items even at extreme ends of the construct continuum will have reasonable standard errors associated with their estimated parameters. The ideal is to have respondents in each cell of all possible response patterns for a set of items; however, this is rarely achieved. At the least, it is necessary to have responses in each of the categories of every item for the IRT model to be estimated.

Item Analysis

Item analysis is carried out to assess the psychometric properties of each item in a scale. The CTT statistics for polytomous items involves the assessment of item mean, point biserial correlation, standard deviation and item-total correlation. The major problem with the CTT is that the item statistics are not sample invariance; the items statistics depend to a great extent on the characteristics of the respondent. Item analysis for the GRM assesses item discrimination, threshold parameters, standard error for each parameter estimates using the GRM. These are sample invariance. To model the relationship of the probability of a correct response or endorsing a particular category of an item condition to latent trait variable, θ, the plot of a trace line ; the CRC is produced for each item. The plot of information function is also produced for each item. In IRT after the pilot survey the data are score and the assumptions of unidimensionality and local independence evaluated. If the data meets the assumptions then the model is specified and item analysis is carried out . (Ayala, 2009; Embretson & Reise, 2010). Items that provide the most needed information are selected according to the procedure stated earlier. The selected items are calibrated using the GRM and the scale properties are estimated; scale information function and corresponding standard error of measurement, scale scores and the histogram for the distribution of theta.

Construct validity

Construct validity is the degree to which an instrument measures the construct it is intended to measure. It is supported if the instrument items are related to its operationally defined theory and concept (Kpolovia, 2010; Schummack, 2010; Pae, 2012). Close attention to construct validity is a fundamental requirement in psychological research studies, because the study variables are often abstract and thus difficult to measure quantitatively. (DeVon, Block,Moyle-Wright, Ernest, Hayder, Lazzarus, Savoy & Kostas-Polston, 2007). Construct validity involves theory and relationship of data to theory (Embretson & Reise, 2010). There is no single way of establishing construct validity. It is demonstrated from a number of perspectives (Kpolovia, 2010; Pae 2012; DeVon et al, 2007). It identify whether indicators produce results within the conceptual boundaries of the construct. Which implies that indicators of a dimension should produce data that correlates with each other (Brinkman & love 2004; Brinkman,2009).

Construct validity can be demonstrated using content analysis, correlation coefficient, factor analysis, Anova studies, demonstrating different between groups, pre-test- posttest intervention studies, Multitrait-multimethod (MTMM) studies and multi-method approach (Kolovia, 2010; Pae 2012; DeVon etal, 2007). It can be established by measuring multiple traits and looking for evidence of convergence and discriminant validity (Simin & Watson, 2007). It can also be established by measuring one construct with multi-method approach (Schimock, 2011). Schimock, 2011 pointed out that causal models of multi- method data rely on convergent validity alone to examine construct validity, stressing that convergent validity is sufficient to examine construct validity. And that correlation of a construct to other construct can be useful to examine sources of measurement error but are not needed to estimate construct validity. This study therefore employed measuring one construct with multi-method approach using factor analysis.

Factor analysis is a statistical tool used to determine the factor structure of a set of data (Rayhoy & marcoulides, 2010). In the contest of construct validity factor analysis allows obtaining empirical evidence about the internal structure of a measurement instrument; the relationship between the latent variable and the results obtained after administering an instrument. (Fernando & Anguano-Carrasco 2010, DeVon, et al,2007, Scumafer & Lomax, 2006). There are two types of factor analysis; the exploratory factor analysis (EFA) and the confirmatory factor analysis (CFA). The EFA is used when the factor structure of the data is not theoretically defined, it is used to reduce a data of multiple items into a reduced set of factors sometimes called components or dimensions while the CFA is used when the factor structure is theoretically defined, it is used to confirm if the theoretically defined structure fits the data, or to find the structure that best fits the data. This study employed the CFA using a multi-method approach for the construct validity because the factor structure of the SATM was theoretically defined. Attitude was defined to be made of three components, affective, behavioural and cognitive components. The seven factors confidence, value, motivation, anxiety, perseverance, enjoyment and teachers' factor are all derived from these three components. Hence a three method approach was used.

CFA is a particular case of structural equation modelling (SEM) which consist of collecting data in order to confirm that a construct is defined according to the theoretical approaches researcher uses as a starting point. The model will then serve to represent, in a reasonable way, how the observed variables are interconnected. It allows researchers to evaluate the degree to which their measurement hypotheses are consistent with actual data produced by responded using the scale. by examining three key sets of results; the parameter estimates, fit indices and modification indices. Hair, Black, Babin, Anderson and Tathan (2006), Kline (2011),and Muthern,(2009) suggested that parameter estimates of .70 and above suggest good convergent validity, which is a measure of construct validity.

Measurement hypotheses can be modified to be consistent with the actual structure of participants responses to the scale. Multiple measurement hypotheses can also be examined to identify the most consistent with participants' responses. In this way CFA facilitates theory-testing, theory comparison and theory development in measurement contest. The primary goal of CFA is to evaluate the factor structure within a measurement model and to determine how well the measurement model fits the data. Within CFA model, each measure in a data set is considered to be an observed indicator of one or more underlying latent construct.

The CFA model assumes that there are two sources of variation in response to observed indicators. That is observed indicators are assumed to be influenced by latent underlying factor and a unique measurement error. The indices of model fit commonly examined are; the minimum value of discrepancy between observed data and hypothesize data divided by degree of freedom (CMIN/DF), a value less than 5 is considered acceptable, Goodness of fit index (GFI), the comparative fit index (CFI), the tucker-lewis index (TLI), these usually vary from 0 to 1 continuum in which values greater than 0.9 and .95 are typically taken to reflect acceptable and excellent fit to the data. A root mean square error of approximation (RMSEA), a value less than 0.05 is an indication of a closer fit and values up to 0.08 represent reasonable error of approximation. (Rahman el al,2013; Bomo & Tiebowei, 2012; Hair etal, 2010; Harrington, 2010 and Devon et al 2007).

2.3 Review of related literature

Edelen and Reeve (2007) carried out a study on the application of IRT modelling to questionnaire development, evaluation and refinement. A data from 6,504 adolescent respondents in the National Longitudinal Study of Adolescent Health public which was randomly sampled to represent the US schools with respect to region of country , degree of urbanicity, school types, ethnicity and school size, from a 19- item liker scale on Feelings for depression were used. The sample was split into a development and validation sample. Scale items were calibrated in the development sample with the Graded Response Model and the results were used to construct a 10-item short form. The short form was evaluated in the validation sample by examining the correspondence between IRT scores from the short form and the original, and by comparing the proportion of respondents identified as depressed according to the original and short form observed cut scores. Unidimensional and local independent assumptions were evaluated, the model fit and item fit statistics were also evaluated. The result revealed that the data met the assumptions and had a good fit. The result also revealed that the 19 items varied in their discrimination (slope parameter range: .86–2.66), and item location parameters reflected a considerable range of depression (–.72–3.39). However, the item set is most discriminating at higher levels of depression. In the validation sample IRT scores generated from the short and long forms were correlated at .96 and the average difference in these scores was –.01. In addition, nearly 90% of the sample was classified identically as at risk or not at risk for depression using observed score cut points from the short and long forms. They concluded that IRT can be a powerful tool for questionnaire development, evaluation, and refinement, resulting in precise, valid, and relatively brief instruments that minimize response burden

Fraly, Waller and Brennan (2000) also carried out a study on Item Response Theory analysis of self- report measures of adult attachment , to determine whether existing attachment scales suffer from scaling problems. A seven point likert scale of 323 items were administered to sample of 1085 students, randomly collected from the university of Texas and Austin. An item analysis of four commonly used self-report inventories was carried out : experience in close relationship scale (ECR), Adult attachment scale (AAS), Relationship styles questionnaire (RSQ) and J simpson attachment scales. The graded response model was used to analysed the scale. Assumptions of unidimensionality, local independent and model fit were evaluated. The result showed that the result met the assumptions of the unidimensionality and local independent and also showed that the data was a good fit. The findings also indicate that commonly used attachment scales can be improved in a number of important ways using IRT. Accordingly, IRT were used to show how a new scale can be developed with desirable psychometric properties.

Hussein (2010) also carried out a study on 'Evaluation of an Arabic version of children self-report social skills scale (CS^4) based on IRT', aimed to evaluate the psychometric properties of CS^4 by using both CTT and IRT models, and to underline the differences and similarities between the two models. The study consist of 722 primary school children (401 boys and 319 girls) from Alexandra in Egypt. CTT and the generalized partial credit model of IRT were used for the analysis. EFA was conducted to determine the factor structure of the CS^4 , eigein values, scree plot and the content of the factors were assessed. The result yielded a three factor solution; social rule, likability and social ingenuousness.. The three factors explain 31.97% of the variance for boys and 34.17% for girls. The correlation among the three factors indicated that the subscale related to each other but the size of the correlation coefficients, which ranged from .13 to .54, showed that the subscales measured separate constructs. The facts that all, but one item loaded with a factor loading greater than .4 on one and only on CS^4 factors provided evidence on the unidimensionality which supported the use of IRT to psychometrically describe the scale of each subscale. Construct validity was conducted by correlating emotional awareness as measured by Emotional awareness questionnaire for children revised (EAQC-R) and the components of the CS^4. It was hypothesized that the positive component of the CS^4 social rule and likeability, will correlate positively with the total score of the EAQC-R and the negative component of the CS^4 social ingenuousness will correlate negatively with the total score on EAQC-R. The findings indicated that the correlation between CS^4 and EAQC-R was statistically significant for both boys and girls. Pearson correlation coefficient demonstrated a significant positive correlation between total scores on the CS^4 and the total scores on the EAQC-R for both boys and girls. The result suggested that higher scores on the self-report social skills were associated with higher scores on EAQC-R, respectively, were as social ingenuousness correlated negatively with EAQC-R. Item parameters were estimated separately for each factor using the GPCM of IRT. A slop parameter, a single location parameter and four step difficulty parameters were estimated for each item. The result indicated that the item slop for both boys and girls showed a moderate and large discrimination values. Thus all the CS^4 items were generally good for discriminating the respective traits for boys and girls. The study also found that for boys and girls the category parameter values for step 1 and step2 were smaller than the values of step 3 and 4. These findings suggested that for all items, moving from endorsing response option 0 to 1 and 1 to 2 is more likely than moving from endorsing response 2 to 3 from 3 to 4. The study also found that the location parameter values for eighteen items out of the twenty one items were negative, thereby indicting that these items are easy. This implies that endorsement of higher rating of the items would require that small amount of the relevant traits be present. The findings also indicated that the three subscales of the CS^4 had peaked information curves. Consequently, their precision differ markedly within their respective trait. In general the three subscales of CS^4 tend to perform best for children at low and moderate levels of the trait. Computing IIF allows researchers identify exactly how many items per scale are needed to achieve a given level of precision within specific trait range. Hence the study has shown that the use of IRT procedures can provide valuable additional psychometric information over classical test theory.

Rush, Mair, lowry and Treibimairer (2013) carried out a study on "The development and measuring Information system (IS) scale using IRT aimed at comparing IRT and CTT in the development of the IS scale.. A convenience sample of 291 internet users was used. Seven experts were used to generate the items, a total of 26 items were generated. A CTT analysis was conducted; EFA analysis was carried out, CFA analysis was also conducted to confirm the result of the EFA. The result showed a bad fit of the CTT models to the data. However the selected items were suited for a unidimesional measurement of the hedonic information system with a CTT framework. A Rasch model; the partial credit model (PCM) was used for the IRT analysis. Items and person parameters were estimated, item fit based on the residuals were computed. Items with the smallest p-values were eliminated. The result was a set of homogeoneus items that comply with the restricted Rasch criteria. The parameters estimated were a location parameter and four step difficulty parameters for each item. Results revealed that the scales derived under IRT not only have the same reliability and fewer items than the CTT scale, but also provide more information about an individual scale and its items and embeds the scale construct, process and the derived scholarly results into a strong theoretical and epistemological content of measurement. The IRT analysis not only allows for probability statement about an individual answering behaviours but also indicates how well the expression of the latent construct can be assessed, how well the overall latent construct can be assessed and how the individual items scale the individuals. Hence it was concluded that IRT possesses a powerful measuring instrument that overcomes every short comings of CTT.

Sharkness and DeAngelos (2010) also carried out a study on measuring students' involvement: A comparison of CTT and IRT in the construction of scales from student surveys focused on comparing the information provided by CTT and IRT on two broad involvement scales of different type's one academic and one social. The study was carried out in the cooperative institutional research program at the higher Education Research Institute, university of Califonia, Los Angelis, USA. Data were drawn from the cooperative Institutional research program (CIRP) 2008, your first college year (YFCY) survey. The sample was 41 116 students from 501 universities across the country. The data was randomly splitted into approximately two equal sized samples A and B. one was use for the development and refinement and the other was used for evaluation and confinement. The items in the initial pools were evaluated via EFA with 20639 cases to determine each item's fitness as an indicator of academic or social involvement aim to determine whether the variance shared by a set of items can be explained by a reduced number of latent variables. This was carried out on the full set of ten social involvement and ten academic involvement variables. A CFA with 20 479 cases was used to confirm the factor structure produced by the EFA and evaluate the unidimensionality of the data with a one factor solution. Model fit indices were assessed. The result showed unidimensionality and good fit for both scales. CTT statistics estimated, include crombach alpha, item total correlation and average item inter-correlation. CTT analysis produced seven social involvement items and six academic involvement items. GRM was used for the IRT analysis, one discrimination parameter, four threshold parameters were estimated for each item. A category response curve and an item information curve were also produced for each item. Scale information curve and standard error of measurement were also produced for the two scale. Result showed that both IRT and CTT agreed on the items that best measured academics involvement and social involvement. However they provided different views of measurement precision in both scales. CTT demonstrated that the items are highly inter-correlated and have reasonably high overall cronbach's Alpha .76 and .83 for social involvement and academic involvement respectively and therefore the scales are relatively precise and so they should have low SEM, and the low SEM should apply to all students regardless of their involvement level. From the IRT perspective both scales have low precision at the high ends of the continuums, which imply that the scales cannot differentiate among students at the higher ends of the continuums. IRT further revealed that social involvement has uniformly high precision across the lower ends while academic involvement does not have uniformly high precision across the lower ends of the trait range. The amount of measurement precision offered by the academic involvement scale fluctuates based on where students fall on the continuum- certain levels of academic involvement. To improve precision in the CTT framework it was suggested that additional items be added to the scales that are very similar to existing items and that will correlate highly with the existing items which will increase the values of the cronbach's Alphas and reduce the SEM. While IRT suggested that to improve precision one or two questions that asks about something that only the students who have the highest level of involvements are likely to do or feel should be added to the scales. The content of the items have to be flashed out through theoretical development, so a desirable side effect will be theory-building of the trait. It was concluded that such novel perspective by IRT on precision alone demonstrates the potential that IRT has to improve the measurement of important constructs in higher education. This study also suggests that researchers who use secondary data should carefully evaluate the measurement properties of scales that are created for them in order to interpret their findings most accurately.

Silvia (2013) carried out a study on 'Application of item response theory in the attitude towards staistics evaluation' aimed at analyzing the validity evidence based on item structure of the attitude towards statistics scale. The study was carried out in the university of Sao Francisco, Brazil. The study was composed of 693 undergraduates' students of Administration, Engineering, Pedagogy and Psychology courses who had already studied that statistics courses in the higher education. The polytomouse partial credit model; a Rasch model was used for the analysis. EFA was used to evaluate the unidimensionality of the data. Result indicates that the scale was predominantly unidimensional. Results also showed that the Rasch explain 75.9% of the variance in the data, which is a good result. The first contrast in the residuals explain 6% of the variance. The items of the scale present appropriate statistical values for the adjustment to the Rasch model. The principal results of this study indicated validity evidences of the item scale structure. It was concluded that the study of the attitude in relation to the statistics can contribute to the improvement of the teaching and learning of this course and of another that need statistical concept.

Results from empirical studies showed that IRT can be used to improve the measurement precision of a scale in different ways and that it possesses a powerful measuring instrument that overcomes every short coming of CTT. All the works done were done by foreign authors, there is no work on polytomous IRT done by local author, neither is there any work done on development of mathematics attitude scale using IRT. This study therefore applied the procedures of IRT to develop a students' attitude towards mathematics (SATM) scale for secondary school students. Specifically it used the graded response model.

2.4 Summary of literature review

This study applied the procedures of IRT to develop a students' attitude towards mathematics (SATM) scale for secondary school students. The literature review consist of theoretical framework, conceptual framework and empirical review. The development of a scale is based on two theories ; IRT and CTT. These two theories differ in their methods and procedures in scale development. CTT is of the idea that an observed score is composed of true score and error score. It is a scale based theory while IRT is an item based theory . it is of the idea that the probability of responding to an item is a function of item parameters and ability level. IRT has a lot of advantages over CTT. IRT encompasses a group of models and the applicability of each models depends on the nature of test items. IRT model could be a unidimensional model or a multi-dimensional model. unidimensional models are either dichotomous models with two response categories or polytomous models with more than two response category. Students attitude towards mathematics is based on the theory that attitude affects the way a person views a subject pursuit and achievement within that subject area. It is also based on the social learning theory by albert Bandura, which teaches that individuals and the environment interact to define each other, that individuals will only adopt the behavior of models they deem similar to themselves or whom they esteem, and self-efficacy which is the perception of an individual that s\he can successfully achieve a particular outcome. Researchers suggested that every attitude has three components, the affective, cognitive and behavioural components. Hence it is define as the emotions associated with an object which could be negative, positive or neutral, the belief regarding an object and behaviour towards an object which affects individual actions. The theoretical framework for students attitude towards mathematics is based on the social learning theory and the theory that a person attitude affects the way a subject pursuit and achievement within the subject area is viewed. The social learning theory believed that individuals and the environment interact to define each other, individual will only adopt the behaviours of models they deem similar to themselves or whom they esteem, and the perception of individuals that they can successfully achieve a particular outcome. From these approaches distinct construct on which to base the assessment of student attitude towards mathematics scale was derived as: students motivation in mathematics, confidence in mathematics usefulness in mathematics, enjoyment in mathematics, perseverance in mathematics, anxiety in mathematics and teachers contribution to the students attitude toward mathematics.

In developing a scale the following steps are said to be taken: specifying and defining the construct, generating items, caring out face and content validation, field study, evaluation of assumption, specifying the model to be employed, carrying out item analysis and data analysis. Item analysis IRT consist of estimation of discrimination parameters, difficult parameters, standard error of parameter estimates, fit statistics and item information function. while data analysis consist of computing the scale information function, ability estimation, standard error of measurement (SEM), and scale response function. This study was based on the polytomous response model specifically the grade response model (GRM). It employed the Xcalibre for item and data analysis.

Empirical review was also carried out on six empirical works. Results from empirical works revealed that IRT is a powerful tool for scale construction that overcomes all the short comings of CTT, and can be used to improve the measurement precision of a scale in different ways. The empirical review revealed that no local author has applied the procedures of IRT for a polytomous scale and no scale on students' attitude towards mathematics have been constructed using the procedures of IRT and so this study employed the procedures of IRT to develop a students' attitude towards mathematics scale for secondary school students..

CHAPTER THREE

RESEARCH METHODOLOGY

This chapter deals with the following research issues research design, population sample and sampling technique, development of instrument, item analysis and data analysis

3.1 Research design

The research design is instrumentation research design. Instrumentation research design according to Kpolovie (2010) deals with the psychometric principles (estimating item properties and establishing reliability and validity of an instrument) and standardization of an instrument on the basis of certain test theories. Hence instrumentation has to do with generating items to measure a construct, choosing a scale point and response options for a non-cognitive measure,, establishing content validity, pilot testing, caring out item analysis, selecting good items, establishing reliability and construct validity, establishing procedure for scoring and interpretation of score on the basis of a particular test theory. This study applied the procedures of IRT to develop students' attitude towards mathematics scale for secondary school students. Items were generated, a scale point was chosen, a content validity was conducted, a field study was carried out, assumptions were evaluated and items were analyzed using the GRM, a discrimination parameter and four threshold parameters were estimated for each item, item CRC and item information function were also produced for each item, items were selected based on item information function, selected items were calibrated on a metric scale with a mid-point of zero and standard deviation of 1. Items and scale properties were estimated and produced. Construct validity was conducted and the reliability index of the trait estimates was computed. The trait estimates were converted to T-score and classified into three groups for scale users.

3.2 Population

The study was carried out in Rivers and Bayelsa states. All students from government and private owned secondary schools in both states (with population sizes of **300151**) were involved. The target population was all secondary school students in Nigeria but accessible population was all students from government and private owned secondary schools in Rivers and Bayelsa States.. Rivers state has 276 private owned and 271 government owned secondary schools, which is a total of 547 schools. While Bayelsa has 162 government and 318 private owned secondary schools which is a total of 480 schools.

3.3 Sample and sampling technique

The sample of this study comprised of 2400 students randomly selected from the 16 sampled schools, consisting of 8 schools each from Bayelsa and Rivers states. Sample size consideration for parameter estimation in IRT does not have a particular procedure to calculate it, unlike in hypothesis testing were there are different methods to get a sample size. It depends on the model employed and the number of parameters to be estimated. However empirical results revealed that a minimum sample size of 500 is adequate for estimating parameter with the GRM (Embretson & Reise, 2010; Edelen & Reeve,2007; de Ayala 2010; DeMars 2010).). Different authorities in IRT have variously stressed that a sample size needs to increase with the complexity of the model and that sample should be heterogeneous in order to accurately reflect the range of the characteristics of the population of interest, and should contain enough respondents so that items even at the extreme ends of the construct continuum will have reasonable standard errors associated with their estimated parameters. (Embretson & Reise, 2010; Edelen & Reeve,2007; Ham & Hambleton, 2007; Van der Linden & Hambleton, 2010; Baker & Kim, 2004; de Ayala 2010; DeMars 2010).

This sample therefore was composed through a multi-stage sampling procedure involving cluster sampling, random sampling and stratified sampling techniques, in order to obtain heterogeneous sample. The schools in Rivers and Bayelsa states were divided in to clusters according to their local government areas, two local governments were randomly selected in each state. The schools in each local government were stratified according to private and government owned schools , each stratum was further stratified in to school type (mixed, boys and girls) and geographical location (urban and rural). Almost all the private schools are mixed and so two schools were randomly selected according to geographical location in each state for private schools. While three schools were randomly selected in each geographical location according to school type for the government owned schools in each state. A total of 16 schools where selected for the two states. Copies of the instrument were administered to students from each class of the 16 sampled schools. A total of 2400 copies of the instrument were retrieved for the analysis. Tables 3.1 and 3.2 are showing the breakdown of the process.

TABLE 3.1 THE SAMPLED LOCAL GOVERNMENT AREAS AND THE NUMBER OF SCHOOLS FROM THE TWO STATES ACCORDING TO SCHOOL TYPE

STATE	LGA	NUMBER OF SCHOOLS			
		GOVERNMENT			PRIVATE
		BOYS	GIRLS	MIXED	
BAYELSA	YELGA	1	1	42	232
	NEMBE			21	14
RIVERS	EMOUHA	2	4	14	8
	PHALGA	5	4	6	52

TABLE 3.2 NUMBER OF SCHOOLS DRAWN FROM EACH STATE ACCORDING TO GEOGRAPHICAL LOCATION AND SCHOOL TYPE

SCHOOL TYPE	RIVERS STATE				BAYELSA STATE				TOTAL
	GOVERNMENT		PRIVATE		GOVERNMENT		PRIVATE		
	RURAL	URBAN	RURAL	URBAN	RURAL	URBAN	RURAL	URBAN	
BOYS	1	1				1			4
GIRLS	1	1				1			4
MIXED	1	1	1	1	3	1	1	1	8
TOTAL	3	3	1	1	3	3	1	1	16

3.4 Development of the instrument (scale)

The following are the procedures in the development of the scale:

3.4.1 Specifying and defining the construct

The construct Students Attitude Towards Mathematics (SATM) was specified and defined based on literature review in line with the recommendations of DeVelis(2012), Brinkman(2009) and Croker & Algina(2008). Students' attitude towards mathematics was defined as students emotions associated with mathematics which could be positive or negative, their belief regarding mathematics and behaviour towards mathematics which affects their actions. Different components of SATM were identified. They are: mathematics confidence, mathematics usefulness, mathematics motivation, mathematics anxiety, mathematics enjoyment, mathematics perseverance and teachers contributions to their learning of mathematics.

3.4.2 Item generation

Items were generated to cover the components of SATM; Mathematics Confidence measuring students belief in their ability to learn and perform well in mathematics tasks, Mathematics Anxiety which measured students feeling of fear worry and uneasiness, dread and associated body symptoms in learning mathematics. Mathematics Usefulness measures student's belief of the value, relevance and worth of mathematics in their current and future education, vocation or other activities, Mathematics Enjoyment measures the pleasures and satisfaction students derived in the learning of mathematics. Mathematics Motivation measures students drive, interest and desire to study mathematics, Mathematics Perseverance measure students striving and holding on, when faced with difficult mathematics problem. Teacher expectation measures students' assessment of teachers' contribution to their learning of mathematics. Items were generated from proposed responded (secondary school students) and review of related literature, this is in agreement with DeVellis (2012), Rattray & Jones (2007) and Croker and Algina (2008) who all indicated review of related literature and proposed respondent in their list of various ways of generating items. A 20 items open ended questionnaire, based on the seven components of mathematics attitude defined earlier, was given to various sets of students to respond, 156 items were generated based on their responses, 62 items were generated based on personal discussion with different sets of students and personal observation and experience as a teacher 84 items were generated from literature review. A total of 306 initial items were generated. The initial item were edited severally in other to get An acceptable quality set of items. After the edition the initial items reduced to 240

3.4.3 Face and content validity

The edited items were given to five test experts to vet base on clarity of words, simplicity of statement , grammatical error and also to ascertain the content validity of the instrument. The method proposed by Lawshe(1975) as expounded by DeVon et al (2007) and Brinkman(2009) was adopted. The experts were given the items in a 3-point scale to indicate for each item whether it is ‘essential’, ‘useful, but not essential’ and not necessary. They were also asked to make general comments on the scale. A content validity ratio (CVR) was computer for each item using the formula CVR = $\frac{ne - N/2}{N/2}$ Eq. 3.1 Where ***ne*** is the number of experts that rated the item as essential and ***N*** is the number of experts.. 150 items had CVR of 1 while other had below 1. The items with CVR of 1 were selected based on the ‘table for minimum CVR score inclusion’ developed by Lawshe(1975) adopted by Brinkman(2009) which is based on one tailed test at the .05 level of significance. Four other items with .06 were also selected in agreement with Delgodo et al (2012), DeVilis(2012) and Beckstaer(2009) who all agreed that decisions on item selection should not exclusively based on empirical results but should be subject to over all consideration by the researcher, depending on the objectives intended when they were created and the definition of the construct. A total of 154 items were selected and a content validity index (CVI) of .99 was computed for all selected items, which is an acceptable value in agreement with Delogodo- Rico et al (2012), Landsheer and Boeijie (2010) and Wynd et al (2003) who all agreed that as a general criteria, it is considered that a CVI should be ≥.70 the analysis of the content validity is in appendix IV

3.4.4 Field study

The validated items in a 5-point scale were administered to the selected sample. Copies of the scales were administered to a randomly selected sample in each class of all the 16 sampled schools. A total of 2400 were retrieved for the analysis.

3.4.5 Evaluation Of Assumptions

Unidimemsionality assumption

This is evaluated by examining the ordered Eigen value from the item correlation matrix of an exploratory factor analysis. The eigen values of the correlation matrix were extracted for a rough check on the assumption of unidimentionality. The ordered eigen values were, the big drop between the first and second eigen value followed by a levelling off of the remaining eigen values, suggests there is one dominant dimension This is in agreement with Embretson and Reises (2010) and Edelen and Reeve (2007) who agreed that if the first factor of an eigenvalue from an explanatory factor analysis is considerably larger than the orders then it is an indication of unidimensionalty.

Local independence

The one factor solution CFA was conducted to assess the local independence of the data . The residual covariation matrix and fit indices were examined, a high residual greater than 0.2 and a bad fit is considered a violation of local independence. The indices of model fit examined are; the minimum value of discrepancy between observed data and hypothesize data divided by degree of freedom (CMIN/DF), a value less than 5 is considered acceptable, Goodness of fit index (GFI), the comparative fit index (CFI), the tucker-lewis index (TLI), values greater than 0.9 and .95 are typically taken to reflect acceptable and excellent fit to the data. A root mean square error of approximation (RMSEA) of 0.08 and below is an indication of good fit.. This is in agreement with Edelen and Reeve (2007); Embreston and Reise (2010). The CFA outputs for local independence are in appendices IX and X

3.4.6 Item analysis

The GRM was used for the item analysis of the SATMS, because The SATMS has a polytomous ordered response formant with a 5- point likert rating scale . This is in agreement with de Ayala (2009), Embretson and Reise (2010) and Ostini and Nering (2010). The maximum likelihood estimation method was employed using the xcalibre 4.2. Four threshold parameters, one discrimination parameter, their corresponding standard errors and chi`-square fit statistics were estimated for each item. Plots of item information function and Item Category Function (ICF) were also produced for each item. The item information function indicates the range of SATM where an item is best at discriminating among individuals. High information denotes more precision for measuring a person's SATM level. The height of the curves denoting more information is a function of the discrimination power of the item. The location of the item information function is determine by the thresholds parameters of the item. Hence the information curves determine which items are useful for measuring different levels of the construct.

3.4.7 Item selection

Items were selected based on the information function. The scale is designed to measure students of a wide range of ability with high level of precision. Seven items were selected from each domain for six domains while eight were selected for one domain . 70% of the items selected measure precision on a range of -1.5 to +2.5 with high information between -1 to +2 while 30 % measure precision on a wider rang covering the lower end to the higher range with low information. This is in agreement with Van der Linder and Hambleton, (2010). Hence the items selected will provide adequate precision across the entire range of interest as well as maximising precision along the middle continuum .

3.4.8 Scale calibration

The selected items were calibrated. To identify the metric for the SATM item parameters, the scale for SATM parameter was fixed by specifying that the mean in the reference population is 0 and the standard deviation is 1. This allows the interpretation of the threshold parameters relative to the populations mean and the discrimination parameters relative to the standard deviation. The standardized metric facilitates the conversion of the z-scores metric to the T-score distribution for the purpose of computing the proportion of the calibrated sample that score below each SATM level and identify the z-score corresponding to that percentage for normal distribution. The SATM values are described using three categories variables for easy interpretation. This variable was created according to the distribution of the observed SATM values. Respondents of SATM score of .5 standard deviation above the mean or higher are coded into the high category while those .5 standard deviation below and lower are coded into the low category and those within .5 standard deviation above or below the mean are coded medium category. The standardized metric scale is in appendix XII. Item properties were estimated, item trace lines and item information curves were also produced. Scale information functions and corresponding Standard Error of Estimate (SEM) for the full scale and the seven components and histograms for the SATM distribution for the full scale and the seven components were also produced. Item trace lines and the item information curves are in appendices V, VI and VII respectively.

3.5 Construct validity

Construct validity was evaluated employing the multi-method approach with CFA using AMOS 18. This is in agreement with Schimock,(2011). A one factor structure was modelled, followed by a three factor and seven factors. The fit of the three methods were compared to determine the model with the best fit. Correlation estimates were also examined to determine the convergent validity. The indices of model fit examined are CMIN/DF, GFI, CFI, TLI, RMSEA. A CMIN/DF of 5 and below, GFI, CFI& TLI of 0.9 and above and a RMSEA of 0.08 and below is an indication of good fit.. This is in agreement with Edelen and Reeve (2007); Embreston and Reise (2010). A correlation less than .70 indicates a low convergent validity. A good fit and correlation greater than .70 are evidence of construct validity. The output of the CFA for the three method are in appendices IX, X and XI

3.6 Reliability of theta estimates

The reliability of theta estimates was computed using the formular $1 - s_e^2$ proposed by Thissen and Orlando,(2007) for a standardized metric with SD=1 and meam = 0. where . s_e^2 is the marginal standard error which is 0.115. The value of the reliability of theta estimates was computed to be .98.

Reliability Index = 1 $1 - s_e^2$

= 1- 0.115^2

= 1- 0.013225

= 0.98

CHAPTER FOUR

RESULT AND DISCUSSION

This chapter presents the result obtained after evaluation of assumptions and analysis of data of the study. The analysis where carried out with reference to the research questions. The SATM scale is intended to measure SATM with a high rate of precision

4.1 Evaluation of assumptions

The EFA was conducted using SPSS 16 to evaluate the assumption of unidimentionality.

The big drop between the first and second eigenvalues, followed by a levelling off of the remaining eigen values in fig. 4.1, suggest there is one dominant factor. Hence the assumption of unidimentionality is not violated. The data is measuring one construct

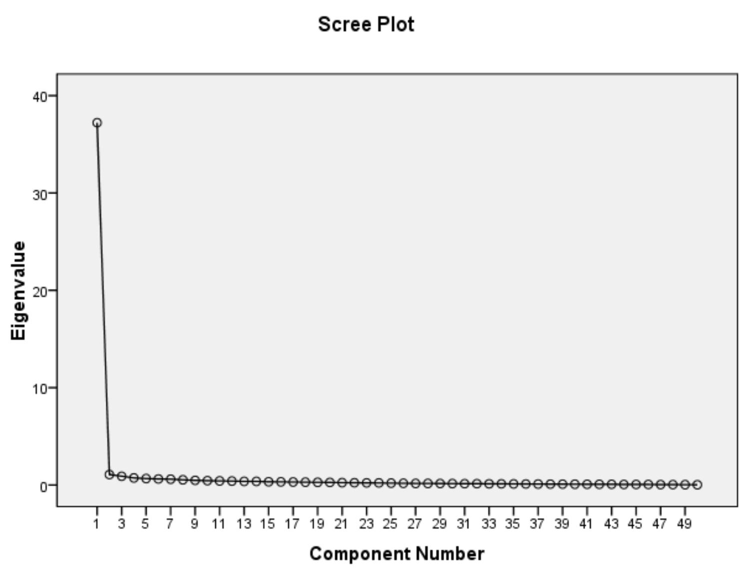


Fig 4.1Scree plot for the EFA

A one factor solution CFA was conducted to evaluate the assumption of local independence using AMOS 18. The residual covariation, the fit indices and standardized regression weight were examined. Table 4.2 shows the residual covariation which has values less than 0.2, the standardised regression weight in fig 4.2 and appendix IX has a range of values from .71 to .89 indicating that items are taped in to the construct. Tables 4.1 shows that the CMIN/df is 3.00 which is less than 5, the GFI,CFI and TlI are .99, .98 and .97 respectively which are all greater than .90, the RMSEA is .05 which is the accepted value. The result reveals that the data has a good fit and there are no excess covariation in the residual matrix which indicated that items are not correlated when the construct is held constant. Hence the assumption of local independence was not violated. The data has local independence. Fig 4.2 shows the path analysis of the one factor solution CFA

Tables 4.1 Model fit statistics of the one factor solution CFA

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	121	3381.06	1127	.00	3.00
Saturated model	1275	.00	0		
Independence model	50	123522.71	1225	.00	100.83

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.02	.99	.96	.93
Saturated model	.00	1.00		
Independence model	1.05	.05	.01	.05

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.98	.97	.98	.97	.98
Saturated model	1.00		1.00		1.00
Independence model	.00	.00	.00	.00	.00

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.05	.07	.07	.00
Independence model	.20	.20	.20	.00

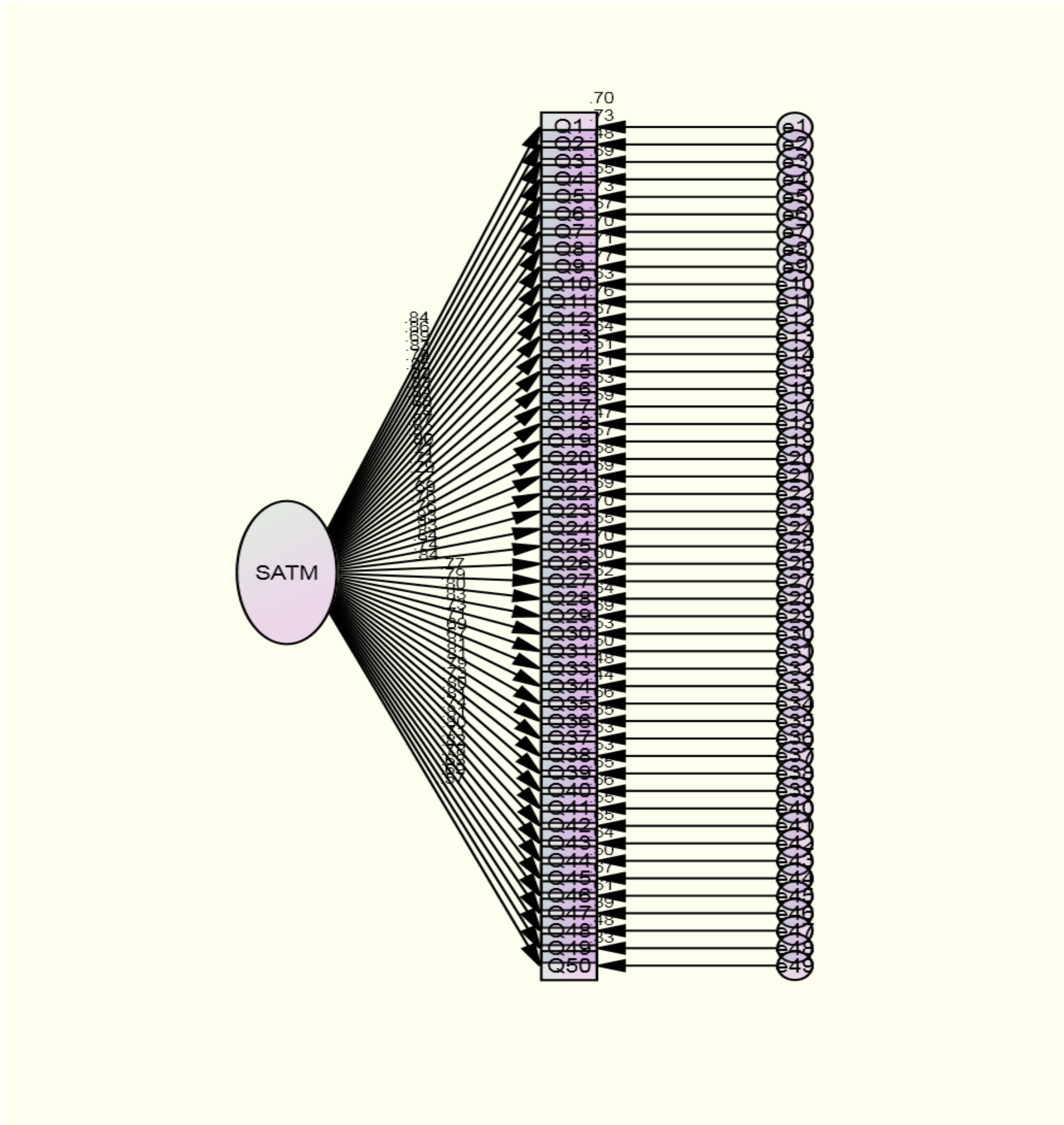


Fig 4. 2   Path analysis for a one factor solution of the CFA for local independence evaluation

TABLE 4.2 RESIDUAL COVARIANCE MATRIX FOR A ONE FACTOR SOLUTION CFA

Residual Covariances (Group number 1 - Default model)

	Q50	Q49	Q48	Q47	Q46	Q45	Q44	Q43	Q42	Q41	Q40	Q39	Q38	Q37	Q36	Q35	Q34	Q33	Q31	Q30	Q29	Q28	Q27	Q26	Q25	Q24	Q23	Q22	Q21	Q20	Q19	Q18	Q17	Q16	Q15	Q14	Q13	Q12	Q11	Q10	Q9	Q8	Q7	Q6	Q5	Q4	Q3	Q2	Q1
Q50	.000
Q49	.203	.000
Q48	.028	.077	.000
Q47	-.025	.009	-.001	.000
Q46	.051	.016	.066	.041	.000
Q45	-.061	.083	.167	.000	-.003	.000
Q44	.089	-.001	-.026	-.001	.052	-.013	.000
Q43	.064	.139	.028	.014	-.014	.011	.009	.000
Q42	-.020	.054	.336	.053	-.070	.115	-.029	.107	.000
Q41	.065	.032	.017	-.001	.046	-.051	.011	.014	-.111	.000
Q40	.015	.043	.011	.015	-.030	-.051	.054	.103	.044	.042	.000
Q39	-.065	.029	.054	-.030	-.013	.085	-.069	.004	.007	.019	.088	.000
Q38	.012	-.047	.029	-.015	-.022	.049	.007	.024	.009	.040	.044	-.046	.000
Q37	.111	-.079	-.017	-.016	.071	-.090	.068	-.009	-.014	.038	.035	-.036	.067	.000
Q36	.026	-.040	.004	-.010	-.002	.020	.011	.014	-.028	-.005	.045	-.002	.042	.090	.000
Q35	.007	.030	.149	.033	-.026	.174	-.018	.078	.159	-.031	.040	.039	.013	.020	.134	.000
Q34	-.026	.116	.148	-.001	-.158	.189	-.049	.042	.205	-.072	.003	.069	-.044	-.120	-.026	.282	.000
Q33	-.009	.083	.199	.041	-.082	.149	-.021	.032	.189	-.007	.004	.039	.046	-.027	-.018	.339	.388	.000
Q31	.017	.054	.111	.014	-.012	.071	-.061	.050	.102	.012	-.037	.077	-.027	-.051	-.031	.234	.229	.192	.000
Q30	.072	.043	.011	.030	.032	-.033	-.035	.029	.020	-.009	-.015	.039	-.062	.030	.055	.012	-.009	-.034	.084	.000
Q29	-.025	.045	.099	-.014	.057	.031	-.039	-.040	-.021	-.002	.011	.075	-.033	-.048	.016	-.031	.042	.025	.070	.105	.000
Q28	.029	-.024	.071	.000	.069	.040	-.006	.001	-.038	.007	.011	.063	-.011	.049	.071	.049	-.069	.036	.123	.160	.146	.000
Q27	.167	.022	.017	-.014	.018	-.075	.002	.049	-.048	.086	.045	.027	-.019	.066	.001	-.045	.009	-.029	.056	.112	.076	.065	.000
Q26	.048	.129	-.077	.007	.064	-.056	.006	.022	-.046	.021	.002	.012	-.116	.021	.027	-.069	-.043	-.047	.029	.099	.100	.074	.072	.000
Q25	.113	-.035	.251	-.024	.159	-.011	-.035	.005	-.036	.066	.026	-.008	.038	.069	.030	-.017	-.054	-.009	.013	.056	.104	.079	.092	.035	.000
Q24	-.017	-.048	-.035	.147	.039	-.075	.029	-.049	-.008	-.021	-.022	-.052	-.049	.031	-.049	-.034	.026	-.013	-.060	.015	-.017	.005	-.051	.041	-.031	.000
Q23	-.022	-.011	.018	.017	.103	.039	-.044	.012	.005	-.024	-.037	.066	-.052	-.056	-.033	.061	.047	.056	.022	-.011	.016	-.013	.031	-.034	.006	.055	.000
Q22	-.007	-.009	-.046	-.009	.045	.090	.074	-.059	-.069	-.035	-.024	-.011	.002	-.016	-.010	-.145	-.068	-.140	-.098	-.053	-.029	-.021	-.068	.008	.030	.053	.026	.000
Q21	-.032	-.007	-.058	.023	-.063	.088	.105	-.031	.019	-.007	.014	.001	-.025	-.006	.018	.105	.110	.085	-.025	-.038	-.037	-.016	-.067	-.021	-.083	.070	.044	-.016	.000
Q20	.008	.071	.063	.028	-.035	.063	-.078	.248	.105	-.008	.021	.070	.011	-.063	-.015	.125	.107	.054	.091	.040	-.025	.002	.030	-.012	-.024	-.003	.062	-.021	.055	.000
Q19	-.012	.080	.169	.027	-.086	.167	-.141	.064	.330	-.056	-.025	.051	-.003	.009	.017	.291	.268	.274	.194	.067	-.013	.023	.010	-.053	-.049	-.036	.067	-.123	.068	.235	.000
Q18	-.017	.022	-.004	-.013	.007	-.058	.004	-.004	-.060	.203	.021	-.014	-.026	.059	-.019	.010	-.045	-.016	-.016	.005	-.038	.002	.014	.018	-.020	-.006	-.040	-.035	-.040	-.016	-.112	.000
Q17	-.028	.053	.012	-.007	-.014	.014	.014	.081	.007	.023	.227	.007	.023	.003	-.012	.062	.063	.058	.003	-.020	.004	.018	-.019	.005	.008	.000	-.009	-.057	.014	.042	.059	.087	.000
Q16	-.021	-.010	.010	-.003	-.017	.049	.006	-.032	.017	-.031	-.009	.200	.007	-.075	-.069	.079	.106	.080	-.024	-.014	.016	-.067	-.043	-.051	-.043	-.009	.055	.001	.039	.047	.077	-.023	.012	.000
Q15	-.045	-.028	.069	-.069	-.056	.107	-.093	.004	.054	.002	-.046	.036	.232	-.016	-.004	.117	.070	.120	.108	-.016	-.035	.044	-.015	-.109	-.058	-.043	-.031	-.050	-.037	.084	.163	-.036	.010	-.002	.000
Q14	.030	-.045	-.039	.001	-.008	-.019	.024	-.060	.028	.026	-.006	-.023	.010	.230	-.023	-.022	-.064	-.009	-.024	-.008	-.043	-.042	.012	-.038	.006	.045	-.002	-.022	.030	-.047	.010	.025	-.026	-.004	.009	.000
Q13	-.034	-.002	-.088	-.029	-.081	-.048	-.046	-.083	-.125	.035	.004	.010	-.019	-.035	-.019	-.029	-.032	-.017	-.036	-.035	.017	-.029	-.031	.056	-.043	.033	-.074	.008	-.009	-.113	-.100	.037	.003	.039	-.026	.042	.000
Q12	-.038	-.057	-.090	-.013	-.045	.020	-.025	-.028	-.002	-.015	-.022	-.080	.002	-.030	.017	-.053	-.043	-.085	-.101	-.056	-.049	-.089	-.057	-.056	-.036	-.014	-.007	.044	.002	-.057	-.044	-.034	-.061	-.009	.024	.028	.092	.000
Q11	-.042	.026	.049	.008	.026	.051	-.065	-.032	.000	-.009	-.050	-.001	.010	-.034	.050	-.004	-.040	-.007	.069	.069	.015	.037	-.016	-.023	-.004	-.050	.000	.012	-.038	.022	.104	-.033	-.047	-.012	.056	-.016	.079	.048	.000
Q10	-.076	-.049	-.107	-.033	-.040	-.044	.012	.002	-.028	-.024	-.030	-.053	-.028	-.039	-.036	-.113	-.063	-.086	-.064	-.039	-.074	-.113	-.044	-.039	-.084	.004	.019	.039	.002	-.039	-.049	.039	-.038	-.029	-.028	.003	.058	.109	.016	.000
Q9	-.038	-.054	-.124	.003	-.024	-.082	.070	-.030	-.038	-.041	-.074	-.072	.034	.036	-.040	-.122	-.061	-.082	-.081	-.029	-.031	-.073	.008	-.005	-.052	.065	-.037	.041	-.006	-.071	-.128	-.007	-.057	-.027	-.088	.028	.026	.058	-.076	.072	.000
Q8	-.038	-.092	-.075	.004	.004	-.044	.007	-.090	-.031	-.029	-.083	-.050	-.007	-.053	-.046	-.108	.102	-.057	-.025	-.055	-.012	-.010	-.029	-.037	-.017	.008	.016	.053	-.014	-.081	-.064	.019	-.058	.039	-.067	-.011	-.005	.041	.050	.057	.054	.000
Q7	-.068	-.091	-.114	-.056	-.063	-.091	-.012	-.037	-.063	-.051	-.068	-.054	.036	-.042	-.020	-.170	-.081	-.143	-.102	-.072	-.070	-.077	-.035	-.046	-.034	-.036	-.016	.036	-.001	-.061	-.153	-.043	-.061	-.023	.006	-.031	.080	.104	-.046	.127	.156	.103	.000
Q6	-.084	-.052	-.147	-.011	-.020	-.072	.032	-.057	-.103	-.030	-.049	-.045	-.014	-.061	-.033	-.165	-.054	-.130	-.088	-.101	-.068	-.092	-.063	-.015	-.081	.015	-.024	.087	-.009	-.090	-.172	-.031	-.025	.005	-.016	-.022	.043	.066	-.045	.140	.161	.149	.202	.000
Q5	.038	-.042	-.064	-.017	-.031	-.149	.004	-.052	-.052	-.030	-.023	-.014	-.021	-.038	-.049	-.141	-.062	-.123	-.105	.009	-.011	-.049	.014	.031	.046	-.010	-.035	.037	-.095	-.056	-.125	-.007	-.021	.025	-.044	-.052	.051	.013	-.068	-.004	.111	.126	.242	.160	.000
Q4	-.085	-.067	-.091	-.024	-.016	-.027	.003	-.052	-.034	.014	-.038	-.017	.002	.015	.017	-.077	-.053	-.066	-.044	-.043	-.041	-.048	-.066	-.013	-.088	-.052	-.050	.019	-.008	-.065	-.059	.049	-.044	.006	.005	.015	.069	.100	.004	.064	.024	.054	.134	.111	.039	.000
Q3	.006	-.028	-.028	-.004	-.068	.080	.001	.019	.018	-.028	-.003	.007	.036	.012	.035	.123	.083	.059	-.031	-.069	-.052	-.088	-.003	-.035	-.041	-.042	-.002	-.032	.077	.055	.063	.003	.037	.087	.110	.004	.019	-.001	-.002	-.017	-.032	.018	.026	-.023	.030	-.001	.000
Q2	-.054	-.019	-.069	-.060	.001	-.056	-.022	-.036	-.013	-.025	-.044	-.040	.031	-.041	-.036	-.131	-.051	-.075	-.091	-.056	.003	-.056	-.027	.007	-.059	.005	-.019	.057	-.033	-.048	-.078	.009	-.051	-.049	.017	.017	.035	.072	-.010	.142	.083	.054	.101	.105	.002	.056	-.057	.000
Q1	-.017	-.083	-.067	-.001	.010	-.087	.063	-.079	-.093	-.019	-.019	-.042	.007	-.037	.013	-.119	-.060	-.105	-.056	-.056	-.024	-.014	-.086	-.010	.006	.061	.000	.085	-.020	-.097	-.144	-.001	-.018	-.032	.026	.001	.017	.055	.007	.045	.054	.109	.057	.080	.112	.030	.003	.053	.000

4.2 Research question 1

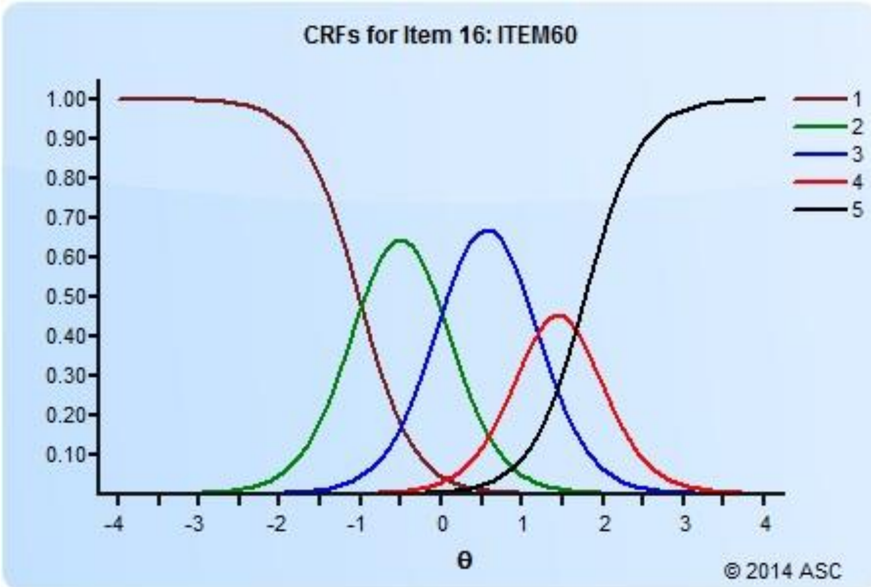
What is the content validity of the scale?

Appendix III shows the computation of the content validity of the 240 edited items. 154 items were selected after the analysis. 150 items were selected based on the 'table for minimum content validity ratio (CVR) for score inclusion' adopted by Brinksman (2009) while 4 items were selected based on the content they represent. A content validity index (CVI) of **.99** was computed for selected items, which indicates a high content validity. Hence the content validity of the SATM scale is .99 which is an acceptable value.

4.3 Research question 2

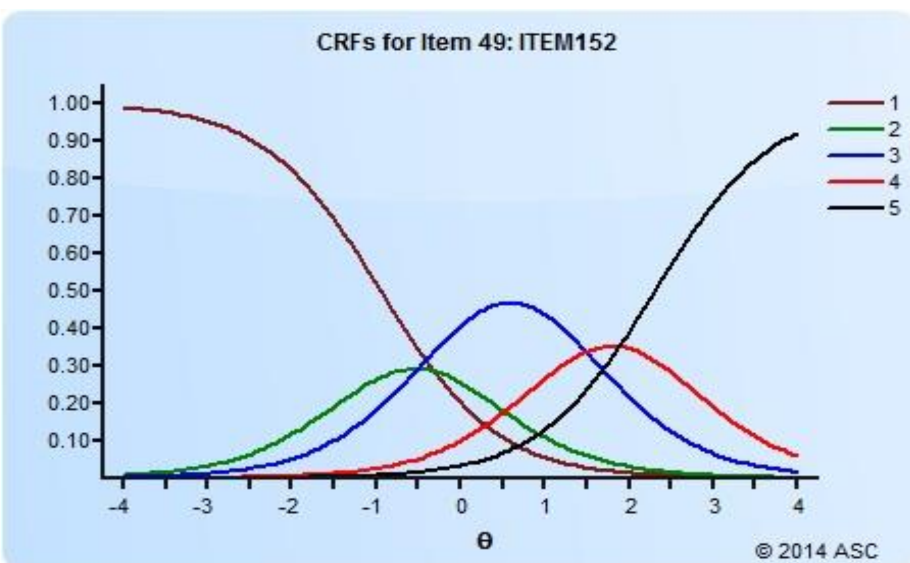
What is the spread of category threshold?

Table 4.3 displays the item parameters for calibrated items. The category threshold each indicates the point at which 50% of respondents would choose the designated option or higher. Every respondent has 100% probability of choosing the first option, so there is no threshold for that option. The metric of SATM is set to a mean of 0 and standard deviation of 1. The thresholds for the first category range from -1.27 to -0.58 with more threshold within one standard deviation from zero, the thresholds for the second category range from -0.49 to 0.14 with more negative thresholds, the thresholds for category three range from 0.26 to 1.31 with more thresholds within one standard deviation from the mean. The thresholds for the fourth category range from 1.43 to 2.31 with more thresholds between one and two standard deviation from the mean. Hence the values of the category thresholds range from -1.27 to 2.31 on SATM continuum. The result indicates that thresholds are clustered within one standard deviation from zero, few threshold between -1 and -1.3 and majority between 1 and 2.31. This implies that items threshold parameters do not evenly span the trait continuum, the coverage of the positive side of the continuum is better than the coverage of the negative side. Despite the fact that they do no evenly span the trait continuum the values are well distributed from -1.27 to 2.31 almost three standard deviation apart. Few thresholds are between -1 to -1.3 while many are between 1 to 2.3, 'hence there are more positive thresholds than negative thresholds and so the items will measure students with middle to higher attitude towards mathematics more precisely. Fig 4.3 shows the category response curves for item 16, 'I feel encouraged when I solve difficult problems and get the answers', the location of the curves is determined by the thresholds parameters. The item thresholds range from -1.02 to 1.78; 2.8 standard deviation apart,; this is evidence by the CRCs which is indicated by the narrow coverage of the trait continuum. Fig 4.4 shows the CRCs for item 49; 'My mathematics teacher teaches mathematics with passion'. The item thresholds range from -0.95 to 2.31; 3.26 standard deviation apart, which is well spread on the entire range of the SATM continuum. From Appendix V, it can be seen that must of the items are within two standard deviation above the mean and one standard deviation below the mean. Indicating that the thresholds are more to the positive side of zero than the negative side, which implies that the scale will measure students with average to positive attitude towards mathematics more precisely. The thresholds are not uniformly distributed but clustered at specific points of the SATM continuum. Appendix V shows the CRCs for all the calibrated items.



a = 3.01 b1 = -1.02 b2 = 0.01 b3 = 1.11 b4 =1.78

Fig. 4.3 Category response curve for item 16



a = 1.44 b1 = -0.95 b2 = -0.11 b3 = 1.29 b4 = 2.31

Fig. 4.4 Category response curve for item

TABLE 4.3 STUDENTS' ATTITUDE TOWARDS MATHEMATICS ITEMS AND CALIBRATED ITEM PARAMETERS

S/N	ITEM CONTENT	a	aSE	*B1*	*B2*SE	*B2*	*B2*SE	*B3*	*B3*SE	*B4*	*B4*SE
	CONFIDENCE										
1	I struggled with solving problems in mathematics most of the time	2.68	0.07	-0.58	0.02	0.05	0.02	0.86	0.03	1.88	0.04
2	I have usually been at ease during mathematics classes	1.74	0.04	-1.15	0.03	-0.39	0.02	0.85	0.03	1.88	0.04
3	I have a lot of self-confidence when it comes to mathematics	2.5	0.06	-0.93	0.02	-0	0.02	0.87	0.03	1.61	0.03
4	I don't have confidence when attempting mathematics questions	1.97	0.05	-0.76	0.02	-0.1	0.02	1.31	0.03	2.13	0.04
5	I am sure I can do well in mathematics	2.43	0.06	-0.78	0.02	0.14	0.02	0.88	0.03	1.62	0.03
6	I am not always comfortable answering questions in mathematics	2.17	0.05	-0.81	0.02	0.07	0.02	0.8	0.03	1.66	0.03
7	I cannot get high scores on my own in mathematics	2.57	0.06	-0.73	0.02	0.02	0.02	1.05	0.03	1.69	0.03
	VALUE										
8	I'll need a good understanding of mathematics for my carrier	2.43	0.06	-0.84	0.02	0.05	0.02	0.73	0.03	1.55	0.03
9	I study mathematics because I know how useful it is	2.89	0.07	-0.66	0.02	0.08	0.02	0.87	0.03	1.6	0.03
10	Mathematics is important for my chosen profession	2.19	0.05	-0.97	0.02	-0.14	0.02	0.7	0.03	1.6	0.03
11	Mathematics helps develop a person's mind and teaches him to think	2.88	0.07	-0.83	0.02	-0.05	0.02	0.69	0.03	1.51	0.03
12	Mathematics is important in every days life	2.45	0.06	-1.02	0.02	-0.02	0.02	0.99	0.03	1.76	0.03
13	I don't need the understanding of mathematics to succeed in future	2.33	0.05	-1	0.02	-0.14	0.02	0.93	0.03	1.64	0.03
14	Mathematics is necessary for a good carrier	1.77	0.04	-1.04	0.03	-0.32	0.02	0.81	0.03	1.43	0.03
	MOTIVATION										
15	I like mathematics	1.88	0.05	-0.9	0.02	-0.32	0.02	1.04	0.03	1.88	0.04
16	I feel encouraged when I solve difficult problems and get the answers	3.01	0.07	-1.02	0.02	0.01	0.02	1.11	0.03	1.78	0.03
17	Learning Mathematics is very interesting	2.38	0.06	-0.57	0.02	0.04	0.02	0.99	0.03	1.79	0.03
18	The challenge of mathematics appeals to me	1.93	0.04	-1.11	0.02	-0.49	0.02	0.26	0.03	1.74	0.04
19	Mathematics is a very interesting subject that I understand easily	2.22	0.05	-1.02	0.02	-0.28	0.02	0.9	0.03	1.88	0.04
20	Relating new concepts to the ones I have previously learnt gives me a clearer understanding of the concept being taught	2.2	0.05	-0.89	0.02	-0.22	0.02	0.78	0.03	1.66	0.03
21	I am interested in learning new things in mathematics	2.6	0.07	-0.59	0.02	-0.02	0.02	0.9	0.03	1.66	0.03
	ANXIET										
22	I am usually calm in mathematics classes	2.92	0.07	-1.01	0.02	-0.01	0.02	0.93	0.03	1.69	0.03
23	I always get nervous during Mathematics test	2.81	0.07	-0.87	0.02	-0.01	0.02	1.06	0.03	1.57	0.03
24	Studying mathematics makes me feel happy	2.07	0.05	-0.79	0.02	-0.22	0.02	1.02	0.03	1.95	0.04

25	Mathematics is one of my dreaded subjects	2.59	0.06	-0.9	0.02	0.02	0.02	0.91	0.03	1.64	0.03
26	I have usually been at ease solving problems in mathematics	2.26	0.05	-1.06	0.02	-0.18	0.02	0.93	0.03	1.81	0.03
27	I feel excited when somebody talks to me about mathematics	2.34	0.05	-1.13	0.02	-0.13	0.02	0.9	0.03	1.84	0.03
28	I get very tense when I have to do my mathematics homework	2.6	0.06	-1.03	0.02	-0.1	0.02	1.06	0.03	1.79	0.03
29	I never get confused in my mathematics classes	2.69	0.06	-1.03	0.02	-0.14	0.02	0.9	0.03	1.51	0.03
	PERSEVARANCE										
30	If I can't solve a mathematics problem right away, I give up after sometime	1.9	0.04	-1.03	0.03	-0.27	0.02	0.62	0.03	1.72	0.04
31	No matter how hard I try I cannot do well in mathematics	1.87	0.04	-1.05	0.03	-0.32	0.02	0.42	0.03	1.81	0.04
32	Anyone who work hard can be good at mathematics	2.01	0.05	-1.03	0.02	-0.3	0.02	0.44	0.03	1.87	0.04
33	I don't feel discourage even if I get a low score in mathematics	1.83	0.04	-1.01	0.03	-0.29	0.02	0.5	0.03	2	0.04
34	I always get discouraged when I cannot solve a problem in mathematics	1.67	0.04	-1.16	0.03	-0.42	0.02	0.61	0.03	2	0.05
35	I try different methods to ensure that I get a Problem correct	2.49	0.06	-0.89	0.02	-0.19	0.02	0.82	0.03	1.74	0.03
36	When I cannot understand mathematics I always look for more information to help me understand the problem	2.43	0.06	-0.8	0.02	-0.15	0.02	0.82	0.03	1.61	0.03
	ENJOYMENT										
37	Solving mathematics is boring	2.2	0.05	-0.9	0.02	-0.14	0.02	0.83	0.03	1.6	0.03
38	Solving mathematics makes me feel stressed	2.13	0.05	-0.96	0.02	-0.36	0.02	1.2	0.03	1.79	0.03
39	I have always enjoyed learning mathematics	2.58	0.06	-0.97	0.02	-0.09	0.02	1.04	0.03	1.76	0.03
40	I get a great deal of satisfaction out of solving a mathematics problem	2.47	0.06	-0.91	0.02	-0.06	0.02	0.88	0.03	1.73	0.03
41	solving mathematics is a fun	1.97	0.05	-0.92	0.02	-0.25	0.02	0.71	0.03	1.55	0.03
42	Sometimes I work more mathematics problem than are assigned in class	2.63	0.06	-0.99	0.02	-0.06	0.02	0.89	0.03	1.65	0.03
43	I look forward to my mathematics classes	2.45	0.06	-0.67	0.02	0.03	0.02	0.96	0.03	1.73	0.03
	TEACHER										
44	My teachers have made me feel I have the ability to go on in mathematics	1.94	0.04	-1.04	0.02	-0.46	0.02	0.62	0.03	1.83	0.04
45	My Mathematics teacher makes mathematics so boring	2.73	0.07	-0.74	0.02	0.05	0.02	0.94	0.03	1.72	0.03
46	My mathematics teacher know when the class have problem following during classes	2.35	0.06	-0.91	0.02	-0.21	0.02	0.94	0.03	1.62	0.03
47	My mathematics teacher doesn't seem to enjoy teaching mathematics	1.58	0.03	-1.27	0.03	-0.33	0.03	1.13	0.03	2.13	0.05
48	My mathematics teacher present mathematics in practical and clear manner	1.99	0.05	-0.99	0.03	0.15	0.03	1.03	0.03	1.79	0.04
49	My mathematics teacher teach mathematics with passion	1.44	0.03	-0.95	0.03	-0.11	0.03	1.29	0.04	2.31	0.05
50	My mathematics teacher always answers questions no matter how stupid it sounds	2.02	0.05	-1.24	0.03	-0.33	0.02	1.06	0.03	1.81	0.03

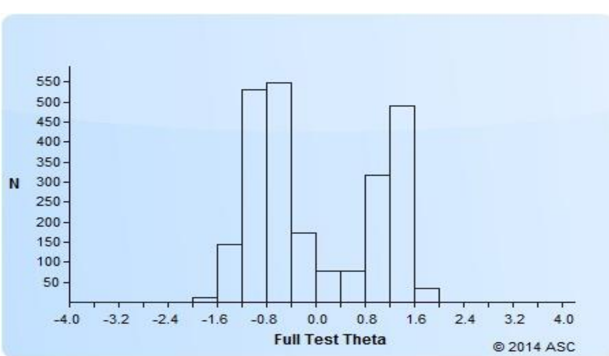
4.4 Research question 3

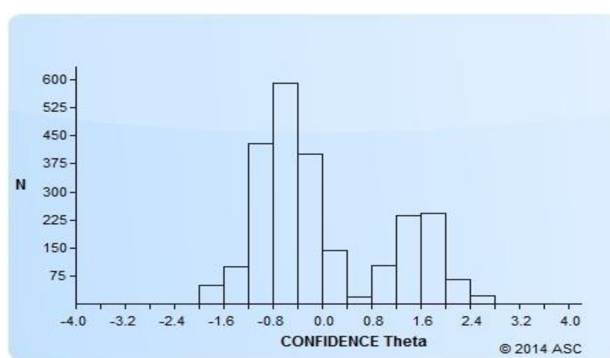
How discriminating is each item?

The discrimination parameter **a** is an indication of how rapidly the response probability changes as students' attitude towards mathematics increases. It is the strength association between an item and the trait (SATM). From table 4.3, the values of item discrimination range from 1.44 to 3 which are high to very high. The high values of the discrimination parameters imply that all items are contributing relatively a large amount of information to the measurement of the trait (SATM). The heights of the CRCs in Appendix V are indicated by the item discrimination. Item 16 has a discrimination values of 3.01 as indicated by the height and narrowness of the curves while item 49 has 1.44 discrimination values as indicated by the wide and flatness of the curves. The large values also indicate that all the items tape in to the construct (SATM) and so can measure the SATM well.

4.5 Research question 4

What is the distribution of trait (SATM) in this group of respondents?





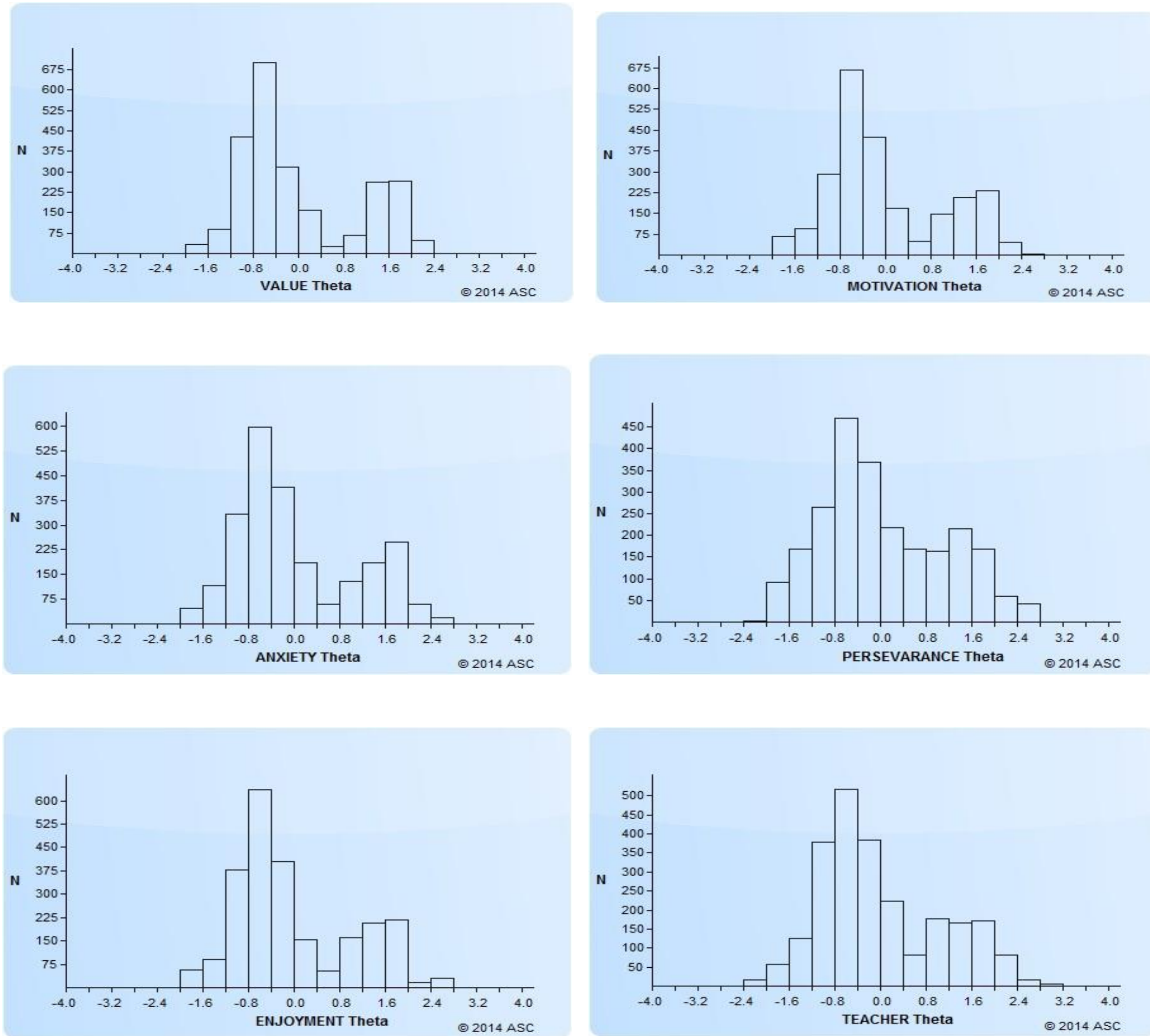


Fig. 4.5 the distribution of theta estimates (SATM) for the full scale and the seven components

Fig 4.5 shows the distribution of the trait in this group of respondents for the full scale and the seven components. The SATM scores were estimated for each response pattern with the score distribution using the maximum likelihood estimation method with a floating prior applied to the likelihood. These scores were set to centre at 0 with a standard deviation of 1. From fig4.5 the distribution is bimodal and range from -2.4 to 2..6 for the full scale, -2 to 2.6 for Confidence, -2 to 2.4 for Value and -2 to 2.6 for Anxiety while it is positively screwed and ranges from-2 to 2.6 for Motivation, -2.4 to 2.6 for Persevarance,-2 to 2.6 for Enjoyment and -2.4 to 2.6 for Teacher. This implies that respondent are not normally distributed around the mean. Results shows that respondents are clustered between -0.4 to -1.2 standard deviation from the mean and between 0.8 to 1.6 standard deviation from the mean for the full scale. While there is a piling up of cases from -1.6 standard deviation from the mean to 0.2 the mean and a long tail extending to the right for Motivation, , Perseverance, Enjoyment and Teacher. Hence, the scores for this group of respondents are not normally distribute but are bimodal for the full scale, Confidence, Value and anxiety but positively screwed for Motivation, Perseverance , enjoyment and Teacher..

4.6 Research question 5

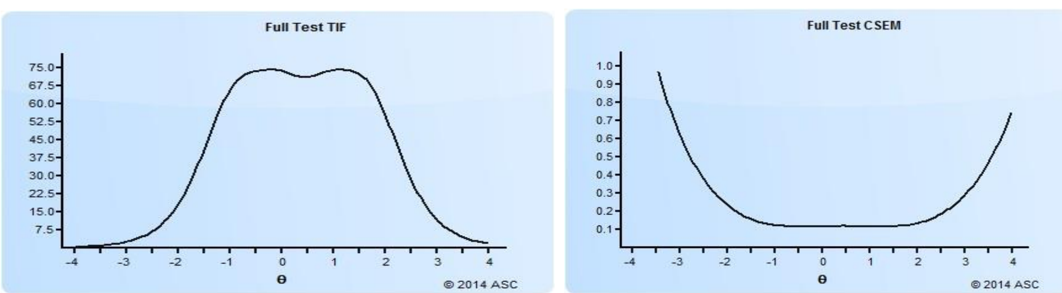
How does the ability distribution compare to the item thresholds distribution?

The SATM scores and the thresholds are placed on the same metric scale with a mean of zero and standard deviation of one. The distribution of the SATM scores is not a normal distribution and it ranges from -2.4 to 2.6 on the latent trait continuum while the spread of the threshold parameter is not also evenly distributed, it clustered in specific areas of the continuum but it ranges from -1.27 to 2.31, which implies that the threshold parameters and the latent trait scores cover about the same range of the continuum and so the distribution of the trait is well matched with the threshold parameters.

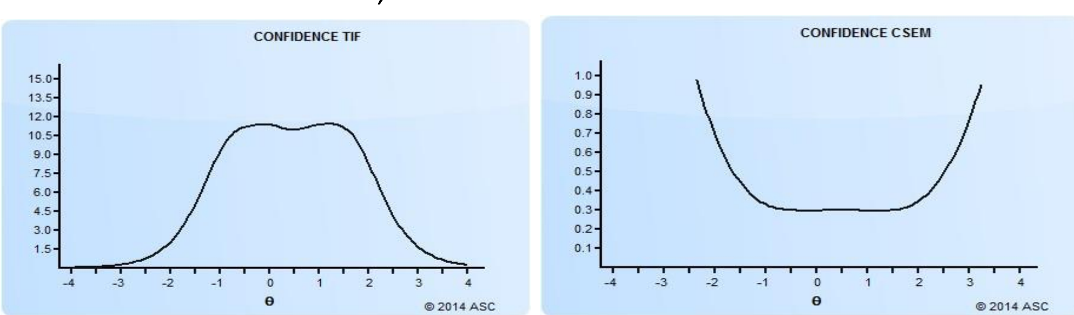
4.7 Research question 6

How much information does the scale provide over the ability trait range?

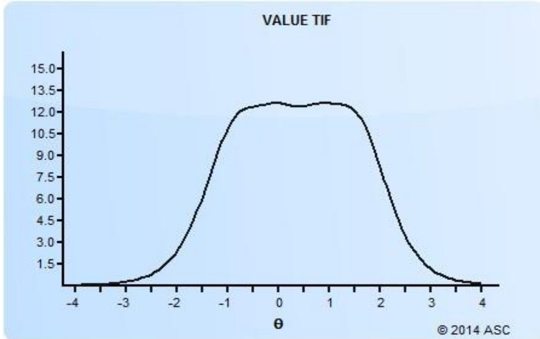
Figure 4.6 displays the graph of the Information Functions (TIF) and the Conditional Standard Error of Measurement (CSEM) Functions for the full scale and the seven components for all calibrated items. The TIF is a graphical representation of how much information the scale is providing at each level of SATM. Maximum information for the full scale was 76.225 at SATM = -0.150 while the CSEM is an inverted function of the IF, and estimates the amount of error in SATM estimation for each level of SATM. The minimum CSEM was 0.115 at SATM = -0.150. the information provided by confidence, value, motivation, anxiety, perseverance, enjoyment and teacher are 11.4, 12.245, 9.611, 14.553, 9.65, 11.022 and 7.599 respectively with corresponding CSEMs of 0.296, 0.281, 0.318, 0.262, 0.315, 0.301 and 0.369 respectively at SATM =1.2,, -0.05, -0.25, -0.4, 1.2, 1.2, and -0.4 respectively. Hence all the components provide informations that contribute to the information provided by the full scale the information provided by the scale over the trait range is 76 at theta = -0,15.

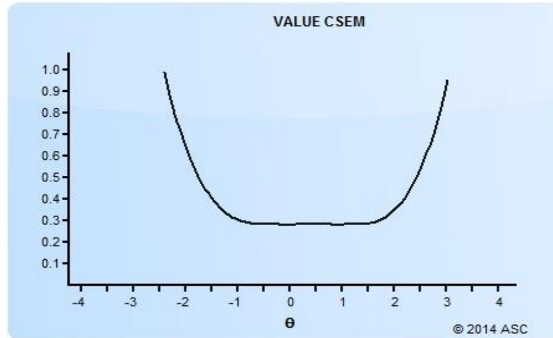


Maximum information 76 , Minimium CSEM = 0.115 at SATM = -1.15

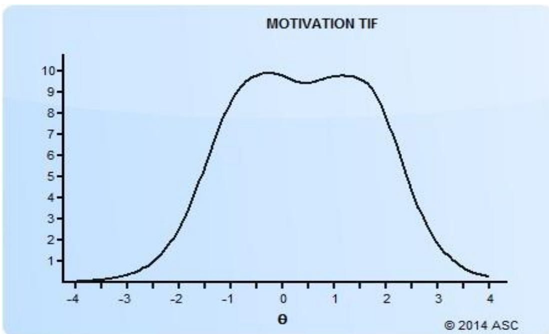


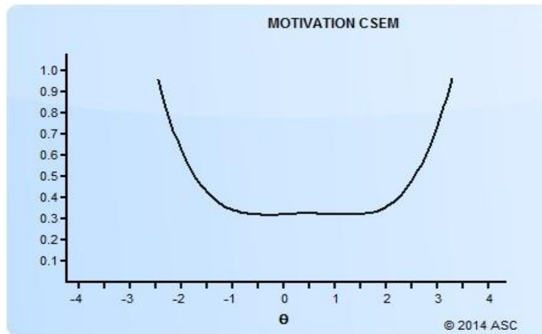
Maximum information =11.4 , Minimium CSEM = 0.296 at SATM = 1.2



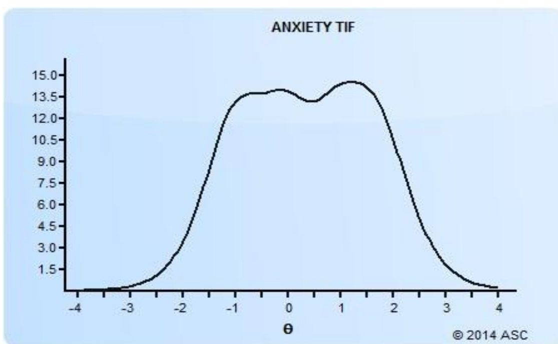


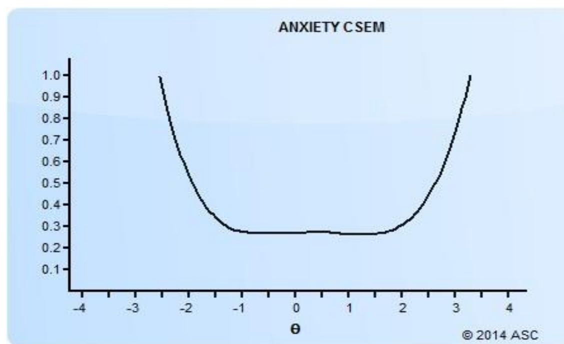
Maximum information =12.25 , Minimium CSEM = 0.281 at SATM = -0.05



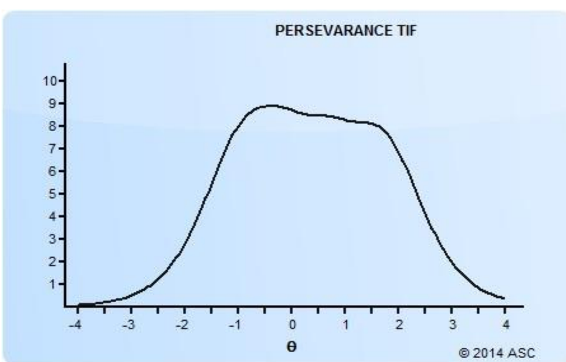


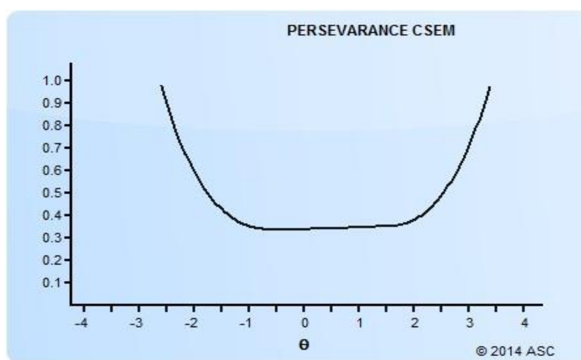
Maximum information = 9.61 , Minimium CSEM = 0.318 at SATM = --0.25



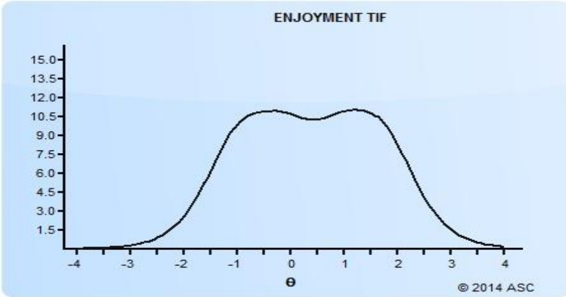


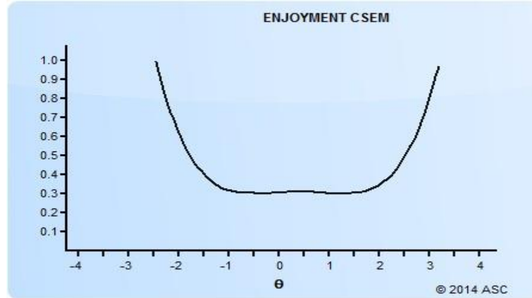
Maximum information =14.6 , Minimium CSEM = 0.262 at SATM = -0.4



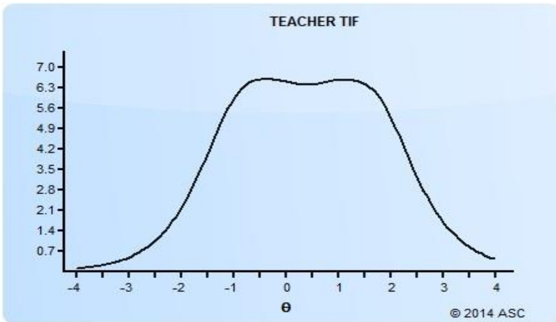


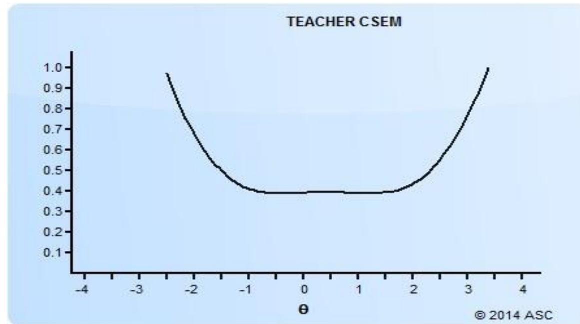
Maximum information = 9.65 , Minimium CSEM = .315 at SATM = 1.2





Maximum information =11.02, Minimium CSEM = 0.301 at SATM = 1.2





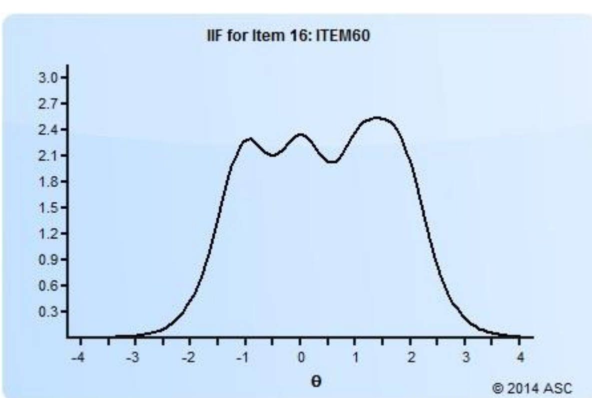
Maximum information =7.60 , Minimium CSEM = 0.369 at SATM = -0.4

Fig 4.6 The information function (IF) and the conditional standard error of measurement (CSEM) function for the full scale and the seven components for the calibrated items.

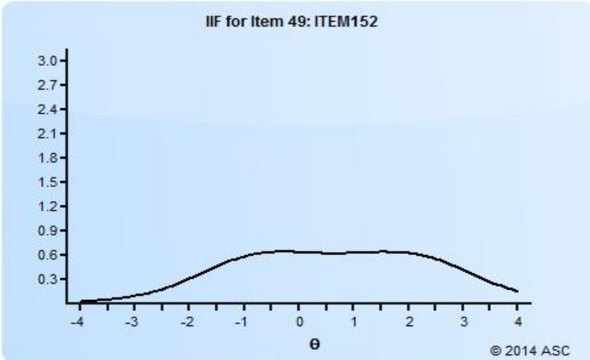
4.8 Research question 7

How does each item contribute to the test information function?

The information function for the full scale in figure 4.6 is the sum of all the item information functions of all the calibrated items for the full scale and the seven components. The sum of item information in a particular component contributes to the information provided by the component, and the sum of information of all the components contribute to the information provided by the scale. The item information is a function of the item discrimination and the threshold parameters. Each item gives more information near the thresholds; the sum of the information of the thresholds of each item gives the test information function. From table 4.3 it is observed that there are more thresholds about the mean for each item and so there is more information in that range. Appendix VI shows the item information function of the calibrated items. Fig 4.7 shows item information function for Item 16, it has a discrimination parameter of 3.01 which is very high as indicated by the high curve, which indicates that the measurement precision for this item is high. The threshold parameters ranging from -1.02 to 1.78 spanned a narrow range of the construct continuum. This implies that this item measures SATM with a high level of precision on a narrow range of the SATM continuum. While fig 4.8 shows the item information for Item 49, it has a discrimination parameter of 1.44 which is relatively low as indicated by the low curve, this indicates that the measurement precision is also low, and threshold parameters ranging from -0.95 to 2.31 spanning a wide range of the construct continuum. This implies that this item measures SATM with a low level of precision on a wide range of the SATM continuum Hence the amount of information an item gives is a function of the discrimination parameter and the threshold parameters. Item 16 gives a larger amount of information on a narrow range while item 49 gives a smaller amount of information on a wider range of the continuum. Each item contributes to the scale information function. Hence the sum of all the items information gives the scale information function.



a = 3.01 b1 = -1.02 b2 = 0.01 b3 = 1.11 b4 =1.7
Fig 4.7 item information functions for item 16



a = 1.44 b1 = -0.95 b2 = -0.11 b3 = 1.29 b4 = 2.31

Fig 4.8 item information function for item 49

4.9 RESEACH QUESTION 8 Does the scale measure the construct SATM?

TABLE 4.5 Comparison of the fit statistics of the three models from CFA

NO. OF FACTORS	CMIN/DF	GFI	CFI	TLI	RMSEA
ONE FACTOR	3.00	.99	.98	.97	.05
THREE FACTORS	5.25	.90	.92	.91	,07
SEVEN FACTORS	4.00	.97	.96	.95	.06

The construct SATM was theoretically defined to have seven factors which are components of the cognitive, behavioral and the affective dimensions of attitude. Table 4.4 shows the comparison of the one factor, three factors and seven factors solutions of CFAs The result reveals that the cmin/df of the one and seven factor solutions are less than5 which are acceptable values while the three factor solution has a value a little bit greater than 5. The values of the RMSEAs are also .07 and below which are acceptable values. The result also reveals that the values of the GFIs, CFIs and the TFIs are 90 and above which are acceptable values. Hence the result indicates that the three models fit the data. However, the one factor model has the best fit followed by the seven factor model. Figures 4.9 and 4.10 also indicate that the correlation between factors are reasonably high, they are greater than .70 which is an indication of convergent validity, and regression weight greater than .50

which indicates that each item measures the construct (SATM) well. This implies that the SATM has a high level of construct validity and the seven factor model is a good measure of SATMS. Fig 4.2, 4.9 and 4.10 are showing the path analysis of the one factor, three factor and seven factor solutions respectively. The outputs for the CFAs are in Appendices IX, XI and XII.

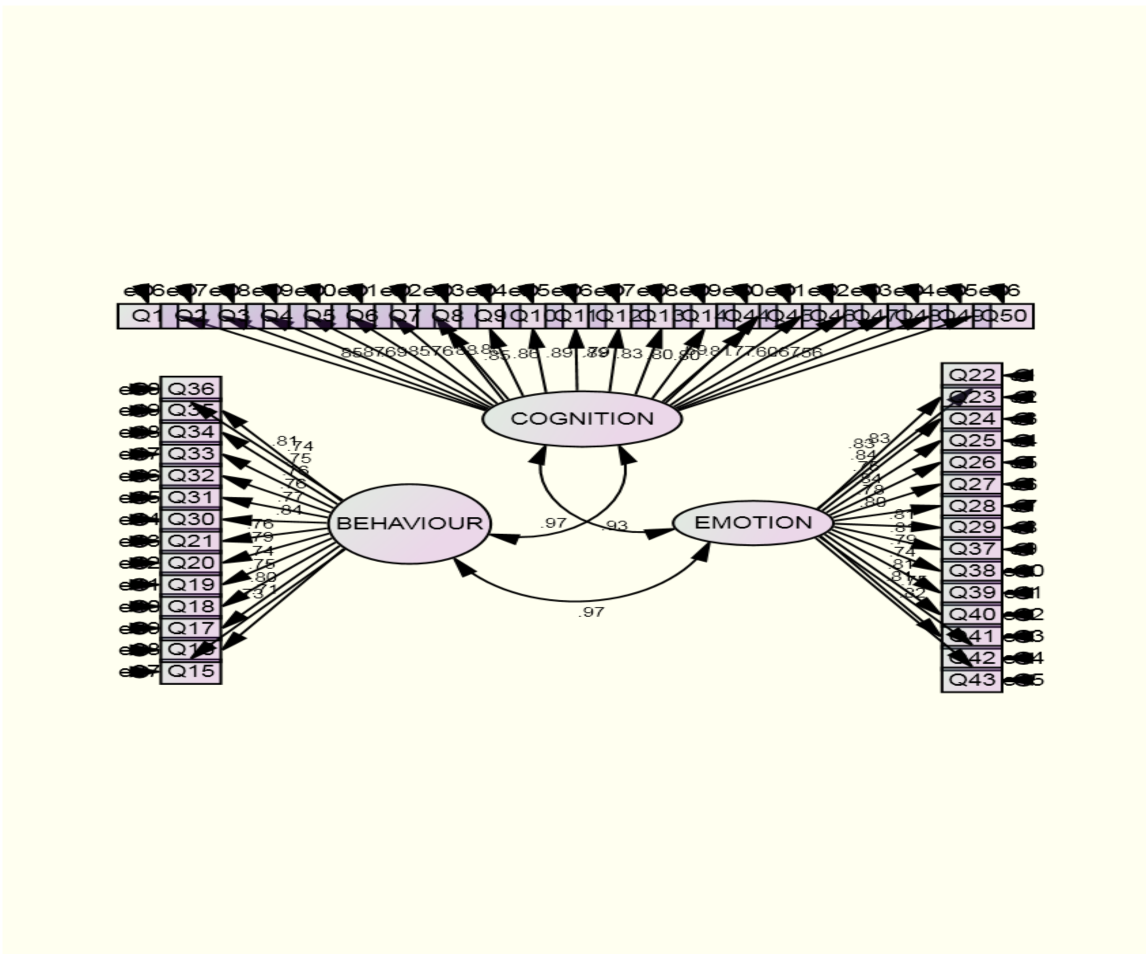


Fig. 4.9 Path diagram for a three factor solution CFA

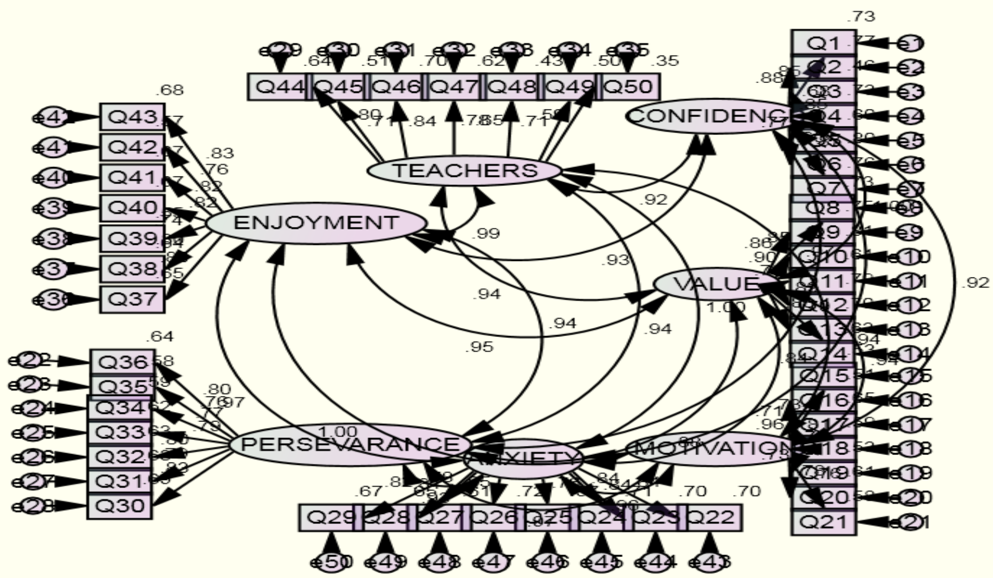


Fig. 4.10 Path diagram for a seven factor solution CFA

4.10 Research question 9 How reliable are the SATM estimates

Since the metric of SATM is standardized, the reliability is simply $1 - s_e^2$ where s_e^2 is the marginal error which is 0.115, so the reliability was computed as .98 which is an acceptable value. Hence the SATM estimates are highly reliable. The standard error of measurement for the item discrimination parameters range from 0.03 to 0.07 and those of the threshold parameters is from 0.02 to 0.03 which implies that the item parameters were estimated with high rate of precision.

4.11 Reasearch question 10

What is the score manual

The score manual is the standardized scale of the SATM. The numerical values of the item parameters and the SATM parameter for the sample were expressed in a metric scale with a mean of 0 and standard deviation of 1. This enables the location of a respondent and item along the SATM scale. The SATM values were also converted to scale scores with a mean of 50 and standard deviation of 10. The SATM values were categorized into high (≥0.5), medium (-0.5 <SATM<+0.5) and low (≤-0.5). This provides a reference for the interpretation of scores for test users. The scale enables both item referenced interpretation and scale score interpretation. Appendix XII shows the values of the SATM for the full scale and the seven components, their corresponding scale scores, for the group. Of respondents

4.12 Discussion of findings

The result shows that SATM scale has a high content validity index (CVI) of .99 which indicates that the SATM scale adequately measure the components of the construct (SATM). This in agreement with Delogodo- Rico et al (2012), Landsheer and Boeijie (2010) and Wynd et al (2003) who all agreed that as a general criteria, it is considered that a CVI should be ≥.70. Attitude was theoretically defined to have a seven factor structure. 150 of the 240 initial items had content validity ratios (CVR) of 1 which were acceptable values while four of the items were selected based on content relevance. The validity ratio indicates that the items selected will measure SATM adequately. The finale items were evenly selected from the seven factors; seven each for six factors and eight for anxiety based on the item information function. Hence the SATM scale has a high rate of content validity.

The scree plot from the EFA shows that the data was unidimensional in agreement with Embretson and Reises (2010) and Edelen and Reeve (2007) who agreed that if the first factor of an eigenvalue from an explanatory factor analysis is considerably larger than the orders then it is an indication of unidimensionalty. The one factor solution CFA analysis conducted to evaluate the local independence indicates that local independent was not violated which is in agreement with Edelen and Reeve (2007); Embreston and Reise (2010). This indicates that the data was suitable for IRT analysis.

The result for the GRM analysis shows four threshold parameter and one discrimination parameter for each item. A trace line and item information function were also produced for each item. This is in agreement with de Ayala (2009), Embretson and Reise (2010) and Ostini and Nering (2010). Who variously stressed that if a 5-point scale is used to estimate parameter with GRM that Four threshold parameters, one discrimination parameter, their corresponding standard errors will be estimated for each item, plots of item information function and a trace line will also be produced. The discrimination parameters ranged from high (1.44) to very high (3.01) which indicates how well the items tap into the underlying construct (SATM). This implies that all items contribute large amount of information to measure SATM. The threshold parameters are on the same metric as the underlying trait (SATM) which is fixed to have a normal distribution with a mean of 0 and standard deviation of 1.

The threshold parameters are all ordered and ranged from -1.3 to 2.3 but are not evenly distributed along the continuum they are clustered at specific points of the continuum. The distribution of the SATM scores is bimodal. The SATM values range from -2.4 to 2.6. This shows that the threshold parameters and the SATM score cover almost the same range of the continuum. Hence the threshold parameters are well matched for the population. Since items reach their highest information near the category threshold. The SATM scale will measure respondent with a high rate of precision. The threshold parameter helps in locating a respondent on the metric scale. Item 8 has threshold values of-.84, 0.05, 0.75 and 1.55 respectively. This means that the model predicts that a respondent with a SATM level of -0.84 has a 50% chance of responding in the first category (strongly disagree) and a 50% chance of responding; Disagree, Undecided ,Agree and Strongly agree, a respondent with 0.05 SATM level has 50% chance of responding; Strongly disagree and Disagree, and a 50% chance of responding; Undecided, Agree and Strongly agree, a respondent with a SATM level of 0.75 has 50% chance of responding; Strongly disagree, Disagree, Undecided, and a 50% chance of responding; Agree and Strongly agree, a respondent with a SATM level 1.55 has 50% of responding; Strongly agree, Agreed, Undecided and Agreed, and a 50% of responding Strongly agree while a respondent with a SATM level above 1.55 is more likely to respond Strongly agreed and a respondent with a SATM level below -0.84 is more likely to respond Strongly disagreed. This ia reversed for a negatively stated item.. the capability to locate item and a respondent's parameter along a common scale is a powerful feature of IRT. This feature allows the interpretation of results of a test calibration within a single framework and provides meaning to the value of parameter estimates.

The SATM z-scores on the metric scale were converted to T-scores for scale users. Score were grouped into three categories, high, medium and low, for easy interpretation. High scores are scores that corresponds to SATM values above .5 standard deviation from the mean. Medium score are those which correspond to values of SATM within .5 standard deviation from the mean and low score are those below -0 .5 standard deviation from the mean. A reliability coefficient was computed for the SATM values to be .98 which is a very high value indicating that the SATM estimates are highly reliable.

The trace lines called the category response curve (CRCs) presented in appendix VI are graphical representation of the item parameters. They represent the probability of a respondents responding in each possible response category as a function of his/her SATM level on the continuum. The location of a trace line is a function of the threshold parameters while the height of a trace line is a function of the discrimination parameter. Item 49 has threshold parameters from -0.95, -0.11, 1.29 and 2.31 respectively which are widely distributed with a discrimination parameter of 1.44 which is classified high while item 16 has threshold parameters from -1.02, 0.01, 1.11 and 1.78 respectively which are highly clustered with a discrimination parameter of 3.01 which is classified very high. The flatness and wide spread of the category curve in item 49 is a reflection of the widely distributed category threshold and the value of item discrimination. Item 16 has narrow and high category curves and highly clustered on a narrow location of the continuum as a result of the clustered threshold parameters and a very high item discrimination. This implies that item 49 will measure respondents on a wide range of the SATM continuum with a high level of precision at the middle continuum, while item 16 will measure respondents in a narrow range of the continuum with a very high level of precision.

The item parameters also describe the item information functions (IIF) in appendix VII, which are functions of SATM. The IIFs display the amount of psychometric information each item provides at various levels of SATM continuum. If the category within an item is closed together, the item IIF will be peaked near the centre of the threshold parameters, but if the categories are spread further apart, each can add information at a different location. Thus the item information function for a polytomous item can have multiple peak and can be spread over a broader extent of the theta range. The height of the information function is a function of the discrimination parameter. The IIF of item 49 is flat and covers the entire range of the SATM continuum while that of item 16 is high and covers a narrow range of the SATM continuum. This implies that item 49 can provides information on a wider range of the SATM continuum with a lower level of precision while item 16 can provide information on a narrow range of the SATM continuum with a higher level of the precision.

Summing the IIF produce a scale information function that shows how much information the scale as a whole provides as a function of SATM. Figure 4.6 shows the scale information function, which provides information on a wide range of SATM continuum within 2.4 standard deviation from the mean and less precision above and below 2.4 standard deviation from the mean. Hence the SATM scale will estimate respondent trait levels within 2.4 standard deviation from the mean and less precision for those with 2.4 standard deviation above or below the mean.

The fit statistics from the CFA analysis for multi-method factors in table 4.5 shows that the one factor solution has the best fit followed by seven factor solution and the three factor solution. This indicates that the three models are good measures of the SATM. However the one factor indicates that the items are measuring the same construct and the seven factor solution is a better measure of SATM than the three factor solution. The high values of the standard regression weights in the outputs of appendices IX, X and XI indicate that the factors explain more of the variance explained by the models, which is an indication that the items are measures of the various factors they measure. The high correlation between factors in the three factor and seven factor solutions are evidence of convergent validity. This is in agreement with Hair, Black, Babin, Anderson and Tathan (2006), Kline (2011),and Muthern,(2009) who variously suggested that parameter estimates of .70 and above suggest good convergent validity, which is a measure of construct validity. Hence the result of the CFA indicates that the SATM has a high construct validity.

4.12 Summary of findings

The aim of this study is to apply the IRT to develop students' attitude towards mathematics (SATM) scale for secondary school students. Result shows that

I. The SATM scale has a high content validity.

II. The theoretically defined factor structure is said to be a good measure of SATM with high construct validity.

III. The high values of the discrimination parameters indicate that items discriminate well in SATM scale.

IV. The threshold parameters indicate that more items are available to measure respondents with SATM at the medium high level of the continuum and fewer items are available to measure SATM at the end continuums.

V. The threshold parameters are well matched with the SATM values.

VI. The test information function indicates that the SATM scale will measure respondents within 2.4 standard deviation from the mean more precisely than it will measure respondent at the tail ends of the continuum.

VII. The sum of the item information made up the scale information function

VIII. The SATM values were found to be very reliable.

Hence IRT clearly demonstrate that it can be a valuable tool for researchers. It provides item statistics that are sample free and a more different picture of a measurement precision than CTT. It also provides an elegant way of score interpretation. Hence item response theory is a tool to improve the measurement of important construct.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of work

The aim of this study was to apply IRT procedures to develop a students' attitude towards mathematic (SATM) scale. The objectives stated to be achieved in this study were to:

I. Generate items for the SATM scale

II. Carry out content validity of the items

III. Administer the validated scale to the selected sample

IV. Evaluate assumptions of the data

V. Carry out item analysis using the GRM

VI. Select items of appreciable quality

VII. Calibrate the selected items

VIII. Establish construct validity

IX. Compute the reliability of theta estimates

X. Prepare the score manual

The following research questions were drawn to quide the study:

1 What is the content validity of the SATM scale

2 What is the spread of category difficulties?

3 How discriminating is each item?

4 What is the distribution of traits (SATM) in this group of respondents?

5 How does the ability (SATM) distribution compare to the item difficulty distribution?

6 How much information does the test provide over the ability (SATM) range?

7 How does each item contribute to the scale information?

8 Does the scale measure the construct SATM?

9 How reliable are the trait (SATM) estimates?

10 What is the score manual?

Literature was reviewed based on the research questions. Theoretical, conceptual and Empirical review were made. The research design was Instrumentation. A multi-stage sampling technique was employed. The sample consist of 2400 students randomly selected from the 16 selected schools; 8 schools from 547 school in Rivers State and 8 schools from 354 schools from Bayelsa State. A total. SATM was theoretically defined to have seven domains; motivation, value, confidence, anxiety, enjoyment , perseverance and teachers' contributions. Items were generated to measure each domain. Items were generated from proposed respondents (students) and from literature review. A total of 240 initial items were generated. Five content experts were given the 240 items to rate in a three point scale to indicate for each item whether is 'essential', 'useful but not essential' and 'not necessary'. A content validity ratio (CVR) was computed for each item, 150 items with CVR of 1 were selected and 4 items were selected based on content relevance. A total of 154 items were selected. A content validity index (CVI) of .99 was computed for the selected items, which indicates that the SATM scale has a high content validity. A field study was carried out and assumptions were evaluated using EFA and CFA to ascertain the adequacy of the data to IRT analysis. Results revealed that the data was adequate for IRT analysis. Item analysis was carried out using GRM with xcalibre. Four threshold parameters, one discrimination parameter and their corresponding standard error of measurements were estimated for each item. A trace line and item information function were also produced for each item. Items were selected based on the information function. Seven items each were selected from six domains while eight were selected from anxiety. A total of 50 items were selected to make up the scale. The sellected items were calibrated on a metric scale with a mean of 0 and standard deviation of 1, placing the SATM values and item parameters on the same scale, for easy location of a student on the scale. The SATM values were also converted to T-scores for test users. Construct validity was conducted using the multi-method procedure with CFA. Fit statistics and convergent validity were assessed. Result reveals that the SATM scale has high construct validity. The reliability coefficient for the SATM values was also computed to be .98 which is a high value. Hence the SATM values are highly reliable. The result was presented after the analysis according to research question. The summary of findings are as follows:

I. The SATM scale has a high content validity with a CVI of .99 through the use of expert rating and computation of CVR for each item and a CVI for the selected items

II. The threshold parameters indicate that the SATM scale has more items to measure students with average attitude towards mathematics and a little above average more precisely.

III. The values of the discrimination parameters indicate that the items in the SATM scale will measure students with a high level of precision.

IV. The spread of the threshold parameters and SATM distribution indicate that the scale is well matched with the students SATM.

V. The information provided by the SATM scale was 76 at SATM = -0.15 which is high

VI. The scale information is the sum of all the item information.

VII. The SATM scale was found to have a high construct validity through evaluation of convergent validity and the fit statistics using CFA in a multi-method procedure.

VIII. The SATM values were found to be highly reliable with a reliability index of .98 which is very high.

IX. The SATM values and item parameters were calibrated on a metric scale with a mean of 0 and standard deviation of 1, and so students can be located on the metric scale.

X. The SATM scores were converted to T-scores with a mean of 50 and standard deviation of 10.

XI. Score were classified in to three categories (low, medium and high) for easy interpretation.

Result has shown that IRT can be used to construct instruments that will be used to measure repondents with a high level of precision and a desired range of the construct continuum.

5.2 Conclusion

The aim of this study was to apply the procedures of IRT to develop students attitude towards mathematics (SATM) scale. The result shows that the threshold parameters evaluate how well a particular item matches levels of SATM. The discrimination parameters determine how well an item measures SATM with precision. The threshold parameters and discrimination parameters were plotted as CRC and information function to show the contribution of each item to the scale. The item information functions were summed to produce the scale information function which provide a picture of how well the scale performed in terms of breadth and depth of coverage across the SATM scale. Hence the scale information function indicates areas of improvements on the scale. Items and students were placed on a metric scale with a mean of 0 and standard deviation of 1, hence a student level of attitude can be located on the metric scale. The SATM values were converted to T-scores for test users. Hence IRT provide a mathematical sound alternative to CTT for survey data analysis. Although IRT requires advance knowledge of measurement theory to understand it's mathematics, to evaluate assumptions and choose appropriate model, it provides a powerful, elegant and flexible tool for development of scale that are valid, reliable and targeted towards a study population

5.3 Recommendations

Form the findings of the study the following recommendation were made:

I. Researchers should employ IRT procedures to develop their survey data in order to get quality results for reliable and valid conclusions.

II. The SATM scale should be used, when measureing students attitude towards mathematics to locate student' mathematics attitude levels with precision.

III. Items that measure high and low attitude towards mathematics should be constructed to cover both ends of the continuum.

IV. Sample should be increased to at least 3000 when using the GRM with more than four response categories in order to have a better distribution.

V. The seven factor solution should be used to measure students' attitude towards mathematics.

5.5 Limitations of the study

The limitations of this study are as followed:

I. IRT item fit and model fit analysis were not carried out.

II. Most of the questionnaires send out were not retrieved, and some of those retrieved were not completed.

5.6 Contribution to knowledge

This study has contributed to knowledge in the following ways:

I. It has illustrated the use of IRT statistical methods and procedures in the development of a potytomous scale

II. It has provided a unique and reliable scale to measure students' attitude towards mathematics in secondary schools.

5.7 Suggestions for further studies

The following suggestions were made for further studies

I. The dichotomous IRT models (1PLM, 2PLM and the 3PLM) should be used to develop cognitive scales.

II. The other polytomouse models should also be employed to develop non-cognitive and cognitive scales.

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APPENDIX I

An open ended questionnaire on students' attitudes towards mathematics

SECTION A

Please provide the information as it concerns you. You can use a tick (√)where necessary

Name of school :...

State: ....

Gender: ☐ _ **School type:** single boys ☐ single girl ☐ mixed ☐

Government own sch: ☐ Private sch: ☐

SECTION B

Instruction: Please kindly answer the following questions in the papers provided

1 Write as many sentence as possible what you think about mathematics
2 Do you like mathematics
3 State in as many sentences as possible your reason for not liking mathematics
4 State in as many sentences as possible your reason for liking mathematics
5 If no state five or more ways to get you interested in mathematics
6 Do you think mathematics is important
7 State five or more reasons you think mathematics is not important
8 State five or more reasons you think mathematics is important
9 State five or more reasons how your teachers have contributed to your liking mathematics
10 State five or more reasons how your teachers have contributed to your disliking mathematics
11 State five or more reasons what you do or feel when faced with difficult mathematics problem
12 State how assignments can help you or discourage you from understanding mathematics in as many sentences as possible
13 State in as many statements as possible how you feel when ever it is time for mathematics class
14 State in as many sentences as possible what you feel when you see difficult problems in mathematics
15 State as many sentences as possible why you will like to go for mathematics competitions
16 Give as many reasons as you can why you would not like to go for mathematics competitions
17 What will you do and feel if you solve a difficult mathematics question.
18 State what you will do and how you will feel if you fail a mathematics exams
19 Do you remember the topics you learn in your previous classess that would help you understand the topic you are learning in your present class
20 If yes state how they help you to understand the topics your are learning in your present class
21 State in as many sentences as possible how yu feel when you remember you have to learn mathematics
22 State in five or more sentence what you do to help understand after learning a topic in mathematics

APPENDIX II

LETTER OF VALIDATION

University of Port Harcourt Faculty of Education Department of Educational Psychology Guidance and counselling

Dear sir,

REQUEST FOR FACE AND CONTENT VALIDATION

I am a post graduate student of the above institution and department currently developing a mathematics attitude scale that will be used to asses students attitude towards mathematics

I hereby request that you kindly vet these items in terms of clarity of words, simplicity of statement and rate the items if they are measure of students attitude, using the 3-point rating scale indicate if an item is a essential = 3 , useful, but not essential = 2 or not necessary = 1

S/N	**ITEM CONTENT**	**3**	**2**	**1**
	CONFIDENCE			
1-	I struggled with solving problems in mathematics most of the time			
2+	I have usually been at ease during mathematics classes			
3+	I usually don't worry about my ability to solve mathematics problems			
4+	I can't recall many mathematical concept that were hard for me to understand			
5+	I have a lot of self confidence when it comes to mathematics			
6+	I am able to solve mathematics problem without much difficulty			
7+	I expect to do very well in any mathematics class			
8-	I am always confused in my mathematics classes			
9 -	I don't have confidence when attempting mathematics questions			
10+	I am comfortable answering questions in mathematics class			
11-	I have a low mathematics ability			
12+	I am confidence in learning mathematics			
13-	I am not good in mathematics			
14-	Mathematics is hard for me			
15+	I am very good in mathematics			
16-	I find is difficult to solve mathematics problems			
17-	I don't trust myself to do well in mathematics			
18-	I am doing very well in mathematics			
19+	I am sure I can do well in mathematics			
20+	I have a mathematics mind			
21+	I am not always comfortable answering questions in mathematics			
22+	I know I can handle difficulty in mathematics			
23+	Mathematics is my easiest subject			
24+	I don't feel comfortable answering question im mathematics			
25-	I am mathematically inclined			
26+	I am sure that I can learn mathematics			
27-	I don't have aptitude for mathematics			
28-	I don't have confidence when it comes to mathematics			
29+	Mathematics is my best subject			
30-	I cannot get high scores on my own in mathematics			
31-	I do not have confidence when solving mathematics questions			

32-	I am not sure I can do well in mathematics			
33-	For some reasons, even though I study, mathematics is really hard			
34-	I do well in most subjects but when it comes to mathematics I really mess up			
35-	Mathematics is my worst subject			
36-	I feel a sense of insecurity when attempting mathematics problems			
37+	I feel secured when solving mathematics problems			
38-	I don’t border to study mathematics on my own, because I know I will not understand			
39+	Even if I don’t understand a mathematics problem right a way, I know I will be able to figure it out if I work at it			
40+	I always study mathematics every day after class to gain more understanding of the lesson taught in the class			
41-	I am not confidence I can handle difficult question in mathematics			
42-	If I don’t understand a mathematics problem I just leave it			
	VALUE			
42+	Knowing mathematics will help me earn a living			
43-	Mathematics will not be important to me in my carrier			
44+	I will need mathematics for my carrier			
45-	I don’t expect to use much mathematic when I get out of school			
46+	Mathematics is a worthwhile necessary subject			
47-	Taking mathematics is a waste of time			
48+	I will use mathematics in many ways as an adult			
49+	I’ll need a good understanding of mathematics for my carrier			
50-	Doing well in mathematics is not important for my future			
51+	Doing well in mathematics is important for my future			
52+	I study mathematics because I know how useful it is			
53-	Mathematics is not important in every days life			
54-	I would not need mathematics to earn a living			
55+	I will needed a lot of mathematics when I get out of school			
56+	Mathematics is important for my chosen profession			
57+	Mathematics has contributed greatly to science and other field of knowledge			
58-	Mathematics is not worthwhile			
59+	Mathematics helps develop a person’s mind and teaches him to think			
60-	I don’t use mathematics in every days life			
61-	Mathematics does not help me think well, it is only memorization of formulars			
62+	I study mathematics because I have to			
63+	Mathematics is important in every days life			
64+	Mathematics is an important and useful subject			
65+	Taking mathematics is important			
66+	Mathematics is not important for my chosen profession			
67-	I don’t need Mathematics as an adult			
68-	Mathematics will not be important in my carrier			
69-	Mathematics will be important in my carrier			
70+	Mathematics is not useful in every ones life			
71+	A strong mathematics background could help me in my professional life			

72+	I believe studying mathematics helps me with problems solving in other areas			
73-	I don't need the understanding of mathematics to succeed in future			
74-	Mathematics background will not contribution in any way to my professional life			
75-	Mathematics is not an important subject			
76+	Mathematics is one of the most important subject for people to study			
77+	I use mathematics in every days life			
78-	I don't see how mathematics can help me in problem solving in other areas			
79-	Mathematics is necessary for a good carrier			
80-	I never see mathematics being useful except when I'm in mathematics class			
81-	Knowing mathematics is not necessary for a good carrier			
82-	I don't border myself so much in mathematics because I know is not useful to me			
83+	I work hard at mathematics because I know that it will be useful for me			
84+	Mathematics is useful in every ones life			
	MOVATION			
85+	I like mathematics			
86+	I would be proud to be the outstanding mathematics student			
87+	I will be happy if I get high scores in mathematics			
88+	It would be great to win a prize in mathematics			
89-	I don't need to win a prize in mathematics			
90+	Being thought of as smart in mathematics would be a great thing			
91+	Winning a prize in mathematics would make me feel enhanced			
92-	If I get the highest score in mathematics I'd prefer no one knows			
93+	It will be very interesting to get the highest score in mathematics			
94-	Other students will think I'm weird if I get a high score in mathematics			
95+	It would make students like me if I were a very good mathematics students			
96-	I don't want people to think I'm smart in mathematics			
97-	I really don't like mathematics			
98+	I would prefer to do an assignment in mathematics than to write an easy			
99+	I like to solve new problems in mathematics			
100+	I feel encouraged when I solve difficult problems and get the answers			
101-	I don't like solving problems in Mathematics			
102-	There is nothing interesting in learning new things in mathematics			
103-	Being outstanding in mathematics will not mean anything to me			
104-	Winning a prize in mathematics will not interest me			
105-	I would prefer writing an essay than to don assignment in Mathematics			
106-	I just need a pass mark in mathematics			
107-	Learning mathematics is not interesting to me			
108+	I want to develop my mathematics skill			
109-	The challenge of mathematics discourages me			
110-	I don't need to border myself about mathematics skills			
111+	Learning Mathematics is very interesting			
112-	I don't need much of mathematics, just the one that will help me get			

	admission			
113+	I plan to take as much mathematics as I can during my education			
114+	The challenge of mathematics appeals to me			
115-	I am not interested acquiring further knowledge in mathematics			
116+	I have often helped others with their mathematics homework			
117-	I generally have had difficulty relating new mathematical concepts to those I had previously learnt			
118+	Mathematics is a very interesting subject that I understand easily			
119+	Relating new concepts to the ones I have previously learnt gives me a clearer understanding of the concept being taught			
120+	I am interested and willing to acquire further knowledge of mathematics			
121-	Mathematics is more difficult to understand than other subjects			
122+	I am interested in learning new things in mathematics			
123+	In mathematics you can be creative and discover things by yourself			
124-	There is nothing creative about mathematics			
125-	I feel horrible when I can not solve a problem in mathematics			
	ANXIETY			
126+	Mathematics does not scare me at all			
126+	It would not border me at all to take more mathematics course			
127+	I don't usually worry about being able to solve mathematics problem			
128+	I never get nervous during a mathematics test			
129+	I am usually calm in mathematics classesn			
130-	Mathematics usually make me feel uncomfortable			
131-	I always get nervous during Mathematics test			
132-	I get a sick feeling when I think of trying to do mathematics problems			
133-	My mind goes blink and I am unable to think clearly when working mathematics problem			
134-	It wll really border me to take more course in mathematics			
135-	Solving Mathematics always makes me feel uneasy			
136-	I am always confused in my mathematics class			
137-	It makes me nervous to even think about learning to do mathematics problem			
138-	I am always under terrible strain in mathematics class			
139-	I always feel comfortable with Mathematics			
140-	Studying mathematics makes me feel happy			
141-	When I hear the word mathematics I have a feeling of dislike			
142-	Mathematics is one of my dreaded subjects			
143+	I have usually been at ease solving problems in mathematics			
144+	Mathematics is the subject I love most			
146-	I always get worried when I have to solve a mathematics problem			
147-	I get a sinking feeling when I think of trying hard mathematics problems			
148-	Mathematics makes me feel unequal			
149+	I don't ever get worried that I will have low score in Mathematics			
150+	I love it when I have to try hard mathematics problems			
151-	I never liked mathematics			
152-	I feel tense when someone talks to me about mathematics			
153+	I feel excited when somebody talks to me about mathematics			
154-	Working with numbers upset me			

155+	I always love mathematics			
156+	Mathematics makes me feel okey			
157-	I love thinking about doing mathematics			
158-	It scares me to have to take mathematics			
159-	I get very tense when I have to do my mathematics homework			
160+	I love it when I have to do my mathematics homework			
161-	I worry that I will get low scores in mathematics			
162+	I never get confused in my mathematics classes			
163+	I always have a clear and sound mind when solving mathematics			
163+	I get exited each time I trying to solve mathematics problems			
	PERSEVERANCE			
164+	When a mathematics problem comes that I cannot solve right away, I stick with it until I find the solution			
165+	The challenge of mathematics appeals to me			
166+	When I have question that doesn't get a solution in a mathematics class, I keep thinking about it, till I get the solution			
167+	I am challenged by mathematics problems, I cannot understand right away			
168-	The challenge of mathematics problem does not appeal to me			
169+	If I try hand, I can do well in mathematics			
170-	I don't think I can try harder than I have done			
171+	If a problem in mathematics doesn't get solved during class, I try to figure it out after the class			
172-	If I don't understand a problem in mathematics I give up without trying very hard to figure it out			
173-	If I can't solve a mathematics problem right away, I give up after sometime			
174-	I don't border myself to look for information to help me when I don't understand a problem			
175+	No matter how hard I try I can not do well in mathematics			
176+	Any one who work hard can be good at mathematics			
177+	I keep trying in mathematics even if the working is hard for me to do			
178-	I don't try further to solve a problem in mathematics when I know that I cant solve it			
179+	My background will not stop me from studying mathematic			
180-	I have a very weak mathematics background			
181-	I get discouraged each time I fail a mathematics test			
182+	I don't feel discourage even if I get a low score in mathematics			
183-	I always get discouraged when I cannot solve a problem in mathematics			
184+	I try different methods to ensure that I get a Problem correrct			
185+	When I cannot understand mathematics I always look for more information to help me understand the problem			
	ENJOYMENT			
186+	Mathematics is something I enjoy doing very much			
187-	I don't do very well in mathematics			
188+	Mathematics is something I enjoy doing very much			
189+	I am comfortable answering questions in mathematics classes			
190+	I am comfortable expressing my own ideas on how to look for solutions to			

	a difficult problem in mathematics			
191+	Mathematics is a very interesting subject			
192-	I don’t feel comfortable answering question in mathematics			
193-	I hate solving mathematics			
194+	I do very well in mathematics			
195-	I have never enjoy learning mathematics			
196-	Solving mathematics is boring			
196-	Mathematics is stressful			
197+	Solving mathematics makes me feel stressed			
198+	I have always enjoyed learning mathematics			
199-	I don’t feel at ease in a mathematics class			
200+	I get a great deal of satisfaction out of solving a mathematics problem			
201+	solving mathematics is a fun			
202+	I feel at ease in a mathematics class			
203+	I usually understand follow up during lesson in mathematics classes			
204+	I enjoy talking to other people about mathematics			
205-	I don’t always follow up during mathematics classes			
206-	I always forget the things I learn in mathematics			
207-	I don’t like talking to people about mathematics			
208-	It’s so frustrating attending mathematics classes			
209-	I don’t enjoy doing mathematics			
210-	I don’t have interest in the things I learn in mathematics			
211+	Sometimes I work more mathematics problem than are assigned in class			
212+	I remember most of the things I learn in mathematics			
213+	I am interested in the things I learn in mathematics			
214+	I enjoy mathematics and like to do it			
215+	I look forward to my mathematics classes			
216+	Learning mathematics is enjoyable			
217+	In mathematics you get reward for your efforts			
218+	I don’t get any satisfaction solving mathematics problems			
	TEACHER			
219+	My teacher have been interest in my progress in mathematics			
220-	My teachers have discouraged me from studying more mathematics			
221-	My mathematics teacher is not interested in the progress of his students			
222+	My teachers have made me feel I have the ability to go on in mathematics			
223-	My teachers think I cannot do well in mathematics			
224+	My teachers think I am the kind of person who could do well in mathematics			
225+	Mathematics teachers makes mathematics interested to me			
226+	My mathematics teachers would encourage me to do all of the mathematics I can			
227+	My mathematics teachers have been interested in my progress in mathematics			
228-	My Mathematics teacher makes mathematics so boring			
229+	My Mathematics teachers rarely gives me attention			
230-	I have found it hard to win the respect of mathematics teachers			
231+	My mathematics teacher know when the class have problem following during classes			

232-	My mathematics teacher doesn't seem to enjoy teaching mathematics			
233+	My mathematics teacher present mathematics in practical and clear manner			
234-	Getting a mathematics teacher to take me seriously is usually a problem			
235-	My teachers think advanced mathematics is a waste of time for me			
236-	Getting a mathematics teachers to take me seriously is usually a problem			
237-	My teachers would think I was kidding , if I told them I was interested in a carrier in mathematics			
238+	My mathematics teacher teach mathematics with passion			
239+	My mathematics teacher always answers questions no matter how stupid it sounds			
240-	I have had a hard time getting teachers to talk seriously about mathematics			

Below is another 3-point scale, please kindly indicate your degree of agreement on the rate of content coverage

Content is Adequately covered = 3

Content is Partially covered = 2

Content is Note covered at all = 1

S/N	CONTENT	3	2	1
1	Confidence			
2	Motivation			
3	Anxiety			
4	Perseverance			
5	Enjoyment			
6	Value			
7	Teacher			
8	The scale as a whole			

Please make your comments on the scale generally

Thanks for your anticipating cooperation

Your faithfully

....

Bomo Caroline Asebh

APPENDIX 111

Content validity ratios (CVR) value analysis

S/N	3	2	1	CVR		S/N	3	2	1	CVR
ITEM1	5			1		ITEM41	3	1	1	0.2
ITEM2	5			1		ITEM42	5			1
ITEM3	5			1		ITEM43	4	1		0.6
ITEM4	2	2	1	-0.2		ITEM44	3	1	1	0.2
ITEM5	5			1		ITEM45	5			1
ITEM6	5			1		ITEM46	5			1
ITEM7	5			1		ITEM47	5			1
ITEM8	2	1	2	-0.2		ITEM48	5			1
ITEM9	5			1		ITEM49	5			1
ITEM10	3	1	1	0.2		ITEM50	5			1
ITEM11	5			1		ITEM51	4	1		0.6
ITEM12	4	1		0.6		ITEM52	5			1
ITEM13	3	2		0.2		ITEM53	4	1		0.6
ITEM14	2	2	1	-0.2		ITEM54	5			1
ITEM15	5			1		ITEM55	5			1
ITEM16	3	1	1	0.2		ITEM56	5			1
ITEM17	5			1		ITEM57	5			1
ITEM18	3	1	1	0.2		ITEM58	5			1
ITEM19	5			1		ITEM59	5			1
ITEM20	4		1	0.6		ITEM60	3	1	1	0.2
ITEM21	5			1		ITEM61	4	1		0.6
ITEM22	5			1		ITEM62	5			1
ITEM23	5			1		ITEM63	5			1
ITEM24	3	1	1	0.2		ITEM64	4	1		0.6
ITEM25	5			1		ITEM65	5			1
ITEM26	5			1		ITEM66	5			1
ITEM27	5			1		ITEM67	3	1	1	0.2
ITEM28	2	2	1	-0.2		ITEM68	3	1	1	0.2
ITEM29	5			1		ITEM69	4	1		0.6
ITEM30	5			1		ITEM70	5			1
ITEM31	3	1	1	0.2		ITEM71	5			1
ITEM32	2	2	1	-0.2		ITEM72	5			1
ITEM33	5			1		ITEM73	5			1
ITEM34	5			1		ITEM74	3	1	1	0.2
ITEM35	3	2		0.2		ITEM75	5			1
ITEM36	4	1		0.6		ITEM76	4	1		0.6
ITEM37	5			1		ITEM77	3	1	1	0.2
ITEM38	5			1		ITEM78	3	1	1	0.2
ITEM39	5			1		ITEM79	5			1
ITEM40	5			1		ITEM80	4	1		0.6

S/N	3	2	1	CVR		S/N	3	2	1	CVR
ITEM81	2	1	2	-0.2		ITEM121	5			1
ITEM82	4	1		0.6		ITEM122	5			1
ITEM83	5			1		ITEM123	5			1
ITEM84	5			1		ITEM124	3	1	1	0.2
ITEM85	5			1		ITEM125	5			1
ITEM86	5			1		ITEM126	5			1
ITEM87	5			1		ITEM127	3	1	1	0.2
ITEM88	5			1		ITEM128	5			1
ITEM89	2	2	1	-0.2		ITEM129	5			1
ITEM90	3	1	1	0.2		ITEM130	5			1
ITEM91	3	1		0.2		ITEM131	5			1
ITEM92	4	1		0.6		ITEM132	5			1
ITEM93	5			1		ITEM133	3	1	1	0.2
ITEM94	4	1		0.6		ITEM134	2	2	1	-0.2
ITEM95	5			1		ITEM135	5			1
ITEM96	3	2		0.2		ITEM136	3	2		0.2
ITEM97	4	1		0.6		ITEM137	5			1
ITEM98	5			1		ITEM138	5			1
ITEM99	5			1		ITEM139	5			1
ITEM100	5			1		ITEM140	5			1
ITEM101	5			1		ITEM141	5			1
ITEM102	5			1		ITEM142	5			1
ITEM103	5			1		ITEM143	5			1
ITEM104	5			1		ITEM144	3	1		0.2
ITEM105	3	1	1	0.2		ITEM145	3	1	1	0.2
ITEM106	3	2		0.2		ITEM146	5			1
ITEM107	4	1		0.6		ITEM147	4	1		0.6
ITEM108	5			1		ITEM148	3	1	1	0.2
ITEM109	5			1		ITEM149	5			1
ITEM110	2	2	1	-0.2		ITEM150	3	1	1	0.2
ITEM111	5			1		ITEM151	3	1	1	0.2
ITEM112	5			1		ITEM152	5			1
ITEM113	5			1		ITEM153	5			1
ITEM114	5			1		ITEM154	5			1
ITEM115	5			1		ITEM155	4	1		0.6
ITEM116	4	1		0.6		ITEM156	5			1
ITEM117	4	1		0.6		ITEM157	3	2		0.2
ITEM118	5			1		ITEM158	5			1
ITEM119	5			1		ITEM159	5			1
ITEM120	5			1		ITEM160	3	1	1	0.2

S/N	3	2	1	CVR		S/N	3	2	1	CVR
ITEM161	5			1		ITEM201	5			1
ITEM162	5			1		ITEM202	3	2		0.2
ITEM163	5			1		ITEM203	4	1		0.6
ITEM164	5			1		ITEM204	5			1
ITEM165	3	1	1	0.2		ITEM205	5			1
ITEM166	5			1		ITEM206	5			1
ITEM167	5			1		ITEM207	5			1
ITEM168	4	1		0.6		ITEM208	5			1
ITEM169	3	1	1	0.2		ITEM209	5			1
ITEM170	5			1		ITEM210	5			1
ITEM171	1	2	2	-0.6		ITEM211	5			1
ITEM172	4	1		0.6		ITEM212	5			1
ITEM173	5			1		ITEM213	5			1
ITEM174	5			1		ITEM214	3	1	1	0.2
ITEM175	5			1		ITEM215	5			1
ITEM176	5			1		ITEM216	5			1
ITEM177	5			1		ITEM217	5			1
ITEM178	5			1		ITEM218	5			1
ITEM179	3	1	1	0.2		ITEM219	3	1	1	0.2
ITEM180	4	1		0.6		ITEM220	4	1		0.6
ITEM181	5			1		ITEM221	3	2		0.2
ITEM182	5			1		ITEM222	4	1		0.6
ITEM183	5			1		ITEM223	3	1	1	0.2
ITEM184	5			1		ITEM224	2	1	2	-0.2
ITEM185	5			1		ITEM225	5			1
ITEM186	5			1		ITEM226	3	1	1	0.2
ITEM187	4	1		0.6		ITEM227	4	1		0.6
ITEM188	5			1		ITEM228	5			1
ITEM189	3	1	1	0.2		ITEM229	5			1
ITEM190	4	1		0.6		ITEM230	5			1
ITEM191	5			1		ITEM231	5			1
ITEM192	5			1		ITEM232	5			1
ITEM193	5			1		ITEM233	5			1
ITEM194	3	1	1	0.2		ITEM234	1	2	2	-0.6
ITEM195	5			1		ITEM235	4	1		0.6
ITEM196	5			1		ITEM236	3	1	1	0.2
ITEM197	5			1		ITEM237	4	1		0.6
ITEM198	5			1		ITEM238	5			1
ITEM199	3	1	1	0.2		ITEM239	5			1
ITEM200	5			1		ITEM240	5			1

APPENDIX 1V

THE VALIDATED ITEMS OF STUDENTS' ATTITUDE TOWARDS MATHEMATICS SCALE

SECTION A

Please provide the information as it concerns you. You can use a tick (√)where necessary

Name of school :..

State: ....

Gender: ☐ _ **School type:** single boys ☐ single girl ☐ mixed ☐

Government own sch: ☐ Private sch: ☐

SECTION B

Directions: This inventory consists of statements about your attitude toward mathematics. There are no correct or incorrect responses. Read each item carefully. Please think about how you feel about each item. Enter the letter that most closely corresponds to how each statement best describes your feelings. Please answer every question.

PLEASE USE THESE RESPONSE CODES:

A – Strongly Disagree

B – Disagree

S/N	**ITEM CONTENT**	**A**	**B**	**C**	**D**	**E**
1	I struggled with solving problems in mathematics most of the time					
2	I have usually been at ease during mathematics classes					
3	I usually don't worry about my ability to solve mathematics problems					
4	I have a lot of self confidence when it comes to mathematics					
5	I am able to solve mathematics problem without much difficulty					
6	I expect to do very well in any mathematics class					
7	I don't have confidence when attempting mathematics questions					
8	I have a low mathematics ability					
9	I am very good in mathematics					
10	I don't trust myself to do well in mathematics					
11	I am sure I can do well in mathematics					
12	I am not always comfortable answering questions in mathematics					
13	I know I can handle difficulty in mathematics					
14	Mathematics is my easiest subject					
15	I am mathematically inclined					
16	I am sure that I can learn mathematics					
17	I don't have aptitude for mathematics					
18	Mathematics is my best subject					
29	I cannot get high scores on my own in mathematics					
20	For some reasons, even though I study, mathematics is really hard					
21	I do well in most subjects but when it comes to mathematics I really mess up					
22	I feel secured when solving mathematics problems					
23	I don't border to study mathematics on my own, because I know I will not understand					
24	Even if I don't understand a mathematics problem right a way, I know I will be able to figure it out if I work at it					
25	I always study mathematics every day after class to gain more understanding of the					

	lesson taught in the class					
26	If I don't understand a mathematics problem I just leave it					
27	I don't expect to use much mathematic when I get out of school					
28	Mathematics is a worthwhile necessary subject					
29	Taking mathematics is a waste of time					
30	I will use mathematics in many ways as an adult					
31	I'll need a good understanding of mathematics for my carrier					
32	Doing well in mathematics is not important for my future					
33	I study mathematics because I know how useful it is					
34	I would not need mathematics to earn a living					
35	I will needed a lot of mathematics when I get out of school					
36	Mathematics is important for my chosen profession					
37	Mathematics has contributed greatly to science and other field of knowledge					
38	Mathematics is not worthwhile					
39	Mathematics helps develop a person's mind and teaches him to think					
40	I study mathematics because I have to					
41	Mathematics is important in every days life					
42	Taking mathematics is important					
43	Mathematics is not important for my chosen profession					
44	Mathematics is not useful in every ones life					
45	A strong mathematics background could help me in my professional life					
46	I believe studying mathematics helps me with problems solving in other areas					
47	I don't need the understanding of mathematics to succeed in future					
48	Mathematics is not an important subject					
49	Mathematics is necessary for a good carrier					
50	I work hard at mathematics because I know that it will be useful for me					
51	Mathematics is useful in every ones life					
52	I like mathematics					
53	I would be proud to be the outstanding mathematics student					
54	I will be happy if I get high scores in mathematics					
55	It would be great to win a prize in mathematics					
56	It will be very interesting to get the highest score in mathematics					
57	It would make students like me if I were a very good mathematics students					
58	I would prefer to do an assignment in mathematics than to write an easy					
59	I like to solve new problems in mathematics					
60	I feel encouraged when I solve difficult problems and get the answers					
61	I don't like solving problems in Mathematics					
62	There is nothing interesting in learning new things in mathematics					
63	Being outstanding in mathematics will not mean anything to me					
64	Winning a prize in mathematics will not interest me					
65	I want to develop my mathematics skill					
66	The challenge of mathematics discourages me					
67	Learning Mathematics is very interesting					
68	I don't need much of mathematics, just the one that will help me get admission					
69	I plan to take as much mathematics as I can during my education					
70	The challenge of mathematics appeals to me					
71	I am not interested acquiring further knowledge in mathematics					

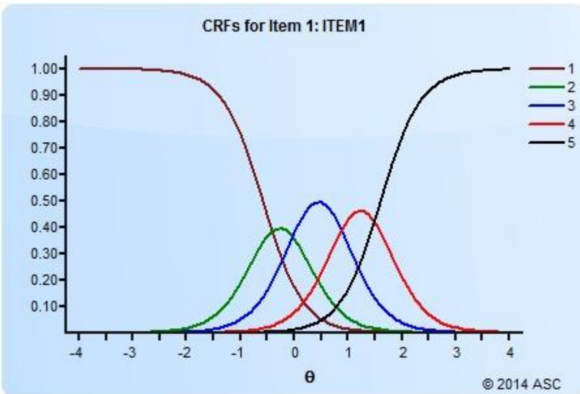
72	Mathematics is a very interesting subject that I understand easily					
73	Relating new concepts to the ones I have previously learnt gives me a clearer understanding of the concept being taught					
74	I am interested and willing to acquire further knowledge of mathematics					
75	Mathematics is more difficult to understand than other subjects					
76	I am interested in learning new things in mathematics					
77	In mathematics you can be creative and discover things by yourself					
78	I feel horrible when I can not solve a problem in mathematics					
79	Mathematics does not scare me at all					
80	I don't usually worry about being able to solve mathematics problem					
81	I never get nervous during a mathematics test					
82	I am usually calm in mathematics classesn					
83	Mathematics usually make me feel uncomfortable					
84	I always get nervous during Mathematics test					
85	I get a sick feeling when I think of trying to do mathematics problems					
86	Solving Mathematics always makes me feel uneasy					
87	It makes me nervous to even think about learning to do mathematics problem					
88	I am always under terrible strain in mathematics class					
89	I always feel comfortable with Mathematics					
90	Studying mathematics makes me feel happy					
91	When I hear the word mathematics I have a feeling of dislike					
92	Mathematics is one of my dreaded subjects					
93	I have usually been at ease solving problems in mathematics					
94	I always get worried when I have to solve a mathematics problem					
95	I don't ever get worried that I will have low score in Mathematics					
96	I feel tense when someone talks to me about mathematics					
97	I feel excited when somebody talks to me about mathematics					
98	Working with numbers upset me					
99	Mathematics makes me feel okey					
100	I get very tense when I have to do my mathematics homework					
101	I worry that I will get low scores in mathematics					
102	I never get confused in my mathematics classes					
103	I always have a clear and sound mind when solving mathematics					
104	I get exited each time I trying to solve mathematics problems					
105	When I have question that doesn't get a solution in a mathematics class, I keep thinking about it, till I get the solution					
106	I am challenged by mathematics problems, I cannot understand right away					
107	I don't think I can try harder than I have done					
108	If I can't solve a mathematics problem right away, I give up after sometime					
109	I don't border myself to look for information to help me when I don't understand a problem					
110	No matter how hard I try I can not do well in mathematics					
111	Any one who work hard can be good at mathematics					
112	I keep trying in mathematics even if the working is hard for me to do					
113	I don't try further to solve a problem in mathematics when I know that I cant solve it					
114	I get discouraged each time I fail a mathematics test					
115	I don't feel discourage even if I get a low score in mathematics					
116	I always get discouraged when I cannot solve a problem in mathematics					

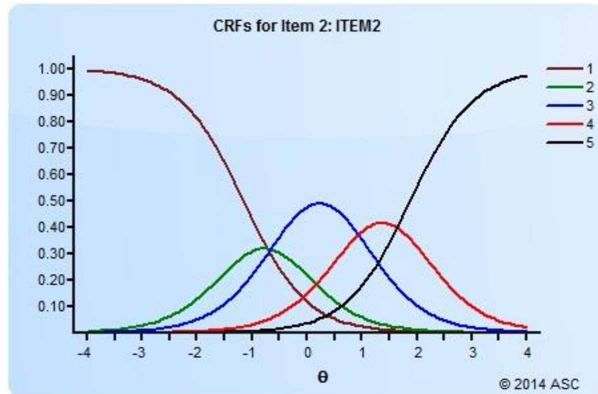
117	I try different methods to ensure that I get a Problem correrct					
118	When I cannot understand mathematics I always look for more information to help me understand the problem					
119	Mathematics is something I enjoy doing very much					
120	Mathematics is a very interesting subject					
121	I don't feel comfortable answering question in mathematics					
122	I hate solving mathematics					
123	I have never enjoy learning mathematics					
124	Solving mathematics is boring					
125	Mathematics is stressful					
126	Solving mathematics makes me feel stressed					
127	I have always enjoyed learning mathematics					
128	I get a great deal of satisfaction out of solving a mathematics problem					
129	solving mathematics is a fun					
130	I enjoy talking to other people about mathematics					
131	I don't always follow up during mathematics classes					
132	I always forget the things I learn in mathematics					
133	I don't like talking to people about mathematics					
134	It's so frustrating attending mathematics classes					
135	I don't enjoy doing mathematics					
136	I don't have interest in the things I learn in mathematics					
137	Sometimes I work more mathematics problem than are assigned in class					
138	I remember most of the things I learn in mathematics					
139	I am interested in the things I learn in mathematics					
140	I look forward to my mathematics classes					
141	Learning mathematics is enjoyable					
142	In mathematics you get reward for your efforts					
143	I don't get any satisfaction solving mathematics problems					
144	My teachers have made me feel I have the ability to go on in mathematics					
145	Mathematics teachers makes mathematics interested to me					
146	My Mathematics teacher makes mathematics so boring					
147	My Mathematics teachers rarely gives me attention					
148	I have found it hard to win the respect of mathematics teachers					
149	My mathematics teacher know when the class have problem following during classes					
150	My mathematics teacher doesn't seem to enjoy teaching mathematics					
151	My mathematics teacher present mathematics in practical and clear manner					
152	My mathematics teacher teach mathematics with passion					
153	My mathematics teacher always answers questions no matter how stupid it sounds					
154	I have had a hard time getting teachers to talk seriously about mathematics					

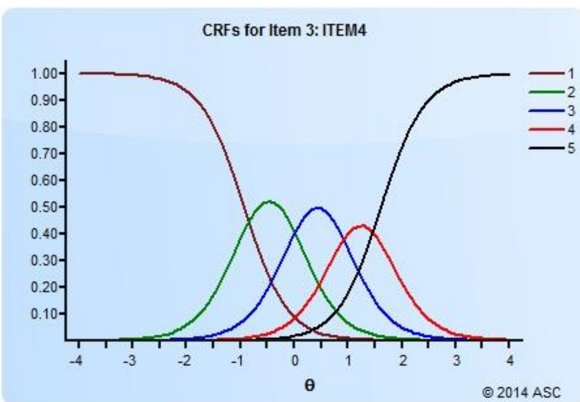
C – Neutral
D – Agree
E – Strongly Agree

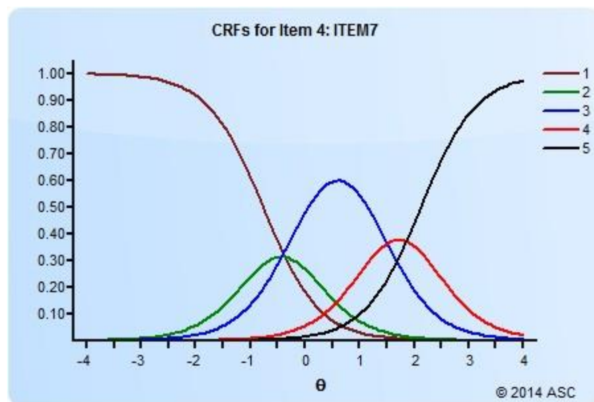
APPENDIX V

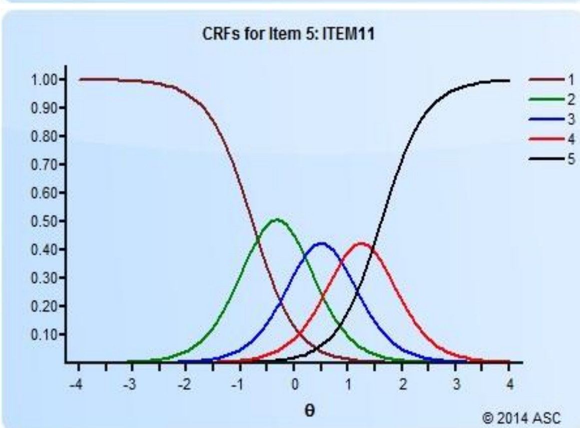
THE CATEGORY RESPONSE FUNCTION (CRF) FOR THE CALIBRATED ITEMS

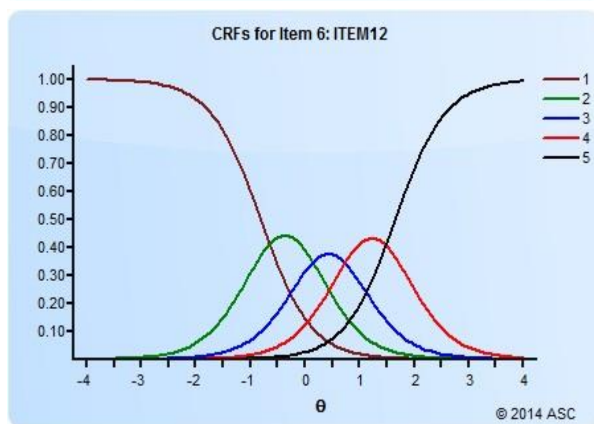


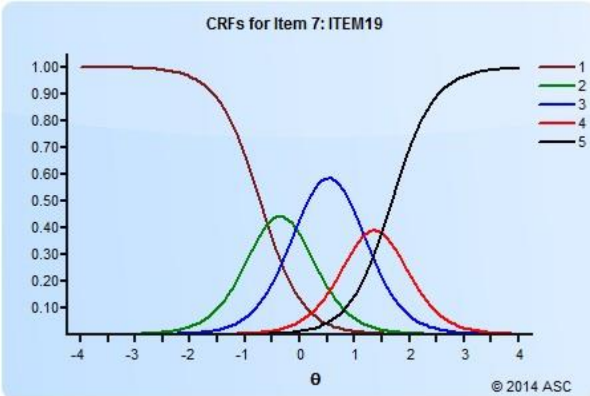








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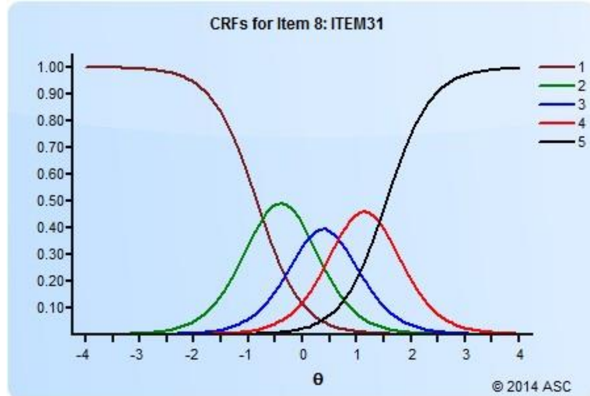
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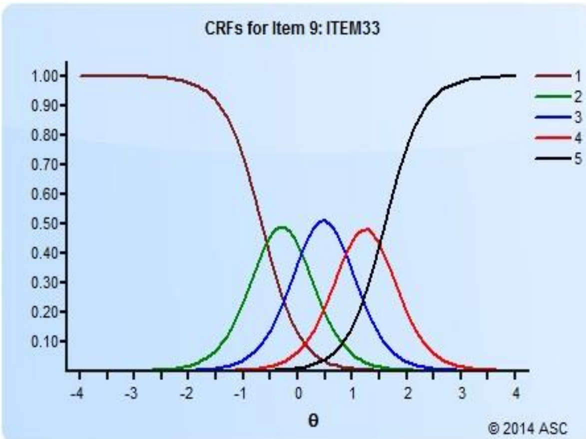
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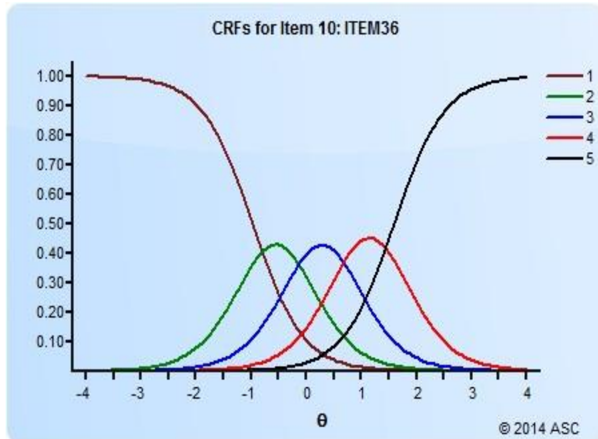
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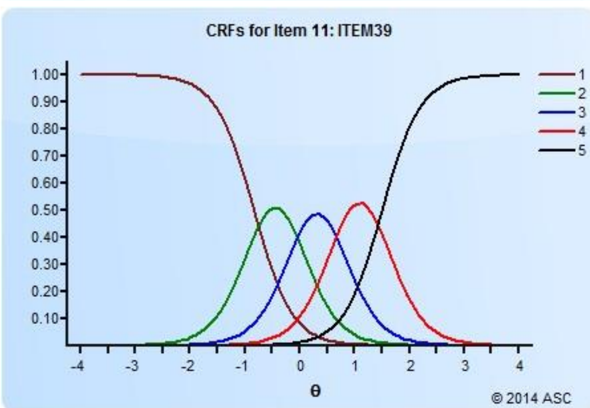
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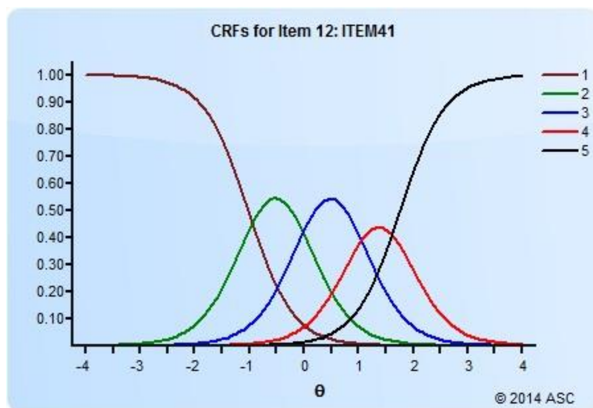
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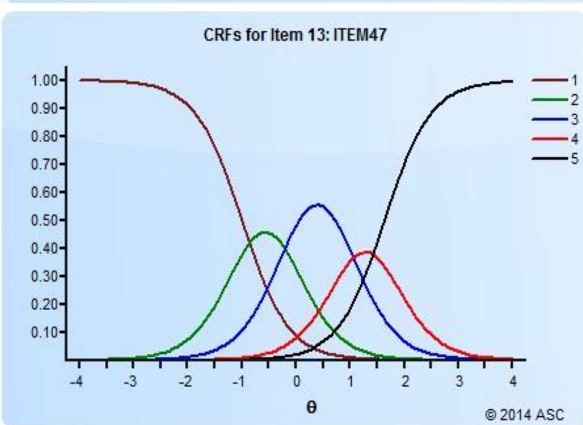
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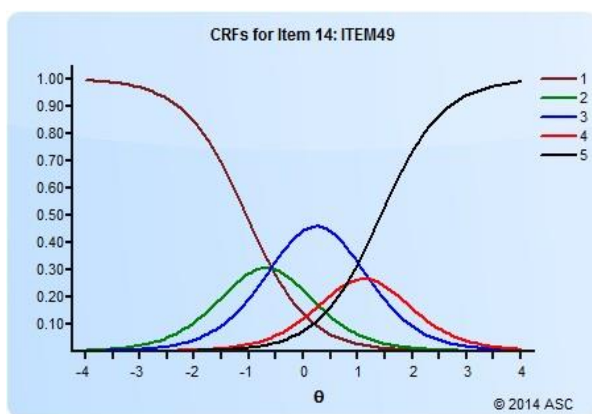
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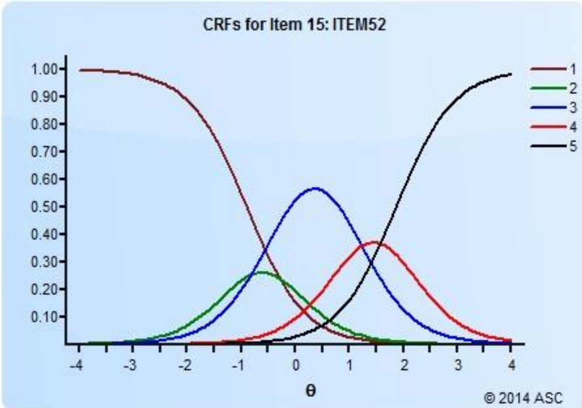
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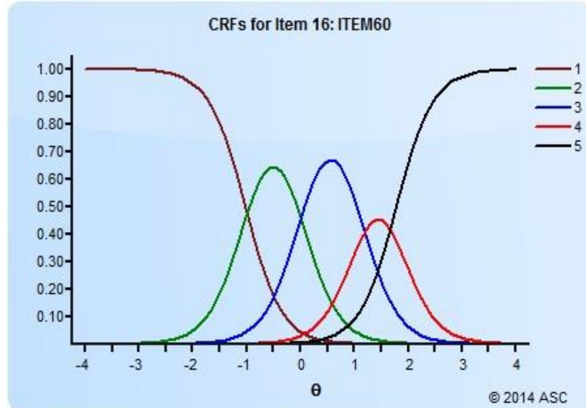
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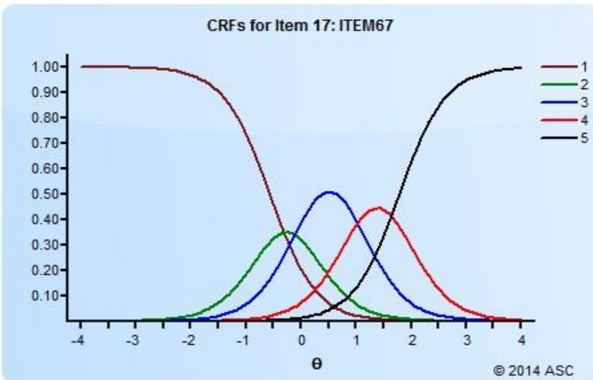
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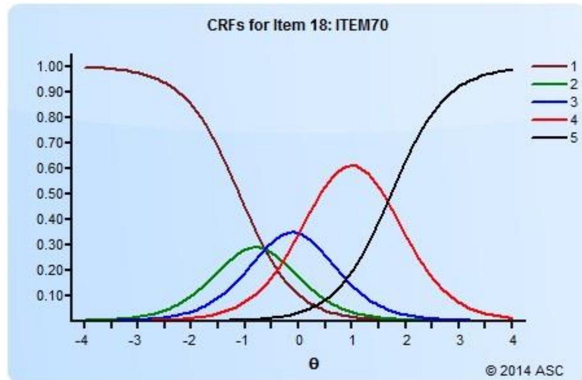
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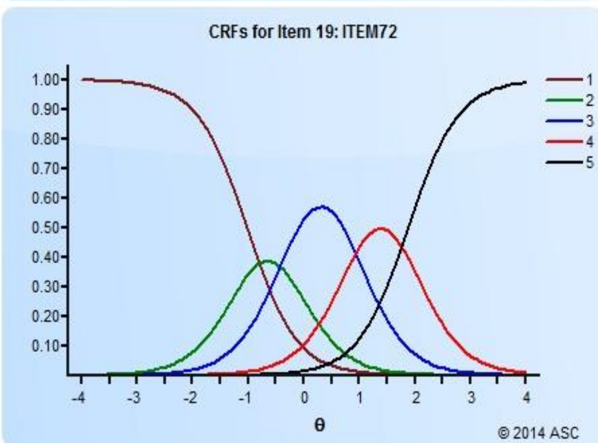
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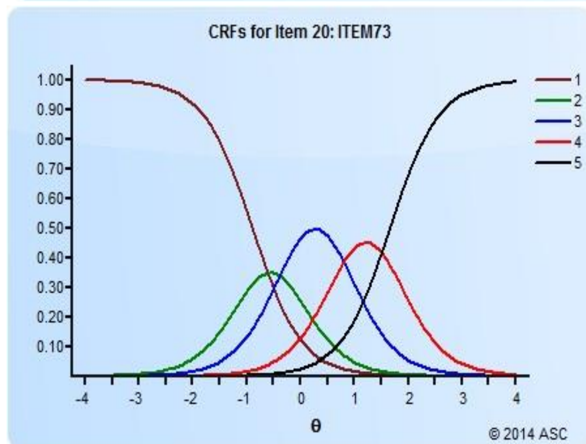
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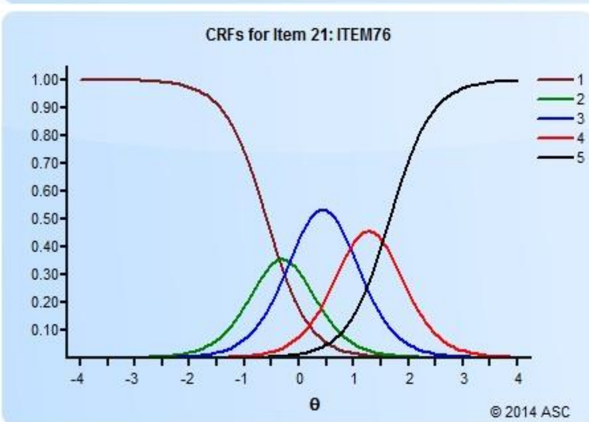
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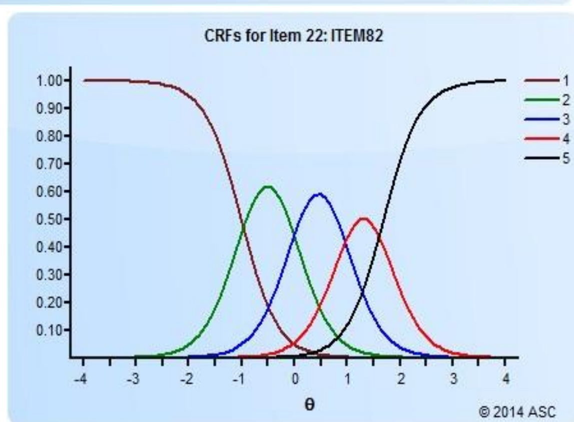
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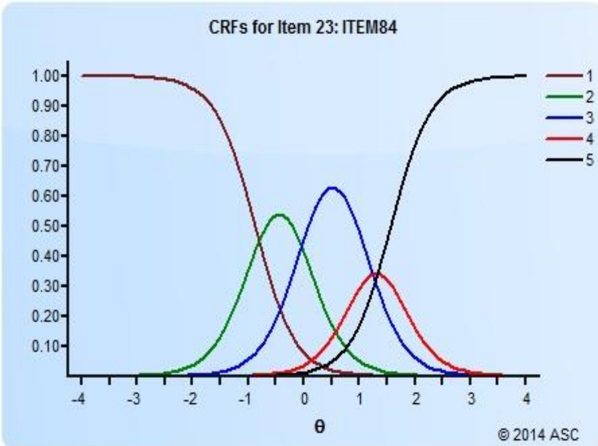
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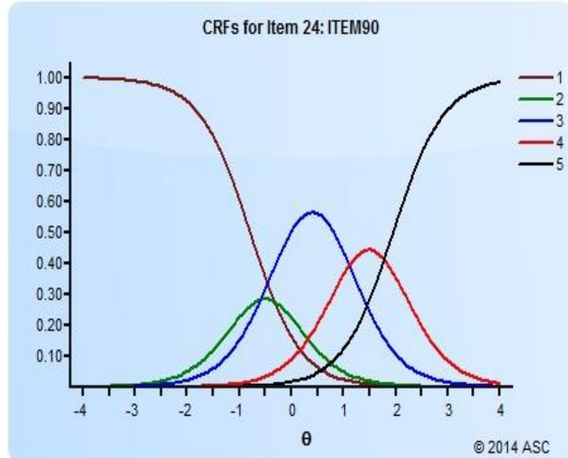
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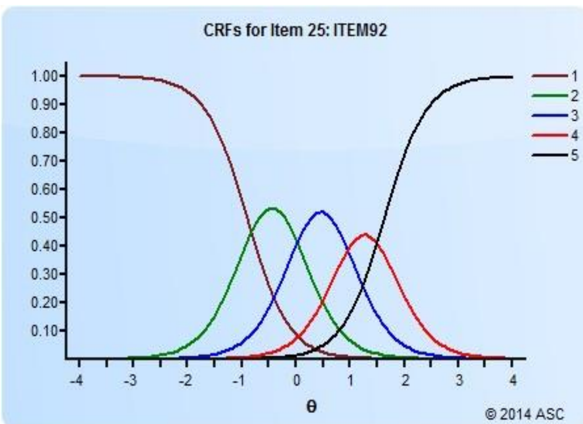
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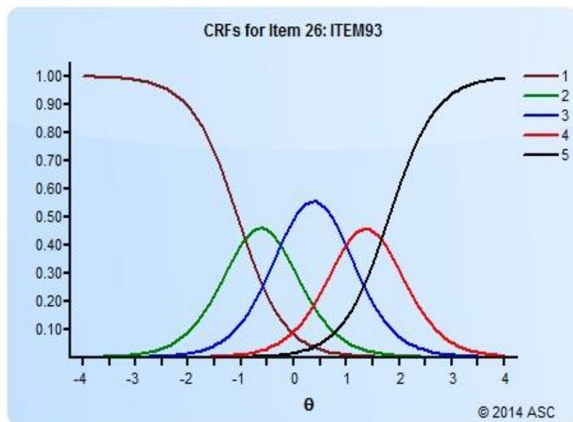
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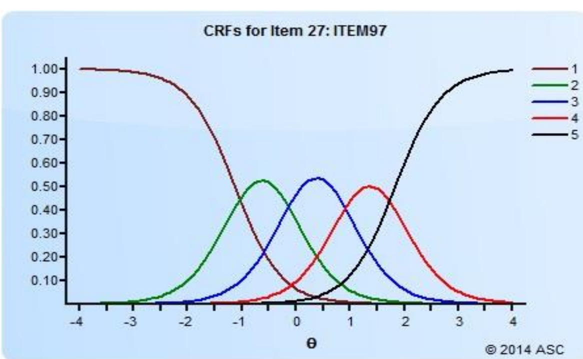
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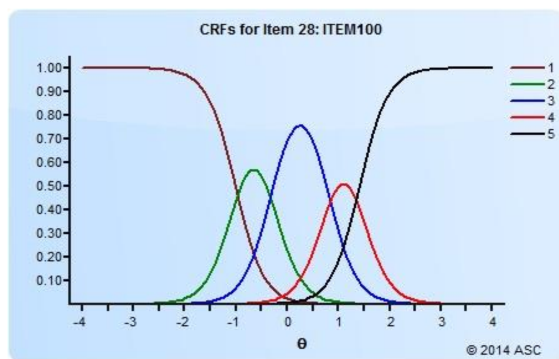
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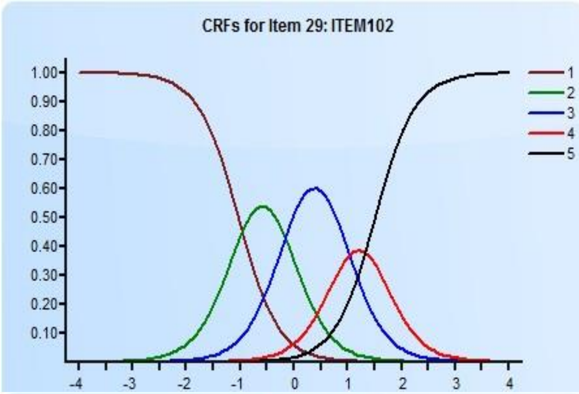
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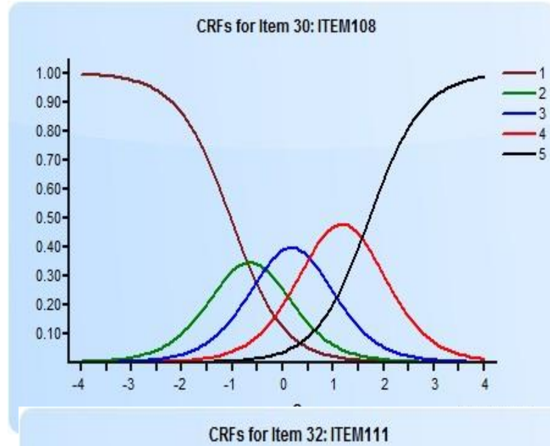
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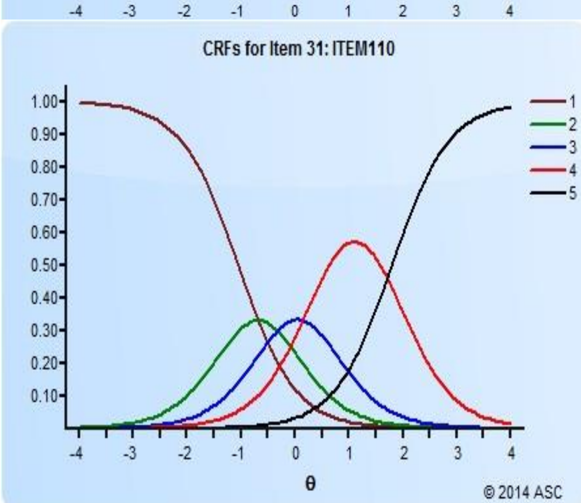
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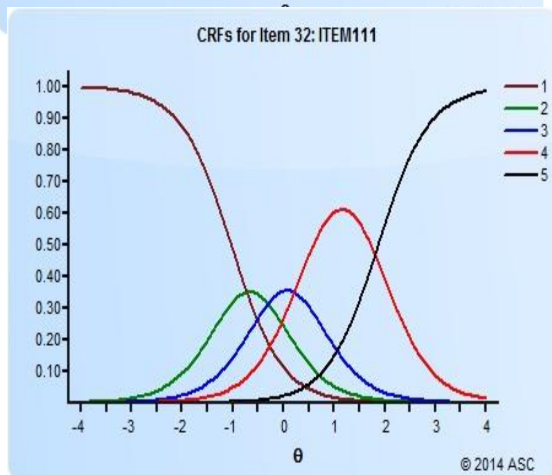
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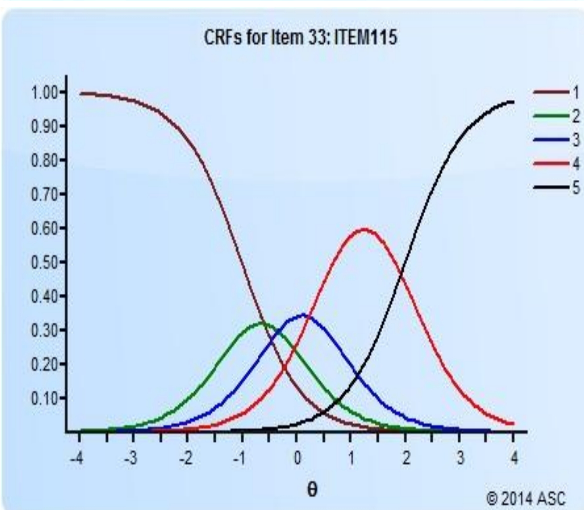
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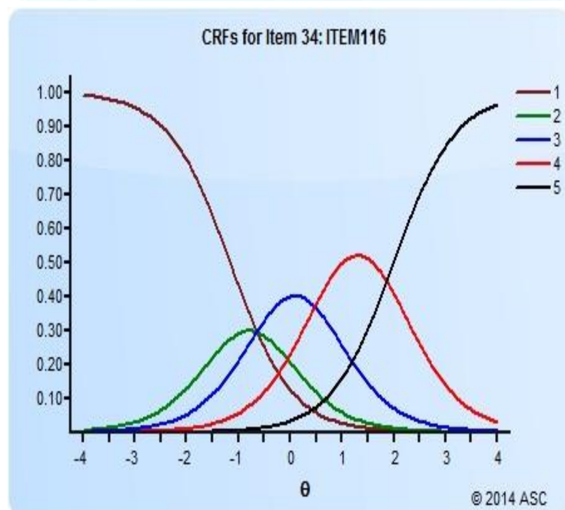
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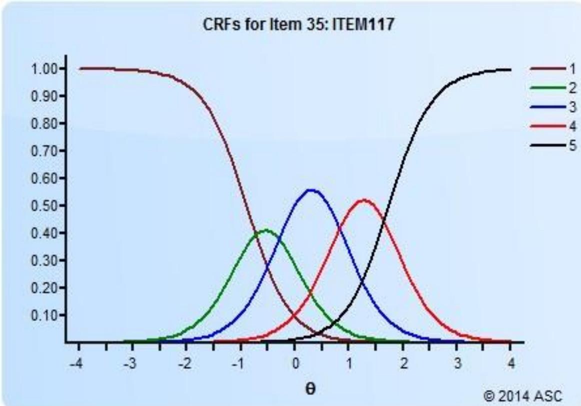
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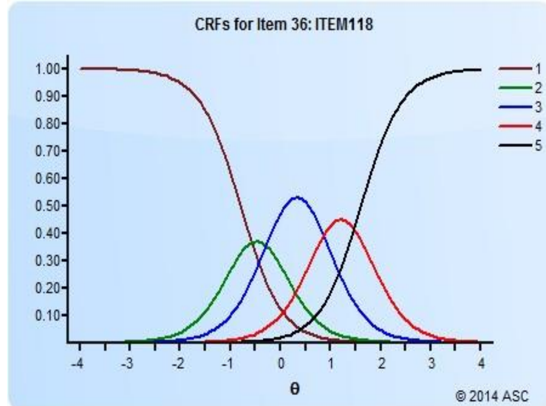
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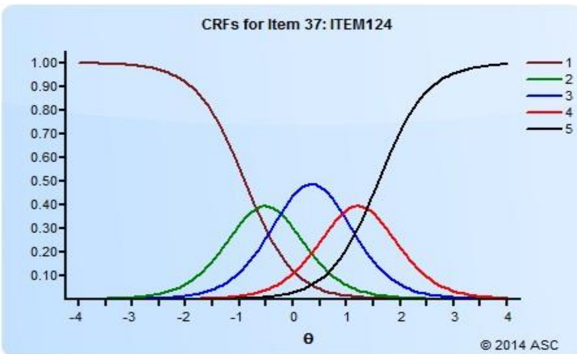
© 2014 ASC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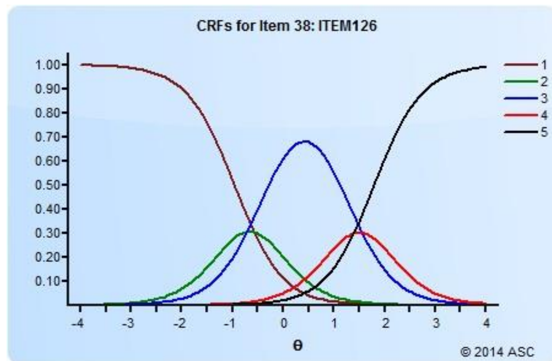
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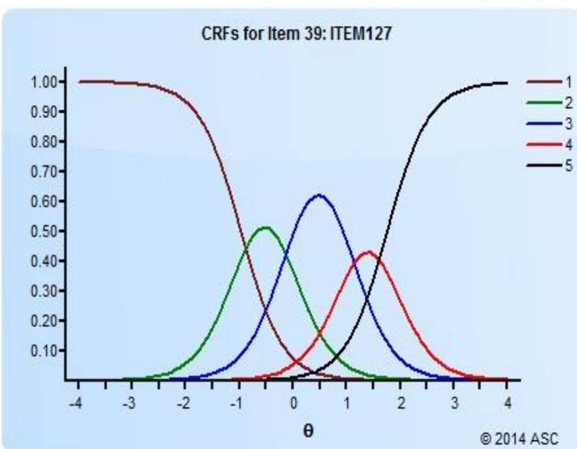
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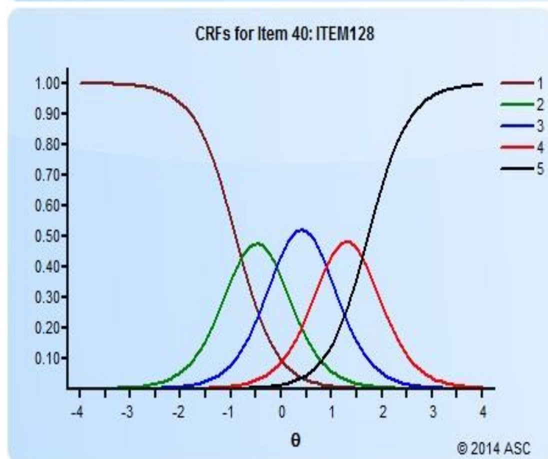
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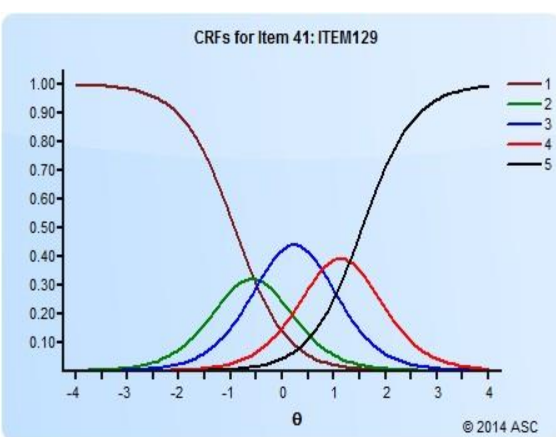
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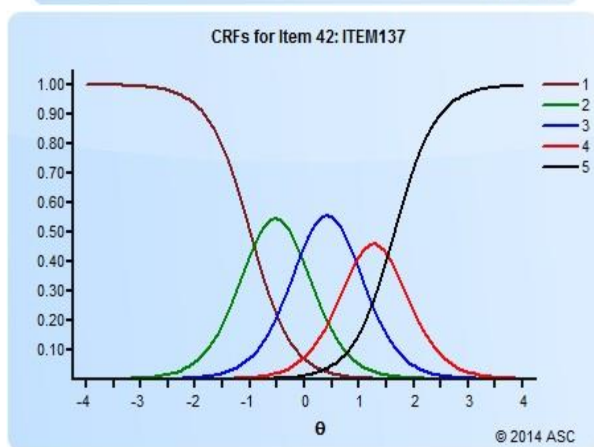
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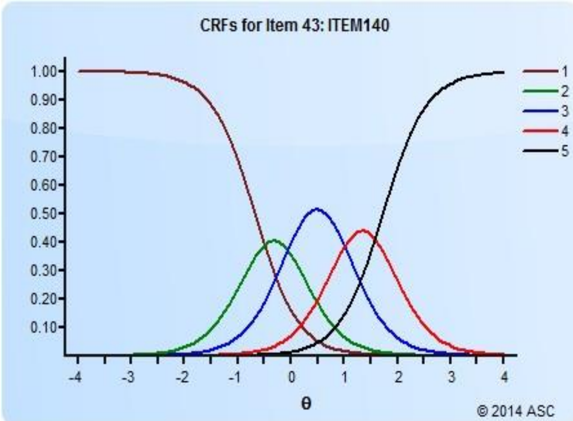
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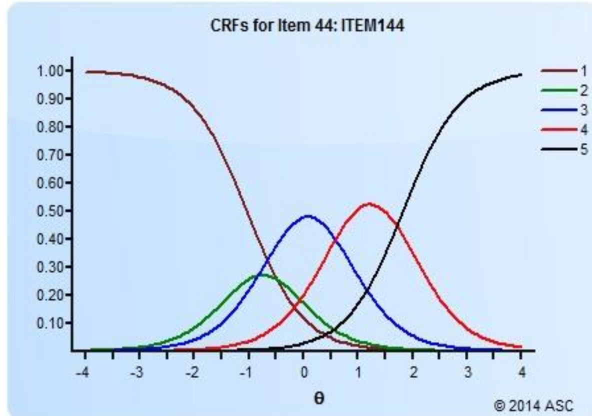
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θ
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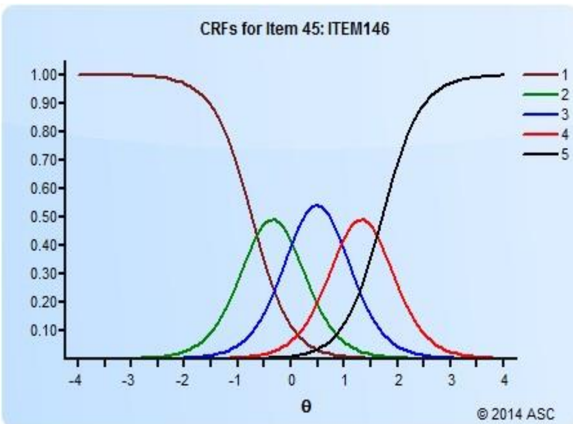
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θ
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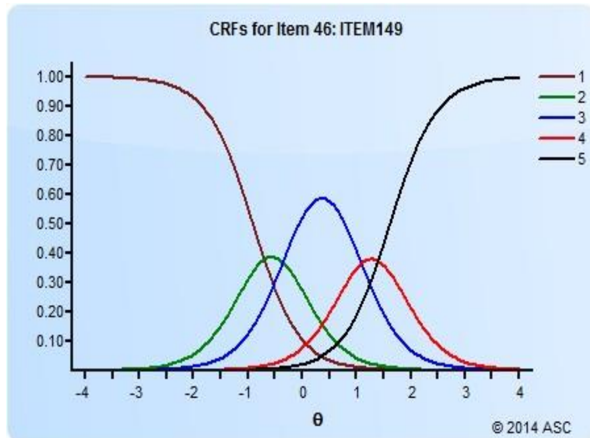
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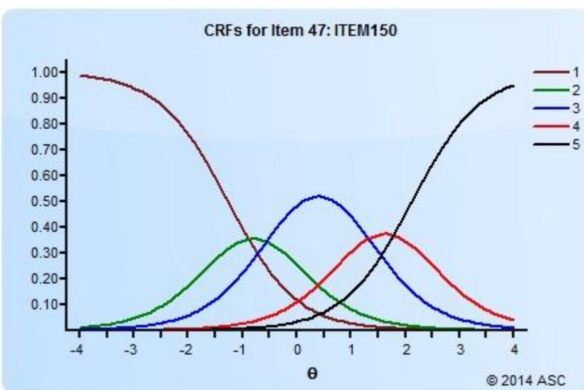
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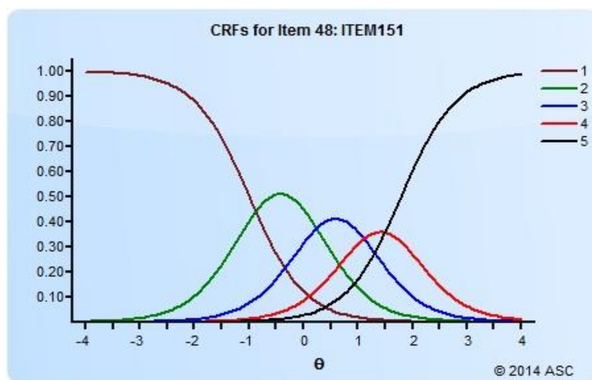
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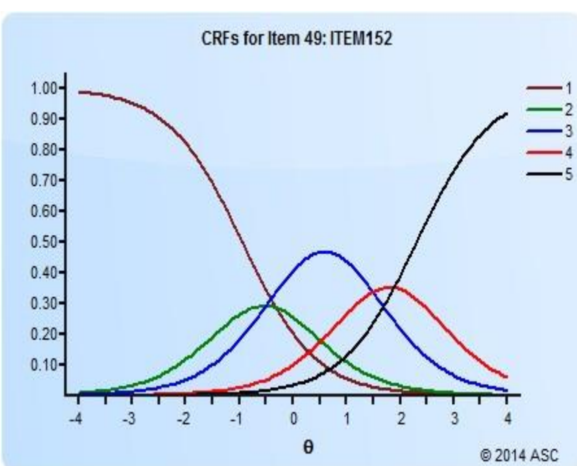
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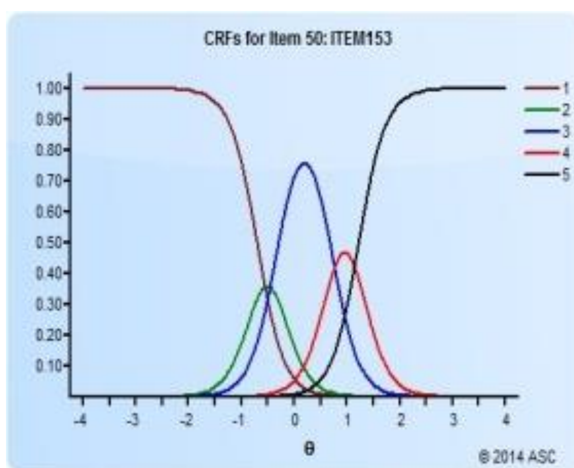
CRFs for Item 50: ITEM153
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θ
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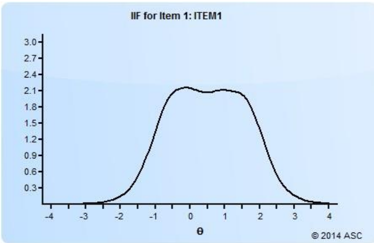
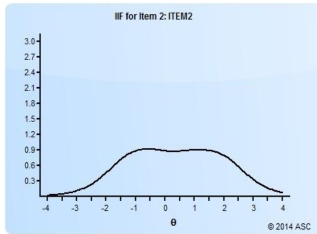
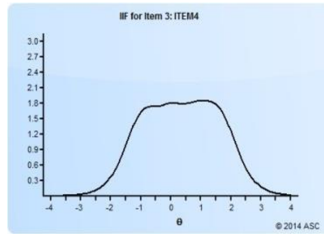
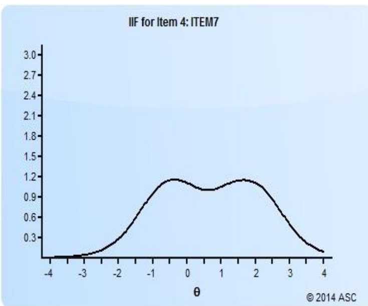
APPENDIX VI

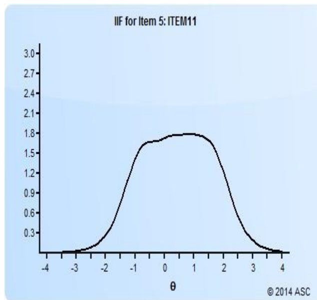
ITEM INFORMATION FUNCTIONS FOR THE CALIBRATED ITEMS

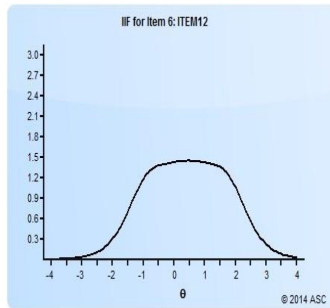


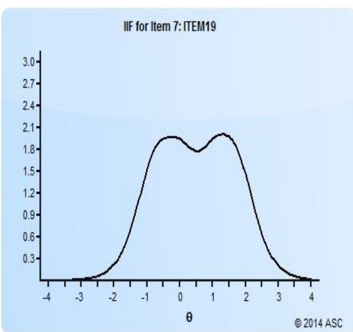


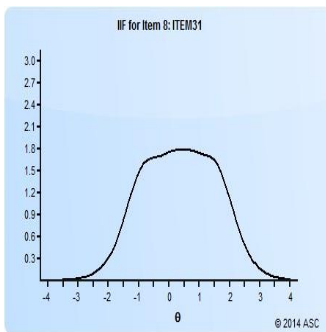


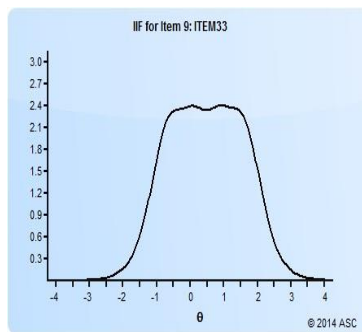


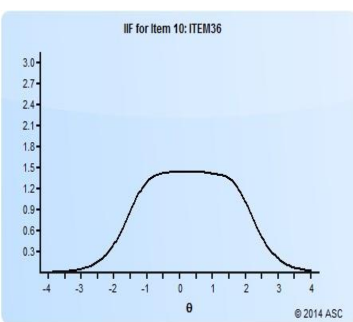


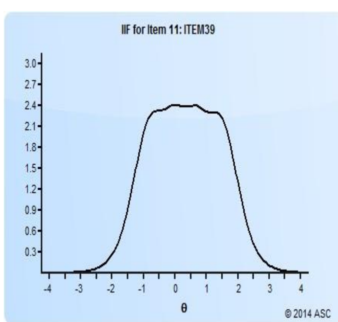


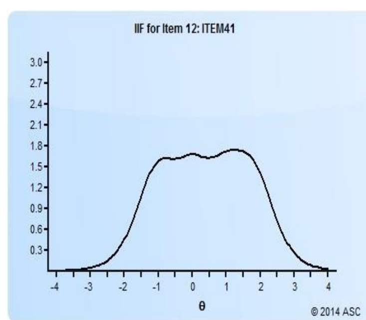


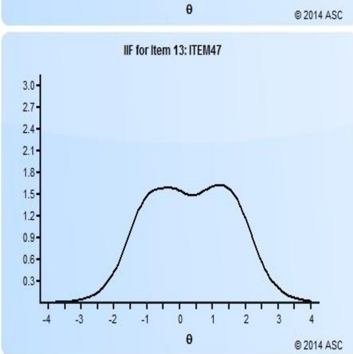


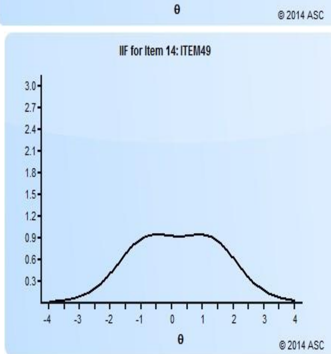


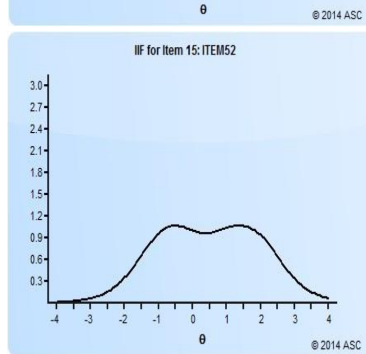


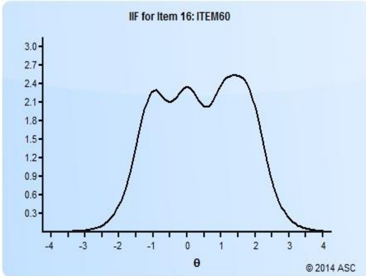








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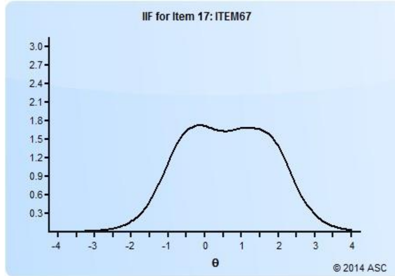
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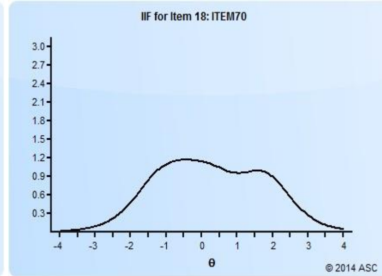
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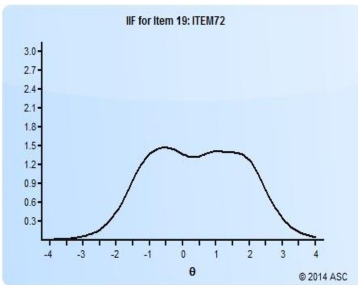
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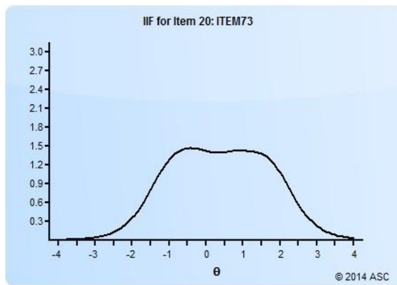
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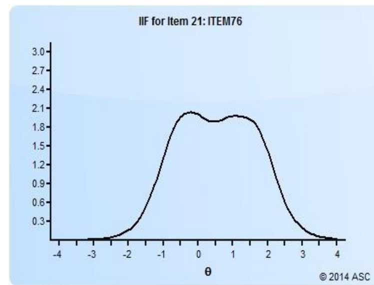
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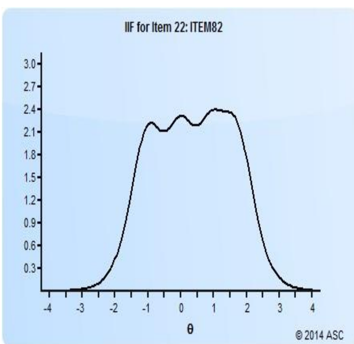
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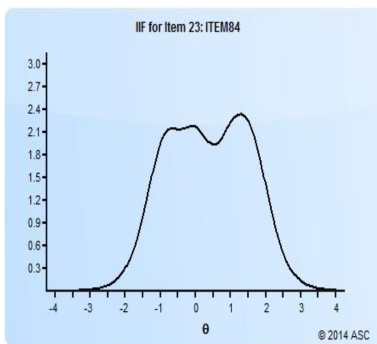
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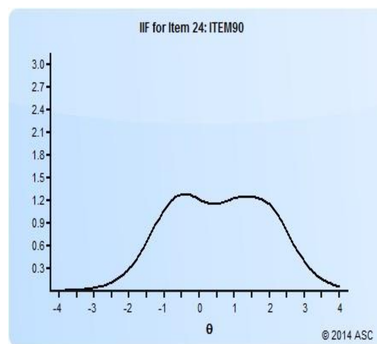
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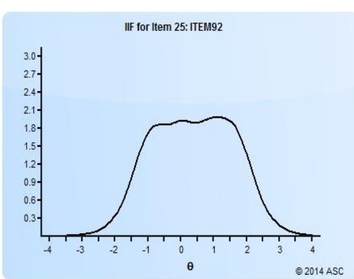
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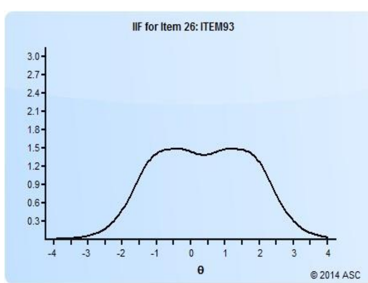
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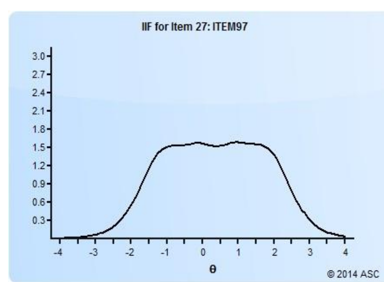
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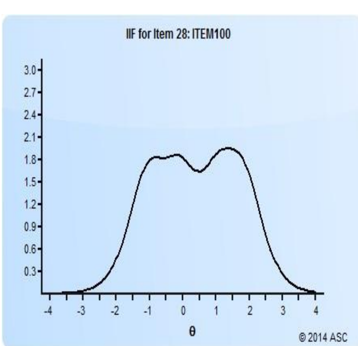
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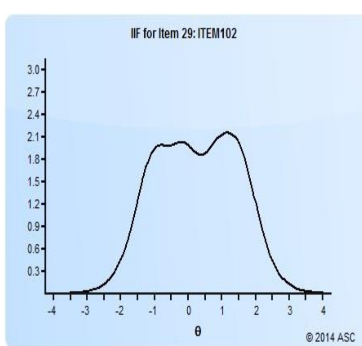
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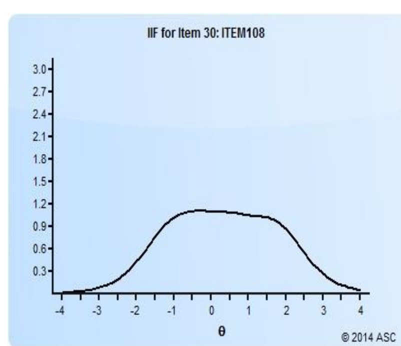
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θ
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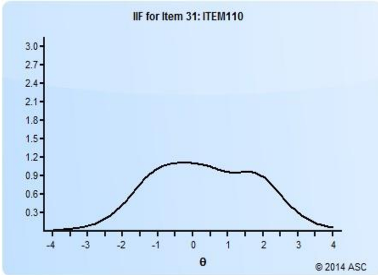
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-4 -3 -2 -1 0 1 2 3 4
θ
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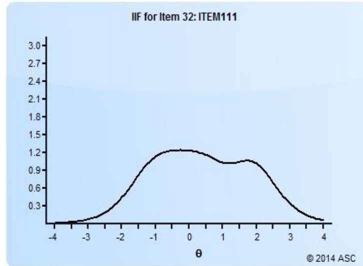
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θ
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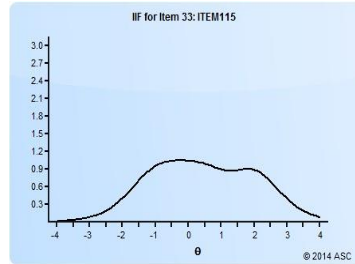
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-4 -3 -2 -1 0 1 2 3 4
θ
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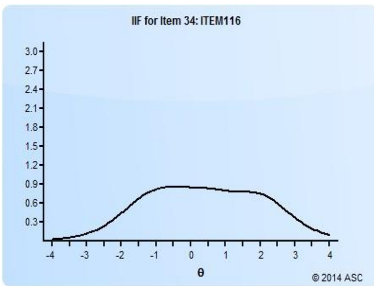
IIF for Item 34: ITEM116
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θ
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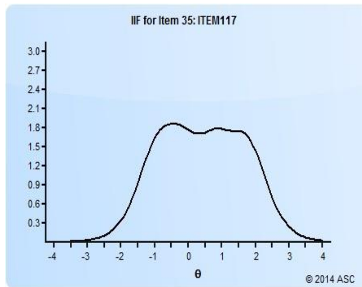
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θ
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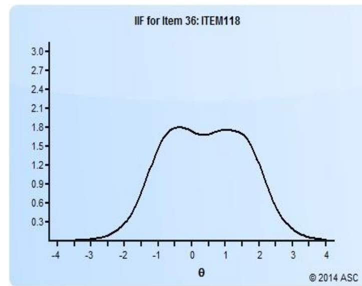
IIF for Item 36: ITEM118
3.0 2.7 2.4 2.1 1.8 1.5 1.2 0.9 0.6 0.3
-4 -3 -2 -1 0 1 2 3 4
θ
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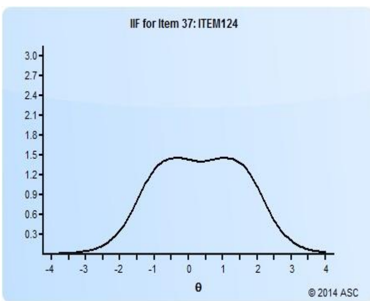
IIF for Item 37: ITEM124
3.0 2.7 2.4 2.1 1.8 1.5 1.2 0.9 0.6 0.3
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θ
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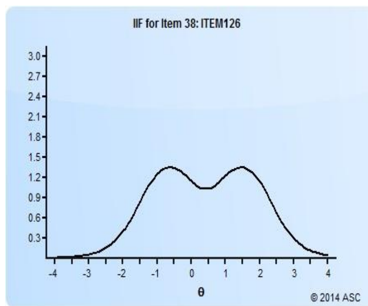
IIF for Item 38: ITEM126
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-4 -3 -2 -1 0 1 2 3 4
θ
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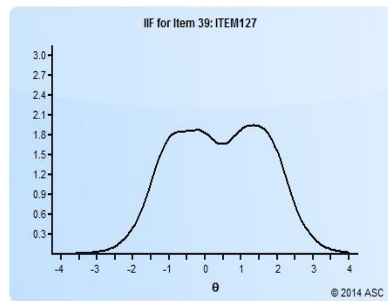
IIF for Item 39: ITEM127
3.0 2.7 2.4 2.1 1.8 1.5 1.2 0.9 0.6 0.3
-4 -3 -2 -1 0 1 2 3 4
θ
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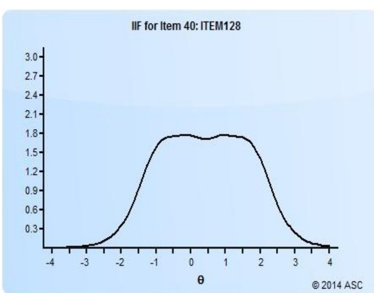
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3.0 2.7 2.4 2.1 1.8 1.5 1.2 0.9 0.6 0.3
-4 -3 -2 -1 0 1 2 3 4
θ
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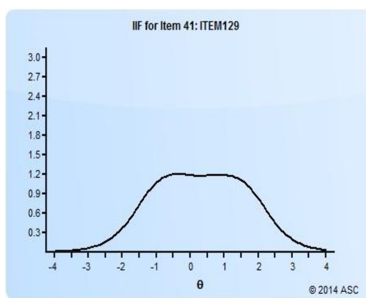
IIF for Item 41: ITEM129
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θ
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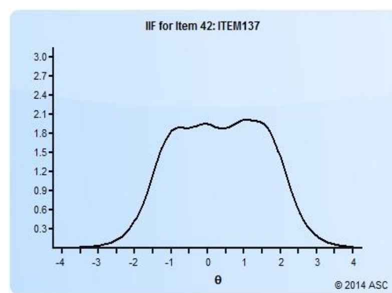
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-4 -3 -2 -1 0 1 2 3 4
θ
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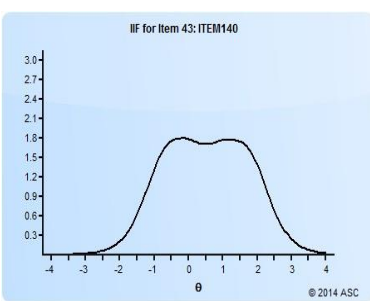
IIF for Item 43: ITEM140
3.0 2.7 2.4 2.1 1.8 1.5 1.2 0.9 0.6 0.3
-4 -3 -2 -1 0 1 2 3 4
θ
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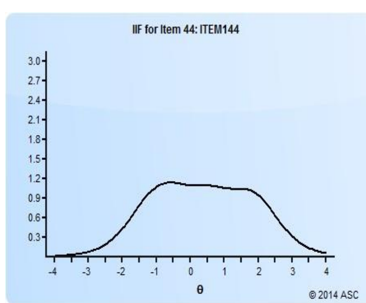
IIF for Item 44: ITEM144
3.0 2.7 2.4 2.1 1.8 1.5 1.2 0.9 0.6 0.3
-4 -3 -2 -1 0 1 2 3 4
θ
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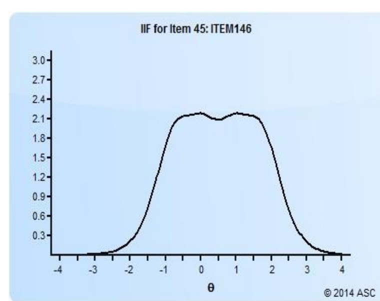
IIF for Item 45: ITEM146
3.0 2.7 2.4 2.1 1.8 1.5 1.2 0.9 0.6 0.3
-4 -3 -2 -1 0 1 2 3 4
θ
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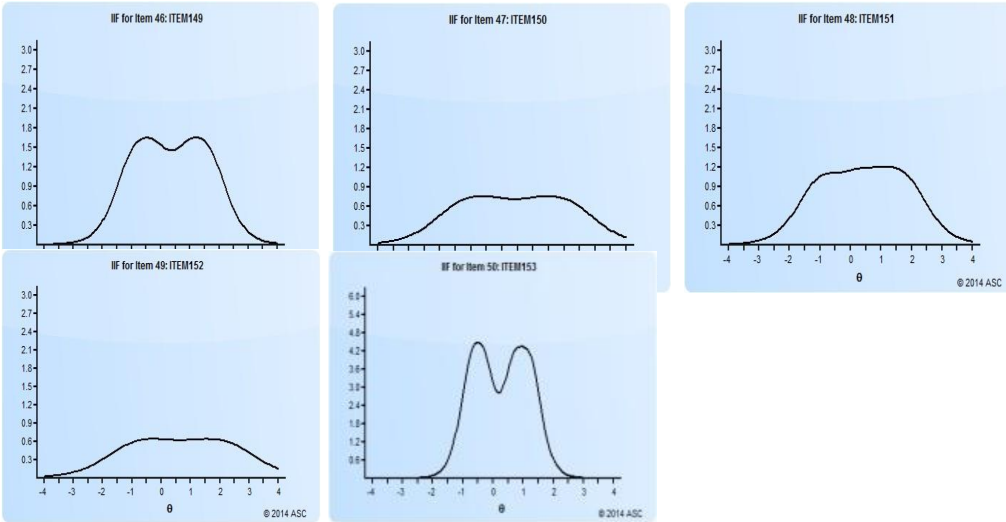
IIF for Item 46: ITEM149
IIF for Item 47: ITEM150
IIF for Item 48: ITEM151
IIF for Item 49: ITEM152
IIF for Item 50: ITEM153
θ
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APPENDIXVII

THE SELECTED ITEMS FOR THE STUDENTS' ATTITUDE TOWARDS MATHEMATICS (SATM) SCALE

	S/N	**ITEM CONTENT**	**A**	**B**	**C**	**D**	**E**
1	1	I struggled with solving problems in mathematics most of the time					
2	2	I have usually been at ease during mathematics classes					
3	4	I have a lot of self confidence when it comes to mathematics					
4	7	I don't have confidence when attempting mathematics questions					
5	11	I am sure I can do well in mathematics					
6	12	I am not always comfortable answering questions in mathematics					
7	19	I cannot get high scores on my own in mathematics					
8	31	I'll need a good understanding of mathematics for my carrier					
9	33	I study mathematics because I know how useful it is					
10	36	Mathematics is important for my chosen profession					
11	39	Mathematics helps develop a person's mind and teaches him to think					
12	41	Mathematics is important in every days life					
13	47	I don't need the understanding of mathematics to succeed in future					
14	49	Mathematics is necessary for a good carrier					
15	52	I like mathematics					
16	60	I feel encouraged when I solve difficult problems and get the answers					
17	67	Learning Mathematics is very interesting					
18	70	The challenge of mathematics appeals to me					
19	72	Mathematics is a very interesting subject that I understand easily					
20	73	Relating new concepts to the ones I have previously learnt gives me a clearer understanding of the concept being taught					
21	76	I am interested in learning new things in mathematics					
22	82	I am usually calm in mathematics classesn					
23	84	I always get nervous during Mathematics test					
24	90	Studying mathematics makes me feel happy					
25	92	Mathematics is one of my dreaded subjects					
26	93	I have usually been at ease solving problems in mathematics					
27	97	I feel excited when somebody talks to me about mathematics					
28	100	I get very tense when I have to do my mathematics homework					
29	102	I never get confused in my mathematics classes					
30	108	If I can't solve a mathematics problem right away, I give up after sometime					
31	110	No matter how hard I try I can not do well in mathematics					
32	111	Any one who work hard can be good at mathematics					
33	115	I don't feel discourage even if I get a low score in mathematics					
34	116	I always get discouraged when I cannot solve a problem in mathematics					
35	117	I try different methods to ensure that I get a Problem correrct					
36	118	When I cannot understand mathematics I always look for more information to help me understand the problem					
37	124	Solving mathematics is boring					
38	126	Solving mathematics makes me feel stressed					
39	127	I have always enjoyed learning mathematics					

40	128	I get a great deal of satisfaction out of solving a mathematics problem					
41	129	solving mathematics is a fun					
42	137	Sometimes I work more mathematics problem than are assigned in class					
43	140	I look forward to my mathematics classes					
44	144	My teachers have made me feel I have the ability to go on in mathematics					
45	146	My Mathematics teacher makes mathematics so boring					
46	149	My mathematics teacher know when the class have problem following during classes					
47	150	My mathematics teacher doesn't seem to enjoy teaching mathematics					
48	151	My mathematics teacher present mathematics in practical and clear manner					
49	152	My mathematics teacher teach mathematics with passion					
50	153	My mathematics teacher always answers questions no matter how stupid it sounds					

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APPENDIX XII

SATM VALUES AND SCORES FOR THE FULL SCALE AND THE SEVEN COMPONENTS

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
1	1.25	2.03	1.19	1.6	1.47	1.4	1.62	1.99	62.5	70.3	61.9	66	64.7	64	66.2	69.9
2	0.15	1.54	-0.45	1.5	1.76	2.73	1	1.2	51.5	65.4	45.5	65	67.6	77.3	60	62
3	1.36	1.79	-0.67	1.74	1.73	2.04	1.71	0.84	63.6	67.9	43.3	67.4	67.3	70.4	67.1	58.4
4	1.08	1.69	-0.71	2.09	1.59	1.57	1.46	2.58	60.8	66.9	42.9	70.9	65.9	65.7	64.6	75.8
5	0.97	1.8	-1.06	1.18	1.43	1.63	0.99	1.09	59.7	68	39.4	61.8	64.3	66.3	59.9	60.9
6	-0.49	-0.01	1.59	0.25	-0.2	0.03	0.4	-0.3	45.1	49.9	65.9	52.5	48.1	50.3	54	46.9
7	0.87	0.26	1.69	0.07	0.05	0.42	0.26	0.95	58.7	52.6	66.9	50.7	50.5	54.2	52.6	59.5
8	-0.8	0.07	1.86	-0.79	-0.9	-0.68	-0.4	0.16	42	50.7	68.6	42.1	40.6	43.2	46	51.6
9	-1.01	-0.08	-0.46	0.07	0.59	0.77	0.22	0.24	39.9	49.2	45.4	50.7	55.9	57.7	52.2	52.4
10	-0.42	1.83	-1.08	0.89	-0.1	0.23	-0.32	-0.9	45.9	68.3	39.2	58.9	49	52.3	46.8	41.3
11	-0.39	0.45	-1.29	-0.53	-0.6	-0.31	1.04	-0.6	46.1	54.5	37.1	44.7	44.3	46.9	60.4	44.3
12	1.28	-0.62	-1.23	-0.18	0.16	-0.26	0.03	0.04	62.8	43.8	37.7	48.2	51.6	47.4	50.3	50.4
13	-0.58	-0.41	-1.15	-0.47	0.09	-0.22	-0.2	0.63	44.2	45.9	38.5	45.3	50.9	47.8	48	56.3
14	1.19	-0.09	-0.79	-0.82	0.1	-0.22	0.17	0.06	61.9	49.1	42.1	41.8	51	47.8	51.7	50.6
15	1.03	0.21	-1.37	-0.11	-0.5	1	0.48	-0.1	60.3	52.1	36.3	48.9	45.4	60	54.8	49.4
16	-0.46	-0.62	0.34	0.71	-0.5	-0.34	-0.05	0.51	45.4	43.8	53.4	57.1	45.3	46.6	49.5	55.1
17	-0.6	-0.46	-1.15	-0.33	0.18	-0.24	-0.35	0.04	44	45.4	38.5	46.7	51.8	47.6	46.5	50.4
18	1.34	-0.06	1.68	-0.6	-0.2	-0.82	-0.8	0.16	63.4	49.4	66.8	44	47.9	41.8	42	51.6
19	1.54	-1.3	-0.63	-0.2	-0.3	-0.38	-1.01	-0.5	65.4	37	43.7	48	47.2	46.2	40	44.6
20	-0.47	-0.37	-0.46	-0.14	-0.5	-1.19	-0.94	-0.9	45.3	46.3	45.4	48.7	45.1	38.1	40.6	41.3
21	-1.37	0.28	-0.3	-0.56	-0.8	-0.69	-0.4	0.48	36.3	52.8	47	44.4	42.4	43.1	46	54.8
22	1.11	-1.3	-0.29	-0.64	-0.1	-1.37	-0.73	-1.6	61.1	37	47.1	43.6	48.6	36.3	42.7	33.9
23	-0.81	-0.89	-0.28	0.16	-0.5	-0.3	-0.44	-0.1	41.9	41.1	47.2	51.6	44.6	47	45.6	48.5
24	1.26	-0.62	2.32	-0.97	-1	0.45	-1.1	-0.8	62.6	43.8	73.2	40.3	40.4	54.5	39	41.5
25	-0.69	1.56	1.61	1.02	1.09	1.37	0.85	1.09	43.1	65.6	66.1	60.2	60.9	63.7	58.5	60.9
26	-0.66	1.03	-0.09	0.71	0.9	1.34	-0.26	1.26	43.4	60.3	49.1	57.1	59	63.4	47.4	62.6
27	-0.67	1.37	0.03	1.02	1.08	1.17	1.3	1.06	43.3	63.7	50.3	60.2	60.8	61.7	63	60.6
28	1.22	-0.8	-0.44	-1.74	-1.8	-1.04	2.33	-1.4	62.2	42	45.6	32.6	32.4	39.6	73.3	35.8
29	-0.49	1.8	-1.1	1.49	1.23	1.19	1.77	1.06	45.1	68	39	64.9	62.3	61.9	67.7	60.6

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
30	-0.68	-1	-1.11	-0.97	-0.4	-0.19	0.26	-0.4	43.2	40	38.9	40.3	45.9	48.1	52.6	45.7
31	-0.39	-1.28	-0.45	-1.24	-0.6	0.69	-0.73	-0.1	46.1	37.2	45.5	37.6	43.8	56.9	42.7	48.6
32	1.19	-0.72	-0.82	-1.81	-1.7	-1.25	1.87	-1.5	61.9	42.8	41.8	31.9	32.7	37.5	68.7	35
33	1.08	-1.28	2.07	-1.3	-1.7	-0.28	-1.66	-2.1	60.8	37.2	70.7	37	33.3	47.2	33.4	28.7
34	1.28	1.74	1.47	2.21	1.96	2.28	1.48	1.77	62.8	67.4	64.7	72.1	69.6	72.8	64.8	67.7
35	-0.92	-0.55	-0.28	0.65	0.35	-0.98	-0.4	-0.5	40.8	44.5	47.2	56.5	53.5	40.2	46	44.6
36	-2.02	1.18	-0.95	-0.23	1.01	1.1	-0.29	0.64	29.8	61.8	40.5	47.7	60.1	61	47.1	56.4
37	1.04	1.1	1.79	1.2	1.52	2	1.09	0.94	60.4	61	67.9	62	65.2	70	60.9	59.4
38	-0.65	-0.37	-0.64	0.63	-0.3	-0.85	-0.13	-0.7	43.5	46.3	43.6	56.3	47	41.5	48.7	43.2
39	-0.95	-0.39	1.54	-0.06	-0.2	-0.69	-0.67	-0.6	40.5	46.1	65.4	49.4	47.7	43.1	43.3	43.7
40	1.21	-0.22	-0.8	-0.63	-1	-0.62	-0.55	-0.6	62.1	47.8	42	43.7	39.9	43.8	44.5	44
41	-0.61	-0.62	-0.15	-1.24	-0.9	-0.85	-1.64	-0.9	43.9	43.8	48.5	37.6	41.4	41.5	33.6	41.3
42	-1.44	-0.37	-0.99	-0.8	-0.5	0.13	-0.61	-1.3	35.6	46.3	40.1	42	45	51.3	43.9	36.6
43	1.29	-0.06	0.19	0.07	-0.2	0.27	-0.35	0.15	62.9	49.4	51.9	50.7	48	52.7	46.5	51.5
44	-0.76	-1.13	-0.5	-1.12	-0.2	-0.71	-0.79	-1.3	42.4	38.7	45	38.8	48.4	42.9	42.1	37.3
45	-0.46	-0.87	-0.42	-0.52	-0.3	-0.92	-0.58	-1.1	45.4	41.3	45.8	44.8	47	40.8	44.2	39.5
46	-0.4	-1.17	1.69	-0.72	-0.6	-1.5	-0.84	-0.1	46	38.3	66.9	42.8	44	35	41.6	49.4
47	-0.55	-0.67	-0.53	0.11	-0.4	-0.85	-0.32	-1.6	44.5	43.3	44.7	51.1	46.4	41.5	46.8	33.6
48	-0.58	-1.55	-0.46	0.11	-0.2	-0.61	-0.19	-0.3	44.2	34.5	45.4	51.1	48.1	43.9	48.1	47
49	-0.71	-0.37	-0.17	-0.04	-0.7	-1.5	-0.14	-0.3	42.9	46.3	48.3	49.6	42.9	35	48.6	47.3
50	0.96	-0.91	1.73	-0.56	-0.2	-0.48	-0.64	-0.6	59.6	40.9	67.3	44.4	47.8	45.2	43.6	44.4
51	-0.28	-0.89	1.56	-0.51	0.16	-0.01	-0.9	0.19	47.2	41.1	65.6	44.9	51.6	49.9	41	51.9
52	1.13	-1	-0.4	-0.09	-0.4	0.7	-0.39	-0.2	61.3	40	46	49.1	45.7	57	46.1	47.5
53	1.24	0.01	1.43	-0.6	-1.4	-1.04	-0.49	-0.6	62.4	50.1	64.3	44	35.7	39.6	45.1	43.9
54	1.36	-1	-0.52	-0.71	-0.7	0.17	-0.19	0.68	63.6	40	44.8	42.9	42.6	51.7	48.1	56.8
55	-1.03	-0.91	1.43	-0.3	-0.3	-0.48	-0.08	0.1	39.7	40.9	64.3	47	46.5	45.2	49.2	51
56	-1.13	-1.19	-0.46	-0.48	-0.3	0.02	-0.88	-0.3	38.7	38.1	45.4	45.2	46.5	50.2	41.2	46.7
57	-0.24	-1.13	-0.28	-0.6	-0.2	-1.32	-0.65	1.01	47.6	38.7	47.2	44	48.5	36.8	43.5	60.1
58	-0.99	-1.07	-0.53	-0.41	0.42	-0.2	-0.74	-0.2	40.1	39.3	44.7	45.9	54.2	48	42.6	47.6
59	1.28	-0.89	-0.52	-0.92	-0.8	-0.48	-1.04	-0	62.8	41.1	44.8	40.8	41.7	45.2	39.6	49.8
60	1.3	-0.41	-0.4	0.11	-0.4	-0.35	-0.14	0.03	63	45.9	46	51.1	45.9	46.5	48.6	50.3
61	1.18	-1.55	-0.4	-0.92	-0	-0.21	-0.28	-0.2	61.8	34.5	46	40.8	49.9	47.9	47.2	47.9
62	-7	0.09	-1.37	-1.26	-1.4	-0.79	-1.35	-0.7	-20	50.9	36.3	37.4	36.1	42.1	36.5	42.8
63	-0.54	1.91	-0.45	1.31	1.21	1.12	2.43	1.75	44.6	69.1	45.5	63.1	62.1	61.2	74.3	67.5

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
64	0.14	-1.28	-0.57	-0.68	-0.6	-0.32	-0.63	-1	51.4	37.2	44.3	43.2	44.2	46.8	43.7	40
65	-0.35	1.1	0.91	1.33	1.56	1.51	0.85	1.19	46.5	61	59.1	63.3	65.6	65.1	58.5	61.9
66	-0.92	-0.53	-0.68	-0.86	-0.9	-0.23	-0.58	-0.3	40.8	44.7	43.2	41.4	41.2	47.7	44.2	46.8
67	0.81	-0.43	0.09	-0.91	-0.4	-0.22	-0.89	-0.3	58.1	45.7	50.9	40.9	46.2	47.8	41.1	46.9
68	-0.7	-0.37	-0.69	-0.6	0.35	-0.34	-1.28	-0.7	43	46.3	43.1	44	53.5	46.6	37.2	42.8
69	1.16	1.59	-1.01	1.31	1.65	2.47	1.72	1.68	61.6	65.9	39.9	63.1	66.5	74.7	67.2	66.8
70	-1.57	-0.8	-1.19	-1.02	-1.4	-0.98	-1.04	-0.6	34.3	42	38.1	39.8	35.8	40.2	39.6	44.4
71	-0.98	-0.2	-0.69	-0.15	-0.7	-1.53	0.02	-0.3	40.2	48	43.1	48.5	42.8	34.7	50.2	46.9
72	-1.59	-0.69	1.86	-0.63	-0.9	0.62	-0.58	-1.3	34.1	43.1	68.6	43.7	41.4	56.2	44.2	37.1
73	1	-0.37	-0.38	-0.53	-0.3	0.19	0.68	0.12	60	46.3	46.2	44.7	47	51.9	56.8	51.2
74	-0.67	-0.55	-0.82	-1.24	-0.7	-0.78	-0.67	-0.5	43.3	44.5	41.8	37.6	43.3	42.2	43.3	45
75	-0.79	2.03	-1	1.79	1.47	1.4	1.89	1.37	42.1	70.3	40	67.9	64.7	64	68.9	63.7
76	1.13	-0.37	1.55	-0.78	-0.1	-0.9	-1.02	-1.2	61.3	46.3	65.5	42.2	49.4	41	39.8	38.3
77	-0.83	-0.53	1.26	-0.62	-0.9	-0.6	-0.57	-0.6	41.7	44.7	62.6	43.8	41.4	44	44.3	44.4
78	1.43	1.43	1.05	1.25	1.67	1.63	1.62	1.94	64.3	64.3	60.5	62.5	66.7	66.3	66.2	69.4
79	1.68	-1	-0.3	-0.71	-0.6	-0.97	-0.75	-1.2	66.8	40	47	42.9	43.6	40.3	42.5	37.8
80	1.09	-0.92	-0.36	-0.37	-0.6	-0.68	-0.73	-0.4	60.9	40.8	46.4	46.3	43.8	43.2	42.7	45.7
81	1.09	-0.8	0.18	-0.25	-0.6	-0.06	-0.76	-1.3	60.9	42	51.8	47.5	43.8	49.4	42.4	37.3
82	1.37	-0.52	1.25	-0.72	-0.3	-0.53	-0.45	-0.8	63.7	44.8	62.5	42.8	46.8	44.7	45.5	42
83	1.13	-1.55	-0.4	0.11	-0.2	-0.61	-0.09	0.04	61.3	34.5	46	51.1	48.1	43.9	49.1	50.4
84	1.08	-1	-0.36	-0.64	-0.8	-1.22	-0.79	-1.6	60.8	40	46.4	43.6	41.7	37.8	42.1	33.6
85	1.44	-0.45	-1.19	-0.37	-0.7	-0.79	-0.41	-0.8	64.4	45.5	38.1	46.3	43.2	42.1	45.9	41.8
86	-0.79	-0.37	-0.6	-0.3	-0.3	-0.01	-0.54	-0.2	42.1	46.3	44	47	46.8	49.9	44.6	47.7
87	-0.22	-0.09	-0.52	-0.92	-0.5	-0.28	-0.28	-0.2	47.8	49.1	44.8	40.8	44.8	47.2	47.2	47.9
88	-0.9	-1.19	0.23	-0.25	-0.8	-0.69	-0.55	0.26	41	38.1	52.3	47.5	42.4	43.1	44.5	52.6
89	-1.17	0.28	1.74	-0.3	-0.8	0.23	-0.51	-0.1	38.3	52.8	67.4	47	42.4	52.3	44.9	48.9
90	-0.48	-1.19	-0.5	-0.58	-0.4	0.7	-0.62	-0.5	45.2	38.1	45	44.2	45.7	57	43.8	45.4
91	-0.45	-0.92	1.53	-0.19	-0	-0.22	-0.65	-1.7	45.5	40.8	65.3	48.1	49.7	47.8	43.5	33.5
92	-1.03	-0.68	0	-0.65	-0.2	-0.48	-0.89	-2	39.7	43.2	50	43.5	47.7	45.2	41.1	30.1
93	-0.86	-0.37	-0.44	-0.65	-0.5	-0.77	-0.94	-1.4	41.5	46.3	45.6	43.5	45	42.3	40.6	36.3
94	-0.62	-0.39	-0.35	-0.27	-0.2	-0.68	-0.52	-0.6	43.8	46.1	46.5	47.3	48.3	43.2	44.8	43.5
95	-0.74	-0.37	1.43	-0.1	-0.9	-0.61	-0.89	-0.1	42.6	46.3	64.3	49	41	43.9	41.1	48.6
96	-0.44	-0.52	-0.64	0.26	-0.3	-1.37	-0.79	-1.2	45.6	44.8	43.6	52.6	46.9	36.3	42.1	38.5
97	-0.4	-1.28	-1.19	-0.5	0.5	-0.47	-1.06	-0.1	46	37.2	38.1	45	55	45.3	39.4	48.7

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
98	-0.35	0.83	-0.52	-0.15	-0.6	0.51	-0.37	-0.8	46.5	58.3	44.8	48.5	44.1	55.1	46.3	41.8
99	-1.07	-0.55		-0.24	0.35	-0.33	-0.29	-0.4	39.3	44.5	50	47.6	53.5	46.7	47.1	45.8
100	-1.02	-0.91	1.61	-0.23	-0.1	-0.6	-0.36	-0.4	39.8	40.9	66.1	47.7	49	44	46.4	45.6
101	-0.01	1.27	-0.86	1.04	1.4	1.31	0.86	0.97	49.9	62.7	41.4	60.4	64	63.1	58.6	59.7
102	-0.98	-0.32	1.45	-0.46	-0.5	-0.77	-0.65	-0.8	40.2	46.8	64.5	45.4	45	42.3	43.5	42
103	-1.24	-0.57	2.01	-0.78	-0.8	0.45	-0.81	-0.7	37.6	44.3	70.1	42.2	42.2	54.5	41.9	42.7
104	0.21	-0.06	1.59	-0.04	-0.2	0.26	-0.42	-0.3	52.1	49.4	65.9	49.6	48	52.6	45.8	47
105	-1.01	-0.26	-1.06	-0.3	-1.4	-0.92	-0.49	-0.4	39.9	47.4	39.4	47	35.7	40.8	45.1	46
106	-0.18	-0.74	1.86	-1.26	-0.7	-0.6	-0.91	-1.2	48.2	42.6	68.6	37.4	43	44.1	40.9	38.5
107	-0.68	-0.61	-0.63	-0.59	-0.2	-0.67	-0.53	-0.4	43.2	43.9	43.7	44.1	48.4	43.3	44.7	46.3
108	-0.5	1.4	-0.04	1.32	1.36	1.31	1.29	1.29	45	64	49.6	63.2	63.6	63.1	62.9	62.9
109	0.79	-0.88	1.86	-0.95	-0.3	0.78	-0.24	1.28	57.9	41.2	68.6	40.5	47.4	57.8	47.6	62.8
110	-0.17	1.18	-0.63	1.18	1.02	0.89	1.1	0.75	48.4	61.8	43.7	61.8	60.2	58.9	61	57.5
111	-0.21	1.6	-0.67	1.79	2.2	1.36	1.44	2.02	47.9	66	43.3	67.9	72	63.6	64.4	70.2
112	-0.53	1.95	-1	2.06	1.83	1.51	1.44	1.37	44.7	69.5	40	70.6	68.3	65.1	64.4	63.7
113	-0.42	-1.19	1.35	-0.43	-0.5	-0.57	-0.99	-0.6	45.8	38.1	63.5	45.7	44.6	44.3	40.1	43.9
114	1.36	-1.14	-0.52	-0.59	-0.8	-0.08	-0.53	-0.4	63.6	38.6	44.8	44.1	41.9	49.2	44.7	46.5
115	1.22	-0.26	-0.82	-0.77	-1	-1.56	-1	-1	62.2	47.4	41.8	42.3	39.7	34.4	40	39.6
116	1.16	-0.44	-0.95	-0.61	-1	-0.47	-0.28	-0.4	61.6	45.6	40.5	43.9	40	45.3	47.2	45.6
117	-0.65	1.91	-0.34	1.88	1.96	2.59	1.71	1.4	43.5	69.1	46.6	68.8	69.6	75.9	67.1	64
118	-1.66	1.49	-0.71	1.49	2.03	1.65	1.17	1.22	33.4	64.9	42.9	64.9	70.3	66.5	61.7	62.2
119	-1.42	1.53	-0.46	1.88	1.11	1.66	1.81	1.26	35.8	65.3	45.4	68.8	61.1	66.6	68.1	62.6
120	-0.87	-0.67	1.43	-0.54	-0.4	-0.31	-0.3	-0.3	41.3	43.3	64.3	44.6	46.4	46.9	47	46.9
121	-0.94	-0.39	-0.46	-0.48	-0.2	-0.61	-0.58	1.15	40.6	46.1	45.4	45.2	48.2	43.9	44.2	61.5
122	-0	-1.78	-0.46	-0.68	-0.8	0.45	-0.57	-0.5	50	32.2	45.4	43.2	41.7	54.5	44.3	44.7
123	1.32	-0.32	-0.52	-0.19	-1.5	-1.74	-1.02	-1.7	63.2	46.8	44.8	48.1	35.4	32.6	39.8	33.5
124	1.32	-0.39	-0.3	-0.96	0.12	-0.21	0.18	0.09	63.2	46.1	47	40.4	51.2	47.9	51.8	50.9
125	-0.53	-0.92	-0.67	-0.23	-0.6	-0.68	-0.39	-0.5	44.7	40.8	43.3	47.7	43.8	43.2	46.1	44.6
126	1.19	-0.53	-0.52	-0.31	-0.8	-1.2	-0.94	-0.9	61.9	44.7	44.8	46.9	42	38	40.6	40.7
127	-0.45	-1.3	-0.59	-0.56	0.24	-0.04	-0.61	-0.4	45.5	37	44.1	44.4	52.4	49.6	43.9	46.2
128	0.81	-0.56	0.16	-0.59	-0.1	0.54	-0.39	-0.6	58.1	44.4	51.6	44.1	48.6	55.4	46.1	44.3
129	-0.45	-0.05	-0.46	-0.95	-1.3	-1.78	-0.84	-1.2	45.5	49.5	45.4	40.5	37.2	32.2	41.6	38.5
130	1.14	-0.89	-0.46	-0.07	-0.6	-0.69	-1.71	-0.4	61.4	41.1	45.4	49.3	43.8	43.1	32.9	45.7
131	-1.39	-0.55	-0.36	-0.4	0.38	0.27	-0.76	-0.5	36.1	44.5	46.4	46	53.8	52.7	42.4	45.3

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
132	-0.86	-0.05	0.04	-0.58	-1.3	-1.78	-0.45	-1.1	41.4	49.5	50.4	44.2	37.2	32.2	45.5	38.6
133	-0.12	-0.26	0.18	0.02	-0.9	-0.87	0.03	-0.4	48.8	47.4	51.8	50.2	41.3	41.3	50.3	45.8
134	-1.27	-0.89	-0.52	-0.79	-0.3	-0.69	-0.19	-0.1	37.3	41.1	44.8	42.1	46.9	43.1	48.1	48.6
135	-0.97	-0.46	1.66	-0.2	-0.1	0.55	-0.52	0.09	40.3	45.4	66.6	48	49	55.5	44.8	50.9
136	-0.32	-1.3	-1.11	-0.79	0.05	-0.29	-0.41	-1.1	46.8	37	38.9	42.1	50.5	47.1	45.9	39.5
137	-0.15	-1.28	-0.52	-0.59	-0.2	-0.29	-0.89	0.27	48.5	37.2	44.8	44.1	48	47.1	41.1	52.7
138	1.12	-1.19	-0.5	-0.75	-0.4	-0.85	-0.37	-0.2	61.2	38.1	45	42.5	46.5	41.5	46.3	47.6
139	0.86	-0.5	-0.4	-0.56	-0.8	0.45	-0.63	-0.6	58.6	45	46	44.4	41.6	54.5	43.7	44.4
140	0.85	-0.57	-0.46	-0.93	-0.8	-1.2	-1.07	-0.2	58.5	44.3	45.4	40.7	42.1	38	39.3	48
141	1.12	-1.03	-0.83	-0.65	-0.7	0.18	-0.58	-0.6	61.2	39.7	41.7	43.5	42.5	51.8	44.2	44.3
142	-0.93	-0.64	1.33	-0.07	-0	-0.24	-1.06	-0.8	40.7	43.6	63.3	49.3	50	47.6	39.4	42.1
143	-0.79	-0.37	1.64	-0.79	-0.1	-1.05	-0.34	-0.8	42.1	46.3	66.4	42.1	49.1	39.5	46.6	42
144	1.44	-1.19	1.44	-0.45	-0.8	-1.2	-1.14	-0.2	64.4	38.1	64.4	45.5	42	38	38.6	48.2
145	1.29	1.69	-0.45	2.58	1.94	2.11	2.43	1.88	62.9	66.9	45.5	75.8	69.4	71.1	74.3	68.8
146	-1.6	-1.17	-0.46	-1.33	-1.4	-1.2	-0.82	-1.7	34	38.3	45.4	36.7	36.1	38	41.9	32.8
147	1.18	1.4	1.66	1.77	2.03	1.37	1.38	1.76	61.8	64	66.6	67.7	70.3	63.7	63.8	67.6
148	1.29	-0.53	1.05	-0.44	-0.9	0.45	-0.69	-0.5	62.9	44.7	60.5	45.6	41.4	54.5	43.1	44.6
149	1.2	-0.16	-1.08	-1.75	-1.9	-1.23	-0.67	-1.4	62	48.4	39.2	32.5	31.3	37.7	43.3	36.2
150	-0.71	-0.78	0.77	-0.04	1.45	1.51	-0.16	-0.7	42.9	42.2	57.7	49.6	64.5	65.1	48.4	43.1
151	-0.38	1.41	0.8	1.95	2.16	1.55	1.81	1.28	46.2	64.1	58	69.5	71.6	65.5	68.1	62.8
152	0.94	-1.02	-1.03	-0.72	-1.1	-0.99	-0.94	-1.3	59.4	39.8	39.7	42.8	38.9	40.1	40.6	36.7
153	-1.29	-0.73	-1.13	-0.28	-0.5	-1.78	0.11	-0.2	37.1	42.7	38.7	47.2	45	32.2	51.1	47.7
154	-0.37	1.6	-0.82	1.66	1.76	1.76	0.94	1.75	46.3	66	41.8	66.6	67.6	67.6	59.4	67.5
155	-0.55	-0.55	1.82	-0.31	-0.9	-1.22	-0.81	-0.8	44.5	44.5	68.2	46.9	41.3	37.8	41.9	41.5
156	-0.5	2.03	1.95	1.59	1.47	1.02	1.67	1.15	45	70.3	69.5	65.9	64.7	60.2	66.7	61.5
157	-1.06	1.45	-0.86	1.28	1.64	1.15	1.4	2.02	39.4	64.5	41.4	62.8	66.4	61.5	64	70.2
158	-0.73	2.03	-0.45	1.49	1.83	1.03	1.09	1.37	42.7	70.3	45.5	64.9	68.3	60.3	60.9	63.7
159	-1.91	1.56	-0.76	1.04	1.51	0.91	1.62	1.15	30.9	65.6	42.4	60.4	65.1	59.1	66.2	61.5
160	-0.5	-0.91	-0.79	-1.02	-0.2	-0.48	-0.53	0.16	45	40.9	42.1	39.8	47.7	45.2	44.7	51.6
161	-0.48	-1.52	1.41	-0.57	-0.6	1	-0.94	-0.3	45.2	34.8	64.1	44.3	44	60	40.6	46.9
162	-1.45	-1.14	-0.64	-0.65	-0.7	-0.85	-0.61	-0.8	35.5	38.6	43.6	43.5	43.3	41.5	43.9	41.9
163	-1.56	-0.32	-0.46	-0.84	-1.5	-1.04	-0.65	-0.6	34.4	46.8	45.4	41.6	35.4	39.6	43.5	43.9
164	-0.67	-0.8	-0.44	-0.24	0.23	-0.02	-0.57	-0.4	43.3	42	45.6	47.6	52.3	49.8	44.3	46.5
165	1.1	-0.63	1.61	-0.06	-0.6	-0.29	0.03	-0.4	61	43.7	66.1	49.4	44.1	47.1	50.3	45.8

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
166	1.43	-1.3	-0.53	-0.58	-0.6	-0.71	-0.46	-1.1	64.3	37	44.7	44.2	44.4	42.9	45.4	39.5
167	1.31	-1.19	-0.73	0.16	0.53	-0.47	-0.72	-0.9	63.1	38.1	42.7	51.6	55.3	45.3	42.8	40.9
168	1.3	-0.48	-0.3	-0.37	-0.9	-1.78	-1.14	-1.2	63	45.2	47	46.3	40.9	32.2	38.6	38.3
169	-0.89	-0.37	-0.36	-0.81	-0.5	0.17	-0.89	-1.4	41.1	46.3	46.4	41.9	45	51.7	41.1	36.3
170	1.12	-1.3	1.42	-1	-0.1	-1.1	-0.56	-0.5	61.2	37	64.2	40	49	39	44.4	44.6
171	1.18	-0.73	-0.46	-0.6	-0.3	0.77	-0.26	-0.4	61.8	42.7	45.4	44	46.5	57.7	47.4	46.5
172	1.2	-0.2	0.28	-0.59	-0.3	-0.54	-0.45	-0.3	62	48	52.8	44.1	46.8	44.6	45.5	46.9
173	-0.89	-0.37	0.77	-0.13	-0.3	-0.01	-0.39	-0.5	41.1	46.3	57.7	48.7	46.8	49.9	46.1	44.8
174	1.11	-0.99	-0.53	-0.73	-1	-0.47	-0.84	-0.1	61.1	40.1	44.7	42.7	39.9	45.3	41.6	48.6
175	1.17	-0.72	-0.8	-0.65	-0.5	0.16	-0.84	-1.2	61.7	42.8	42	43.5	44.6	51.6	41.6	38.2
176	-0.75	-0.32	-0.46	-0.86	-1.5	-1.04	0.06	-0.6	42.5	46.8	45.4	41.4	35.4	39.6	50.6	43.9
177	-0.91	-0.26	-0.5	-0.3	-1.4	-0.92	-0.98	-0.4	40.9	47.4	45	47	35.7	40.8	40.2	45.8
178	1.23	-1.04	-0.44	-0.92	-0.7	-1.16	-0.19	0.12	62.3	39.6	45.6	40.8	42.6	38.4	48.1	51.2
179	1.11	-0.37	0.17	-0.65	-0.3	-0.47	-0.56	-0.5	61.1	46.3	51.7	43.5	46.7	45.3	44.4	45.3
180	-1.11	1.43	-1.08	1.71	1.67	1.63	1.88	1.15	38.9	64.3	39.2	67.1	66.7	66.3	68.8	61.5
181	1.03	1.62	-0.52	1.21	1.25	1.44	1.47	1.09	60.3	66.2	44.8	62.1	62.5	64.4	64.7	60.9
182	1.33	1.8	-0.52	1.05	1.4	1.32	1.03	1.36	63.3	68	44.8	60.5	64	63.2	60.3	63.6
183	-0.74	1.89	1.53	1.82	1.96	1.44	1.71	1.76	42.6	68.9	65.3	68.2	69.6	64.4	67.1	67.6
184	1.03	-1.52	1.53	-0.64	-0.6	0.51	-0.42	-0.3	60.3	34.8	65.3	43.6	44	55.1	45.8	46.9
185	1.39	-0.32	1.62	-0.36	-0.4	-0.85	-1.05	-0.7	63.9	46.8	66.2	46.4	46.4	41.5	39.5	42.8
186	0.84	-0.78	1.44	-0.54	-0.2	-0.83	-0.65	-0.9	58.4	42.2	64.4	44.6	47.9	41.7	43.5	41.3
187	0.07	0.09	0.09	-0.71	-1.3	-0.99	-0.77	-0.6	50.7	50.9	50.9	42.9	36.7	40.1	42.3	43.5
188	-1.34	-0.8	-1.03	0.79	-0.7	-0.79	-0.79	-0.6	36.6	42	39.7	57.9	43.2	42.1	42.1	43.7
189	-1.32	-0.32	0.2	0.05	0.3	-0.3	-0.05	0.48	36.8	46.8	52	50.5	53	47	49.5	54.8
190	-0.74	-0.55	-0.03	-1.04	-1	-1.67	-0.51	-1.2	42.6	44.5	49.7	39.6	39.7	33.3	44.9	38.1
191	-0.51	-0.62	-0.64	-0.31	-0.8	-0.67	-0.65	-1.3	44.9	43.8	43.6	46.9	42.4	43.3	43.5	37.1
192	-0.69	-0.18	-0.79	-0.26	0.72	-0	0.15	0.18	43.1	48.2	42.1	47.4	57.2	50	51.5	51.8
193	-1.15	-0.55	-1.1	-1.04	-1	0.45	-0.78	-0.6	38.5	44.5	39	39.6	39.8	54.5	42.2	44.3
194	1.28	-0.92	-0.67	-0.21	-0.6	-0.68	-0.39	-0.5	62.8	40.8	43.3	47.9	43.8	43.2	46.1	44.6
195	1.31	-0.61	1.72	0.26	-0.2	-0.71	-0.94	-0.8	63.1	43.9	67.2	52.6	48.4	42.9	40.6	41.8
196	-1.35	-1.17	-0.79	-0.73	-0.7	-0.77	-1.31	-0.6	36.5	38.3	42.1	42.7	43.1	42.3	36.9	44.3
197	-0.68	-1.44	-1.06	-0.77	-0.6	-1.74	-0.65	-0.3	43.2	35.6	39.4	42.3	44	32.6	43.5	47.2
198	-0.45	-1.19	-0.66	-0.37	-0.3	0.7	-0.19	-0.1	45.5	38.1	43.4	46.3	46.9	57	48.1	49.3
199	1.12	-1.01	1.64	-0.73	-0.7	-1.53	-0.82	-1	61.2	39.9	66.4	42.7	42.8	34.7	41.8	40.3

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
200	1.2	-0.39	-0.15	-0.21	-0.2	-0.68	-0.52	-0.6	62	46.1	48.5	47.9	48.4	43.2	44.8	43.8
201	-0.94	-1.78	-0.91	-0.07	-0.3	0.13	-0.63	-1.1	40.6	32.2	40.9	49.3	47.2	51.3	43.7	39.3
202	-0.98	-0.37	-1.37	-0.55	-0	-0.46	-0.5	-0.8	40.2	46.3	36.3	44.5	49.6	45.4	45	42
203	1	-0.56	1.43	-0.65	-0.1	0.45	-0.31	-0.4	60	44.4	64.3	43.5	48.6	54.5	46.9	46.3
204	1.23	-0.37	1.53	-0.64	-0.8	-1.22	-0.86	-0.4	62.3	46.3	65.3	43.6	41.8	37.8	41.4	45.5
205	-0.52	-0.39	1.23	-0.82	0.12	-0.21	-0.89	0.79	44.8	46.1	62.3	41.8	51.2	47.9	41.1	57.9
206	1.36	-0.56	0.91	-0.3	-0.1	-0.68	-0.31	-0.3	63.6	44.4	59.1	47	48.6	43.2	46.9	46.9
207	1.26	-0.2	-0.54	-0.43	-0.6	-0.53	-0.89	-0.2	62.6	48	44.6	45.7	44.3	44.7	41.1	47.5
208	-1.24	-0.91	-0.38	-0.52	-0.2	-0.48	-0.87	-1.2	37.6	40.9	46.2	44.8	47.8	45.2	41.3	38.2
209	-0.91	-0.89	1.43	-0.37	-0.4	0.16	-0.4	-0.3	40.9	41.1	64.3	46.3	45.7	51.6	46	47.2
210	-1.03	-0.86	1.26	-0.67	-0.7	-0.53	-0.42	-0.5	39.8	41.4	62.6	43.3	43.1	44.7	45.8	44.7
211	-0.38	-0.46	-0.36	-0.37	-0.9	0.07	-0.4	-0.3	46.2	45.4	46.4	46.3	41.4	50.7	46	47.2
212	-0.65	-0.39	-1.06	-0.15	0.14	-0.49	0.02	-0.1	43.5	46.1	39.4	48.5	51.4	45.1	50.2	49.1
213	-0.76	-0.46	-0.15	-0.5	-0.9	0.62	-0.35	-0.1	42.4	45.4	48.5	45	41.3	56.2	46.5	49
214	-0.79	-0.62	1.34	-1	-0.2	0.7	-0.64	-0.2	42.1	43.8	63.4	40	47.9	57	43.6	47.8
215	0.87	-0.5	1.43	-0.56	-0.8	0.45	-0.63	-0.6	58.7	45	64.3	44.4	41.7	54.5	43.7	44.4
216	-0.49	-0.43	1.79	-0.19	-1	0.45	-0.87	-0.3	45.1	45.7	67.9	48.1	40.4	54.5	41.3	46.9
217	1.22	-0.39	-0.15	-0.64	-0.7	0.46	-0.08	-0.3	62.2	46.1	48.5	43.6	42.6	54.6	49.2	46.9
218	1.28	-1.55	-0.52	-0.49	-0.2	-0.64	-1.01	-0.9	62.8	34.5	44.8	45.1	48	43.6	39.9	41.3
219	1.12	-0.86	-0.36	-0.67	-0.7	-0.53	-0.42	-0.5	61.2	41.4	46.4	43.3	43.1	44.7	45.8	44.7
220	-1.05	-0.72	0	-0.98	-1.7	-0.77	-0.63	-0.8	39.5	42.8	50	40.2	32.7	42.3	43.7	42
221	-0.8	0.31	0.25	0.08	-0.2	-0.82	-0.02	0.27	42	53.1	52.5	50.8	47.9	41.8	49.8	52.7
222	-0.72	-1.02	-0.6	-0.58	-0.5	-0.48	-0.67	-1.2	42.8	39.8	44	44.2	44.7	45.2	43.3	38.2
223	1.23	-0.84	-0.66	-0.82	-1.4	-1.21	-1.03	-2	62.3	41.6	43.4	41.8	36.1	37.9	39.7	30.1
224	1.14	-0.05	-0.69	0.16	-0.2	-0.02	-0.26	0.01	61.4	49.5	43.1	51.6	48.1	49.9	47.4	50.1
225	-0.94	-1.28	-1.29	-1.74	-1.2	-0.87	-1.27	-0.8	40.6	37.2	37.1	32.6	38.2	41.3	37.3	41.5
226	-1.23	-0.9	-0.63	-0.3	-0.2	-0.35	-1.07	-1.3	37.7	41	43.7	47	47.8	46.5	39.3	36.7
227	-0.45	1	-1.29	1.79	1.88	1.64	1.77	1.92	45.5	60	37.1	67.9	68.8	66.4	67.7	69.2
228	-0.27	1.98	-0.18	1.76	1.83	1.51	1.62	2.7	47.3	69.8	48.2	67.6	68.3	65.1	66.2	77
229	1.13	-0.64	-0.46	-1.21	-1.2	-1.93	-1.66	-1.3	61.3	43.6	45.4	38	38.2	30.7	33.4	37.1
230	-1.02	-0.69	-1.03	-0.55	-0.9	-0.6	-0.72	-0.4	39.8	43.1	39.7	44.5	41.4	44	42.8	46.2
231	-1.12	-0.26	-0.43	-0.03	0.22	-0.41	-1.06	0.63	38.8	47.4	45.7	49.7	52.2	45.9	39.4	56.3
232	1.09	1.47	0.28	1.89	1.94	1.86	1.6	1.81	60.9	64.7	52.8	68.9	69.4	68.6	66	68.1
233	-0.63	1	2.03	1.49	1.9	1.77	1.57	2.83	43.7	60	70.3	64.9	69	67.7	65.7	78.3

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
234	-0.55	2.68	1.22	1.82	1.78	1.76	1.86	0.97	44.5	76.8	62.2	68.2	67.8	67.6	68.6	59.7
235	-0.88	2.44	0.19	1.42	2.47	1.74	1.77	1.61	41.2	74.4	51.9	64.2	74.7	67.4	67.7	66.1
236	-1.02	-0.7	-0.74	-0.76	-0.3	-0.35	-0.79	0.04	39.8	43	42.6	42.4	47.2	46.5	42.1	50.4
237	-0.76	-0.53	-1	-0.91	-0.8	-1.1	-0.65	-0.3	42.4	44.7	40	40.9	42.4	39	43.5	46.7
238	1.22	0.09	0.38	-0.55	0.31	-0.3	0.22	0.27	62.2	50.9	53.8	44.5	53.1	47	52.2	52.7
239	1.23	-0.78	1.45	-0.3	-0.8	0.77	-0.54	-1.4	62.3	42.2	64.5	47	42.3	57.7	44.6	35.8
240	1.44	-0.44	-0.38	-0.91	-0.6	-0.52	-0.29	-0.2	64.4	45.6	46.2	40.9	44.3	44.8	47.1	47.8
241	-0.87	-1.19	1.47	-0.38	-0.3	0.05	-0.84	0.09	41.3	38.1	64.7	46.2	46.5	50.5	41.6	50.9
242	-1.03	-1.28	1.43	-0.76	-0.5	-0.77	-1.18	-1	39.7	37.2	64.3	42.4	44.8	42.3	38.2	39.6
243	-1.5	-0.2	-0.74	-0.4	-0.7	0.23	-0.02	-0.4	35	48	42.6	46	42.6	52.3	49.8	46.4
244	1.31	-0.84	-0.75	-0.35	-0.3	-0.79	-0.24	-0.1	63.1	41.6	42.5	46.5	47.3	42.1	47.6	49.1
245	1.4	-1.3	-0.53	-0.5	-0.1	-0.9	-0.94	-0.8	64	37	44.7	45	49.4	41	40.6	41.8
246	1.19	-0.52	0.18	-0.59	-0.2	0.3	-0.9	-0.4	61.9	44.8	51.8	44.1	48.1	53	41	45.8
247	0.87	-0.92	-0.46	-0.07	-0	-0.22	0.22	-0.3	58.7	40.8	45.4	49.3	49.8	47.8	52.2	46.9
248	1.16	-0.62	1.74	-0.19	-0.7	-0.79	-0.5	-0.1	61.6	43.8	67.4	48.1	43.2	42.1	45	49.4
249	1.33	-0.89	-0.59	-0.59	-0.4	-0.22	-0.03	-0.3	63.3	41.1	44.1	44.1	46	47.8	49.7	46.9
250	-1.08	-0.26	0.18	-0.3	-1.4	-0.9	-0.99	-0.4	39.2	47.4	51.8	47	35.7	41	40.1	45.8
251	-0.81	-0.2	1.22	-0.49	-0.5	0.26	-0.98	-1.1	41.9	48	62.2	45.1	45.3	52.6	40.2	39.5
252	-0.98	-0.4	1.56	0.11	-0.4	0.01	-0.28	0.03	40.2	46	65.6	51.1	45.9	50.1	47.2	50.3
253	-0.94	-0.56	-0.01	-0.31	-0.1	0.1	-0.31	-0.4	40.6	44.4	49.9	46.9	48.6	51	46.9	46.3
254	-0.38	-1	-0.52	-0.35	-0.5	-0.77	-0.81	-0.4	46.2	40	44.8	46.5	44.9	42.3	41.9	45.7
255	0.94	-0.69	-0.89	-0.19	1.01	1.11	0.49	-0	59.4	43.1	41.1	48.1	60.1	61.1	54.9	49.7
256	-0.77	-1.3	0.31	-0.71	-0.5	-0.19	-1.25	-0.6	42.3	37	53.1	42.9	45.3	48.1	37.5	44.3
257	-0.89	-0.49	-0.52	-0.57	-0.8	-0.48	-0.58	-0.6	41.1	45.1	44.8	44.3	41.6	45.2	44.2	44.4
258	-0.91	-1.43	-0.21	-0.19	1.11	1.66	-0.58	-1.7	40.9	35.7	47.9	48.1	61.1	66.6	44.2	33.5
259	-1.27	-0.28	-0.21	-1.04	-0.5	-1.45	-0.42	-0.1	37.3	47.2	47.9	39.6	45.5	35.5	45.8	48.6
260	-0.48	0.11	-1.02	-1.1	-1.4	-0.79	-1.25	-0.9	45.2	51.1	39.8	39	36.1	42.1	37.5	40.7
261	-0.94	-0.09	-0.13	-0.59	-0.1	-0.92	0.65	-0.1	40.6	49.1	48.7	44.1	49.3	40.8	56.5	49.4
262	-0.23	1.37	-0.79	1.71	1.76	2.54	1.71	2.37	47.7	63.7	42.1	67.1	67.6	75.4	67.1	73.7
263	-0.8	1.62	1.22	1.44	1.79	1.12	1.56	1.87	42	66.2	62.2	64.4	67.9	61.2	65.6	68.7
264	-0.58	1.42	0.61	2.01	2.09	1.99	2.43	1.45	44.2	64.2	56.1	70.1	70.9	69.9	74.3	64.5
265	-0.3	-0.55	1.73	-0.69	-0.7	-0.86	-1.18	-1	47	44.5	67.3	43.1	43.3	41.4	38.2	40.4
266	-0.84	-0.78	-0.12	-0.27	-0.3	-0.87	-0.22	-0.1	41.6	42.2	48.8	47.3	46.5	41.3	47.8	49.1
267	-0.76	-0.08	-0.46	0.08	-0.6	0.26	-0.53	-0.8	42.4	49.2	45.4	50.8	43.8	52.6	44.7	42.2

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
268	1.23	-0.83	-0.52	-1.75	-1.1	-1.74	1.88	-1.4	62.3	41.7	44.8	32.5	38.7	32.6	68.8	35.8
269	-0.49	0.46	-0.57	0.22	-0.6	0.51	0.92	-0.4	45.1	54.6	44.3	52.2	44.3	55.1	59.2	46.5
270	1.3	-1.04	1.61	-0.4	-0.7	0.48	-0.16	-0.5	63	39.6	66.1	46	42.7	54.8	48.4	45
271	1.02	-0.74	-1.19	-1.68	-0.7	-1.5	-0.99	-0.6	60.2	42.6	38.1	33.2	42.9	35	40.1	44.3
272	1.3	-0.24	1.5	-0.95	-0.7	0	-0.09	-0.4	63	47.6	65	40.5	42.5	50	49.1	46.2
273	1.31	-0.64	-0.51	-0.63	-0	0.16	-0.22	-0.7	63.1	43.6	44.9	43.7	49.9	51.6	47.8	43.1
274	1.31	-0.04	1.78	-1.02	-1.2	-0.24	-0.92	-0.8	63.1	49.6	67.8	39.8	38.1	47.6	40.8	41.5
275	1.5	0.09	-0.57	-0.07	0.16	0.34	-0	0.01	65	50.9	44.3	49.3	51.6	53.4	50	50.1
276	1.33	1.49	-0.59	1.8	1.66	1.58	1.88	1.04	63.3	64.9	44.1	68	66.6	65.8	68.8	60.4
277	1.29	1.91	1.53	1.82	1.96	1.32	1.56	1.76	62.9	69.1	65.3	68.2	69.6	63.2	65.6	67.6
278	1.45	2.03	-1.81	1.87	1.79	1.65	1.89	2.06	64.5	70.3	31.9	68.7	67.9	66.5	68.9	70.6
279	1.31	1.1	-0.45	1.49	1.12	1.73	1.67	1.8	63.1	61	45.5	64.9	61.2	67.3	66.7	68
280	-0.72	-1.14	0.16	-0.52	-0.8	-1.2	-0.62	-0.5	42.8	38.6	51.6	44.8	42.3	38	43.8	45.3
281	-1.05	-1.14	-0.65	-0.68	-0.6	-0.52	-0.31	-0.6	39.5	38.6	43.5	43.2	44.3	44.8	46.9	44.3
282	-0.93	-0.94	0.1	-0.19	-0.4	0.45	-0.93	-0.9	40.7	40.6	51	48.1	45.7	54.5	40.7	40.9
283	0.99	-0.37	-0.21	-0.13	-0.1	-0.28	-0.13	-0.7	59.9	46.3	47.9	48.7	49.2	47.2	48.7	43.1
284	1.41	-0.55	-0.74	-0.42	-0.7	-1.5	-0.19	-0.4	64.1	44.5	42.6	45.8	42.8	35	48.1	46.3
285	1.41	-0.62	1.17	-0.07	-0.6	-0.23	0.03	-1.4	64.1	43.8	61.7	49.3	44.1	47.7	50.3	35.6
286	-0.67	-0.62	-0.95	-0.49	-0.8	-1.2	-0.84	0.64	43.3	43.8	40.5	45.1	42	38	41.6	56.4
287	-1.42	-0.94	-0.59	-0.33	0.9	1.34	-1.1	0.19	35.8	40.6	44.1	46.8	59	63.4	39	51.9
288	-1.02	0.31	-0.53	-0.19	0.04	0.38	-0.21	-0	39.8	53.1	44.7	48.1	50.4	53.8	47.9	49.6
289	-0.85	-1.29	-0.5	-1.02	-0.6	-0.68	-0.41	-1.1	41.5	37.1	45	39.8	43.8	43.2	45.9	39.5
290	-0.52	-1.03	-0.8	-0.37	0.03	-0.53	-0.21	0.59	44.8	39.7	42	46.3	50.3	44.7	47.9	55.9
291	-0.25	0.08	-0.74	-0.78	-0.8	-1.13	-1.28	-0.7	47.5	50.8	42.6	42.2	42.3	38.7	37.2	43.3
292	-0.74	-0.06	-0.76	-0.12	-0.2	0.38	-0.02	0.26	42.6	49.4	42.4	48.8	48	53.8	49.8	52.6
293	-0.31	-0.69	1.2	-0.59	-0.2	-1.16	-0.05	-0.3	46.9	43.1	62	44.1	48	38.4	49.5	46.9
294	-0.49	0.19	0.18	0.52	-0.6	0.42	-1.04	-1	45.1	51.9	51.8	55.2	44.3	54.2	39.6	39.8
295	-0.38	-0.52	-0.21	0.26	-0.3	-1.32	-0.79	-1.1	46.2	44.8	47.9	52.6	46.9	36.8	42.1	38.6
296	-0.69	-0.61	-0.3	-1.01	-0.8	-1.13	-0.76	-0.5	43.1	43.9	47	39.9	42.4	38.7	42.4	44.8
297	-0.35	-0.96	1.66	-0.65	-0.8	-1.22	-0.38	-1.6	46.5	40.4	66.6	43.5	41.7	37.8	46.2	33.9
298	1.35	-0.32	-0.51	-0.71	-0.9	-0.48	-0.8	-0.7	63.5	46.8	44.9	42.9	40.8	45.2	42	42.7
299	1.2	-0.8	-0.01	-0.38	-0.3	-0.46	-0.36	-0.4	62	42	49.9	46.2	46.8	45.4	46.4	45.8
300	1.16	2	-1.81	1.79	1.83	1.76	2.47	1.76	61.6	70	31.9	67.9	68.3	67.6	74.7	67.6
301	1.36	-0.83	-1.37	-1.84	-1.2	-1.84	1.67	-1.4	63.6	41.7	36.3	31.6	38.5	31.6	66.7	35.8

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
302	1.21	1.23	-0.77	1.21	1.52	2	2.1	1.11	62.1	62.3	42.3	62.1	65.2	70	71	61.1
303	1.31	1.9	-0.58	1.04	0.91	0.78	1.04	0.68	63.1	69	44.2	60.4	59.1	57.8	60.4	56.8
304	1.07	1.3	0.01	1.06	1.47	1.02	1.17	1.37	60.7	63	50.1	60.6	64.7	60.2	61.7	63.7
305	1.18	-0.7	-0.82	-1.24	-1.2	-0.6	-1.1	-1.4	61.8	43	41.8	37.6	38.2	44.1	39	35.6
306	0.99	1.49	-0.57	0.89	1	0.83	1.03	1.15	59.9	64.9	44.3	58.9	60	58.3	60.3	61.5
307	1.73	-0.78	1.67	-0.78	-1	-1.67	-1	-1.4	67.3	42.2	66.7	42.2	39.7	33.3	40	36.2
308	1.32	-0	1.8	-0.62	-1.2	-1.2	-1.19	-1.5	63.2	50	68	43.8	37.9	38	38.1	34.8
309	1.47	-1.05	-0.44	-0.13	-0.4	-0.22	-0.49	-0.9	64.7	39.6	45.6	48.7	46.1	47.8	45.1	41
310	-0.95	-1.55	1.73	-1	-0.9	-0.27	-0.61	-1.1	40.5	34.5	67.3	40	40.6	47.3	43.9	39.4
311	1.11	1.1	2.1	1.28	1.54	1.49	0.85	0.02	61.1	61	71	62.8	65.4	64.9	58.5	50.2
312	1.5	-0.7	0.31	-0.58	-0.1	-0.4	-0.96	-0.9	65	43	53.1	44.2	49	46	40.4	41
313	-1.03	1.06	-0.81	1.28	1.77	1.49	1.88	1.09	39.7	60.6	41.9	62.8	67.7	64.9	68.8	60.9
314	1.17	1.11	1.66	1.28	1.54	1.49	1.52	0.26	61.7	61.1	66.6	62.8	65.4	64.9	65.2	52.6
315	1.07	-0.37	1.45	-1.04	-0.9	-0.77	-0.55	-0.9	60.7	46.3	64.5	39.6	40.8	42.3	44.5	41
316	1	-0.37	-0.46	-1.05	-0.8	-1.37	-0.7	-0.8	60	46.3	45.4	39.5	42.2	36.3	43	42.3
317	1.42	1.62	0.01	1.77	1.94	1.86	1.44	1.8	64.2	66.2	50.1	67.7	69.4	68.6	64.4	68
318	0.97	1.74	-0.77	1.75	2.03	1	1.62	1.8	59.7	67.4	42.3	67.5	70.3	60	66.2	68
319	-0.65	-1.78	-0.53	-0.95	-0.9	0.23	-0.65	-1.4	43.5	32.2	44.7	40.5	41	52.3	43.5	35.7
320	1.28	-0.73	-0.9	-1.28	-0.9	-1.78	-1.13	-2	62.8	42.7	41	37.2	40.9	32.2	38.7	30.1
321	1.61	-0.78	-0.53	-0.81	-1	-0.47	-0.82	-0.5	66.1	42.2	44.7	41.9	39.9	45.3	41.8	45.3
322	-0.61	-1.19	-0.1	-0.52	-1	-1.84	-0.79	-0.5	43.9	38.1	49	44.8	39.9	31.6	42.1	45.2
323	1.12	-0.55	-0.24	-0.79	-0.9	0.19	-0.52	-0.6	61.2	44.5	47.6	42.1	41.4	51.9	44.8	44.2
324	1.16	-0.53	-0.74	-0.88	-0.8	-0.88	-0.46	-0.3	61.6	44.7	42.6	41.2	42.4	41.2	45.4	46.7
325	-0.46	-0.18	-0.01	-1.24	-1.3	-1.74	-1.27	-0.4	45.4	48.2	49.9	37.6	37.2	32.6	37.3	46.3
326	-1.09	-0.37	-0.5	-0.4	-0.6	-0.01	-0.89	-0.9	39.1	46.3	45	46	44	49.9	41.1	40.7
327	1.32	-0.01	-1.29	-0.43	-1.2	-0.79	-1.14	-1.7	63.2	49.9	37.1	45.7	38.1	42.1	38.6	33.1
328	-0.6	0.2	1.42	-0.07	-0.6	-0.72	-0.53	-1	44	52	64.2	49.3	44.3	42.8	44.7	40
329	1.34	-1.03	-0.94	-0.43	0.03	0.27	-0.79	-0	63.4	39.7	40.7	45.7	50.3	52.7	42.1	49.6
330	-0.61	-0.94	-0.7	-0.95	-0.5	-1.22	-1.18	-1.4	43.9	40.6	43	40.5	44.5	37.8	38.2	35.6
331	1.69	-0.91	1.68	-0.78	-0.7	0.17	-1.69	-0.6	66.9	40.9	66.8	42.2	42.6	51.7	33.1	44.1
332	1.51	-0.46	-0.82	0.06	-0.6	-1.45	-1.71	-1.3	65.1	45.4	41.8	50.6	43.6	35.5	32.9	36.7
333	1.13	-0.37	-0.3	-0.27	-0.3	-0.02	-0.56	-0.2	61.3	46.3	47	47.3	46.8	49.8	44.4	48.2
334	-0.18	-0.55	1.2	-0.23	0.2	-0.17	-0.28	0.21	48.2	44.5	62	47.7	52	48.3	47.2	52.1
335	-0.93	-0.62	-0.33	-0.8	-0.8	0.01	-0.65	-1.3	40.7	43.8	46.7	42	42.4	50.1	43.5	37.1

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
336	-0.7	-1.02	-0.29	-0.78	0.03	-0.35	-0.52	-0.1	43	39.8	47.1	42.2	50.3	46.5	44.8	49.5
337	-0.79	-0.62	-1.29	-0.55	-0.8	-0.61	-1.22	-0.7	42.1	43.8	37.1	44.5	42.3	43.9	37.8	42.6
338	-0.81	-0.78	-0.3	-1.38	-1.1	-1.23	-0.64	-1.3	41.9	42.2	47	36.2	39.4	37.7	43.6	37.1
339	-1.43	0.11	2.07	-0.41	-0.6	-0.23	-0.89	-0.8	35.7	51.1	70.7	45.9	43.8	47.7	41.1	41.8
340	-1.31	1.1	-0.58	1.62	1.12	0.91	1.48	0.86	36.9	61	44.2	66.2	61.2	59.1	64.8	58.6
341	-1.46	-0.53	1.79	-0.71	-0.9	-0.84	-0.64	-1.3	35.4	44.7	67.9	42.9	41.4	41.6	43.6	36.7
342	-0.81	1.62	-0.51	1.58	1.32	1.75	1.48	1.12	41.9	66.2	44.9	65.8	63.2	67.5	64.8	61.2
343	-0.63	-1.19	0.1	-0.21	-0.5	-0.87	-1.69	-1.3	43.7	38.1	51	47.9	44.6	41.3	33.1	37.1
344	-0.86	-0.49	-0.4	-1.28	-1.3	-0.98	-1.13	-1.9	41.4	45.1	46	37.2	36.7	40.2	38.7	31.4
345	-1.08	-1.19	-0.79	-1.04	-0.5	-0.01	-1.69	-0.5	39.2	38.1	42.1	39.6	44.6	49.9	33.1	45.3
346	-0.31	1.1	-0.87	1.2	1.5	1.66	1.59	1.37	46.9	61	41.3	62	65	66.6	65.9	63.7
347	-1.04	-0.13	-0.53	-0.76	-0.5	-0.71	-0.45	-1.1	39.6	48.7	44.7	42.4	44.5	42.9	45.5	38.8
348	1.17	-0.47	1.43	-1.32	-0.9	-1.45	-0.29	-0.1	61.7	45.3	64.3	36.8	40.9	35.5	47.1	49
349	1.52	-1.29	-0.7	-0.75	-0.6	-0.72	-1.09	-1.1	65.2	37.1	43	42.5	44.4	42.8	39.1	39.5
350	1	1.43	-0.63	1.5	1.14	1.74	0.86	1.04	60	64.3	43.7	65	61.4	67.4	58.6	60.4
351	1.44	1.06	0.75	1.18	1.76	1.64	1.7	1.9	64.4	60.6	57.5	61.8	67.6	66.4	67	69
352	1.29	1.62	1.19	1.51	1.93	0.89	1.62	1.8	62.9	66.2	61.9	65.1	69.3	58.9	66.2	68
353	-1.03	-0.68	-0.95	-0.7	-0.3	-0.56	-0.79	-1	39.7	43.2	40.5	43	47.2	44.4	42.1	39.7
354	-0.69	-1.28	-0.01	-1.3	-1.7	-0.28	-1.71	-2.1	43.1	37.2	49.9	37	33.1	47.2	32.9	28.7
355	-1.31	2.03	-0.21	1.32	1.25	1.29	0.81	1.18	36.9	70.3	47.9	63.2	62.5	62.9	58.1	61.8
356	-1.41	-1.78	-0.7	-1.64	-0.9	0.06	-1.31	-1.2	35.9	32.2	43	33.6	41.4	50.6	36.9	37.8
357	-0.97	-0.72	-0.5	-0.59	-0.5	-0.36	-1.71	-0.8	40.3	42.8	45	44.1	44.6	46.4	32.9	42
358	-0.4	1.37	-0.38	1.6	2.17	1.86	1.34	0.79	46	63.7	46.2	66	71.7	68.6	63.4	57.9
359	-0.78	-0.79	-0.86	-0.8	-0.7	0.13	-0.45	-1	42.2	42.1	41.4	42	42.5	51.3	45.5	40.1
360	0.94	-0.58	-0.28	-0.98	-0.6	0.51	-0.69	-0.8	59.4	44.2	47.2	40.2	43.8	55.1	43.1	41.6
361	1.45	-0.44	-0.15	-1.1	-0.7	0.45	-0.73	-0.7	64.5	45.6	48.5	39	42.6	54.5	42.7	42.9
362	1.28	-0.7	1.69	-0.74	-0.3	0.78	-0.49	-0.2	62.8	43	66.9	42.6	47.2	57.8	45.1	47.6
363	1.27	-0.74	-0.59	-0.7	-0.7	-0.57	-0.7	-0.8	62.7	42.6	44.1	43	43	44.3	43	41.6
364	1.3	-0.46	-0.63	-1.02	-0.6	-0.23	-0.59	0.16	63	45.4	43.7	39.8	43.7	47.7	44.1	51.6
365	1.24	-0.26	-0.79	0.46	-1.4	-0.89	-0.3	-0.4	62.4	47.4	42.1	54.6	35.7	41.1	47	46.2
366	1.3	-0.32	0.18	0.07	-0.5	-1.16	-0.65	-1.3	63	46.8	51.8	50.7	45.1	38.4	43.5	36.7
367	-0.84	-0.46	-0.24	-0.17	-0.4	-0.22	-0.49	0.04	41.6	45.4	47.6	48.3	46	47.8	45.1	50.4
368	-1.53	-1.14	1.54	-0.37	-0.3	-0.5	-0.82	0.92	34.7	38.6	65.4	46.3	46.5	45	41.9	59.2
369	-0.68	-1.19	-1.21	-1.24	-0.5	0.51	-1.28	-0.4	43.2	38.1	37.9	37.6	45.5	55.1	37.2	46

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
370	-0.69	-1.35	-0.79	-1.01	-0.4	-0.22	-0.73	-0.7	43.1	36.5	42.1	39.9	46	47.8	42.7	42.7
371	-0.9	-0.19	-0.6	-0.55	-0.5	-0.38	-0.99	-0.1	41	48.1	44	44.5	45.3	46.2	40.1	49.4
372	-0.95	-0.73	-1.3	-0.73	-1.2	-0.11	-0.64	-0.4	40.5	42.7	37	42.7	37.8	48.9	43.6	45.7
373	-0.28	-0.72	1.82	-1.15	-1.8	-2.02	-1.35	-1.3	47.2	42.8	68.2	38.5	32.4	29.8	36.5	37.1
374	-1.11	-0.55	1.79	-0.95	-0.9	0.45	-1.28	-0.9	38.9	44.5	67.9	40.5	41.3	54.5	37.2	41.5
375	-1.53	-0.18	-0.79	-0.7	-1.1	-1.23	-0.79	-1	34.7	48.2	42.1	43	39.2	37.7	42.1	39.7
376	1.37	-0.73	-0.95	-1.24	-0.9	-1.78	-1.13	-1	63.7	42.7	40.5	37.6	41	32.2	38.7	40.1
377	1.33	-1.52	-0.48	-0.96	-0.1	-1.32	-1.35	-0.6	63.3	34.8	45.2	40.4	48.7	36.8	36.5	44.3
378	1.4	-1.14	-1.03	-0.46	-0.3	-1.32	-1.28	-0.6	64	38.6	39.7	45.4	46.9	36.8	37.2	44.3
379	1.06	-0.9	-1.03	-0.54	-0.2	-0.48	-0.41	-0.6	60.6	41	39.7	44.6	47.8	45.2	45.9	44.4
380	0.78	-0.78	-1.81	-0.37	-1	-0.23	-0.61	-1.1	57.8	42.2	31.9	46.3	39.6	47.7	43.9	39.4
381	1.12	1.91	1.66	1.93	1.21	1.13	1.62	2.68	61.2	69.1	66.6	69.3	62.1	61.3	66.2	76.8
382	1.17	-0.62	-0.5	-0.98	-1	-1.39	-0.57	-0.8	61.7	43.8	45	40.2	40.3	36.1	44.3	41.6
383	-1.31	-0.21	-0.74	-0.43	-1	-1.84	-0.47	0.85	36.9	47.9	42.6	45.7	39.7	31.6	45.3	58.5
384	1.41	-0.32	1.43	-0.8	-0.9	-1.05	-0.8	-0.4	64.1	46.8	64.3	42	40.8	39.5	42	45.7
385	0.92	-1.07	1.43	-0.31	-0.2	-1.32	-0.65	-0.9	59.2	39.3	64.3	46.9	48.5	36.8	43.5	40.6
386	1.45	-1.78	-0.17	-0.65	-0.7	-0.55	-0.6	-0.6	64.5	32.2	48.3	43.5	42.5	44.5	44.1	44.3
387	1.69	-0.79	1.54	-1.26	-1.5	-0.47	-1.1	-1.8	66.9	42.1	65.4	37.4	35.4	45.3	39	32.3
388	1.15	1.83	-1.06	1.03	1.47	1.4	1.67	1.15	61.5	68.3	39.4	60.3	64.7	64	66.7	61.5
389	-0.48	-1.19	-0.35	-0.58	-0.4	0.78	-1.05	-0.5	45.2	38.1	46.5	44.2	45.7	57.8	39.5	45.3
390	-1	1.8	-0.83	1.18	1.43	1.63	0.99	1.09	40	68	41.7	61.8	64.3	66.3	59.9	60.9
391	1.14	1.91	-1.02	1.89	1.43	1.32	1.44	2.37	61.4	69.1	39.8	68.9	64.3	63.2	64.4	73.7
392	-1.26	1.69	-0.28	1.42	1.68	1.53	1.4	1.87	37.4	66.9	47.2	64.2	66.8	65.3	64	68.7
393	-1.12	-0.77	0.73	-1.26	-1.1	-1.23	-1.66	-0.3	38.8	42.3	57.3	37.4	39.5	37.7	33.4	46.6
394	-1.15	-1.78	-1.46	-0.44	-0.9	0.07	-1.29	-1.2	38.5	32.2	35.4	45.6	41.4	50.7	37.1	38.2
395	-0.85	-0.49	-0.69	-0.72	-0.8	0.03	-0.11	-0.1	41.5	45.1	43.1	42.8	41.6	50.3	48.9	48.7
396	0.92	-0.74	2.1	-0.69	-0.7	-0.57	-0.9	-0.9	59.2	42.6	71	43.1	43	44.3	41	40.7
397	1.2	2.03	1.55	1.04	1.51	0.96	1.64	1.15	62	70.3	65.5	60.4	65.1	59.6	66.4	61.5
398	-1.76	2.44	-0.61	2.23	1.77	2.59	1.74	1.92	32.4	74.4	43.9	72.3	67.7	75.9	67.4	69.2
399	-1.36	1.62	1.09	1.17	1.31	1.75	1.11	0.82	36.4	66.2	60.9	61.7	63.1	67.5	61.1	58.2
400	1.59	-0.46	-0.9	-0.55	-0.7	0.45	-0.49	-1.1	65.9	45.4	41	44.5	42.5	54.5	45.1	39.5
401	1.31	-1.24	-0.01	-0.93	-0.5	-0.87	-0.84	-0.4	63.1	37.6	49.9	40.7	44.6	41.3	41.6	45.7
402	1.33	-1.78	-0.59	-1.64	-0.9	0.45	-0.88	-0.6	63.3	32.2	44.1	33.6	41.2	54.5	41.2	44.3
403	1.22	-0.55	1.64	-0.07	0.35	0.1	0.23	-0.8	62.2	44.5	66.4	49.3	53.5	51	52.3	42

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
404	1.63	-0.95	-0.99	-0.64	-0.3	0.44	-0.62	-0.4	66.3	40.5	40.1	43.6	46.6	54.4	43.8	45.7
405	1.13	-0.7	-0.5	-0.73	-0.1	-1.32	-0.8	-0.1	61.3	43	45	42.7	48.8	36.8	42	48.5
406	-0.68	-0.49	-0.28	-0.56	-0.8	0.39	-0.78	-0.6	43.2	45.1	47.2	44.4	41.6	53.9	42.2	44.3
407	-0.91	-1.19	-0.5	-0.31	-0.3	-0.87	-0.89	-0.5	40.9	38.1	45	46.9	46.5	41.3	41.1	44.8
408	-0.86	-1.19	1.45	0.05	-0.3	-0.08	-0.89	-1	41.4	38.1	64.5	50.5	46.5	49.2	41.1	39.8
409	-0.79	-0.94	1.69	-1	-0.6	0.01	-0.73	-0.9	42.1	40.6	66.9	40	43.8	50.1	42.7	40.7
410	-1.07	-1.29	-0.36	-0.14	-0.9	0.08	-0.72	-0.4	39.3	37.1	46.4	48.7	41.1	50.8	42.8	45.5
411	-1.15	-0.06	-0.7	-0.78	-0.7	-1.78	-0.84	-0.9	38.5	49.4	43	42.2	42.5	32.2	41.6	40.7
412	-0.87	0.2	-0.21	-0.07	-0.6	0.51	-0.8	-1	41.3	52	47.9	49.3	44.3	55.1	42	39.9
413	-1.23	-0.4	-0.79	-0.98	-0.8	-0.61	-0.8	-0.5	37.7	46	42.1	40.2	42.3	43.9	42	44.8
414	-0.7	-0.89	0.91	-0.3	-0.7	0.19	-0.65	-1.3	43	41.1	59.1	47	42.6	51.9	43.5	36.8
415	-1.28	-0.73	-0.04	-0.59	-1.2	-1.2	-0.64	-1.3	37.2	42.7	49.6	44.1	38	38	43.6	37.1
416	1.28	-0.86	-0.55	-0.72	-0.7	0.33	-0.58	-0.9	62.8	41.4	44.5	42.8	43	53.3	44.2	41.3
417	1.44	-0.76	-1.02	-0.37	-1	0.19	-1.62	-0.3	64.4	42.4	39.8	46.3	39.6	51.9	33.8	46.6
418	1.34	-0.78	-0.7	-0.48	-0.5	-0.3	-1.31	-0.6	63.4	42.2	43	45.2	44.6	47	36.9	43.5
419	1.16	-0.62	-1.37	-0.55	-0.8	-0.86	-1.26	-1.1	61.6	43.8	36.3	44.5	42.3	41.4	37.4	39.3
420	1.27	-0.69	-0.43	-0.07	-0.6	-0.52	0.03	-0.4	62.7	43.1	45.7	49.3	44.3	44.8	50.3	45.8
421	1.64	-0.11	-0.57	-0.43	0.3	-0.3	0.85	0.01	66.4	48.9	44.3	45.7	53	47	58.5	50.1
422	1.31	-0.37	-0.66	-1.04	-0.8	-0.71	-1.19	-0.8	63.1	46.3	43.4	39.6	42.2	42.9	38.1	42.1
423	1.45	-1.16	-1.4	-1.28	-0.9	-0.65	-1.19	-1.4	64.5	38.4	36	37.2	41	43.5	38.1	36.3
424	1.31	1.58	-1.06	1.8	1.77	1.13	1.51	2.7	63.1	65.8	39.4	68	67.7	61.3	65.1	77
425	1.44	-1.21	-0.67	-0.59	-0.7	0.45	-0.42	-0.4	64.4	37.9	43.3	44.1	42.5	54.5	45.8	46.5
426	-1.1	2.2	-0.5	1.41	2.2	1.4	2.04	1.42	39	72	45	64.1	72	64	70.4	64.2
427	-0.76	-0.8	-1.81	-1.84	-1.7	-1.25	-1.71	-2.1	42.4	42	31.9	31.6	32.7	37.5	32.9	28.7
428	-1.11	-0.55	0.28	-0.22	-0.3	0.52	-0.52	-0.1	38.9	44.5	52.8	47.8	46.5	55.2	44.8	48.6
429	-0.79	-0.18	-1.4	-0.43	-1	0.45	-1.18	-0.7	42.1	48.2	36	45.7	39.9	54.5	38.2	42.6
430	-1.03	1.79	-0.43	2.21	1.78	2.28	1.74	1.76	39.8	67.9	45.7	72.1	67.8	72.8	67.4	67.6
431	-1.03	-0.72	0.31	-1.31	-1.8	-1	-0.76	-1.9	39.7	42.8	53.1	36.9	32.4	40	42.4	30.7
432	-0.82	-1.35	-0.31	-0.72	-0.7	0.66	-0.67	-0.4	41.8	36.5	46.9	42.8	42.5	56.6	43.3	46.2
433	-0.58	1.48	-0.25	1.75	1.83	2.7	0.91	2.28	44.2	64.8	47.5	67.5	68.3	77	59.1	72.8
434	-0.84	-1.15	-0.01	-1.48	-0.6	-1.26	-1.14	-1.4	41.6	38.5	49.9	35.2	43.8	37.4	38.6	36.2
435	-0.26	1.9	-0.63	1.61	1.6	1.41	2.43	1.37	47.4	69	43.7	66.1	66	64.1	74.3	63.7
436	-0.32	1.36	-1.02	1.79	1.94	1.86	1.38	1.75	46.8	63.6	39.8	67.9	69.4	68.6	63.8	67.5
437	-0.56	1.95	-0.59	2.26	1.79	2.09	1.55	1.38	44.4	69.5	44.1	72.6	67.9	70.9	65.5	63.8

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
438	-0.96	1.5	-0.64	1.61	1.66	1.58	1	0.97	40.4	65	43.6	66.1	66.6	65.8	60	59.7
439	1.11	-0.92	-0.95	-0.8	-0	-0.45	-0.31	-0.8	61.1	40.8	40.5	42	49.6	45.5	46.9	41.8
440	-0.98	-0.87	-0.82	0.15	-0.2	-0.1	-0.51	-0.6	40.2	41.3	41.8	51.5	47.5	49	44.9	44.4
441	-1.08	-0.8	1.23	0.87	-0.3	-0.55	-0.23	-0.2	39.2	42	62.3	58.7	46.8	44.5	47.7	47.9
442	-1.4	-1.35	0.18	-0.78	-0.6	0.49	-0.8	-1	36	36.5	51.8	42.2	43.7	54.9	42	40.1
443	-0.81	-0.86	-0.45	-0.67	-0.7	-0.53	-0.42	-0.5	41.9	41.4	45.5	43.3	43.1	44.7	45.8	44.7
444	-0.21	-1	0.16	-0.63	-0.6	-0.97	-0.79	-0.7	47.9	40	51.6	43.7	43.6	40.3	42.1	42.6
445	-0.95	-1.78	1.55	-0.74	0.04	-0.57	-0.79	-0.9	40.5	32.2	65.5	42.6	50.4	44.3	42.1	40.6
446	-0.78	-0.55	-0.87	-0.93	-0.9	-0.79	-0.61	-0.1	42.2	44.5	41.3	40.7	41.3	42.1	43.9	48.6
447	1.19	-0.37	1.82	-0.8	-0.5	-0.77	-0.64	0.68	61.9	46.3	68.2	42	45	42.3	43.6	56.8
448	0.99	-0.49	-0.3	-0.19	-0.6	0.51	-0.44	-1.7	59.9	45.1	47	48.1	44.1	55.1	45.6	33.5
449	1.49	-1.78	1.05	-1.64	-1.2	-0.98	-1.26	-0.6	64.9	32.2	60.5	33.6	38.2	40.2	37.4	44.3
450	1.36	-0.87	-0.53	-0.72	-0.3	-0.69	-0.37	-0.7	63.6	41.3	44.7	42.8	46.9	43.1	46.3	43.2
451	1.19	-1.16	-0.99	-0.59	-1.1	-1.23	-0.75	-0.5	61.9	38.4	40.1	44.1	39.4	37.7	42.5	45.3
452	1.33	-0.93	1.45	-0.72	-0.4	0.7	-0.65	-1	63.3	40.7	64.5	42.8	46	57	43.5	40.1
453	1.2	-0.58	-0.43	-1.12	-1.3	-1.74	-0.3	-1	62	44.2	45.7	38.8	37.2	32.6	47	39.7
454	-0.71	-0.53	-0.09	-0.62	-0.9	0.03	-0.99	-0.6	42.9	44.7	49.1	43.8	41.4	50.3	40.1	44.3
455	-0.55	-0.55	-0.57	-0.4	0.37	0.27	-0.54	-0.1	44.6	44.5	44.3	46	53.7	52.7	44.6	49.3
456	-0.73	-0.56	0.76	-0.79	-0.1	-1.25	-0.38	-0.1	42.7	44.4	57.6	42.1	48.6	37.5	46.2	48.6
457	-1.16	-1.07	-0.29	-0.84	-0.2	-0.33	-0.64	-0.5	38.4	39.3	47.1	41.6	48.4	46.7	43.6	44.6
458	-0.94	-0.39	-0.59	-0.84	-0.6	0.51	-0.69	-0.4	40.6	46.1	44.1	41.6	43.9	55.1	43.1	46.5
459	-0.49	1.6	1.73	1.58	2.17	2.22	1.51	1.99	45.1	66	67.3	65.8	71.7	72.2	65.1	69.9
460	-0.96	2.03	-0.59	1.44	1.83	1.51	1.54	1.53	40.4	70.3	44.1	64.4	68.3	65.1	65.4	65.3
461	-0.53	2.03	1.69	1.58	1.52	2.28	1.11	1.12	44.7	70.3	66.9	65.8	65.2	72.8	61.1	61.2
462	1.07	1.69	-0.28	1.42	1.68	1.54	1.89	1.73	60.7	66.9	47.2	64.2	66.8	65.4	68.9	67.3
463	1.33	-0.91	-1.1	-0.63	-0.6	0.36	-0.13	-1.3	63.3	40.9	39	43.7	44	53.6	48.7	37.1
464	-0.4	0.27	0.16	-0.32	-0.2	0.17	-0.36	0.21	46	52.7	51.6	46.8	47.8	51.7	46.4	52.1
465	-1.24	-0.78	-0.37	-0.53	0.03	-0.37	-0.44	-1	37.6	42.2	46.3	44.7	50.3	46.3	45.6	40
466	-0.84	-0.76	-1.37	-0.72	-1	-0.61	-1.22	-0.8	41.6	42.4	36.3	42.8	39.5	43.9	37.8	42
467	1.06	-1.2	-0.46	-0.5	-0.1	-1.37	-0.08	-0.8	60.6	38	45.4	45	48.6	36.3	49.2	42
468	1.1	-0.26	-0.46	0.16	0.22	-0.41	-1.06	-0.6	61	47.4	45.4	51.6	52.2	46	39.4	43.9
469	-0.88	-0.79	-0.5	-1.48	-0.9	2	-0.53	-1.2	41.2	42.1	45	35.2	41	70	44.7	38.1
470	-0.49	-0.68	-1.15	-0.72	-0.2	-0.03	-0.88	-1.1	45.1	43.2	38.5	42.8	47.7	49.7	41.2	39.2
471	-1.02	0.36	-0.64	-0.07	0.26	0.09	-0.31	0.05	39.8	53.6	43.6	49.3	52.6	50.9	46.9	50.5

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
472	-0.37	-0.76	-0.53	-0.31	-1	-0.87	-1.64	-1.1	46.3	42.4	44.7	46.9	39.6	41.3	33.6	39.5
473	1.36	-0.39	-0.79	-0.42	0.12	-0.08	0.39	-0.9	63.6	46.1	42.1	45.8	51.2	49.2	53.9	40.9
474	1.39	-0.46	1.69	0.02	-0.3	-0.5	0.5	-0.9	63.9	45.4	66.9	50.2	46.5	45	55	41.3
475	1.29	-1.19	-0.4	-0.58	-0.4	-1.45	-0.32	-0.4	62.9	38.1	46	44.2	45.7	35.5	46.8	45.6
476	1.28	-0.37	0.1	-0.64	-0.5	-0.77	-0.63	-0.5	62.8	46.3	51	43.6	45	42.3	43.7	45
477	1.33	-0.62	-1.08	-0.61	-0.4	-0.31	-0.4	-0.5	63.3	43.8	39.2	43.9	45.7	46.9	46	45
478	1.31	-0.8	0.17	-0.61	0.23	0.56	-0.82	-0.4	63.1	42	51.7	43.9	52.3	55.6	41.9	46.2
479	1.59	-0.46	1.34	-0.49	-0.7	-0.23	-0.99	-1.3	65.9	45.4	63.4	45.1	43.4	47.7	40.1	36.7
480	1.09	-0.4	1.66	-0.65	-0.6	-0.01	-0.16	-0.8	60.9	46	66.6	43.5	43.8	49.9	48.4	42
481	-1.45	-0.19	-0.39	-0.78	-0.5	1.13	-0.72	0.9	35.5	48.1	46.1	42.2	45.3	61.3	42.8	59
482	1.39	-0.93	1.56	-0.64	-0.3	-0.86	-0.65	-0.6	63.9	40.7	65.6	43.6	46.6	41.4	43.5	44.3
483	1.39	-0.39	-0.67	-0.21	-0.4	-0.19	-0.57	-0.9	63.9	46.1	43.3	47.9	45.9	48.1	44.3	40.9
484	1.56	-0.72	-0.4	-1.03	-1.7	-1.93	-0.94	-0.7	65.6	42.8	46	39.7	32.7	30.7	40.6	42.7
485	1.11	-0.2	-1.81	-0.44	-0.7	-0.86	-0.57	-1.1	61.1	48	31.9	45.6	43.3	41.4	44.3	38.9
486	1.45	1.83	1.28	1.79	1.52	2.28	1.44	1.87	64.5	68.3	62.8	67.9	65.2	72.8	64.4	68.7
487	-1.22	1	0	1.82	1.9	1.77	2.47	2.23	37.8	60	50	68.2	69	67.7	74.7	72.3
488	-1.09	-0.84	-0.37	-0.52	-0.3	-0.07	1	-0.5	39.1	41.6	46.3	44.8	46.9	49.3	60	45.3
489	-0.96	-0.94	-1.81	-1.26	-0.5	-0.77	-1.22	-0.9	40.4	40.6	31.9	37.4	45	42.3	37.8	41.3
490	-0.9	-0.06	1.41	0.1	-0.2	0.54	-0.7	0.24	41	49.4	64.1	51	48	55.4	43	52.4
491	-0.58	1.9	-0.63	1.8	2.47	2.2	1.47	1.94	44.2	69	43.7	68	74.7	72	64.7	69.4
492	-1.01	1.54	1.53	1.66	2.16	1.86	1.71	1.41	39.9	65.4	65.3	66.6	71.6	68.6	67.1	64.1
493	-0.73	1.62	1.86	1.6	2.17	1.86	1.89	2.16	42.7	66.2	68.6	66	71.7	68.6	68.9	71.6
494	-1.15	2.46	-0.7	1.61	1.59	1.57	1.88	1.26	38.5	74.6	43	66.1	65.9	65.7	68.8	62.6
495	1.23	-0.48	-1.81	-1.02	-1.3	-0.77	-0.53	-0.5	62.3	45.2	31.9	39.8	36.7	42.3	44.7	45
496	1.2	-0.87	-0.29	0.16	-0.2	-0.69	-0.44	-0.6	62	41.3	47.1	51.6	47.5	43.1	45.6	44.4
497	1.62	-0.55	0.17	-0.03	-0.3	-0.8	0.21	-0	66.2	44.5	51.7	49.7	47.2	42	52.1	50
498	1.34	-0.94	-1.37	-0.72	-0.5	-0.79	-0.67	-0.3	63.4	40.6	36.3	42.8	45	42.1	43.3	46.7
499	1.34	-0.87	1.2	-0.22	-0.3	-0.92	-0.52	-1.2	63.4	41.3	62	47.8	47	40.8	44.8	38.1
500	1.11	-0.46	-0.46	-0.79	-0.4	-0.66	0.62	-0.2	61.1	45.4	45.4	42.1	45.5	43.4	56.2	48.1
501	1.45	2.68	-0.73	1.49	1.66	0.83	1.71	1.81	64.5	76.8	42.7	64.9	66.6	58.3	67.1	68.1
502	1.26	1.91	-1.06	2.01	1.96	2.59	1.71	1.09	62.6	69.1	39.4	70.1	69.6	75.9	67.1	60.9
503	-0.87	2.46	-0.57	1.9	2.47	2.59	1.71	1.84	41.3	74.6	44.3	69	74.7	75.9	67.1	68.4
504	-0.62	-0.37	-0.53	-0.49	-0.1	0.7	-0.13	-0.4	43.8	46.3	44.8	45.1	49.1	57	48.7	45.8
505	-1.02	-0.89	2.01	-0.57	-1	0.61	-0.82	-0.3	39.8	41.1	70.1	44.4	40.4	56.1	41.8	47

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
506	-1.27	-1.02	-1.13	-0.68	0.03	-0.38	-0.22	-0	37.3	39.8	38.7	43.2	50.3	46.2	47.8	49.6
507	-1.28	-0.24	-0.66	-0.5	-0.4	-0.22	-0.07	-0.6	37.2	47.6	43.4	45	46	47.8	49.4	44.5
508	-1.02	-0.62	1.61	-0.14	-0.5	-0.61	-0.5	-0.8	39.8	43.8	66.1	48.6	45.3	43.9	45	42.4
509	1.18	-0.47	-1.19	-0.42	-0.9	-1.78	-1.14	-0.1	61.8	45.3	38.1	45.8	40.9	32.2	38.6	48.7
510	1.31	-0.92	-0.34	-0.64	-0	-0.45	-0.75	-0.5	63.1	40.8	46.6	43.6	49.6	45.5	42.5	45
511	1.27	-0.37	2.07	-0.84	-0.5	-0.79	-0.72	-0.7	62.7	46.3	70.7	41.6	45	42.1	42.8	43.2
512	-1.44	0.09	-0.5	-0.43	-1.7	-0.28	-0.75	-0.4	35.6	50.9	45	45.7	33.3	47.2	42.5	45.8
513	-1.19	-1	-0.34	-0.54	-0.1	-0.92	0.05	-0.9	38.2	40	46.6	44.6	49.2	40.8	50.5	41.3
514	-1.22	-0.29	1.56	0.98	0.16	0.35	0.39	-0.1	37.8	47.1	65.6	59.8	51.6	53.5	53.9	48.6
515	-1.21	2.03	1.69	1.49	1.83	1.51	1.42	1.51	37.9	70.3	66.9	64.9	68.3	65.1	64.2	65.1
516	-0.72	1.62	1.3	1.51	1.93	1.82	1.62	1.8	42.8	66.2	63	65.1	69.3	68.2	66.2	68
517	-0.45	1.43	-0.45	1.76	1.67	1.45	1.68	1.47	45.5	64.3	45.5	67.6	66.7	64.5	66.8	64.7
518	-0.83	1.69	-0.57	1.92	1.74	1.45	1.62	2.58	41.7	66.9	44.3	69.2	67.4	64.5	66.2	75.8
519	1.2	-1.15	-0.32	-1.74	-1.2	-0.24	-0.67	-1.4	62	38.5	46.8	32.6	38.1	47.6	43.3	36.2
520	-1.4	-0.64	-1	-0.07	-0	-0.48	0.03	-0.2	36	43.6	40	49.3	50	45.2	50.3	48.4
521	-0.9	1.69	1.69	1.79	2.16	2.2	1.77	1.56	41	66.9	66.9	67.9	71.6	72	67.7	65.6
522	0.96	2	-1.81	1.79	1.83	0.89	2.47	2.17	59.6	70	31.9	67.9	68.3	58.9	74.7	71.7
523	0.97	1.23	-0.77	1.2	1.52	1.99	2.09	1.11	59.7	62.3	42.3	62	65.2	69.9	70.9	61.1
524	1.24	1.9	-0.15	1.02	0.9	1.36	0.99	0.75	62.4	69	48.5	60.2	59	63.6	59.9	57.5
525	1.28	1.6	-0.56	1.05	1.65	1.19	1.18	1.67	62.8	66	44.4	60.5	66.5	61.9	61.8	66.7
526	-0.99	-0.7	-0.69	-1.29	-1.2	-1.45	-1.1	-1	40.1	43	43.1	37.1	38.2	35.5	39	40.4
527	1.11	1.49	-0.57	0.89	1	-0.2	0.94	1.15	61.1	64.9	44.3	58.9	60	48	59.4	61.5
528	1.25	-1.78	1.67	-0.63	-0.9	-0.88	-0.8	-0.8	62.5	32.2	66.7	43.7	41	41.2	42	41.5
529	1.25	-0	1.8	-1.74	-1.3	-0.14	-0.99	-1.5	62.5	50	68	32.6	37.4	48.6	40.1	35
530	1.11	-1.2	-0.82	-0.01	-0.3	-0.8	-0.49	-0.6	61.1	38	41.8	49.9	47.2	42	45.1	43.6
531	1.17	-0.8	-0.76	-0.9	-0.7	-0.73	-0.61	-1.1	61.7	42	42.4	41	43.2	42.7	43.9	39.4
532	-1.54	1.48	-1.21	1.25	0.89	0.12	1.08	0.57	34.6	64.8	37.9	62.5	58.9	51.2	60.8	55.7
533	-1.03	-0.7	0.31	-0.52	-0.1	-0.4	-0.95	-0.3	39.7	43	53.1	44.8	49	46	40.5	47.4
534	0.86	2.03	-0.55	1.71	1.47	1.4	1.88	1.63	58.6	70.3	44.5	67.1	64.7	64	68.8	66.3
535	-0.95	1.11	1.19	1.28	1.52	1.48	1.52	1.72	40.5	61.1	61.9	62.8	65.2	64.8	65.2	67.2
536	1.08	-0.62	1.73	-0.95	-0.8	-0.57	-0.6	-0.3	60.8	43.8	67.3	40.5	42.4	44.3	44	47.4
537	-0.68	-0.53	-0.46	-0.73	-0.9	-0.84	-1.29	-1.2	43.2	44.7	45.4	42.7	41.4	41.6	37.1	38.1
538	-0.92	1.81	-1.37	1.74	1.93	1.69	0.88	1.8	40.8	68.1	36.3	67.4	69.3	66.9	58.8	68
539	1.4	1.43	-0.77	1.8	1.67	1.45	1.79	1.42	64	64.3	42.3	68	66.7	64.5	67.9	64.2

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
540	1.31	-1.3	-0.53	-0.95	-1	-1.84	-0.67	-1.4	63.1	37	44.7	40.5	40.4	31.6	43.3	35.6
541	-1.26	-0.73	-0.9	-1.28	-0.9	-1.78	-1.13	-1.9	37.4	42.7	41	37.2	41	32.2	38.7	31.4
542	-0.96	1.62	-0.47	1.6	1.32	1.75	1.16	1.37	40.4	66.2	45.3	66	63.2	67.5	61.6	63.7
543	1.4	-0.58	-0.79	-1.04	-0.9	-1.56	-0.26	-0.6	64	44.2	42.1	39.6	41.4	34.4	47.4	44.3
544	1.22	1.69	1.42	1.71	1.59	1.51	1.79	1.57	62.2	66.9	64.2	67.1	65.9	65.1	67.9	65.7
545	1.39	-0.37	-0.39	-0.63	-0.8	-0.86	-0.57	-0.4	63.9	46.3	46.1	43.7	42.2	41.4	44.3	45.8
546	1.09	-0.39	0.18	-1.48	-0.9	-0.61	-1.35	-1.2	60.9	46.1	51.8	35.2	41	43.9	36.5	38.2
547	-0.98	-0.73	1.43	-0.72	-1.2	-1.2	-0.82	-0.7	40.2	42.7	64.3	42.8	37.9	38	41.9	42.7
548	-0.55	2.03	1.26	1.17	1.25	1.45	1.52	1.22	44.5	70.3	62.6	61.7	62.5	64.5	65.2	62.2
549	-1.74	-0.01	-0.51	-1.21	-1.2	-0.24	-1.07	0.11	32.6	49.9	44.9	38	38.1	47.6	39.3	51.1
550	0.76	-0.4	-0.46	-0.71	-0.8	0.38	-0.79	-0.6	57.6	46	45.4	42.9	42.3	53.8	42.1	43.5
551	1.15	-0.93	1.56	-1.21	-0.4	-0.56	-0.79	-0.4	61.5	40.7	65.6	38	46	44.4	42.1	46.5
552	-0.84	1.45	1.62	1.5	1.21	1.74	0.86	1.2	41.6	64.5	66.2	65	62.1	67.4	58.6	62
553	-0.74	1.83	-0.81	1.31	1.51	0.91	1.54	1.4	42.6	68.3	41.9	63.1	65.1	59.1	65.4	64
554	-1.01	1.23	-0.67	1.9	1.76	2.76	1.44	2.02	39.9	62.3	43.3	69	67.6	77.6	64.4	70.2
555	-1.78	-0.57	-0.6	-1.05	-0.9	-1.56	-0.83	-0.7	32.2	44.3	44	39.5	41.4	34.4	41.7	43
556	-1.17	-0.16	-1.81	-0.63	-1.7	-1.25	-0.67	-1.4	38.3	48.4	31.9	43.7	32.7	37.5	43.3	36.2
557	1.1	1.36	-0.59	1.44	1.81	2.17	1.7	0.43	61	63.6	44.1	64.4	68.1	71.7	67	54.3
558	-1.25	-0.62	1.43	-0.31	-0.8	-1.54	-0.86	-1	37.5	43.8	64.3	46.9	42.3	34.6	41.4	40.3
559	1.21	-0.18	-0.01	-0.7	-1.1	-1.23	-1.05	-1	62.1	48.2	49.9	43	39.2	37.7	39.5	39.6
560	-0.89	1.91	0.46	1.95	1.81	2.22	1.7	2.7	41.1	69.1	54.6	69.5	68.1	72.2	67	77
561	-1.11	-1.52	-0.64	-0.54	-0.5	-0.3	-0.99	-0.5	38.9	34.8	43.6	44.6	44.6	47	40.1	45
562	-0.95	-0.7	-1.81	-1.26	-0.7	-0.71	-0.87	-1.1	40.5	43	31.9	37.4	42.5	42.9	41.3	39.4
563	-0.72	1.31	1.66	1.75	1.67	1.27	1.51	2.29	42.8	63.1	66.6	67.5	66.7	62.7	65.1	72.9
564	0.75	-0.8	-0.5	-0.65	-0.7	0.03	-1.25	-2	57.5	42	45	43.5	43.2	50.3	37.5	29.7
565	1.21	-0.13	-0.74	-0.78	-0.6	-0.71	-1.35	-0.7	62.1	48.7	42.6	42.2	44.4	42.9	36.5	43.2
566	-0.75	-0.76	1.43	-0.52	-0.5	-1.05	-0.69	-0.6	42.5	42.4	64.3	44.8	45.1	39.5	43.1	44.1
567	1.21	-0.94	1.43	-0.57	-0.9	0.45	-0.76	-0.3	62.1	40.6	64.3	44.3	40.8	54.5	42.4	47
568	1.39	-0.92	-0.43	-0.81	-0.4	-0.1	-0.94	1.01	63.9	40.8	45.7	41.9	46	49	40.6	60.1
569	1.22	-0.48	1.54	-1.01	-1.3	-0.07	-0.57	-1.2	62.2	45.2	65.4	39.9	37.1	49.3	44.3	38.2
570	1.14	2.03	-1.06	1.25	1.45	1.51	1.42	1.87	61.4	70.3	39.4	62.5	64.5	65.1	64.2	68.7
571	1.5	-0.2	-0.29	-0.86	-1	-0.35	-0.48	-0.8	65	48	47.1	41.4	39.7	46.5	45.2	42.2
572	1.27	1.37	-0.83	1.02	1.02	0.91	1.29	1.06	62.7	63.7	41.7	60.2	60.2	59.1	62.9	60.6
573	-0.92	1.03	1.63	1.92	2.03	1.45	1.46	2.02	40.8	60.3	66.3	69.2	70.3	64.5	64.6	70.2

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
574	1.42	2	-0.28	1.31	1.67	1.24	1.52	1.77	64.2	70	47.2	63.1	66.7	62.4	65.2	67.7
575	-0.98	-0.54	2.1	-0.51	-1.4	-1.74	-1.33	-0.8	40.2	44.6	71	44.9	35.7	32.6	36.7	42.2
576	1.29	-0.79	2.11	-1.26	-1.5	-0.47	-0.53	-1.8	62.9	42.1	71.1	37.4	35.4	45.3	44.7	32.3
577	-0.79	-0.49	-0.69	-0.67	-0.8	-0.48	-0.1	-1.1	42.1	45.1	43.1	43.3	41.6	45.2	49	39.5
578	-0.8	-0.74	2.1	-1.04	-0.7	-0.58	-0.9	-1.2	42	42.6	71	39.6	43	44.2	41	38.5
579	1.27	1.33	1.74	1.44	1.66	0.83	1.89	1.28	62.7	63.3	67.4	64.4	66.6	58.3	68.9	62.8
580	1	2.46	-0.31	2.26	1.77	2.7	1.74	1.92	60	74.6	46.9	72.6	67.7	77	67.4	69.2
581	-1.39	1.69	1.09	1.71	1.7	2.04	1.7	1.27	36.1	66.9	60.9	67.1	67	70.4	67	62.7
582	-0.8	-0.62	-1.37	-0.3	-0.8	-1.54	-1.25	-0.8	42	43.8	36.3	47	42.3	34.6	37.5	42.2
583	-1.02	-0.4	-0.13	-0.07	-0.9	-1.23	0.03	-0.4	39.8	46	48.7	49.3	40.5	37.7	50.3	45.8
584	-0.74	-0.1	-0.57	-0.04	0.3	-0.3	0.85	0.01	42.6	49	44.3	49.6	53	47	58.5	50.1
585	-0.77	-0.37	1.76	-1.04	-0.8	-1.37	-0.57	-0.9	42.3	46.3	67.6	39.6	42.2	36.3	44.3	41.3
586	-0.96	-1.15	2.1	-1.3	-0.9	-0.65	-1.19	-1.9	40.4	38.5	71	37	41	43.5	38.1	31.4
587	-1.35	2.46	1.05	1.8	2.47	2.59	1.51	1.99	36.5	74.6	60.5	68	74.7	75.9	65.1	69.9
588	1.33	-0.72	-0.67	-0.59	-0.3	0.02	-0.49	-0.4	63.3	42.8	43.3	44.1	46.5	50.2	45.1	46.5
589	-0.57	2.2	-0.5	1.41	2.2	1.69	2.04	1.44	44.3	72	45	64.1	72	66.9	70.4	64.4
590	-1.09	-0.72	-1.81	-1.84	-1.7	-1.25	-1.71	-2.1	39.1	42.8	31.9	31.6	32.7	37.5	32.9	28.7
591	-0.52	-1.14	0.28	0.47	0.16	0.45	-0.22	0.58	44.8	38.6	52.8	54.7	51.6	54.5	47.8	55.8
592	-0.62	-0.18	2.11	-0.42	-1	-0.15	-1.14	-0.7	43.9	48.2	71.1	45.8	39.9	48.5	38.6	43.2
593	-1.03	1.79	-0.04	2.21	1.78	2.22	1.76	2.7	39.7	67.9	49.6	72.1	67.8	72.2	67.6	77
594	1.19	-1.17	0.31	-0.72	-1.4	-0.79	-1.27	-2	61.9	38.3	53.1	42.8	36.1	42.1	37.3	29.7
595	-1.46	-0.9	-0.04	-0.67	-0.2	-0.48	-1.07	-0.6	35.4	41	49.6	43.3	47.7	45.2	39.3	43.8
596	-0.88	1.48	-0.59	1.75	1.83	2.7	0.89	2.25	41.2	64.8	44.1	67.5	68.3	77	58.9	72.5
597	-0.87	-1.15	-0.35	-1.48	-0.6	0.67	-1.13	-2	41.3	38.5	46.5	35.2	43.8	56.7	38.7	30.1
598	-0.99	1.9	-0.63	1.79	1.51	2.2	1.58	1.4	40.1	69	43.7	67.9	65.1	72	65.8	64
599	1.38	1.69	1.63	1.79	1.59	1.57	1.39	1.76	63.8	66.9	66.3	67.9	65.9	65.7	63.9	67.6
600	-1	1.95	-0.59	1.37	1.77	2.09	1.54	1.37	40	69.5	44.1	63.7	67.7	70.9	65.4	63.7
601	1.3	1.06	-0.64	1.61	1.77	1.75	1	0.97	63	60.6	43.6	66.1	67.7	67.5	60	59.7
602	-1.03	1.62	1.73	1.59	2.17	1.86	1.51	1.5	39.7	66.2	67.3	65.9	71.7	68.6	65.1	65
603	0.84	2.03	-0.59	1.44	1.83	2.2	1.42	1.56	58.4	70.3	44.1	64.4	68.3	72	64.2	65.6
604	-0.6	1.42	1.69	1.58	2.15	1.76	1.16	1.27	44	64.2	66.9	65.8	71.5	67.6	61.6	62.7
605	1.13	1.43	-0.28	1.87	2.16	1.83	1.29	1.7	61.3	64.3	47.2	68.7	71.6	68.3	62.9	67
606	1.26	-0.7	2.11	-0.63	-0.7	-1.53	-0.67	-1.4	62.6	43	71.1	43.7	42.5	34.7	43.3	36.2
607	1.68	0.28	0.16	-0.32	-0.2	-0.55	-0.39	0.21	66.8	52.8	51.6	46.8	47.8	44.5	46.1	52.1

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
608	1.47	-0.4	-0.37	0.22	-0.9	-0.85	-0.24	-0.3	64.7	46	46.3	52.2	41.2	41.5	47.6	46.6
609	1.64	-0.76	-1.37	-1.24	-1	-1.23	-1.22	-0.9	66.4	42.4	36.3	37.6	39.5	37.7	37.8	41.3
610	-0.72	-0.67	1.2	-0.5	-0.4	0.45	-0.42	0.7	42.8	43.3	62	45	46.4	54.5	45.8	57
611	1.4	-0.26	-0.46	1.02	0.22	-0.4	-0.28	-0.3	64	47.4	45.4	60.2	52.2	46	47.2	47.4
612	1.54	-0.79	-0.5	-1.48	-0.9	-0.69	-0.53	-1.2	65.4	42.1	45	35.2	41	43.1	44.7	38.1
613	1.28	-0.68	-1.15	-0.72	-0.2	0.12	-0.88	-1.1	62.8	43.2	38.5	42.8	47.7	51.2	41.2	39.2
614	1.23	0.36	-0.64	0.29	0.29	0.31	0.43	0.09	62.3	53.6	43.6	52.9	52.9	53.1	54.3	50.9
615	1.33	-0.76	-0.53	-0.31	-1	-0.87	-1.64	-1.1	63.3	42.4	44.7	46.9	39.6	41.3	33.6	39.5
616	-1.43	-0.39	-0.79	-0.01	0.15	-0.48	-0.52	-1.3	35.7	46.1	42.1	49.9	51.5	45.2	44.8	36.7
617	-0.79	-0.89	1.69	-0.12	0.41	-0.2	0.85	-0.9	42.1	41.1	66.9	48.8	54.1	48	58.5	41.3
618	1.3	-1.19	-0.4	-0.58	-0.4	1.48	-0.63	-0.8	63	38.1	46	44.2	45.7	64.8	43.7	42.2
619	-0.61	-0.37	0.1	-0.06	-0.5	-1.16	-1.04	-0.5	43.9	46.3	51	49.4	45.1	38.4	39.6	45
620	-0.91	-0.78	-1.11	-0.31	-0.5	-0.77	-0.39	-0.9	40.9	42.2	38.9	46.9	45.1	42.3	46.1	40.7
621	1.61	-0.39	0.17	0.07	-0.2	-0.65	-0.12	0.93	66.1	46.1	51.7	50.7	48	43.5	48.8	59.3
622	1.35	-0.46	1.34	-0.49	-0.7	-0.66	-1	-1.3	63.5	45.4	63.4	45.1	43.4	43.4	40	36.7
623	1.16	-0.66	1.66	-0.37	-0.4	-0.68	-0.53	-0.8	61.6	43.4	66.6	46.3	46.3	43.2	44.7	41.8
624	1.29	-0.69	-0.39	-0.44	-0.6	0.67	-0.72	-1.4	62.9	43.1	46.1	45.6	43.8	56.7	42.8	36.3
625	-0.96	-0.28	1.56	-0.64	-0.4	-0.65	-0.42	-0.6	40.4	47.2	65.6	43.6	45.7	43.5	45.8	44.3
626	-1.05	-1.19	-0.67	-0.72	-0.2	-0.02	-0.82	-0.5	39.5	38.1	43.3	42.8	47.8	49.8	41.8	44.6
627	1.53	-0.72	-0.46	-1.03	-1.7	-2.02	-0.94	-1	65.3	42.8	45.4	39.7	32.7	29.8	40.6	40.3
628	1.41	-0.2	-1.81	-0.19	-0.7	-0.86	-0.57	0.46	64.1	48	31.9	48.1	43.3	41.4	44.3	54.6
629	-0.92	1.89	1.28	1.79	1.52	2.47	1.44	1.88	40.8	68.9	62.8	67.9	65.2	74.7	64.4	68.8
630	-0.55	1.9	-0.87	1.8	1.78	1.51	2.47	2.23	44.5	69	41.3	68	67.8	65.1	74.7	72.3
631	1.78	-0.84	0.38	-0.1	-0.4	-0.23	-0.44	-0.5	67.8	41.6	53.8	49	45.7	47.7	45.6	45.3
632	-1.17	-0.94	-1.81	-1.26	-0.5	-0.77	-0.91	-0.9	38.3	40.6	31.9	37.4	45	42.3	40.9	41.3
633	-1.11	-0.06	-0.34	0.09	-0.2	0.33	-0.13	0.26	38.9	49.4	46.6	50.9	48	53.3	48.7	52.6
634	1.34	1.9	-0.63	1.8	1.67	1.4	1.76	1.96	63.4	69	43.7	68	66.7	64	67.6	69.6
635	1.47	1.54	1.53	1.66	2.17	1.13	1.71	1.4	64.7	65.4	65.3	66.6	71.7	61.3	67.1	64
636	-0.83	1.62	1.86	1.6	2.17	1.86	1.89	2.75	41.7	66.2	68.6	66	71.7	68.6	68.9	77.5
637	1.14	2.46	1.16	1.66	1.6	1.03	1.88	2.02	61.4	74.6	61.6	66.6	66	60.3	68.8	70.2
638	1.23	-0.48	-1.81	-1.15	-1.3	-0.4	-0.53	-0.5	62.3	45.2	31.9	38.5	36.7	46	44.7	45
639	-0.75	-0.7	-0.29	0.16	-0.3	-0.28	-0.42	-0.6	42.5	43	47.1	51.6	47.2	47.2	45.8	44.4
640	-0.39	0.09	-0.5	-0.03	-0.8	-0.57	-0.34	0.03	46.1	50.9	45	49.7	42.4	44.3	46.6	50.3
641	-1.16	-0.78	-1.37	-0.72	-1	-1.67	-0.65	-1.3	38.4	42.2	36.3	42.8	39.7	33.3	43.5	37.1

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
642	-0.88	-0.87	1.2	-0.42	-0.3	-0.92	0.12	-0.5	41.2	41.3	62	45.8	47	40.8	51.2	45.3
643	-0.63	0.3	-0.46	0.61	-0.2	-0.69	0.85	0.05	43.7	53	45.4	56.1	47.7	43.1	58.5	50.5
644	-0.59	1.9	1.42	2.26	1.66	1.41	1.71	1.83	44.1	69	64.2	72.6	66.6	64.1	67.1	68.3
645	1.29	1.42	-1.06	1.33	2.03	2.54	1.71	2.37	62.9	64.2	39.4	63.3	70.3	75.4	67.1	73.7
646	0.62	1.79	-0.82	1.9	1.73	2.07	1.7	1.75	56.2	67.9	41.8	69	67.3	70.7	67	67.5
647	1.33	-0.37	-0.5	-0.49	-0.1	-0.01	-0.13	-0.4	63.3	46.3	45	45.1	49.1	49.9	48.7	45.8
648	-1.53	-0.43	2.01	-0.57	-1	-0.06	-0.82	-0.3	34.7	45.7	70.1	44.4	40.4	49.4	41.8	47
649	1.17	-1.02	-1.13	-0.68	0.03	-0.35	-0.22	-0	61.7	39.8	38.7	43.2	50.3	46.5	47.8	49.6
650	-1.36	-0.89	-0.66	0.63	0.75	1.4	-0.08	-0.5	36.4	41.1	43.4	56.3	57.5	64	49.2	44.7
651	1.21	-0.37	1.45	-0.14	-0.3	-0.85	-0.51	-0.8	62.1	46.3	64.5	48.6	47	41.5	44.9	42.4
652	1.34	-0.47	-1.19	-0.72	-0.9	-1.78	-1.14	-0.7	63.4	45.3	38.1	42.8	40.9	32.2	38.6	42.6
653	1.15	-0.92	-0.34	-0.31	-0	-0.22	-0.73	-0.7	61.5	40.8	46.6	46.9	49.7	47.8	42.7	43
654	1.39	-0.8	2.07	-0.72	0.23	0.45	-0.31	-1.2	63.9	42	70.7	42.8	52.3	54.5	46.9	38.2
655	1.14	0.09	-0.5	-0.72	-1.7	-0.28	0.07	-0.4	61.4	50.9	45	42.8	33.3	47.2	50.7	45.8
656	1.22	-1.14	-0.24	-0.54	-0.4	-0.92	-0.7	-0.9	62.2	38.6	47.6	44.6	45.7	40.8	43	41.3
657	1.36	-0.29	1.56	-0.02	0.16	0.78	0.56	0.44	63.6	47.1	65.6	49.8	51.6	57.8	55.6	54.4
658	-1.13	2.03	1.69	1.49	1.83	1.51	1.38	1.51	38.7	70.3	66.9	64.9	68.3	65.1	63.8	65.1
659	-1.62	1.62	-0.87	1.5	1.93	1.69	1.62	1.8	33.8	66.2	41.3	65	69.3	66.9	66.2	68
660	1.05	1.91	-0.45	1.76	1.43	1.64	1.68	1.48	60.5	69.1	45.5	67.6	64.3	66.4	66.8	64.8
661	-0.78	1.69	-0.46	1.93	1.74	1.69	0.89	2.37	42.2	66.9	45.4	69.3	67.4	66.9	58.9	73.7
662	1.31	-1.15	-0.01	-1.74	-1.2	-0.24	-1.69	-1.4	63.1	38.5	49.9	32.6	38.1	47.6	33.1	36.2
663	1.43	-0.64	-1.13	-0.64	-0	-0.21	0.03	-0.2	64.3	43.6	38.7	43.6	49.9	47.9	50.3	48.3
664	1.4	1.69	1.69	1.82	1.94	2.11	2.43	1.73	64	66.9	66.9	68.2	69.4	71.1	74.3	67.3
665	0.95	2	-1.72	1.79	1.83	1.76	2.47	1.77	59.5	70	32.8	67.9	68.3	67.6	74.7	67.7
666	-1.22	1.64	0.03	1.22	1.25	1.44	1.17	1.09	37.8	66.4	50.3	62.2	62.5	64.4	61.7	60.9
667	-0.59	1.91	-0.53	1.04	0.93	0.78	0.99	1.09	44.1	69.1	44.7	60.4	59.3	57.8	59.9	60.9
668	-0.92	1.6	-0.9	1.31	1.65	2.54	1.25	1.68	40.8	66	41	63.1	66.5	75.4	62.5	66.8
669	-1.03	-0.84	-0.69	-0.44	-1.7	-0.71	-1.29	-1	39.7	41.6	43.1	45.6	32.7	42.9	37.1	40.4
670	-0.86	1.49	-0.46	0.89	1	-0.02	1.09	1.17	41.4	64.9	45.4	58.9	60	49.8	60.9	61.7
671	0.92	-1.78	1.67	-0.72	-0.9	-0.35	-1.64	-0.7	59.2	32.2	66.7	42.8	41	46.5	33.6	43
672	1.23	-1.78	-0.22	-1.74	-0.9	-0.26	-0.99	-1.5	62.3	32.2	47.8	32.6	40.6	47.4	40.1	35
673	-1.27	-0.37	1.62	-0.49	-0.1	-1.05	-0.49	-0.4	37.3	46.3	66.2	45.1	49.1	39.5	45.1	45.5
674	-0.94	-0.8	1.33	-0.9	-0.7	0.64	-0.76	-0.9	40.6	42	63.3	41	43.2	56.4	42.4	41
675	-0.75	1.48	2.1	1.24	0.89	1.44	1.09	0.94	42.5	64.8	71	62.4	58.9	64.4	60.9	59.4

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
676	-0.84	-0.7	0.31	-0.84	-0.1	-0.41	-0.63	-1.1	41.6	43	53.1	41.6	48.8	46	43.7	39.4
677	1.26	1.4	-0.55	1.67	1.66	0.83	1.88	0.97	62.6	64	44.5	66.7	66.6	58.3	68.8	59.7
678	1.06	1.11	1.19	1.51	1.57	1.51	1.54	0.09	60.6	61.1	61.9	65.1	65.7	65.1	65.4	50.9
679	-1.41	-0.62	0.17	-0.23	-0.8	-0.67	-0.75	-0.4	35.9	43.8	51.7	47.7	42.4	43.3	42.5	46.2
680	-0.84	-0.53	-0.46	-0.43	-0.9	-1.6	-1.09	-0.6	41.6	44.7	45.4	45.7	41.4	34	39.1	44.3
681	1.32	1.81	-1.19	1.75	1.93	1.86	0.89	1.8	63.2	68.1	38.1	67.5	69.3	68.6	58.9	68
682	-1.23	1.98	-0.72	2.09	1.83	1.51	1.79	1.42	37.7	69.8	42.8	70.9	68.3	65.1	67.9	64.2
683	1.15	-0.51	-0.53	-0.95	-1	-1.45	-1.14	-0.7	61.5	44.9	44.7	40.5	39.7	35.5	38.6	43.3
684	1.41	-0.48	-0.9	-0.82	-1.3	-0.72	-1.13	-1.8	64.1	45.2	41	41.8	37.2	42.8	38.7	31.7
685	-0.59	1.64	-0.83	1.6	1.32	1.75	1.16	1.84	44.1	66.4	41.7	66	63.2	67.5	61.6	68.4
686	-1.21	-1.3	-0.79	-1.04	-1.1	-1.23	-0.8	-0.6	37.9	37	42.1	39.6	39.4	37.7	42	44.3
687	1.22	2.03	-0.73	1.66	1.83	1.51	1.79	1.57	62.2	70.3	42.7	66.6	68.3	65.1	67.9	65.7
688	-0.99	-0.37	-0.39	-0.94	-0.8	-0.86	-0.57	-0.6	40.1	46.3	46.1	40.6	42.2	41.4	44.3	43.7
689	-0.65	-0.39	0.18	-1.01	-0.9	-0.37	-1.35	-1.2	43.5	46.1	51.8	39.9	41	46.3	36.5	38.2
690	1.12	-0.73	1.43	-0.97	-1.2	-1.74	-0.82	-0.7	61.2	42.7	64.3	40.3	37.8	32.6	41.9	42.7
691	1.13	1.62	1.26	1.36	0.89	1.34	0.81	1.17	61.3	66.2	62.6	63.6	58.9	63.4	58.1	61.7
692	-1.07	-0	-0.64	-0.78	-1.2	-0.24	-0.39	-1.6	39.3	50	43.6	42.2	38.1	47.6	46.1	33.6
693	0.94	0.11	-0.46	-0.71	-1.3	-0.99	-0.77	-0.6	59.4	51.1	45.4	42.9	36.6	40.1	42.3	43.5
694	1.12	-0.92	1.56	-1.26	-0.4	-0.56	-0.84	-0.7	61.2	40.8	65.6	37.4	45.9	44.4	41.6	42.7
695	-1.11	1.45	0.1	1.5	1.21	1.74	0.86	0.97	38.9	64.5	51	65	62.1	67.4	58.6	59.7
696	-0.57	1.83	-0.83	1.28	1.51	0.91	1.54	1.75	44.3	68.3	41.7	62.8	65.1	59.1	65.4	67.5
697	-0.55	1.91	-0.67	1.9	1.43	1.32	1.44	2.02	44.5	69.1	43.3	69	64.3	63.2	64.4	70.2
698	-0.58	-0.57	-0.6	-0.98	-0.9	-1.31	-0.83	-0.6	44.2	44.3	44	40.2	41.4	36.9	41.7	44.3
699	-1.24	-0.16	-1.72	-1.84	-1.9	-1.23	1.6	-1.4	37.6	48.4	32.8	31.6	31.3	37.7	66	35.8
700	-1.25	1.36	-0.59	1.25	1.81	2.17	1.46	0.4	37.5	63.6	44.1	62.5	68.1	71.7	64.6	54
701	1.02	-0.62	1.43	-0.31	-0.8	-1.54	-0.86	-1	60.2	43.8	64.3	46.9	42.3	34.6	41.4	40.2
702	0.88	-0.18	-0.01	-0.7	-1.1	-1.23	-0.82	-1	58.8	48.2	49.9	43	39.3	37.7	41.8	39.7
703	1.26	1.91	-0.47	2.14	1.81	2.22	1.6	2.58	62.6	69.1	45.3	71.4	68.1	72.2	66	75.8
704	1.21	-0.32	-0.64	-0.11	-0.5	-1.18	-0.8	-0.8	62.1	46.8	43.6	48.9	45.1	38.2	42	42
705	1.19	-1	-1.72	-1.24	-0.6	-1.42	-0.88	-1	61.9	40	32.8	37.6	43.6	35.8	41.2	40.2
706	1.16	1.33	1.66	1.75	1.67	1.3	0.89	2.25	61.6	63.3	66.6	67.5	66.7	63	58.9	72.5
707	1.38	-0.8	-0.51	-0.65	-0.7	0.45	-1.14	-2	63.8	42	44.9	43.5	43.2	54.5	38.6	30.1
708	1.32	-0.58	-0.53	-0.78	-1.2	-0.35	-0.51	-0.7	63.2	44.2	44.8	42.2	38.2	46.5	44.9	43.2
709	1.37	-0.76	0.42	-0.52	-0.5	-0.71	-0.68	-0.6	63.7	42.4	54.2	44.8	45.1	42.9	43.2	44.2

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
710	1.27	-1.3	-0.47	-0.58	-0.6	-0.22	-0.79	-0.3	62.7	37	45.3	44.2	43.8	47.8	42.1	47
711	1.03	-0.92	-0.14	-0.78	-0.4	-0.31	-0.57	-0.2	60.3	40.8	48.6	42.2	46	46.9	44.3	48.4
712	-0.61	-0.48	1.54	-1.01	-1.3	-0.88	-0.53	-1.2	43.9	45.2	65.4	39.9	37.1	41.2	44.7	38.2
713	-0.67	1.69	-1.06	1.41	1.68	1.3	1.42	1.87	43.3	66.9	39.4	64.1	66.8	63	64.2	68.7
714	-0.89	-0.66	-0.29	-0.73	-0.9	-0.22	-0.47	-0.4	41.1	43.4	47.1	42.7	41.2	47.8	45.3	45.7
715	-0.64	1.37	-0.83	1.02	1.02	0.91	1.29	1.06	43.6	63.7	41.7	60.2	60.2	59.1	62.9	60.6
716	-0.77	1.83	-1.02	1.77	2.03	1.77	1.46	2.02	42.3	68.3	39.8	67.7	70.3	67.7	64.6	70.2
717	-1.15	2	-0.28	1.61	1.67	1.27	1.52	1.77	38.5	70	47.2	66.1	66.7	62.7	65.2	67.7
718	-0.79	-0.54	2.1	-0.51	-1.4	-1.74	-1.06	-1	42.1	44.6	71	44.9	35.7	32.6	39.4	40.1
719	-1.1	-0.48	-1.37	-1.3	-1.3	-0.98	-1.1	-1.8	39	45.2	36.3	37	36.7	40.2	39	32.3
720	-0.58	-0.62	-0.69	-0.65	-0.8	-0.67	-0.12	-0.3	44.2	43.8	43.1	43.5	42.4	43.3	48.8	46.8
721	-0.91	-0.73	2.07	-1.26	-0.7	-0.6	-0.91	-1.2	40.9	42.7	70.7	37.4	43	44.1	40.9	38.5
722	-0.96	2.03	1.55	1.49	1.47	1.9	1.89	1.06	40.4	70.3	65.5	64.9	64.7	69	68.9	60.6
723	-1.18	2.46	-0.31	2.26	2.47	2.7	1.79	1.61	38.2	74.6	46.9	72.6	74.7	77	67.9	66.1
724	-0.62	1.5	1.09	1.44	1.66	0.84	1.31	0.87	43.8	65	60.9	64.4	66.6	58.4	63.1	58.7
725	1.21	-1.78	-1.4	-0.51	-1	-0.34	-1.22	-0.8	62.1	32.2	36	44.9	39.9	46.6	37.8	42.2
726	1.35	-0.2	-0.13	-0.06	-0.6	-1.48	0.03	-0.4	63.5	48	48.7	49.4	44.1	35.2	50.3	45.8
727	-1.08	-0.09	-0.57	-0.05	0.3	-0.3	0.73	0.01	39.2	49.1	44.3	49.5	53	47	57.3	50.1
728	-0.28	-0.37	-0.99	0.08	-0.8	-0.86	-0.57	-0.5	47.2	46.3	40.1	50.8	42.3	41.4	44.3	45.5
729	-0.55	-1.15	-1.37	-1.32	-0.9	-1.22	-1.19	-2	44.5	38.5	36.3	36.8	41	37.8	38.1	30.1
730	-0.82	1.54	-0.67	1.58	1.78	1.63	1.51	1.99	41.8	65.4	43.3	65.8	67.8	66.3	65.1	69.9
731	-0.77	-0.32	-0.67	-0.59	-0.9	-0.85	-0.54	-0.4	42.3	46.8	43.3	44.1	41.4	41.5	44.6	46.5
732	-0.85	2.2	-0.5	1.41	2.42	1.72	2.09	1.45	41.5	72	45	64.1	74.2	67.2	70.9	64.5
733	-0.56	-0.82	-1.72	-1.84	-1.2	-1.86	-1.71	-2.1	44.4	41.8	32.8	31.6	38.5	31.4	32.9	28.7
734	1.06	-1.52	0.25	-0.07	0.73	0.1	-0.22	-0.1	60.6	34.8	52.5	49.3	57.3	51	47.8	49.3
735	-1.6	-0.53	-1.37	-0.55	-0.8	-1.2	-1.14	-0.7	34	44.7	36.3	44.5	41.9	38	38.6	43.2
736	-1.31	1.79	-0.43	2.21	1.78	2.7	1.74	1.92	36.9	67.9	45.7	72.1	67.8	77	67.4	69.2
737	1.01	-1.17	-0.3	-0.72	-1.4	-0.79	-0.93	-2	60.1	38.3	47	42.8	36.1	42.1	40.7	30.1
738	1.53	-1.78	-0.04	-0.6	-0.1	-1.37	-0.53	-0.6	65.3	32.2	49.6	44	48.6	36.3	44.7	43.8
739	1.41	1.43	-0.59	1.75	1.67	1.55	0.89	1.15	64.1	64.3	44.1	67.5	66.7	65.5	58.9	61.5
740	1.27	-0.39	-0.67	-0.82	-0.9	-1.13	-1.13	-1.4	62.7	46.1	43.3	41.8	41	38.7	38.7	35.6
741	1.24	1.9	-0.63	1.8	1.9	1.4	1.56	2.25	62.4	69	43.7	68	69	64	65.6	72.5
742	1.07	1.98	-1.02	1.79	1.83	1.51	1.39	1.5	60.7	69.8	39.8	67.9	68.3	65.1	63.9	65
743	1.41	2.2	-0.59	1.37	1.77	1.63	2.04	1.44	64.1	72	44.1	63.7	67.7	66.3	70.4	64.4

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
744	1.21	1.64	-0.64	1.62	1.33	1.75	1	0.59	62.1	66.4	43.6	66.2	63.3	67.5	60	55.9
745	1.24	1.62	-0.73	1.79	2.2	1.36	1.49	1.5	62.4	66.2	42.7	67.9	72	63.6	64.9	65
746	1.1	1.45	-0.59	1.66	1.65	1.17	1.77	1.57	61	64.5	44.1	66.6	66.5	61.7	67.7	65.7
747	1.26	1.42	1.69	1.96	2.16	1.13	1.81	1.28	62.6	64.2	66.9	69.6	71.6	61.3	68.1	62.8
748	1.25	1.43	-0.28	1.82	2.16	1.83	1.69	1.72	62.5	64.3	47.2	68.2	71.6	68.3	66.9	67.2
749	0.98	-1.2	-1.37	-0.91	-1	-1.84	-0.67	-0.3	59.8	38	36.3	40.9	40	31.6	43.3	46.7
750	-0.94	-0.58	0.04	-0.32	0.01	-0.37	-0.2	0.21	40.6	44.2	50.4	46.8	50.1	46.3	48	52.1
751	-0.63	-0.06	0.38	-0.34	-0.6	-0.31	-0.23	-0.3	43.7	49.4	53.8	46.6	44.2	46.9	47.7	46.6
752	0.96	-0.47	-1.37	-1.24	-0.9	-1.45	-1.22	-0.9	59.6	45.3	36.3	37.6	40.9	35.5	37.8	41.3
753	-0.72	-0.24	1.2	-0.11	-1	-0.29	-0.44	-1	42.8	47.6	62	48.9	39.7	47.1	45.6	39.5
754	-0.69	-0.26	-0.46	-0.78	0.2	-0.16	-0.15	1.01	43.1	47.4	45.4	42.2	52	48.4	48.5	60.1
755	-0.33	-0.79	-0.5	-1.48	-1.5	-0.47	-1.1	-1.8	46.7	42.1	45	35.2	35.4	45.3	39	32.3
756	-1.19	-0.68	-1.01	-0.71	-0.2	-0.48	-0.89	-1.1	38.1	43.2	39.9	42.9	47.7	45.2	41.1	38.6
757	1.24	0.36	-0.64	0.29	0.29	1.15	0.39	0.08	62.4	53.6	43.6	52.9	52.9	61.5	53.9	50.8
758	-1.88	-0.76	-0.53	-0.31	-1	-0.99	-1.64	-0.9	31.2	42.4	44.7	46.9	39.6	40.1	33.6	41.3
759	1.1	-0.39	-0.79	-0.18	0.13	-0.49	-0.89	-0	61	46.1	42.1	48.2	51.3	45.1	41.1	49.6
760	1.23	-1.78	1.69	-0.12	0.44	-0.2	-0.04	-0.9	62.3	32.2	66.9	48.8	54.4	48	49.6	41.3
761	-0.79	-1.19	-0.4	-0.67	-0.4	-0.65	-0.78	-1.4	42.1	38.1	46	43.3	45.6	43.5	42.2	36.3
762	1.34	-0.37	0.09	-0.06	-0.5	-1.18	-1.07	-1.4	63.4	46.3	50.9	49.4	45.1	38.2	39.3	36.3
763	1.29	-0.4	-1.37	0.2	-0.4	-0.57	-0.4	0.26	62.9	46	36.3	52	45.9	44.3	46	52.6
764	1.18	-0.39	0.17	-1.24	-0.2	-0.65	-0.12	-0.5	61.8	46.1	51.7	37.6	48	43.5	48.8	45.3
765	1.63	-0.46	1.34	-0.49	-0.7	-1.45	-0.45	-1.3	66.3	45.4	63.4	45.1	43.5	35.5	45.5	36.7
766	1.43	-0.56	1.66	-0.39	-0.3	-0.87	-0.35	-0.3	64.3	44.4	66.6	46.1	46.5	41.3	46.5	47.2
767	1.18	-0.44	-0.79	-0.19	-0.7	-0.77	-0.73	-0.7	61.8	45.6	42.1	48.1	43.1	42.3	42.7	42.9
768	1.5	-0.28	-0.42	-0.43	-0.4	0.27	-0.32	0.52	65	47.2	45.8	45.7	45.7	52.7	46.8	55.2
769	-0.96	-1.16	-0.67	-0.26	-0.4	-0.85	0.03	0.26	40.4	38.4	43.3	47.4	46.4	41.5	50.3	52.6
770	-1.2	-0.72	-0.46	-1.13	-1.8	-1.23	-0.63	-0.8	38	42.8	45.4	38.7	32.4	37.7	43.7	41.6
771	-0.66	-1.2	-1.81	-0.8	-0.4	-0.19	-0.8	0.68	43.4	38	31.9	42	45.9	48.1	42	56.8
772	1.33	1.89	-0.36	1.79	1.52	2.28	1.44	1.58	63.3	68.9	46.4	67.9	65.2	72.8	64.4	65.8
773	-1.12	1.69	0	1.82	1.78	2.11	2.47	2.23	38.8	66.9	50	68.2	67.8	71.1	74.7	72.3
774	-0.73	-1.3	0.38	-0.1	-0.4	-0.56	-0.96	-0.5	42.7	37	53.8	49	45.9	44.4	40.4	45.3
775	1.09	-0.62	-1.72	-1.24	-0.9	-0.85	-1.33	-0.9	60.9	43.8	32.8	37.6	41.4	41.5	36.7	41.3
776	-0.95	-0.05	-0.21	0.1	-0.2	-0.06	-0.02	0.16	40.5	49.5	47.9	51	48	49.4	49.8	51.6
777	-1.08	1.9	-0.63	1.8	1.76	1.4	1.71	3.79	39.2	69	43.7	68	67.6	64	67.1	87.9

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
778	-0.86	1.54	1.53	1.66	2.17	1.13	1.71	1.41	41.4	65.4	65.3	66.6	71.7	61.3	67.1	64.1
779	0.93	1.62	1.86	1.8	2.2	1.37	1.77	2.75	59.3	66.2	68.6	68	72	63.7	67.7	77.5
780	-0.48	2.46	1.16	1.71	1.64	1.05	1.6	2.02	45.2	74.6	61.6	67.1	66.4	60.5	66	70.2
781	-1.55	-0.48	-1.62	-1.15	-1.3	-0.77	-0.53	-0.5	34.5	45.2	33.8	38.5	36.7	42.3	44.7	45
782	-0.68	-1.55	-0.3	0.16	-0.5	-0.61	-0.42	-0.6	43.2	34.5	47	51.6	45.3	43.9	45.8	44.4
783	-0.86	0.09	-0.5	0.39	-0.8	-0.57	0.54	0.84	41.4	50.9	45	53.9	42.4	44.3	55.4	58.4
784	-0.71	-0.78	-1.37	-0.78	-1	-0.87	-1	-1.3	42.9	42.2	36.3	42.2	39.7	41.3	40	37.1
785	1.11	-0.87	1.2	-0.65	-0.3	-0.92	-0.99	-0.5	61.1	41.3	62	43.5	46.9	40.8	40.1	45.3
786	1.19	-1.29	-0.46	-0.41	0.16	0.19	-0.63	-0.1	61.9	37.1	45.4	45.9	51.6	51.9	43.7	48.6
787	-0.99	1.4	-0.76	2.23	1.83	2.7	1.74	1.84	40.1	64	42.4	72.3	68.3	77	67.4	68.4
788	1.22	1.03	-1.06	1.71	1.76	2.54	1.71	2.37	62.2	60.3	39.4	67.1	67.6	75.4	67.1	73.7
789	1.02	1.8	-0.82	1.74	1.73	2.04	1.7	1.75	60.2	68	41.8	67.4	67.3	70.4	67	67.5
790	1.45	0.04	-0.5	-0.49	-1.4	-1.04	-0.7	-0.4	64.5	50.4	45	45.1	35.7	39.6	43	45.8
791	-1.29	-1.03	2.01	-0.57	-0.6	-0.33	-0.46	-0.3	37.1	39.7	70.1	44.3	43.8	46.7	45.4	47
792	1.06	-1.02	-1.05	-0.68	0.03	1.01	-0.22	-1	60.6	39.8	39.5	43.2	50.3	60.1	47.8	40.1
793	1.14	-0.18	-0.66	-0.24	-0.8	-1.13	-0.06	-1.1	61.4	48.2	43.4	47.6	42.3	38.7	49.4	38.7
794	-1.15	-0.37	1.61	-0.14	-0.3	-0.85	-0.41	-0.7	38.5	46.3	66.1	48.6	47	41.5	45.9	42.5
795	1.32	-0.17	-1.19	-0.43	-1	0.01	-1.14	-0.7	63.2	48.3	38.1	45.7	39.9	50.1	38.6	42.6
796	1.32	-0.92	-0.17	-0.44	-0	0.38	-0.08	-0.8	63.2	40.8	48.3	45.6	49.7	53.8	49.2	41.8
797	1.25	-0.37	2.07	-0.54	-0.7	-0.77	-0.58	-1.2	62.5	46.3	70.7	44.6	43.1	42.3	44.2	38.2
798	1.29	-0.94	1.22	0.96	-0.5	-0.77	0.1	0.01	62.9	40.6	62.2	59.6	45	42.3	51	50.1
799	-0.74	-0.62	1.62	-0.54	-0.4	-0.47	-0.65	-0.9	42.6	43.8	66.2	44.6	45.8	45.3	43.5	41.3
800	-0.99	-0.26	1.56	-0.38	0.21	-0.42	0.26	-0.3	40.1	47.4	65.6	46.2	52.1	45.8	52.6	47.5
801	-1.01	2.03	1.69	1.49	1.83	1.51	1.54	1.54	39.9	70.3	66.9	64.9	68.3	65.1	65.4	65.4
802	1.22	1.65	-0.87	1.5	1.93	0.88	1.62	1.78	62.2	66.5	41.3	65	69.3	58.8	66.2	67.8
803	1.24	1.91	-0.45	1.76	1.81	2.2	1.7	1.5	62.4	69.1	45.5	67.6	68.1	72	67	65
804	1.23	1.69	-0.46	1.93	1.74	1.69	1.39	2.37	62.3	66.9	45.4	69.3	67.4	66.9	63.9	73.7
805	-1.37	-1.15	-0.42	-1.74	-1.2	-0.24	-1.69	-1.4	36.3	38.5	45.8	32.6	38.1	47.6	33.1	35.8
806	-1.15	-0.63	-1.13	-0.64	-0	-0.21	0.03	-0.2	38.5	43.7	38.7	43.6	49.9	47.9	50.3	48.3
807	-0.36	1.69	1.69	2.58	1.94	2.11	2.43	1.79	46.4	66.9	66.9	75.8	69.4	71.1	74.3	67.9
808	-1.52	2	-1.68	1.79	1.83	2.76	2.47	2.18	34.8	70	33.2	67.9	68.3	77.6	74.7	71.8
809	-0.63	-0.8	-1.37	-1.84	-1.2	-1.84	1.68	-1.4	43.7	42	36.3	31.6	38.5	31.6	66.8	35.9
810	-0.55	1.8	-0.72	1.21	1.23	1.13	1.29	1.09	44.5	68	42.8	62.1	62.3	61.3	62.9	60.9
811	-0.89	1.45	-0.65	1.18	1.14	1	0.97	1.06	41.1	64.5	43.5	61.8	61.4	60	59.7	60.6

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
812	-1.05	1.6	0.2	1.32	1.66	0.45	1.71	1.68	39.5	66	52	63.2	66.6	54.5	67.1	66.8
813	-0.5	-1.78	-0.69	-0.44	-0.9	0.06	-1.29	-1	45	32.2	43.1	45.6	41.4	50.6	37.1	40.4
814	1.05	1.49	-0.46	0.91	1	1.13	1.1	1.17	60.5	64.9	45.4	59.1	60	61.3	61	61.7
815	1.41	-1.78	1.66	-0.82	-0.9	-0.16	-1.63	-1.1	64.1	32.2	66.6	41.8	41	48.4	33.7	39.5
816	1.27	-1.15	-0.21	-1.74	-0.9	-1.78	-0.99	-1.5	62.7	38.5	47.9	32.6	41	32.2	40.1	35
817	1.3	-0.36	1.62	-0.56	-0.1	-1.05	-0.49	-0.7	63	46.4	66.2	44.4	49.1	39.5	45.1	43
818	1.17	-0.8	1.3	-1.03	-0.7	-0.74	-1.14	-1.4	61.7	42	63	39.7	43.2	42.6	38.6	36.2
819	1.27	1.48	2.1	1.2	0.89	1.02	1.08	0.94	62.7	64.8	71	62	58.9	60.2	60.8	59.4
820	1.33	-1.16	-0.3	-0.59	-0.3	-0.54	-0.62	-0.8	63.3	38.4	47	44.1	46.8	44.6	43.8	42
821	1.32	1.71	-0.55	1.44	1.7	2.04	1.89	1.63	63.2	67.1	44.5	64.4	67	70.4	68.9	66.3
822	1.13	1.15	1.18	1.25	1.52	1.48	1.52	0.1	61.3	61.5	61.8	62.5	65.2	64.8	65.2	51
823	-0.53	-0.62	-0.31	-0.82	-0.8	-0.57	-0.65	-0.4	44.7	43.8	46.9	41.8	42.4	44.3	43.5	46.2
824	-1.15	-0.53	-0.46	-0.63	-0.9	-0.84	-0.45	-0.6	38.5	44.7	45.4	43.7	41.4	41.6	45.5	44.4
825	-0.85	1.81	-1.19	1.75	1.94	1.86	1.51	1.8	41.5	68.1	38.1	67.5	69.4	68.6	65.1	68
826	1.55	1.99	-0.33	2.14	1.83	1.51	1.68	1.38	65.5	69.9	46.7	71.4	68.3	65.1	66.8	63.8
827	1.36	-0.51	-0.53	-0.94	-1	-1.45	-0.67	-0.1	63.6	44.9	44.7	40.6	39.7	35.5	43.3	49.4
828	1.59	-1.15	-0.9	-0.82	-0.6	-0.43	-1.14	-1.4	65.9	38.5	41	41.8	43.9	45.7	38.6	36.2
829	0.98	1.65	-0.54	1.13	1.31	1.31	1.88	1.73	59.8	66.5	44.6	61.3	63.1	63.1	68.8	67.3
830	-0.57	-1.3	-0.79	-1.04	-0.9	-0.27	-0.78	-0.6	44.3	37	42.1	39.6	40.6	47.3	42.2	44.3
831	-0.95	1.23	1.42	1.71	1.76	1.44	1.79	1.57	40.5	62.3	64.2	67.1	67.6	64.4	67.9	65.7
832	1.07	-0.36	-0.39	-0.46	-0.8	-0.86	-0.57	-1.4	60.7	46.4	46.1	45.4	42.3	41.4	44.3	35.6
833	-0.6	-0.39	1.39	-1.01	-0.9	-0.37	-1.35	-1.2	44	46.1	63.9	39.9	41	46.3	36.5	38.2
834	-0.82	-0.73	-0.47	-0.98	-1.2	-0.14	-0.69	-0.6	41.8	42.7	45.3	40.2	37.7	48.6	43.1	43.9
835	0.9	2.03	1.26	1.36	1.25	1.31	0.85	1.18	59	70.3	62.6	63.6	62.5	63.1	58.5	61.8
836	1.37	0.83	-0.59	0.19	0.09	0.23	0.4	0.14	63.7	58.3	44.1	51.9	50.9	52.3	54	51.4
837	-0.65	-0.18	0.09	0.23	0.03	-0.37	-0.19	-0.3	43.5	48.2	50.9	52.3	50.3	46.3	48.1	46.9
838	1.24	0.21	1.73	-0.33	-0.5	-0.02	-0.15	0.82	62.4	52.1	67.3	46.7	45.3	49.8	48.5	58.2
839	1.22	-1.07	-1.1	-0.61	-0.2	-1.32	-0.65	-1.1	62.2	39.3	39	43.9	48.5	36.8	43.5	38.6
840	-0.83	-1.3	-0.64	-0.4	-0.4	0.78	-0.19	-0.4	41.7	37	43.6	46	45.7	57.8	48.1	46.3
841	-1.93	0.28	-1.06	-0.28	-0.8	0.25	-0.58	-1.1	30.7	52.8	39.4	47.2	42.4	52.5	44.2	39.5
842	-0.93	-1.19	-0.06	-0.26	-0.7	0.49	-0.94	-0.4	40.7	38.1	49.4	47.4	42.8	54.9	40.6	45.8
843	-0.85	-0.79	-0.33	-0.72	-0.7	1.32	-1.05	-1	41.5	42.1	46.7	42.8	42.5	63.2	39.5	40.1
844	-1.14	-0.39	-0.45	-0.26	-0.2	-0.69	-0.31	-0.3	38.6	46.1	45.5	47.4	47.6	43.1	46.9	46.8
845	1.05	-0.54	-0.63	-0.95	-0.7	-0.86	-1.18	-1	60.5	44.6	43.7	40.5	43.3	41.4	38.2	40.4

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
846	1.29	-0.78	-0.15	-0.65	-0.4	-0.85	-0.22	-0.8	62.9	42.2	48.5	43.5	46.4	41.5	47.8	41.8
847	1.12	-0.75	-0.59	-0.52	-0.5	-0.11	-0.69	-0.6	61.2	42.5	44.1	44.8	45.1	48.9	43.1	44.1
848	1.16	-0.46	1.69	-0.91	-0.9	0.03	-0.7	-0.2	61.6	45.4	66.9	40.9	41	50.3	43	47.8
849	1.13	-0.72	1.8	-0.95	-0.5	-0.16	-0.84	0.05	61.3	42.8	68	40.5	44.6	48.4	41.6	50.5
850	-1.17	-1.78	-0.83	-1.26	-0.7	-0.66	-1.33	-1.1	38.3	32.2	41.7	37.4	42.5	43.4	36.7	39
851	1.36	-0.05	-0.87	-0.43	-1.3	-1.78	-0.83	-0.5	63.6	49.5	41.3	45.7	37.2	32.2	41.7	44.9
852	-1.03	-0.32	-0.89	-0.85	-1.5	-1.04	0.05	-0.6	39.7	46.8	41.1	41.5	35.4	39.6	50.5	43.9
853	-1.02	-1.01	1.27	-1.05	-0.9	0.03	-0.58	-1.2	39.8	39.9	62.7	39.5	41.4	50.3	44.2	38.5
854	-0.73	-0.69	1.61	-0.57	-0.9	-0.17	-0.82	-0.3	42.7	43.1	66.1	44.3	40.8	48.3	41.8	47
855	-0.91	-0	0.38	-0.52	-1.2	-0.15	-1.07	-0.3	40.9	50	53.8	44.8	38.1	48.5	39.3	46.7
856	-0.44	-0.84	-0.8	-0.48	-0.6	-0.71	-0.36	-1.3	45.6	41.6	42	45.2	44.4	42.9	46.4	37.1
857	-0.94	-0.7	0.91	-0.62	-0.1	-0.41	-0.98	-0.4	40.6	43	59.1	43.8	48.9	46	40.2	45.5
858	1.09	-0.72	-0.21	-1.21	-0.5	-0.87	-0.71	-0.6	60.9	42.8	47.9	38	44.6	41.3	42.9	44.4
859	1.3	1.81	-1.72	1.8	1.76	1.76	1.77	2.45	63	68.1	32.8	68	67.6	67.6	67.7	74.5
860	1.03	2	-1.68	1.79	1.83	1.55	2.47	2.17	60.3	70	33.2	67.9	68.3	65.5	74.7	71.7
861	-1.19	-0.31	-0.78	1.69	-1.9	1.59	1.37	1.64	38.1	46.9	42.2	66.9	30.9	65.9	63.7	66.4
862	-0.48	1.56	0.8	0.98	1.09	1.37	-0.42	1.09	45.2	65.6	58	59.8	60.9	63.7	45.8	60.9
863	-1.15	1	-0.09	-1.04	0.79	1.4	0.22	0.02	38.5	60	49.1	39.6	57.9	64	52.2	50.2
864	-1.27	1.37	-0.6	1.02	1.03	0.1	1.3	1.06	37.3	63.7	44	60.2	60.3	51	63	60.6
865	0.94	-0.8	-0.44	-0.45	-1.7	1.59	1.97	1.64	59.4	42	45.6	45.5	32.7	65.9	69.7	66.4
866	1.09	1.8	-1.1	1.92	1.23	1.19	1.79	0.86	60.9	68	39	69.2	62.3	61.9	67.9	58.6
867	0.99	-0.45	-1.11	0.46	-0.5	-0.77	0.26	-0.8	59.9	45.5	38.9	54.6	45	42.3	52.6	41.8
868	-0.61	-0.62	-0.69	-1.24	-0.8	-0.76	-0.84	-0.1	43.9	43.8	43.1	37.6	41.7	42.4	41.6	48.6
869	-0.99	-0.72	-0.82	-1.72	-1.7	-1.23	1.5	-1.4	40.1	42.8	41.8	32.8	32.7	37.7	65	35.5
870	-0.63	-1.2	2.03	-1.3	-1.7	-0.28	-1.66	-2.1	43.7	38	70.3	37	33.3	47.2	33.4	28.7
871	-1.26	1.91	1.47	2.21	1.97	1.44	1.49	1.89	37.4	69.1	64.7	72.1	69.7	64.4	64.9	68.9
872	1.18	-0.55	-0.28	0.82	0.35	0.45	-0	-0.4	61.8	44.5	47.2	58.2	53.5	54.5	50	45.8
873	0.93	1.07	-0.95	-0.44	1.08	1.19	0.66	-1.3	59.3	60.7	40.5	45.6	60.8	61.9	56.6	36.7
874	-1.31	1.54	1.8	1.2	1.5	1.65	1.16	0.95	36.9	65.4	68	62	65	66.5	61.6	59.5
875	1.53	-0.04	-0.64	-1	-0.1	-1.1	-0.09	-0.7	65.3	49.6	43.6	40	49	39	49.1	42.6
876	-1.22	-0.39	1.35	-0.95	-0.2	-0.69	-0.63	-0.9	37.8	46.1	63.5	40.5	47.6	43.1	43.7	40.7
877	1.18	1.69	-0.71	2.14	1.59	1.57	1.44	2.02	61.8	66.9	42.9	71.4	65.9	65.7	64.4	70.2
878	-0.86	1.8	-1.06	1.17	1.4	1.63	0.99	1.08	41.4	68	39.4	61.7	64	66.3	59.9	60.8
879	-0.62	-0.2	-0.8	-0.83	-1	-1.84	-0.56	-0.7	43.8	48	42	41.7	39.9	31.6	44.4	43

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
880	-0.7	-0.76	-0.15	-1.24	-1	-1.23	-1.66	-0.2	43	42.4	48.5	37.6	39.5	37.7	33.4	48.2
881	1.33	1.91	-0.45	1.76	1.21	1.13	2.43	2.02	63.3	69.1	45.5	67.6	62.1	61.3	74.3	70.2
882	-0.65	-0.37	-0.46	-0.68	-0	-0.9	-0.63	-1	43.5	46.3	45.4	43.2	49.5	41	43.7	39.9
883	-1.26	1.3	0.91	1.33	1.5	1.53	1.29	1.22	37.4	63	59.1	63.3	65	65.3	62.9	62.2
884	1.29	-1.19	1.73	-0.86	-1	-0.66	-0.67	-0.3	62.9	38.1	67.3	41.4	39.6	43.4	43.3	46.7
885	0.87	-0.43	0.09	-0.62	-0.4	-0.83	-0.89	-0.4	58.7	45.7	50.9	43.8	46.2	41.7	41.1	45.8
886	-0.96	-0.37	-0.49	-0.31	0.35	-0.33	-0.26	-0.6	40.4	46.3	45.1	46.9	53.5	46.7	47.4	44.3
887	1.27	1.6	-1.01	1.31	1.65	2.47	1.72	1.68	62.7	66	39.9	63.1	66.5	74.7	67.2	66.8
888	-1.53	-0.39	-1.19	-1.15	-0.9	-0.61	-1.03	-1.6	34.7	46.1	38.1	38.5	41	43.9	39.7	33.9
889	-0.58	-0.46	-0.17	-0.14	-0.1	0.02	-0.54	-0.3	44.2	45.4	48.3	48.7	49	50.2	44.6	46.9
890	1.29	-0.69	1.86	-0.63	-0.9	0.05	-1.22	-1.3	62.9	43.1	68.6	43.7	41.4	50.5	37.8	37
891	-0.64	1.06	1.66	1.17	1.76	2.76	1.62	1.99	43.6	60.6	66.6	61.7	67.6	77.6	66.2	69.9
892	0.98	1.4	-0.77	1.5	1.39	1.31	1	1.22	59.8	64	42.3	65	63.9	63.1	60	62.2
893	-0.85	2.46	-0.67	1.61	1.6	1.57	1.71	1.37	41.5	74.6	43.3	66.1	66	65.7	67.1	63.7
894	1.11	-0.8	-0.38	-0.53	-0.3	-0.47	-0.01	0.11	61.1	42	46.2	44.7	46.7	45.3	49.9	51.1
895	-0.87	-0.54	-0.82	-1.24	-0.7	-0.78	-0.53	-0.5	41.3	44.6	41.8	37.6	43.3	42.2	44.7	45.1
896	1.34	1.71	-1	1.66	1.7	2.04	1.4	1.37	63.4	67.1	40	66.6	67	70.4	64	63.7
897	-0.79	-0.8	0.3	-0.83	0.23	0.3	-1	-0.8	42.1	42	53	41.7	52.3	53	40	42.3
898	0.79	-0.53	1.26	-0.62	-0.9	-0.6	-0.69	-0.6	57.9	44.7	62.6	43.8	41.4	44	43.1	44.4
899	-0.69	1.46	1.05	1.25	1.64	1.11	1.6	1.63	43.1	64.6	60.5	62.5	66.4	61.1	66	66.3
900	-0.96	-1	1.73	-0.88	-0.6	0.45	-0.75	-1.2	40.4	40	67.3	41.2	43.6	54.5	42.5	37.8
901	1.73	-0.45	-0.37	-0.24	-1	-1.21	-0.16	-0.4	67.3	45.5	46.3	47.6	40.4	37.9	48.4	45.6
902	-0.29	1.37	0.8	1.05	1.08	1.17	1.3	0.91	47.1	63.7	58	60.5	60.8	61.7	63	59.1
903	-1.27	-1.28	1.45	-0.56	-0.3	1.02	-0.76	-0.3	37.3	37.2	64.5	44.4	46.9	60.2	42.4	46.9
904	-0.81	-0.57	2.01	-0.78	-0.8	-0.19	-1.06	-0.7	41.9	44.3	70.1	42.2	42.2	48.1	39.4	42.7
905	-0.94	-0.32	-0.09	-0.04	-0.6	-1.78	-0.19	-0.3	40.6	46.8	49.1	49.6	43.8	32.2	48.1	47.3
906	-0.54	-1.13	-1.06	-0.3	-0.6	-0.71	-0.41	-0.4	44.6	38.7	39.4	47	44.4	42.9	45.9	46
907	-0.92	-0.73	1.85	-1.26	-0.7	-1.5	-0.53	-0.7	40.8	42.7	68.5	37.4	43	35	44.7	43.3
908	1.23	-0.6	-0.63	0.38	-0.2	-0.71	-0.29	-0.3	62.3	44	43.7	53.8	48.4	42.9	47.1	47.3
909	1.01	1.4	-0.04	1.24	1.36	1.76	1.21	1.29	60.1	64	49.6	62.4	63.6	67.6	62.1	62.9
910	1.21	-0.87	1.86	-0.37	-0.3	-0.49	-0.31	-0.7	62.1	41.3	68.6	46.3	47.4	45.1	46.9	43.3
911	1.23	1.2	1.73	1.06	1.02	0.89	1.1	1.09	62.3	62	67.3	60.6	60.2	58.9	61	60.9
912	1.01	1.74	-0.67	1.9	2.03	1	1.6	2.02	60.1	67.4	43.3	69	70.3	60	66	70.2
913	-0.85	1.99	-1	2.09	1.83	1.51	0.89	1.37	41.5	69.9	40	70.9	68.3	65.1	58.9	63.7

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
914	-1.12	-0.91	1.35	-0.62	-0.9	0.32	-0.99	-1	38.8	40.9	63.5	43.8	41.2	53.2	40.1	40.1
915	-0.78	-1.19	-0.47	-0.59	-0.4	0.51	-0.63	-0.4	42.2	38.1	45.3	44.1	45.7	55.1	43.7	46.4
916	-0.53	-0.13	-0.82	-0.77	-0.6	-0.71	-0.99	-0.7	44.7	48.7	41.8	42.3	44.4	42.9	40.1	43.4
917	-0.88	-0.93	-0.97	-0.61	-0.3	-0.28	-0.61	-1.2	41.2	40.7	40.3	43.9	46.6	47.2	43.9	38.2
918	1.41	2.2	-0.34	1.88	2.42	1.9	1.71	1.39	64.1	72	46.6	68.8	74.2	69	67.1	63.9
919	-1.25	1.49	-0.71	1.59	2.03	0.89	1.25	0.75	37.5	64.9	42.9	65.9	70.3	58.9	62.5	57.5
920	1.16	1.54	-0.51	1.87	1.11	2.76	1.79	1.25	61.6	65.4	44.9	68.7	61.1	77.6	67.9	62.5
921	-1.07	-0.57	-0.22	-0.54	-0.8	-1.44	-1.08	-1.1	39.3	44.3	47.8	44.6	42.2	35.6	39.2	38.6
922	-0.71	-1.05	-0.83	-0.65	-0.2	-1.32	-0.61	-0.6	42.9	39.5	41.7	43.5	48.4	36.8	43.9	44.3
923	-0.97	0.07	1.33	-0.07	-0.9	-1.06	-0.22	-0.8	40.3	50.7	63.3	49.3	40.6	39.4	47.8	42.1
924	1.1	-0.89	0.83	-0.31	-0.6	-1.5	-0.13	-0.9	61	41.1	58.3	46.9	43.6	35	48.7	40.9
925	-0.66	-1.01	-0.04	-1.04	-0.9	0.03	-1.13	1.09	43.4	39.9	49.6	39.6	41.5	50.3	38.7	60.9
926	0.5	1.68	-0.54	2.26	2.14	1.9	2.43	1.88	55	66.8	44.6	72.6	71.4	69	74.3	68.8
927	-1.17	-1.17	-0.46	-1.33	-1.4	-1.2	-0.82	-1.7	38.3	38.3	45.4	36.7	36.1	38	41.8	32.6
928	-0.8	1.4	1.66	1.51	2.03	1	1.6	1.78	42	64	66.6	65.1	70.3	60	66	67.8
929	-0.71	-0.44	-0.36	-0.93	-0.7	0.26	-0.78	-1	42.9	45.6	46.4	40.7	42.6	52.6	42.2	39.7
930	1.2	-0.16	-1.08	-1.76	-1.9	-1.23	-0.67	-1.4	62	48.4	39.2	32.4	31.3	37.7	43.3	36.2
931	-0.53	-0.89	-0.13	0.18	-0.2	-0.3	-0.41	0.46	44.7	41.1	48.7	51.8	47.9	47	45.9	54.6
932	-0.8	1.42	-0.86	1.92	2.15	1.76	1.81	1.27	42	64.2	41.4	69.2	71.5	67.6	68.1	62.7
933	-0.53	-1.01	-1.03	-0.72	-1.1	-0.99	-0.94	-1.3	44.7	39.9	39.7	42.8	39	40.1	40.6	36.7
934	-0.95	-0.92	-1.13	-0.28	-0.6	-0.68	-0.58	-0.2	40.5	40.8	38.7	47.2	43.8	43.2	44.2	47.7
935	-0.99	1.6	-0.82	1.66	1.76	1.41	1.42	1.75	40.1	66	41.8	66.6	67.6	64.1	64.2	67.5
936	-0.64	-0.72	1.82	-0.31	-0.5	-0.77	-0.81	-0.8	43.6	42.8	68.2	46.9	44.6	42.3	41.9	41.6
937	-1.3	2.03	1.95	1.59	1.47	1.02	1.48	1.14	37	70.3	69.5	65.9	64.7	60.2	64.8	61.4
938	-0.6	1.65	0.8	1.31	1.9	1.77	0.94	1.99	44	66.5	58	63.1	69	67.7	59.4	69.9
939	-0.42	1.46	-0.54	1.71	1.65	1.17	1.09	1.47	45.8	64.6	44.6	67.1	66.5	61.7	60.9	64.7
940	1.32	2.03	-0.96	1.59	1.52	2.28	1	1.47	63.2	70.3	40.4	65.9	65.2	72.8	60	64.7
941	-1.07	1.43	-1.08	1.71	1.67	1.63	1.44	1.15	39.3	64.3	39.2	67.1	66.7	66.3	64.4	61.5
942	-0.96	1.1	0.28	1.22	1.45	1.32	1.47	1.98	40.4	61	52.8	62.2	64.5	63.2	64.7	69.8
943	-1.13	1.91	-0.84	1.04	0.9	1.36	1.04	1.37	38.7	69.1	41.6	60.4	59	63.6	60.4	63.7
944	-0.79	1.79	-0.61	1.79	2.18	2.28	1.72	1.77	42.1	67.9	43.9	67.9	71.8	72.8	67.2	67.7
945	-0.89	-0.84	-0.22	-0.26	-0.6	0.38	-0.84	-0.3	41.1	41.6	47.8	47.4	44.1	53.8	41.6	47.2
946	0.91	-1.78	-0.47	-0.59	1.02	0.9	-1.04	-0.7	59.1	32.2	45.3	44.1	60.2	59	39.6	42.9
947	-0.52	-1.54	1.43	-0.54	-0.7	0.48	-0.78	-0.9	44.8	34.6	64.3	44.6	42.7	54.8	42.2	41.3

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
948	1.07	0.12	1.2	-0.71	-1.3	-0.98	-0.8	-0.6	60.7	51.2	62	42.9	36.7	40.2	42	43.5
949	-0.65	-0.8	-1.03	-0.78	-0.7	-0.69	-0.77	-0.6	43.5	42	39.7	42.2	43.2	43.1	42.3	43.7
950	-0.95	-0.44	0.2	0.39	0.2	-0.16	0.73	-0.1	40.5	45.6	52	53.9	52	48.4	57.3	49.3
951	1.34	-0.62	0.63	-0.2	-0.8	-0.72	-0.51	-1.2	63.4	43.8	56.3	48	42.3	42.8	44.9	38.1
952	-0.93	-0.73	-0.15	-0.31	-0.9	-0.46	-0.65	-0.8	40.7	42.7	48.5	46.9	41.4	45.4	43.5	41.6
953	1.18	-0.62	1.37	0.02	-0.1	-0.92	0.14	-0.3	61.8	43.8	63.7	50.2	49.2	40.8	51.4	46.8
954	-0.88	-0.62	-1.03	-1.04	-0.5	-0.34	-0.99	-1.4	41.2	43.8	39.7	39.6	45.3	46.6	40.1	36.2
955	-0.39	-0.87	-0.67	-0.21	-0.3	-0.92	-0.39	-0.5	46.1	41.3	43.3	47.9	47	40.8	46.1	44.6
956	-0.67	-0.6	-0.72	-0.95	-0.2	-0.68	-0.32	-0.4	43.3	44	42.8	40.5	48.4	43.2	46.8	46.2
957	1.17	-0.7	-0.86	-0.73	-0.3	-0.61	-1.33	-0.6	61.7	43	41.4	42.7	47.2	43.9	36.7	43.8
958	-0.51	-0.7	-1.05	-0.97	-0.3	-0.55	-0.65	-0.3	44.9	43	39.5	40.3	47.2	44.5	43.5	47.2
959	1.13	-0.26	-0.65	0.43	-1.4	-0.9	-0.36	-0.9	61.3	47.4	43.5	54.3	35.7	41	46.4	41
960	-0.93	-0.63	-0.34	-0.37	-0	0.04	0.03	-0.3	40.7	43.7	46.7	46.3	49.9	50.4	50.3	46.5
961	-0.5	-0	-0.82	-0.43	-1.2	-0.79	-1.14	-1.3	45	50	41.8	45.7	38.1	42.1	38.6	37.1
962	1.34	-1.19	-1.13	-1.68	-0.5	-1.21	-0.89	-0.6	63.4	38.1	38.7	33.2	44.6	37.9	41.1	44.3
963	1.26	-0.94	1.66	-0.64	-0.8	0.19	-0.5	-1.6	62.6	40.6	66.6	43.6	41.8	51.9	45	33.9
964	1.21	-0.26	-0.43	-0.36	-1.4	-0.47	-0.3	-0.8	62.1	47.4	45.7	46.4	35.7	45.3	47	42.3
965	-0.78	-0.68	-0.78	-0.78	-0.6	0.15	-0.23	-0.9	42.2	43.2	42.2	42.2	44	51.5	47.7	40.8
966	1.28	-1.05	-0.86	-0.37	-0.3	-0.81	-0.41	-0.6	62.8	39.6	41.4	46.3	47.2	41.9	45.9	43.7
967	1.29	-0.92	0.91	-0.93	-0.4	0.03	-0.2	-0.4	62.9	40.8	59.1	40.7	46	50.3	48	45.6
968	-1.31	-0.37	1.66	-0.48	-0	-0.46	-0.5	-0.2	36.9	46.3	66.6	45.2	49.6	45.4	45	48.2
969	1.61	-0.86	1.66	-0.57	-0.6	-1.28	-0.65	-0.3	66.1	41.4	66.6	44.3	43.8	37.2	43.5	47.3
970	-0.98	-1.19	1.69	-0.53	0.2	-0.18	-0.67	-0.1	40.2	38.1	66.9	44.7	52	48.2	43.3	48.9
971	-0.67	-0.91	-0.89	-0.73	-0.7	-0.79	-0.41	-0.2	43.3	40.9	41.1	42.7	43.2	42.1	45.9	47.5
972	-0.79	-0.69	-0.21	-0.23	-0.3	-0.24	-0.26	0.68	42.1	43.1	47.9	47.7	46.9	47.6	47.4	56.8
973	-1.17	-1.05	-0.95	-0.7	-0.9	-0.72	-0.66	-0.6	38.3	39.5	40.5	43	41.1	42.8	43.4	44.1
974	1.31	-0.4	-0.3	-0.59	-0.5	0.38	-0.52	-0.3	63.1	46	47	44.1	45.3	53.8	44.8	46.9
975	-1.33	-0.62	1.45	-0.44	-0.6	0.96	0.65	0.12	36.7	43.8	64.5	45.6	43.8	59.6	56.5	51.2
976	1.25	-1.19	-0.69	-0.84	-0.4	-0.85	-0.89	-0.6	62.5	38.1	43.1	41.6	46.4	41.5	41.1	44.3
977	1.18	-0.52	-0.59	-0.42	-0.3	-0.37	-0.89	-1.2	61.8	44.8	44.1	45.8	46.8	46.3	41.1	38.5
978	1.34	-0.33	0.77	-0.3	-0.1	-0.23	-0.13	-1.4	63.4	46.7	57.7	47	49.1	47.7	48.7	36.3
979	-1.26	-0.89	0.91	-0.91	-0.9	-0.23	-0.29	-0.2	37.4	41.1	59.1	40.9	41.3	47.7	47.1	47.8
980	-0.82	-0.89	1.64	-0.59	-0.7	-1.53	-0.57	-1.3	41.8	41.1	66.4	44.1	42.6	34.7	44.3	36.6
981	-0.59	-1.54	-0.88	-1.24	-1.2	-1.2	-1.03	-0.7	44.1	34.6	41.2	37.6	38	38	39.7	42.6

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
982	1.05	-0.58	0.25	-0.19	0.89	0.77	-0.02	-0.2	60.5	44.2	52.5	48.1	58.9	57.7	49.8	48.4
983	-0.91	-1.02	-0.61	-0.37	-0.5	0.78	-1.13	-0.7	40.9	39.8	43.9	46.3	44.7	57.8	38.7	42.7
984	-1.01	-0.83	-0.66	-0.82	-1.4	-1.2	-1.28	-2	39.9	41.7	43.4	41.8	36.1	38	37.2	29.7
985	-0.99	-0.4	1.74	0.18	0.9	1.34	-0.24	0.21	40.1	46	67.4	51.8	59	63.4	47.6	52.1
986	1.53	-1.2	1.2	-1.67	-1.2	-0.86	-1.27	-1.4	65.3	38	62	33.3	38.2	41.4	37.3	36.3
987	-0.91	-0.26	-0.44	-0.3	-0.9	-0.38	-0.79	-1.3	40.9	47.4	45.6	47	41.3	46.2	42.1	36.7
988	1.1	1	-1.29	1.79	1.88	1.64	1.77	1.92	61	60	37.1	67.9	68.8	66.4	67.7	69.2
989	-0.94	1.71	0.09	1.6	1.74	2.07	1.62	1.32	40.6	67.1	50.9	66	67.4	70.7	66.2	63.2
990	-1.17	-0.64	1.68	-1.15	-1.2	-1.93	-1.35	-1.3	38.3	43.6	66.8	38.5	38.2	30.7	36.5	37.1
991	1.2	-0.94	-1.03	0.14	-0.4	-0.14	-0.72	-0.1	62	40.6	39.7	51.4	45.8	48.6	42.8	48.9
992	-0.78	-0.58	-0.04	-0.21	0.05	0.09	-1.06	0.09	42.2	44.2	49.6	47.9	50.5	50.9	39.4	50.9
993	-0.51	1.47	-0.61	1.96	1.83	2.73	1.6	-1.5	45	64.7	43.9	69.6	68.3	77.3	66	35
994	1.18	1.69	2.03	1.5	2.42	1.8	1.57	2.76	61.8	66.9	70.3	65	74.2	68	65.7	77.6
995	-0.96	1.42	1.22	2.06	2.09	1.99	2.53	1.01	40.4	64.2	62.2	70.6	70.9	69.9	75.3	60.1
996	-0.91	2.63	1.57	1.44	2.47	1.74	1.49	1.61	40.9	76.3	65.7	64.4	74.7	67.4	64.9	66.1
997	-0.53	-0.7	-0.53	-0.07	-0.3	0.02	-0.85	0.32	44.7	43	44.7	49.3	47.2	50.2	41.5	53.2
998	-0.97	-0.52	-0.49	-0.87	-0.8	-0.87	-0.65	-1.3	40.3	44.8	45.1	41.3	42.4	41.3	43.5	37.1
999	-0.86	-0.19	0.38	-0.55	-0.4	0.52	0.3	0.16	41.4	48.1	53.8	44.5	45.8	55.2	53	51.6
1000	-0.73	-0.94	-0.83	-1.02	-0.7	-0.6	-0.65	-0.5	42.7	40.6	41.7	39.8	42.5	44.1	43.5	45.3
1001	-0.21	-0.57	-1.01	-1.1	-0.7	-0.16	-1.27	-0.9	47.9	44.3	39.9	39	42.6	48.4	37.3	40.7
1002	-1.07	-0.69	-0.13	-0.59	0.05	0.17	-0.99	0.48	39.3	43.1	48.7	44.1	50.5	51.7	40.1	54.8
1003	-0.68	1.43	0.05	1.71	1.76	2.59	1.71	1.73	43.2	64.3	50.5	67.1	67.6	75.9	67.1	67.3
1004	-1.34	1.62	1.22	1.97	1.79	1.12	1.71	1.87	36.6	66.2	62.2	69.7	67.9	61.2	67.1	68.7
1005	-0.72	1.42	0.56	2.01	2.09	1.99	2.43	1.45	42.8	64.2	55.6	70.1	70.9	69.9	74.3	64.5
1006	0.74	-0.54	-0.57	-0.7	-0.7	-0.48	-1.18	-1	57.4	44.6	44.3	43	43.3	45.2	38.2	40.4
1007	-0.46	-0.54	1.74	-0.27	-0.9	-0.98	-0.51	-0.1	45.4	44.6	67.4	47.3	41.3	40.2	44.9	48.9
1008	-1.19	-0.31	1.39	-0.68	-0.9	-0.68	0.22	-0.5	38.1	46.9	63.9	43.2	41.3	43.2	52.2	44.9
1009	-0.98	-0.8	1.23	-1.74	-1.1	-1.74	1.87	-1.4	40.2	42	62.3	32.6	38.7	32.6	68.7	35.8
1010	-0.88	0.09	-0.57	0.63	-0.1	-1.1	0.45	-0.2	41.2	50.9	44.3	56.3	49	39	54.5	48.1
1011	-1.12	-0.62	-0.75	-0.38	-0.9	-1.13	-0.52	-0.9	38.8	43.8	42.5	46.2	41	38.7	44.8	41.3
1012	-0.81	-1.78	-0.77	-1.64	-0.8	-0.66	-0.99	-0.6	41.9	32.2	42.3	33.6	42.5	43.4	40.1	44.3
1013	1.3	-0.32	0.8	-0.72	-0.9	-0.68	-0.31	-0.7	63	46.8	58	42.8	41.3	43.2	46.9	43.1
1014	-1.35	-1.19	-0.64	-0.56	0.16	-0.49	-0.26	-0.4	36.5	38.1	43.6	44.4	51.6	45.1	47.4	46.5
1015	-0.99	-0.04	1.78	-1.67	-1.2	-0.24	-1.27	-0.9	40.1	49.6	67.8	33.3	38.1	47.6	37.3	41.5

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
1016	-1.01	-0.44	1.25	-0.31	-0.3	-0.8	0.02	-0.8	39.9	45.6	62.5	46.9	47.2	42	50.2	42
1017	1.49	1.5	-0.59	1.59	1.66	1.13	1.89	1.04	64.9	65	44.1	65.9	66.6	61.3	68.9	60.4
1018	1.23	1.91	0.21	1.82	1.96	1.9	1.57	1.38	62.3	69.1	52.1	68.2	69.6	69	65.7	63.8
1019	1.21	2.08	-1.66	1.8	1.78	1.63	1.88	2.03	62.1	70.8	33.4	68	67.8	66.3	68.8	70.3
1020	1.06	1.1	1.3	1.49	1.12	1.31	1.4	1.8	60.6	61	63	64.9	61.2	63.1	64	68
1021	1.29	1.75	1.69	1.47	1.61	1.6	1.64	2.34	62.9	67.5	66.9	64.7	66.1	66	66.4	73.4
1022	-0.72	-1.03	-0.81	-0.9	-0.9	-0.85	-0.67	-0.2	42.8	39.7	41.9	41	41.1	41.5	43.3	48
1023	1.6	1.81	-1.68	1.77	1.52	1.77	1.77	2.13	66	68.1	33.2	67.7	65.2	67.7	67.7	71.3
1024	1.37	2	-1.66	1.79	1.83	1.55	2.47	2.17	63.7	70	33.4	67.9	68.3	65.5	74.7	71.7
1025	1.29	1.56	-0.75	0.98	1.09	1.02	1.39	1.09	62.9	65.6	42.5	59.8	60.9	60.2	63.9	60.9
1026	-0.83	0.24	-0.09	-0.01	1.09	1.01	-0.08	-0.4	41.7	52.4	49.1	49.9	60.9	60.1	49.2	46.5
1027	-0.73	1.37	-0.6	1.02	1.03	1.17	1.29	1.06	42.7	63.7	44	60.2	60.3	61.7	62.9	60.6
1028	-1.37	-0.8	-0.44	2.03	-1.7	-1.93	1.73	-1.4	36.3	42	45.6	70.3	32.7	30.7	67.3	35.5
1029	1.41	1.8	-1.1	1.58	1.23	1.19	1.77	0.8	64.1	68	39	65.8	62.3	61.9	67.7	58
1030	-0.7	-1.2	-1.11	-0.6	-0.3	0.97	0.32	0.01	43	38	38.9	44	46.9	59.7	53.2	50.1
1031	-0.84	-0.69	-0.77	-1.24	-0.9	-0.79	-0.56	-0.3	41.6	43.1	42.3	37.6	41.2	42.1	44.4	46.6
1032	-1.08	-0.72	-0.82	2.03	-1.7	-1.93	1.63	-1.4	39.2	42.8	41.8	70.3	32.7	30.7	66.3	35.5
1033	1.08	0	2.07	-1.3	-1.2	-1.74	-1.69	-2.1	60.8	50	70.7	37	37.6	32.6	33.1	28.7
1034	-0.98	1.62	1.47	2.21	1.79	1.97	1.49	1.81	40.2	66.2	64.7	72.1	67.9	69.7	64.9	68.1
1035	-0.95	-0.55	-0.13	-0.23	0.35	0	-0	-0	40.5	44.5	48.7	47.7	53.5	50	50	49.8
1036	1.59	1.07	-0.95	1.03	1.09	1.01	0.09	-0.4	65.9	60.7	40.5	60.3	60.9	60.1	50.9	45.8
1037	-0.98	2.03	1.8	1.2	1.25	1.28	1.16	0.95	40.2	70.3	68	62	62.5	62.8	61.6	59.5
1038	1.02	-0.04	-0.64	-0.31	-0.1	-1.1	-0.32	0.05	60.2	49.6	43.6	46.9	49.1	39	46.8	50.5
1039	-0.89	-0.4	1.53	0.16	-0.9	-0.26	-0.31	-0.2	41.1	46	65.3	51.6	40.6	47.4	46.9	47.9
1040	-0.54	1.69	-0.71	1.72	1.59	1.55	1.44	1.37	44.6	66.9	42.9	67.2	65.9	65.5	64.4	63.7
1041	-1.07	1.8	-1.06	1.17	1.4	1.63	0.97	1.07	39.3	68	39.4	61.7	64	66.3	59.7	60.7
1042	1.61	-0.62	-0.8	-0.69	-0.9	-0.85	-0.55	-0.7	66.1	43.8	42	43.1	41.3	41.5	44.5	43
1043	-0.83	-1.14	-0.15	-0.72	-0.9	-1.31	-0.75	-1.5	41.7	38.6	48.5	42.8	41.4	36.9	42.5	34.8
1044	-0.81	1.91	-0.45	1.96	1.23	1.13	1.88	2.02	41.9	69.1	45.5	69.6	62.3	61.3	68.8	70.2
1045	-0.67	-1.3	-0.47	-0.68	-0.6	-0.72	-0.63	-1	43.3	37	45.3	43.2	43.8	42.8	43.7	40
1046	-1.12	1.3	0.91	1.36	1.5	1.65	1.29	0.86	38.8	63	59.1	63.6	65	66.5	62.9	58.6
1047	-1.12	-0.46	1.73	-0.86	-0.9	-1.37	-0.67	-1	38.8	45.4	67.3	41.4	41.3	36.3	43.3	40.3
1048	1.35	-0.43	0.46	-0.31	-0.4	-0.02	0.39	-0.5	63.5	45.7	54.6	46.9	46.2	49.8	53.9	45
1049	-1.21	-0.84	-0.69	0.18	-0.6	-0.48	-0.5	-0.4	37.9	41.6	43.1	51.8	44.1	45.2	45	45.7

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
1050	-0.68	1.37	-0.86	1.31	1.47	1.02	1.71	1.68	43.2	63.7	41.4	63.1	64.7	60.2	67.1	66.8
1051	-1.22	-0.39	-0.77	-0.84	-0.9	-0.33	-1.03	-2	37.8	46.1	42.3	41.6	41	46.7	39.7	30.1
1052	1.38	-0.46	1.55	-0.14	-0.1	-0.47	-0.38	0.12	63.8	45.4	65.5	48.7	49	45.3	46.2	51.2
1053	-0.73	-0.69	-1.24	-0.63	-0.9	-1.28	-1.23	-1.3	42.7	43.1	37.6	43.7	41.4	37.2	37.7	37
1054	-0.86	1.83	1.19	1.17	1.51	1.36	1.62	1.99	41.4	68.3	61.9	61.7	65.1	63.6	66.2	69.9
1055	1.21	1.3	-0.77	1.5	1.5	1.65	1.08	1.22	62.1	63	42.3	65	65	66.5	60.8	62.2
1056	-0.65	2.63	-0.35	1.8	1.64	1.08	1.71	1.75	43.5	76.3	46.5	68	66.4	60.8	67.1	67.5
1057	1.3	-0.94	-0.38	-0.54	-0.3	-0.87	0.01	0.11	63	40.6	46.2	44.6	46.5	41.3	50.1	51.1
1058	-0.78	-0.54	-0.82	-1.24	-0.7	-1.5	-0.53	-0.5	42.2	44.6	41.8	37.6	43.3	35	44.7	45.1
1059	1.33	1.6	-0.5	1.71	1.76	1.76	1.69	1.3	63.3	66	45	67.1	67.6	67.6	66.9	63
1060	-1.02	-0.8	-0.8	-0.84	0.22	-0.4	-1.01	-0.8	39.8	42	42	41.6	52.2	46	39.9	41.8
1061	-0.8	-0.46	1.26	-0.62	-0.9	-0.68	-0.84	-0.6	42	45.4	62.6	43.8	41.2	43.2	41.6	44.3
1062	1.2	1.46	1.05	1.63	1.64	1.15	0.94	1.63	62	64.6	60.5	66.3	66.4	61.5	59.4	66.3
1063	-0.88	-1	-0.67	-0.9	-0.6	-1.39	-0.76	-1.2	41.2	40	43.3	41	43.6	36.1	42.4	37.8
1064	-0.95	-0.57	1.55	-0.23	-0.3	-0.86	-0.51	-0.4	40.5	44.3	65.5	47.7	46.5	41.4	44.9	45.5
1065	-0.88	1.91	0.8	1.55	1	0.83	1.07	0.91	41.2	69.1	58	65.5	60	58.3	60.7	59.1
1066	1.53	-1.78	-0.83	-0.58	-0.6	-0.53	-0.61	-1.1	65.3	32.2	41.7	44.2	44.3	44.7	43.9	38.6
1067	-1.39	-0.52	2.01	-0.78	-0.8	-0.71	-1.06	-0.3	36.1	44.8	70.1	42.2	42.4	42.9	39.4	46.7
1068	1.16	-0.8	-0.82	-0.06	-0.4	-0.3	-0.19	-0.3	61.6	42	41.8	49.4	45.8	47	48.1	47.3
1069	1.22	-0.91	-1.06	-0.3	-0.6	0.51	-0.49	-0.4	62.2	40.9	39.4	47	44	55.1	45.1	46
1070	-0.44	-0.29	1.86	-1.04	-1	-1.13	-0.69	-0.9	45.6	47.1	68.6	39.6	40.2	38.7	43.1	41.2
1071	1.35	-0.6	-0.63	-0.46	-0.2	-0.67	-0.89	-0	63.5	44	43.7	45.4	48.4	43.3	41.1	49.9
1072	1.36	1.4	-0.04	1.24	1.36	1.76	1.25	1.28	63.6	64	49.6	62.4	63.6	67.6	62.5	62.8
1073	1.09	-0.87	-0.93	0.14	-0.3	-0.49	-1.25	-0.4	60.9	41.3	40.7	51.4	47.4	45.1	37.5	45.8
1074	-0.37	1.2	1.73	1.02	1.02	0.83	1.03	1.09	46.3	62	67.3	60.2	60.2	58.3	60.3	60.9
1075	-1.09	1.74	-0.67	1.89	2.03	1	1.59	2.02	39.1	67.4	43.3	68.9	70.3	60	65.9	70.2
1076	-0.68	1.59	-1	2.01	1.66	1.58	1.37	1.37	43.2	65.9	40	70.1	66.6	65.8	63.7	63.7
1077	-1.2	-1.17	1.35	-1.04	-1	-0.86	-0.89	-1	38	38.3	63.5	39.6	39.9	41.4	41.1	40.5
1078	-0.51	-1.78	-0.47	-0.59	-0.2	-0.35	-1.07	-0.4	44.9	32.2	45.3	44.1	48	46.5	39.3	46.4
1079	-0.82	-0.46	-0.82	-0.31	-0.6	-1.45	-0.99	-0.4	41.8	45.4	41.8	46.9	43.5	35.5	40.1	45.7
1080	-1.48	-0.93	-0.82	0.14	-0.3	-0.47	-1.06	-1.3	35.2	40.7	41.8	51.4	46.6	45.3	39.4	37.1
1081	-0.59	1.48	-0.34	1.88	1.74	1.44	1.71	1.6	44.1	64.8	46.6	68.8	67.4	64.4	67.1	66
1082	1.38	1.49	1.2	1.88	2.03	1.4	1.17	2.13	63.8	64.9	62	68.8	70.3	64	61.7	71.3
1083	-0.49	1.54	-0.51	1.87	1.11	1.66	1.79	1.25	45.1	65.4	44.9	68.7	61.1	66.6	67.9	62.5

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
1084	-0.91	-0.56	-0.22	-0.93	-0.8	-1.2	-1.07	-1.3	40.9	44.4	47.8	40.7	42.1	38	39.3	37.1
1085	-0.73	-0.86	-0.83	-0.65	-0.7	-0.3	-1	-0.2	42.7	41.4	41.7	43.5	43.1	47	40	48.2
1086	1.36	0.4	1.33	-0.07	-0.6	-0.68	-0.22	0.14	63.6	54	63.3	49.3	43.8	43.2	47.8	51.4
1087	-1.11	-0.37	-0.36	-1.21	-0.3	-0.23	-1.08	-0.9	38.9	46.3	46.4	38	46.9	47.7	39.2	41
1088	1.35	-1.54	1.22	-0.22	0.12	-0.22	-0.18	-0.4	63.5	34.6	62.2	47.8	51.2	47.8	48.2	45.6
1089	-1.05	-0.69	1.2	-0.93	-0.2	-0.61	-0.72	-0.7	39.5	43.1	62	40.7	48.1	43.9	42.8	42.9
1090	1.47	-0.46	-0.86	-1.1	-0.7	-0.85	-0.82	-1.2	64.7	45.4	41.4	39	43.4	41.5	41.9	38.3
1091	-0.41	-0.39	-0.21	-0.48	-0.7	-1.04	-1.33	-1	45.9	46.1	47.9	45.2	42.6	39.6	36.7	39.6
1092	-0.83	-0.09	1.55	-0.51	-0.3	-0.51	-0.82	0.27	41.7	49.1	65.5	44.9	46.5	44.9	41.8	52.7
1093	1.58	-0.69	-0.05	-0.37	1.08	1.19	-0.16	-0.2	65.8	43.1	49.5	46.3	60.8	61.9	48.4	48.3
1094	-0.88	-1.52	-0.59	-0.78	-0.7	-0.43	-0.8	-0.7	41.2	34.8	44.1	42.2	42.6	45.7	42	43.2
1095	-0.9	-0.31	-0.77	-0.14	-0.5	-0.77	-1.03	0.02	41	46.9	42.3	48.7	44.6	42.3	39.7	50.2
1096	1.42	-0.89	1.22	-0.35	-0.5	-0.35	-0.22	-0.3	64.2	41.1	62.2	46.5	45.3	46.5	47.8	46.7
1097	-1.14	-0.69	-0.79	-1.13	-0.5	-0.61	-0.61	-0.4	38.6	43.1	42.1	38.7	45.3	43.9	43.9	45.5
1098	1.28	-0.89	-0.36	-0.5	0.04	-0.57	-1.05	-0.1	62.8	41.1	46.4	45	50.4	44.3	39.5	48.8
1099	1.37	-0.39	-1.11	-0.72	-1.3	-0.14	-0.49	-1.2	63.7	46.1	38.9	42.8	37.2	48.6	45.1	38.1
1100	-0.84	-1.2	1.56	-0.8	-0.2	-0.68	-0.53	-1.1	41.6	38	65.6	42	47.8	43.2	44.7	39.5
1101	-0.87	-0.89	-0.47	-0.37	0.12	-0.22	-0.41	-0.3	41.3	41.1	45.3	46.3	51.2	47.8	45.9	47.1
1102	-0.67	-0.75	-1.07	-0.93	-0.5	-1.16	-0.69	-0.6	43.3	42.5	39.3	40.7	45.1	38.4	43.1	44.1
1103	1.31	-1.29	-0.36	-0.91	-0.6	0.78	-0.9	-0.2	63.1	37.1	46.4	40.9	43.9	57.8	41	47.7
1104	1.47	0.08	1.66	0.87	-0.7	-0.86	-0.56	0.09	64.7	50.8	66.6	58.7	43.3	41.4	44.4	50.9
1105	1.29	-0.33	0.11	-0.3	-0.1	0.77	-0.58	-0.7	62.9	46.7	51.1	47	49.1	57.7	44.2	42.7
1106	-0.35	-0.4	-0.67	-0.93	-0.8	-1.13	-0.72	-0.7	46.5	46	43.3	40.7	42.4	38.7	42.8	42.9
1107	-1.19	-0.62	-0.46	-0.56	-0.8	-1.2	-0.61	-0.7	38.1	43.8	45.4	44.4	41.9	38	43.9	42.5
1108	-0.89	-0.75	-0.63	-0.52	-0.5	-0.15	-0.69	-0.6	41.1	42.5	43.7	44.8	45.1	48.5	43.1	44.1
1109	-1.25	2.2	-0.87	1.33	2.2	1.44	1.9	1.76	37.5	72	41.3	63.3	72	64.4	69	67.6
1110	1.65	-1.01	-0.46	-0.72	-1.1	-0.07	-1.27	-2	66.5	39.9	45.4	42.8	39.1	49.3	37.3	29.7
1111	1.5	1.83	1.66	1.31	1.51	0.91	1.42	1.62	65	68.3	66.6	63.1	65.1	59.1	64.2	66.2
1112	-0.77	-0.68	-0.99	-0.52	-0.3	-0.56	-0.67	-0.6	42.3	43.2	40.1	44.8	47.2	44.4	43.3	44.2
1113	1.25	-0.15	-1.08	-1.75	-1.9	-0.24	-1.69	-1.4	62.5	48.5	39.2	32.5	31.3	47.6	33.1	36.2
1114	-0.87	-0.73	1.56	-0.02	-0.6	-0.28	-0.51	-0.2	41.3	42.7	65.6	49.8	44.1	47.2	44.9	48.3
1115	-1.03	1.65	-0.86	1.2	1.25	1.44	1.47	1.09	39.7	66.5	41.4	62	62.5	64.4	64.7	60.9
1116	-0.37	-0.03	-1.03	-1.74	-1.2	-1.1	-1.27	-0.9	46.3	49.7	39.7	32.6	38.1	39	37.3	41.5
1117	-0.93	0.86	-1.13	0.19	-0.6	0.22	-0.7	-0.3	40.7	58.6	38.7	51.9	44.2	52.2	43	46.9
1118	-0.82	1.52	-0.82	1.56	1.66	1.4	1.88	1.69	41.8	65.2	41.8	65.6	66.6	64	68.8	66.9

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
1119	1.25	-0.32	1.82	-1.04	-0.9	0.45	-0.8	-1.1	62.5	46.8	68.2	39.6	40.8	54.5	42	38.6
1120	1.56	1.54	1.95	1.24	1.11	1.4	1.47	1.09	65.6	65.4	69.5	62.4	61.1	64	64.7	60.9
1121	-1.01	1.71	0.8	1.42	1.69	1.55	1.89	1.9	39.9	67.1	58	64.2	66.9	65.5	68.9	69
1122	-0.86	1.52	-0.87	1.56	1.66	0.84	1.35	1.69	41.4	65.2	41.3	65.6	66.6	58.4	63.5	66.9
1123	1.4	1.1	-0.39	1.04	1.11	1.72	1.11	0.86	64	61	46.1	60.4	61.1	67.2	61.1	58.6
1124	-0.27	1.69	-1.08	1.75	1.59	1.55	1.62	1.8	47.3	66.9	39.2	67.5	65.9	65.5	66.2	68
1125	1.25	1.17	0.28	1.25	1.52	2.04	1.54	0.41	62.5	61.7	52.8	62.5	65.2	70.4	65.4	54.1
1126	-0.74	1.2	1.23	1.18	1.02	0.89	1.1	0.78	42.6	62	62.3	61.8	60.2	58.9	61	57.8
1127	-0.79	2.2	0.21	1.82	1.78	1.37	2.17	1.76	42.1	72	52.1	68.2	67.8	63.7	71.7	67.6
1128	-0.27	-0.39	1.53	0.5	-0.8	0.45	-0.08	-0.6	47.3	46.1	65.3	55	42.5	54.5	49.2	44.3
1129	-0.78	-1.05	1.62	-0.24	-0.2	-0.07	-0.52	1.15	42.2	39.6	66.2	47.6	48	49.3	44.8	61.5
1130	1.07	-0.9	1.44	-0.56	-0.2	0.19	-0.64	-0.6	60.7	41	64.4	44.4	47.7	51.9	43.6	44.4
1131	-0.46	-0.67	1.57	-0.71	-0.2	-0.48	-0.89	-1.1	45.4	43.3	65.7	42.9	47.7	45.2	41.1	39.2
1132	-0.96	-0.4	-1.03	-0.98	-0.8	-0.97	-0.8	-0.7	40.4	46	39.7	40.2	42.3	40.3	42	42.7
1133	1.21	-0.66	0.2	0.18	0.44	-0.23	-0.25	-0.3	62.1	43.4	52	51.8	54.4	47.7	47.5	46.9
1134	-0.85	-0.79	-0.96	-1.64	-0.9	-0.35	-1.31	-1.3	41.5	42.1	40.4	33.6	41	46.5	36.9	37.4
1135	1.58	-0.62	-0.68	-0.88	-1.3	0.02	-0.84	0.02	65.8	43.8	43.2	41.2	37.2	50.2	41.6	50.2
1136	-0.67	0.46	1.39	-0.52	-0.6	0.51	0.39	-0.6	43.3	54.6	63.9	44.8	44.3	55.1	53.9	44.3
1137	-0.64	-0.68	-0.82	-0.52	-0.3	-0.56	-0.67	-0.5	43.6	43.2	41.8	44.8	47.2	44.4	43.3	45
1138	-0.51	-0.24	-0.67	-0.62	-0.7	-0.75	-0.98	0.01	44.9	47.6	43.3	43.8	42.6	42.5	40.2	50.1
1139	-0.47	-0.53	-0.72	-0.68	-0.8	-0.86	-0.31	-0.6	45.3	44.7	42.8	43.2	42.3	41.4	46.9	44.3
1140	-0.65	0.14	-0.79	-0.18	-0.7	-0.3	-1.35	0.05	43.5	51.4	42.1	48.2	42.6	47	36.5	50.5
1141	-0.26	-0.67	-1.05	-0.37	-0.4	-0.08	-0.3	-0.8	47.4	43.3	39.5	46.3	46.4	49.2	47	41.7
1142	-1.3	-0.89	1.59	-0.79	-0.3	-0.69	-0.23	-0.1	37	41.1	65.9	42.1	46.9	43.1	47.7	48.6
1143	1.35	-0.7	1.64	-0.49	-0.1	-0.38	-1.1	-0.7	63.5	43	66.4	45.1	49	46.2	39	43.2
1144	1.36	-0.8	0	-1.13	-1.4	-0.98	-0.63	-1	63.6	42	50	38.7	35.7	40.2	43.7	40.4
1145	1.35	0.31	0.25	0.17	0.18	0.56	-0.02	0.35	63.5	53.1	52.5	51.7	51.8	55.6	49.8	53.5
1146	1.39	-0.7	-0.6	-0.84	-0.1	-1.32	-0.58	-0.5	63.9	43	44	41.6	48.8	36.8	44.2	45
1147	-0.85	-0.39	-0.66	-1.01	-0.9	0.23	-1.13	-1.2	41.5	46.1	43.4	39.9	41	52.3	38.7	38.2
1148	-0.52	-0.08	1.74	-0.58	0.56	-0.47	-0.31	0.56	44.8	49.2	67.4	44.2	55.6	45.3	46.9	55.6
1149	-0.55	-1.15	-0.9	-1.75	-0.9	-1.78	-1.19	-0.8	44.6	38.5	41	32.5	41	32.2	38.1	42.1
1150	-0.42	-0.62	-0.44	-0.67	-0.8	-0.46	-1.06	-0.5	45.8	43.8	45.6	43.3	42.4	45.4	39.4	44.7
1151	-1.08	1.91	-1.29	2.58	2.47	1.74	1.46	1.94	39.2	69.1	37.1	75.8	74.7	67.4	64.6	69.4
1152	1.42	1.91	-0.33	1.28	1.21	1.74	1.42	1.51	64.2	69.1	46.7	62.8	62.1	67.4	64.2	65.1
1153	-0.41	-0.91	1.67	-0.98	-1	-0.71	-0.63	-1.9	45.9	40.9	66.7	40.2	39.7	42.9	43.7	31

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
1154	-0.46	0.12	-1.03	-0.19	-0.6	0.21	-0.58	-1.7	45.4	51.2	39.7	48.1	43.8	52.1	44.2	33.5
1155	-0.57	0.09	-0.43	-0.09	0.33	-1.74	-0.06	0.35	44.3	50.9	45.7	49.1	53.3	32.6	49.4	53.5
1156	-0.43	1.48	-0.61	1.62	1.93	1.44	1.44	1.39	45.7	64.8	43.9	66.2	69.3	64.4	64.4	63.9
1157	1.41	2.2	2.03	1.41	2.42	1.72	2.09	1.45	64.1	72	70.3	64.1	74.2	67.2	70.9	64.5
1158	-0.43	1.49	-0.23	1.62	1.93	1.32	1.44	1.9	45.7	64.9	47.7	66.2	69.3	63.2	64.4	69
1159	1.23	1.59	1.56	1.8	1.77	2.09	1.51	2.7	62.3	65.9	65.6	68	67.7	70.9	65.1	77
1160	1.23	-0.33	-0.5	-0.97	-0.1	-1.05	-0.14	-0.4	62.3	46.7	45	40.3	49.1	39.5	48.6	45.8
1161	-1.1	-0.52	-0.84	-0.79	-0.8	-0.71	-0.64	-0.9	39	44.8	41.6	42.1	42.4	42.9	43.6	40.7
1162	-0.45	-0.39	0.38	-0.38	-0.6	-1.44	-0.09	-1.2	45.5	46.1	53.8	46.2	43.6	35.6	49.1	38.1
1163	1.63	0.04	-0.83	-0.6	-1.4	-0.88	-0.91	-0.6	66.3	50.4	41.7	44	35.7	41.2	40.9	43.8
1164	-0.96	-0.47	-1.01	-0.91	-0.9	-1.45	-0.58	-0.3	40.4	45.3	39.9	40.9	40.9	35.5	44.2	46.8
1165	-1.44	0	1.41	-0.03	-0.4	-0.53	-0.14	-0	35.6	50	64.1	49.7	45.8	44.7	48.6	50
1166	-0.58	1.74	-0.93	1.75	1.94	1.86	1.71	1.88	44.2	67.4	40.7	67.5	69.4	68.6	67.1	68.8
1167	-0.97	2.63	0.32	1.71	1.6	1.04	1.59	1.73	40.3	76.3	53.2	67.1	66	60.4	65.9	67.3
1168	1.49	1.89	-1.66	1.93	1.52	1.97	1.44	1.9	64.9	68.9	33.4	69.3	65.2	69.7	64.4	69
1169	-1.33	-0.32	-0.73	-0.76	-0.9	-0.05	-0.8	-1.1	36.7	46.8	42.7	42.4	40.8	49.5	42	38.7
1170	-0.88	-1.03	1.74	-0.33	-0.8	-0.7	-0.58	-0.4	41.2	39.7	67.4	46.7	42.4	43	44.2	45.7
1171	1.66	-0.52	-0.41	-0.59	-0.2	0.45	-0.9	-1	66.6	44.8	45.9	44.1	48.1	54.5	41	40.2
1172	-0.48	-1.78	1.23	-1.74	-1.4	-1.2	-1.71	-2.1	45.2	32.2	62.3	32.6	36.1	38	32.9	28.7
1173	-0.9	0.92	-0.57	0	-0.2	-0.48	0.22	0.07	41	59.2	44.3	50	47.7	45.2	52.2	50.7
1174	-1.2	-0.33	1.55	-0.78	-0.3	0.45	-0.38	0.5	38	46.7	65.5	42.2	46.7	54.5	46.2	55
1175	1.44	-1.78	-0.78	-0.71	-0.7	0.45	-1.33	-1.1	64.4	32.2	42.2	42.9	42.5	54.5	36.7	39
1176	-0.72	-0.92	-0.86	-0.39	-0	-0.08	-1.07	0.02	42.8	40.8	41.4	46.1	49.7	49.2	39.3	50.2
1177	1.65	-1.3	0.14	0.16	0.75	0.77	-0.36	-0.3	66.5	37	51.4	51.6	57.5	57.7	46.4	47.4
1178	-0.67	-1.01	1.78	-0.72	-1.1	-0.79	-1.27	-2	43.3	39.9	67.8	42.8	39.2	42.1	37.3	29.7
1179	1.62	-0.4	1.76	-0.5	0.37	1.32	0.02	-0.9	66.2	46	67.6	45	53.7	63.2	50.2	41.3
1180	-1.09	1.56	-0.59	1.04	1.51	0.91	1.64	1.15	39.1	65.6	44.1	60.4	65.1	59.1	66.4	61.5
1181	1.31	2	0.21	1.77	1.76	1.32	1.71	1.88	63.1	70	52.1	67.7	67.6	63.2	67.1	68.8
1182	-0.85	2	1.01	1.78	1.78	1.63	2.43	1.97	41.5	70	60.1	67.8	67.8	66.3	74.3	69.7
1183	1.35	1.54	1.3	1.51	1.11	2.76	1.49	1.09	63.5	65.4	63	65.1	61.1	77.6	64.9	60.9
1184	-1.04	-0.8	1.69	-1.74	-1.8	-1.03	1.64	-1.9	39.6	42	66.9	32.6	32.4	39.7	66.4	30.9
1185	-0.82	-0.72	-0.81	-0.79	-0.5	-0.29	-1.71	-0.8	41.8	42.8	41.9	42.1	44.6	47.1	32.9	42
1186	-1.22	2.08	-1.62	1.25	1.8	1.65	1.89	1.63	37.8	70.8	33.8	62.5	68	66.5	68.9	66.3
1187	1.62	1.81	-1.62	1.79	2.16	2.7	1.44	1.55	66.2	68.1	33.8	67.9	71.6	77	64.4	65.5
1188	1.21	1.07	1.55	0.43	1.09	1.01	1.08	1.75	62.1	60.7	65.5	54.3	60.9	60.1	60.8	67.5

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
1189	-1.09	-0.16	-0.09	-0.31	1.66	0.83	0.62	0.52	39.1	48.4	49.1	46.9	66.6	58.3	56.2	55.2
1190	-0.92	1.8	-0.6	1.05	1.4	1.32	1.03	1.34	40.8	68	44	60.5	64	63.2	60.3	63.4
1191	-0.61	-0.8	-0.44	-0.87	-1.7	-1.93	1.67	-1.4	43.9	42	45.6	41.3	32.7	30.7	66.7	35.5
1192	1.48	1.65	-1.1	1.2	1.25	1.44	1.89	1.1	64.8	66.5	39	62	62.5	64.4	68.9	61
1193	-0.47	-0.32	-1.11	-0.86	-1.5	-0.28	-0.61	-0.6	45.3	46.8	38.9	41.4	35.4	47.2	43.9	44.4
1194	-0.38	-1.05	-0.77	-0.71	-0.2	-1.32	-0.56	-0.2	46.2	39.6	42.3	42.9	48.4	36.8	44.4	47.6
1195	-0.71	-0.8	-0.82	-1.71	-1.1	-1.74	1.88	-1.4	42.9	42	41.8	32.9	38.7	32.6	68.8	35.8
1196	1.31	-0.15	2.07	-1.74	-1.8	-1.03	-1.69	-1.4	63.1	48.5	70.7	32.6	32.4	39.7	33.1	36.2
1197	-0.53	2.68	0.91	1.71	1.6	1.05	1.59	2.02	44.7	76.8	59.1	67.1	66	60.5	65.9	70.2
1198	-0.94	-0.39	-0.64	-0.1	-0.2	-0.68	-0.5	-0.7	40.6	46.1	43.6	49	48.4	43.2	45	43
1199	-0.67	0.8	-0.97	0.87	-0.2	0.02	0.73	-0.6	43.3	58	40.3	58.7	48.1	50.2	57.3	43.7
1200	-0.74	1.4	1.68	1.36	1.38	1.31	1.09	1.09	42.6	64	66.8	63.6	63.8	63.1	60.9	60.9
1201	1.1	-0.37	-0.51	-0.17	-0.3	0.19	-0.4	-0.1	61	46.3	44.9	48.3	47	51.9	46	49.4
1202	1.4	-0.44	-0.89	-0.36	-0.7	0.48	-0.3	-0.8	64	45.6	41.1	46.4	42.8	54.8	47	41.8
1203	-1.07	1.71	1.2	1.31	1.74	2.07	0.94	2.01	39.3	67.1	62	63.1	67.4	70.7	59.4	70.1
1204	1.41	1.2	-1.06	0.89	1.01	1.12	1.1	0.95	64.1	62	39.4	58.9	60.1	61.2	61	59.5
1205	-1.02	-0.62	-0.8	-0.69	-0.9	-0.68	-0.55	-0.7	39.8	43.8	42	43.1	41.3	43.2	44.5	43
1206	1.32	-0.62	-0.15	-0.31	-0.8	-0.4	-1.2	-0.8	63.2	43.8	48.5	46.9	42.3	46	38	42.2
1207	-0.52	1.23	-0.45	1.71	1.76	1.41	1.62	1.63	44.8	62.3	45.5	67.1	67.6	64.1	66.2	66.3
1208	1.55	0.04	-0.46	-0.6	-1.4	-1.04	-0.42	-0.6	65.5	50.4	45.4	44	35.7	39.6	45.8	43.9
1209	-1.17	1.1	-0.77	1.21	1.5	1.36	1.16	1.25	38.3	61	42.4	62.1	65	63.6	61.6	62.5
1210	1.35	-0.54	-0.69	-1.04	-1.4	-1.74	-1.06	-1	63.5	44.6	43.1	39.6	35.7	32.6	39.4	40.1
1211	-1.34	-0.43	-0.08	-0.2	-0.4	-0.69	-0.72	-0.4	36.6	45.7	49.2	48	46.3	43.1	42.8	45.5
1212	-0.8	-0.89	-0.49	-0.3	-0.7	-1.04	-1.13	-0.9	42	41.1	45.1	47	42.6	39.6	38.7	41.3
1213	-1.12	1.45	-0.86	0.98	1.14	0.99	1.17	1.05	38.8	64.5	41.4	59.8	61.4	59.9	61.7	60.5
1214	-0.46	-0.83	-1.33	-0.98	-1.4	-1.21	-0.63	-1.9	45.4	41.7	36.7	40.2	36.1	37.9	43.7	31
1215	1.19	-0.92	1.55	-0.33	-0.6	-0.68	-0.49	-0.2	61.9	40.8	65.5	46.7	43.8	43.2	45.1	47.5
1216	1.48	-0.53	-0.53	-0.55	-0.8	-1.2	-1.14	-0.7	64.8	44.7	44.8	44.5	42	38	38.6	43.2
1217	1.55	1.56	1.66	1.04	1.51	0.96	1.64	1.15	65.5	65.6	66.6	60.4	65.1	59.6	66.4	61.5
1218	-1.3	1.45	-0.77	1.05	1.14	1	0.85	0.72	37	64.5	42.3	60.5	61.4	60	58.5	57.2
1219	-0.36	1.94	-0.25	1.9	1.45	1.32	1.44	2.02	46.4	69.4	47.5	69	64.5	63.2	64.4	70.2
1220	1.24	-0.39	-0.38	-0.15	-0.2	-0.68	-0.52	-0.9	62.4	46.1	46.2	48.5	48.4	43.2	44.8	41.2
1221	1.33	-0.62	-0.82	-0.93	-1	-1.39	-0.56	-1.5	63.3	43.8	41.8	40.7	40.4	36.1	44.4	35
1222	-0.98	1.6	-0.84	1.61	1.76	2.73	1.35	0.97	40.2	66	41.6	66.1	67.6	77.3	63.5	59.7
1223	1.66	-0.39	-0.77	-0.77	-0.2	-0.65	-0.99	0.15	66.6	46.1	42.3	42.3	48	43.5	40.1	51.5

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
1224	1.5	-1.2	1.26	-0.45	-1	-1.84	-0.83	-0.8	65	38	62.6	45.5	40	31.6	41.7	42
1225	-1.17	2	1.05	1.49	1.93	1.55	1.62	1.37	38.3	70	60.5	64.9	69.3	65.5	66.2	63.7
1226	-0.58	-1	-0.66	-0.72	-0.6	-0.3	-0.79	-1.2	44.2	40	43.4	42.8	43.6	47	42.1	38.3
1227	-1.13	-0.24	1.55	-0.44	0.84	0.33	-0.89	-0.7	38.7	47.6	65.5	45.6	58.4	53.3	41.1	42.9
1228	-1.03	1.8	-0.86	1.18	1.43	1.63	0.99	1.09	39.7	68	41.4	61.8	64.3	66.3	59.9	60.9
1229	-0.88	-0.48	-0.83	-0.93	-0.7	0.19	-1.28	0.52	41.2	45.2	41.7	40.7	42.6	51.9	37.2	55.2
1230	-1.3	-0.62	-0.23	-0.98	-1	0.45	-1.13	-0.8	37	43.8	47.7	40.2	40.3	54.5	38.7	41.6
1231	-0.55	-0.6	-0.58	0.77	-0.2	-0.71	-0.4	-0.5	44.5	44	44.2	57.7	48.4	42.9	46	45.3
1232	-0.71	-0.33	-1.06	0.77	-0.5	-1.16	-0.75	0.67	42.9	46.7	39.4	57.7	45.1	38.4	42.5	56.7
1233	1.29	-1.3	-0.99	-1.67	-1	-0.03	-0.61	-0.6	62.9	37	40.1	33.3	39.7	49.7	43.9	44.4
1234	-0.76	-1.78	-0.63	0.09	-0.5	-0.87	-0.75	-0.4	42.4	32.2	43.7	50.9	44.6	41.3	42.5	46.3
1235	1.27	1.45	-0.04	1.02	1.14	1	1.3	1.06	62.7	64.5	49.6	60.2	61.4	60	63	60.6
1236	-0.8	-1.2	-1.21	-0.31	-0.4	-0.6	-0.61	-1.4	42	38	37.9	46.9	45.7	44	43.9	35.8
1237	-1.69	1.07	1.73	0.61	1.09	1.01	-0.14	0.61	33.1	60.7	67.3	56.1	60.9	60.1	48.6	56.1
1238	1.2	1.33	-0.25	1.19	1.67	1.27	1.51	2.29	62	63.3	47.5	61.9	66.7	62.7	65.1	72.9
1239	1.32	2.08	-1	1.25	1.47	1.51	1.54	1.29	63.2	70.8	40	62.5	64.7	65.1	65.4	62.9
1240	1.2	-0.58	1.35	-0.97	-0.6	1.01	-0.78	-0.8	62	44.2	63.5	40.3	43.8	60.1	42.2	41.6
1241	-1.25	-1.19	-0.69	-0.58	-0.4	0.51	-0.61	-0.5	37.5	38.1	43.1	44.2	45.7	55.1	43.9	45.5
1242	-0.74	-0.73	-0.82	-0.78	-1.2	-0.13	-0.82	-0.7	42.6	42.7	41.8	42.2	37.8	48.7	41.9	42.6
1243	-1.31	-0.31	-0.53	-0.14	-0.9	0.45	-0.64	-0	36.9	46.9	44.7	48.6	41.1	54.5	43.6	49.7
1244	1.17	1.49	-0.34	1.8	1.94	1.9	1.44	1.9	61.7	64.9	46.6	68	69.4	69	64.4	69
1245	-0.74	1.17	1.19	1.28	1.54	1.49	1.17	0.39	42.6	61.7	61.9	62.8	65.4	64.9	61.7	53.9
1246	-1	1.18	-0.51	1.25	1.52	2.04	1.48	0.41	40	61.8	44.9	62.5	65.2	70.4	64.8	54.1
1247	-0.57	-1.3	-0.22	-0.78	-1.1	-1.23	-0.53	-0.8	44.3	37	47.8	42.2	39.3	37.7	44.7	42.2
1248	-1.01	-0.49	-0.46	-0.57	-0.8	-0.19	0.09	-1.1	39.9	45.1	45.4	44.4	41.6	48.1	50.9	39.5
1249	-0.99	0.08	1.33	0.43	-0.9	-1.05	0.26	0.59	40.1	50.8	63.3	54.3	40.7	39.5	52.6	55.9
1250	1.42	-1.05	0.53	-0.93	-0.2	-0.71	-0.52	-0.6	64.2	39.6	55.3	40.7	48.4	42.9	44.8	44.1
1251	1.22	-0.94	-0.63	-0.71	-0.5	-1.22	-0.99	-0.8	62.2	40.6	43.7	42.9	44.6	37.8	40.1	42
1252	-0.67	1.11	-0.87	1.8	1.78	1.51	1.54	1.72	43.3	61.1	41.3	68	67.8	65.1	65.4	67.2
1253	-0.97	-0.03	-0.46	-1.74	-1.2	-1.13	-0.92	-1.2	40.3	49.7	45.4	32.6	38.1	38.7	40.8	38.1
1254	1.28	1.65	1.19	1.51	1.93	1.44	1.44	1.8	62.8	66.5	61.9	65.1	69.3	64.4	64.4	68
1255	-1.18	-0.67	-0.99	-0.71	-0.2	-0.48	-1.35	-1.1	38.2	43.3	40.1	42.9	47.7	45.2	36.5	38.9
1256	1.21	-1.15	1.26	-1.3	-0.9	-0.23	-1.19	-1.2	62.1	38.5	62.6	37	41	47.7	38.1	38.2
1257	-0.65	-1.78	-0.15	-0.07	-0.4	-0.56	-0.44	-0.5	43.5	32.2	48.5	49.3	45.9	44.4	45.6	45
1258	-1.05	-0.94	0.17	-0.79	-0.6	-0.32	-0.44	-0.1	39.5	40.6	51.7	42.1	44.2	46.8	45.6	48.6

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
1259	-0.64	-0.62	-1.37	-1.24	-0.8	-0.86	-1.22	-0.7	43.6	43.8	36.3	37.6	42.3	41.4	37.8	42.6
1260	1.44	-0.31	-0.57	-0.63	-0	0.12	-0.84	0.29	64.4	46.9	44.3	43.7	50	51.2	41.6	52.9
1261	1.37	-0.42	-0.72	-0.37	-0.4	-0.83	-0.89	-0.7	63.7	45.8	42.8	46.3	46.2	41.7	41.1	42.7
1262	1.25	-0.39	-1.03	-0.27	-0.2	-0.68	0.39	-0.1	62.5	46.1	39.7	47.3	48.2	43.2	53.9	49.1
1263	-1	-0.51	-0.64	-0.49	-0.2	0.78	-0.27	-0.4	40	44.9	43.6	45.1	48.1	57.8	47.3	45.8
1264	1.34	-0.78	0.1	-1.04	0.16	1.31	-0.58	-0.2	63.4	42.2	51	39.6	51.6	63.1	44.2	48.4
1265	-0.87	-0.72	1.66	0.07	0.16	-0.29	0.53	0.04	41.3	42.8	66.6	50.7	51.6	47.1	55.3	50.4
1266	-0.98	-0.89	-0.59	-0.79	-0.3	-0.69	-0.72	-0.1	40.2	41.1	44.1	42.1	46.9	43.1	42.8	48.6
1267	1.24	-0.69	-0.8	-0.73	-0.7	-1.53	-1.33	-0.6	62.4	43.1	42	42.7	42.5	34.7	36.7	44.3
1268	1.27	-0.75	1.76	-0.73	-0.9	-0.85	-0.73	-0.9	62.7	42.5	67.6	42.7	41.4	41.5	42.7	41.3
1269	-0.89	-0.37	0.97	-0.48	-0	-0.46	-0.5	0.2	41.1	46.3	59.7	45.2	49.6	45.4	45	52
1270	-1.25	-0.32	-0.97	-0.86	-1.5	-0.28	-0.51	-0.6	37.5	46.8	40.3	41.4	35.4	47.2	44.9	43.9
1271	-1	-0.62	1.63	0.19	-0.6	-0.23	-0.51	-0.2	40	43.8	66.3	51.9	43.8	47.7	44.9	48.3
1272	1.2	-0.68	-0.73	-1.22	-0.3	-0.85	-0.89	-0.5	62	43.2	42.7	37.8	47.1	41.5	41.1	45
1273	-1.21	-0.2	-0.76	-1.24	-1.4	-0.47	0.03	0.18	37.9	48	42.4	37.6	35.7	45.3	50.3	51.8
1274	1.38	-1.54	0.96	-0.55	-0.2	-0.61	-0.58	-0.2	63.8	34.6	59.6	44.5	48.1	43.9	44.2	48.3
1275	-1.03	-0.2	-0.51	-0.05	-0.3	-0.8	0.17	-0.4	39.7	48	44.9	49.5	47.2	42	51.7	46.3
1276	-1.01	0.09	1.56	-0.51	-0.4	-0.85	-0.02	-0.4	39.9	50.9	65.6	44.9	46.4	41.5	49.8	45.6
1277	-0.49	-0.45	1.56	-0.21	1.01	1.1	-0.23	0.47	45.1	45.5	65.6	47.9	60.1	61	47.7	54.7
1278	1.28	1.42	1.28	1.95	2.16	1.53	1.81	1.28	62.8	64.2	62.8	69.5	71.6	65.3	68.1	62.8
1279	1.57	-1.17	-1.04	-0.72	-1.4	-0.79	-0.93	-1	65.7	38.3	39.6	42.8	36.1	42.1	40.7	40.4
1280	1.37	-0.92	-1.13	-0.28	-0.6	-0.68	-0.61	-0.2	63.7	40.8	38.7	47.2	43.8	43.2	43.9	47.6
1281	-0.56	1.6	-0.38	1.67	1.76	1.41	1.89	1.75	44.4	66	46.2	66.7	67.6	64.1	68.9	67.5
1282	-1.87	-1.14	1.82	-0.31	-0.7	-0.77	-0.8	-0.7	31.3	38.6	68.2	46.9	43.1	42.3	42	43.4
1283	-0.98	2.08	1.95	1.59	1.47	1.02	1.48	1.14	40.2	70.8	69.5	65.9	64.7	60.2	64.8	61.4
1284	1.23	1.62	-0.55	1.31	1.11	1.66	1.62	1.87	62.3	66.2	44.5	63.1	61.1	66.6	66.2	68.7
1285	-0.83	1.6	-0.54	1.72	1.76	2.73	1.09	1.48	41.7	66	44.6	67.2	67.6	77.3	60.9	64.8
1286	-0.56	2.03	-0.74	1.6	1.52	2.28	1	0.87	44.4	70.3	42.6	66	65.2	72.8	60	58.7
1287	-1.32	1.43	-1.08	1.71	1.67	1.55	1.44	1.99	36.8	64.3	39.2	67.1	66.7	65.5	64.4	69.9
1288	-0.71	1.1	-0.25	1.44	1.45	0.41	1.47	1.98	42.9	61	47.5	64.4	64.5	54.1	64.7	69.8
1289	0.62	1.8	1.23	1.05	1.4	1.63	1.04	1.37	56.2	68	62.3	60.5	64	66.3	60.4	63.7
1290	1.61	1.79	-0.61	1.42	2.2	1.37	1.9	1.74	66.1	67.9	43.9	64.2	72	63.7	69	67.4
1291	1.14	-0.55	1.53	-1.1	-0.9	-0.47	-0.46	-0.3	61.4	44.5	65.3	39	41.3	45.3	45.4	46.9
1292	-0.8	-1.16	-0.47	-0.59	-0.4	-0.69	-1.04	-0.7	42	38.4	45.3	44.1	46.3	43.1	39.6	42.9
1293	-1.04	-0.45	1.44	-0.54	-0.7	-1.16	-0.79	-0.9	39.6	45.5	64.4	44.6	42.7	38.4	42.1	41.3

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
1294	-0.76	0.12	1.62	-0.71	-1.3	-0.98	-1.22	-0.7	42.4	51.2	66.2	42.9	36.7	40.2	37.8	43.5
1295	1.51	-0.67	-1.03	-0.78	-0.2	-0.69	-0.76	-0.6	65.1	43.3	39.7	42.2	47.7	43.1	42.4	43.7
1296	-1.09	-0.08	0.2	0.23	-0.2	-1.16	-0.26	-0.1	39.1	49.2	52	52.3	48	38.4	47.4	49.1
1297	-0.83	-0.62	-0.61	-0.2	-0.8	-1.53	-0.51	-1.2	41.7	43.8	43.9	48	42.3	34.7	44.9	38.1
1298	-0.62	-0.7	-0.68	-0.37	-0.7	-0.23	-0.65	-0.9	43.8	43	43.2	46.3	42.8	47.7	43.5	40.6
1299	-0.45	-0.39	0.97	-0.23	0.03	-0.37	0.14	1.46	45.5	46.1	59.7	47.7	50.3	46.3	51.4	64.6
1300	-0.82	-0.62	-0.53	-0.72	-0.5	-0.34	-0.61	-1.6	41.8	43.8	44.7	42.8	45.3	46.6	43.9	33.9
1301	-1	-0.87	-0.67	-0.21	-0.3	-0.92	0.51	-0.5	40	41.3	43.3	47.9	47	40.8	55.1	44.7
1302	-0.29	-0.59	-0.96	-0.37	-0.2	-0.71	-0.05	-0.2	47.1	44.1	40.4	46.3	48.4	42.9	49.5	47.8
1303	-1.24	0.15	-0.43	-0.61	-0.7	0.63	-1.33	0.16	37.6	51.5	45.7	43.9	42.5	56.3	36.7	51.6
1304	1.23	-0.91	-1.05	-0.98	-0.6	-0.68	-0.65	-0.3	62.3	40.9	39.5	40.2	43.8	43.2	43.5	47.2
1305	1.23	-0.39	1.6	0.18	-0.6	-0.01	-0.36	0.86	62.3	46.1	66	51.8	44.2	49.9	46.4	58.6
1306	-1.5	-0.18	1.64	-0.59	-1	-1.16	-0.53	-1.3	35	48.2	66.4	44.1	39.7	38.4	44.7	36.6
1307	-0.81	-0.8	-0.87	-1.23	-1.4	-1.74	-0.64	-0.7	41.9	42	41.3	37.7	35.7	32.6	43.6	43.3
1308	-0.94	-1.14	0.25	-0.23	0.75	-0.45	-0.02	-0.7	40.6	38.6	52.5	47.7	57.5	45.5	49.8	42.8
1309	-0.56	-1.02	-0.96	-0.63	-0.5	0.11	-0.38	-0.6	44.4	39.8	40.4	43.7	44.7	51.1	46.2	44.3
1310	-0.97	-0.83	-0.66	-0.82	-1.4	-1.21	-1.28	-2.1	40.3	41.7	43.4	41.8	36.1	37.9	37.2	28.7
1311	-0.76	0.31	1.74	1.03	0.2	-0.18	-0.26	0.01	42.4	53.1	67.4	60.3	52	48.2	47.4	50.1
1312	1.29	-1.2	-0.17	-1.74	-1.2	-0.87	-0.61	-0.9	62.9	38	48.3	32.6	38.1	41.3	43.9	40.7
1313	-0.45	-0.26	-0.44	-0.3	-0.9	-0.98	-1.02	-0.8	45.5	47.4	45.6	47	41.3	40.2	39.8	41.8
1314	1.27	1.03	-1.29	1.79	1.88	1.77	1.77	1.92	62.7	60.3	37.1	67.9	68.8	67.7	67.7	69.2
1315	-0.61	1.71	-0.59	2.14	1.76	1.41	1.62	1.8	43.9	67.1	44.1	71.4	67.6	64.1	66.2	68
1316	-0.49	-0.64	0.18	-1.15	-1.2	-1.93	-1.66	-1.3	45.1	43.6	51.8	38.5	38.2	30.7	33.4	37.1
1317	-1.24	-0.94	-1.03	-0.5	-0.5	-0.61	-0.26	-0.1	37.6	40.6	39.7	45	45.3	43.9	47.4	49.1
1318	-0.52	-0.2	-0.04	0.07	-0.3	-0.69	-1.06	-0.9	44.8	48	49.6	50.7	46.9	43.1	39.4	41.3
1319	1.44	1.48	-0.61	1.96	1.94	1.86	1.6	1.81	64.4	64.8	43.9	69.6	69.4	68.6	66	68.1
1320	-0.5	1.03	2.03	1.49	1.83	2.73	1.58	2.76	45	60.3	70.3	64.9	68.3	77.3	65.8	77.6
1321	-0.82	2.46	0.15	2.26	1.76	1.34	2.47	1.61	41.8	74.6	51.5	72.6	67.6	63.4	74.7	66.1
1322	-0.92	2.68	1.57	1.44	2.47	2.59	1.88	1.85	40.8	76.8	65.7	64.4	74.7	75.9	68.8	68.5
1323	1.25	-0.69	-0.53	-0.43	-1.5	-0.28	-0.49	-0.2	62.5	43.1	44.8	45.7	35.4	47.2	45.1	48.4
1324	-1.49	-0.52	-0.86	-0.98	-0.8	-1.11	-0.56	-0.9	35.1	44.8	41.4	40.2	42.4	38.9	44.4	40.7
1325	1.16	-0.18	0.38	-0.43	-0.4	-0.47	-0.09	0.99	61.6	48.2	53.8	45.7	45.8	45.3	49.1	59.9
1326	-1.11	-0.91	-0.83	-0.82	-0.6	0.51	-1.1	-0.5	38.9	40.9	41.7	41.8	43.9	55.1	39	45.2
1327	1.11	-0.57	-1.02	-1.1	-0.7	1.15	-1.27	-0.9	61.1	44.3	39.8	39	42.6	61.5	37.3	40.7
1328	1.23	-0.18	1.41	-0.38	-0.3	-0.55	0.17	0.48	62.3	48.2	64.1	46.2	47.2	44.5	51.7	54.8

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
1329	-0.68	-0.91	0.83	1.49	1.76	1.44	1.71	0.95	43.2	40.9	58.3	64.9	67.6	64.4	67.1	59.5
1330	-1.07	1.62	0.15	1.82	1.79	2.09	1.35	1.89	39.3	66.2	51.5	68.2	67.9	70.9	63.5	68.9
1331	1.21	1.43	-1.66	1.96	2.09	2.2	2.43	1.45	62.1	64.3	33.4	69.6	70.9	72	74.3	64.5
1332	-1.12	-0.75	-0.73	-0.7	-0.5	-0.34	-1.18	-1	38.8	42.5	42.7	43	45.1	46.6	38.2	40.4
1333	1.61	0.28	1.74	-0.27	-0.8	-0.6	-0.8	-0.1	66.1	52.8	67.4	47.3	42.4	44.1	42	48.9
1334	1.39	-0.78	0.97	-0.34	0.2	-0.17	-0.36	-0.9	63.9	42.2	59.7	46.6	52	48.3	46.4	40.7
1335	-1.02	-0.8	-0.01	-1.74	-1.1	-1.74	-0.53	-1.8	39.8	42	49.9	32.6	38.7	32.6	44.7	32.3
1336	-1.6	-0.06	-0.57	0.07	-0.1	-0.92	-0.23	0.3	34	49.4	44.3	50.7	49.2	40.8	47.7	53
1337	1.34	-0.91	1.55	-0.3	-0.7	-0.77	-0.32	-0.6	63.4	40.9	65.5	47	43.1	42.3	46.8	44.3
1338	1.3	-0.53	-1.3	-1.68	-1	-1.13	-0.83	-0.3	63	44.7	37	33.2	40	38.7	41.7	46.6
1339	-1.19	-1.14	0.8	-0.69	-0.9	-0.68	-0.31	-0.5	38.1	38.6	58	43.1	41.3	43.2	46.9	45
1340	-1.06	-0.4	-0.7	-0.82	-0.6	-0.68	-0.87	-0.8	39.4	46	43	41.8	43.8	43.2	41.3	42.1
1341	-0.78	-0.84	1.78	-1.67	-1.5	-0.29	-0.91	-0.8	42.2	41.6	67.8	33.3	35.4	47.1	40.9	41.5
1342	-0.54	0.21	-1.05	-0.38	-0.5	-0.6	1.28	-0.6	44.6	52.1	39.5	46.2	45.3	44	62.8	44
1343	-1.34	1.52	-0.49	1.6	1.66	1.13	1.08	1.01	36.6	65.2	45.1	66	66.6	61.3	60.8	60.1
1344	-0.3	1.91	-0.05	1.89	1.96	2.59	1.74	1.42	47	69.1	49.5	68.9	69.6	75.9	67.4	64.2
1345	-0.55	2.08	-1.62	1.8	1.78	2.09	1.88	2.03	44.5	70.8	33.8	68	67.8	70.9	68.8	70.3
1346	-0.83	1.1	-0.87	1.49	1.11	1.73	1.4	1.8	41.7	61	41.3	64.9	61.1	67.3	64	68
1347	-0.84	2.58	1.69	-0.28	1.77	1.68	1.67	1.63	41.6	75.8	66.9	47.2	67.7	66.8	66.7	66.3
1348	-1.06	-0.93	-0.81	-1.23	-0.9	-0.27	-0.67	-0.5	39.4	40.7	41.9	37.7	40.5	47.3	43.3	45
1349	-0.48	1.83	-1.62	1.8	1.43	1.77	1.77	1.59	45.2	68.3	33.8	68	64.3	67.7	67.7	65.9
1350	-0.88	2	-1.62	1.79	1.83	2.76	2.47	2.18	41.2	70	33.8	67.9	68.3	77.6	74.7	71.8
1351	-0.29	1.61	0.43	-0.61	1.79	1.73	1.51	1.66	47.1	66.1	54.3	43.9	67.9	67.3	65.1	66.6
1352	-1.17	1.56	1.55	1.02	1.09	1.37	0.73	0.51	38.3	65.6	65.5	60.2	60.9	63.7	57.3	55.1
1353	1.39	1.6	-0.09	-0.07	0.75	-0.43	0.11	1.37	63.9	66	49.1	49.3	57.5	45.7	51.1	63.7
1354	1.26	1.4	-0.53	1.02	1.03	1.17	1.3	1.06	62.6	64	44.7	60.2	60.3	61.7	63	60.6
1355	-0.86	-0.8	-0.44	-0.38	-1.7	-1.93	1.67	-1.4	41.4	42	45.6	46.3	33.1	30.7	66.7	35.5
1356	1.43	1.8	0.75	1.41	1.23	1.13	1.77	0.8	64.3	68	57.5	64.1	62.3	61.3	67.7	58
1357	1.28	-1.52	-1.11	-0.98	-0.6	0.15	-0.74	-1.1	62.8	34.8	38.9	40.2	43.8	51.5	42.6	39.5
1358	-1.15	-0.86	-0.77	-1.28	-0.7	-0.57	-0.52	-0	38.5	41.4	42.3	37.2	43	44.3	44.8	49.7
1359	1.48	-1.3	-0.82	-1.72	-1.7	-1.25	1.5	-1.3	64.8	37	41.8	32.8	32.7	37.5	65	36.5
1360	1.19	0	2.07	-1.3	-1.2	-0.14	-1.66	-1	61.9	50	70.7	37	37.7	48.6	33.4	39.8
1361	-0.95	2.2	-0.28	2.21	2.42	1.74	1.48	1.8	40.5	72	47.2	72.1	74.2	67.4	64.8	68
1362	1.15	-0.55	0.41	0.02	0.35	-0.98	-0.02	-0.3	61.5	44.5	54.1	50.2	53.5	40.2	49.8	47.4
1363	1.46	1.07	-0.95	0.1	1.08	1.13	0.19	-0.5	64.6	60.7	40.5	51	60.8	61.3	51.9	44.5

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
1364	-0.69	2.03	1.68	1.2	1.25	1.28	1.16	0.94	43.1	70.3	66.8	62	62.5	62.8	61.6	59.4
1365	1.42	-0.03	-0.64	-0.19	-0.1	-1.05	0.22	0.07	64.2	49.7	43.6	48.1	49.1	39.5	52.2	50.7
1366	-1.12	-1.52	1.34	-0.84	-0.2	0.19	-0.31	-0.3	38.8	34.8	63.4	41.6	47.9	51.9	46.9	47.2
1367	1.36	1.69	-0.5	1.76	1.59	1.55	1.44	1.45	63.6	66.9	45	67.6	65.9	65.5	64.4	64.5
1368	-0.36	1.8	-1.06	1.17	1.4	1.63	0.99	1.34	46.4	68	39.4	61.7	64	66.3	59.9	63.4
1369	1.33	-0.62	-0.5	-0.68	-0.9	0.62	-0.78	-1.2	63.3	43.8	45	43.2	41.3	56.2	42.2	38.4
1370	-0.97	-1.78	-0.16	-0.78	-1.2	-1.86	-0.75	-1.6	40.3	32.2	48.4	42.2	38.3	31.4	42.5	33.9
1371	-0.84	1.94	-0.45	1.96	1.23	1.13	1.88	0.86	41.6	69.4	45.5	69.6	62.3	61.3	68.8	58.6
1372	-0.73	-0.24	-0.46	-0.68	-1.1	-1.23	-0.42	-1	42.7	47.6	45.4	43.2	39.3	37.7	45.8	40
1373	1.4	1.3	1.45	1.2	1.49	1.65	1.11	0.82	64	63	64.5	62	64.9	66.5	61.1	58.2
1374	-0.53	-0.46	1.77	-0.64	-0.9	-0.85	-0.67	-1	44.7	45.4	67.7	43.6	41.3	41.5	43.3	40.3
1375	-0.73	-0.42	-0.38	0.87	-0.4	-0.69	-0.28	-0.2	42.7	45.8	46.2	58.7	46.3	43.1	47.2	47.9
1376	1.6	-0.37	-0.44	0.77	-0	-0.45	-0.49	-0.5	66	46.3	45.6	57.7	49.6	45.5	45.1	45
1377	-1.21	1.37	-0.86	1.31	1.47	1.02	1.71	1.68	37.9	63.7	41.4	63.1	64.7	60.2	67.1	66.8
1378	1.11	0.04	-0.28	-0.3	-1.4	-1.74	-0.91	-0.3	61.1	50.4	47.2	47	35.7	32.6	40.9	47.3
1379	-1.3	-0.93	-0.79	-0.68	-0.3	-0.87	-0.05	-1	37	40.7	42.1	43.2	46.5	41.3	49.5	40.4
1380	1.29	-0.46	-0.9	-0.21	-0.6	-1.45	-1.71	-0.1	62.9	45.4	41	47.9	43.5	35.5	32.9	49.5
1381	-0.42	-0.7	-1.37	-0.37	-0.1	-0.38	-0.75	-0.8	45.8	43	36.3	46.3	49	46.2	42.5	42
1382	1.24	-0.58	-0.5	-0.27	-0.8	-1.44	-0.71	-0.9	62.4	44.2	45	47.3	42.2	35.6	42.9	40.9
1383	1.21	-1.17	-0.5	-0.21	0.2	-0.17	-0.06	0.16	62.1	38.3	45	47.9	52	48.3	49.4	51.6
1384	-0.55	-1.3	1.42	-0.73	-1	-0.66	-1.27	-0.6	44.5	37	64.2	42.7	39.7	43.4	37.3	43.7
1385	-0.72	-0.44	-0.78	-1.1	-0.7	-0.07	-0.84	-0.8	42.8	45.6	42.2	39	42.6	49.3	41.6	42
1386	-1.11	-0.76	-1.11	-0.71	-1	0.2	-0.62	-1.2	38.9	42.4	38.9	42.9	39.5	52	43.8	38.2
1387	1.36	-0.39	1.26	-0.15	-0.2	-0.68	-0.52	-0.6	63.6	46.1	62.6	48.5	48.4	43.2	44.8	43.5
1388	1.31	0.28	-0.47	-0.84	-0.8	-0.69	-0.4	-0.3	63.1	52.8	45.3	41.6	42.4	43.1	46	47.2
1389	-0.93	-0.62	-0.99	-1.02	-0.8	-0.67	-0.57	0.16	40.7	43.8	40.1	39.8	42.5	43.3	44.3	51.6
1390	-0.65	-0.54	-1.1	-0.51	-1.4	-1.74	-1.33	-0.8	43.5	44.6	39	44.9	35.7	32.6	36.7	42.2
1391	0.67	-0.51	0.98	-0.34	-0.2	0.02	-0.52	0.26	56.7	44.9	59.8	46.6	48.1	50.2	44.8	52.6
1392	1.31	-0.31	-0.7	-0.33	-0.5	-0.66	0.11	-0.5	63.1	46.9	43	46.7	45.5	43.4	51.1	45
1393	1.33	-0.92	1.29	-0.46	-0.4	-0.23	-0.45	-0.7	63.3	40.8	62.9	45.4	46	47.7	45.5	42.7
1394	-0.43	-0.45	-0.17	0.01	-0.4	0.16	-0.21	-0.3	45.7	45.5	48.4	50.1	45.8	51.6	47.9	47.2
1395	-1.09	-1.01	2.03	-1.05	-0.9	0.03	-0.69	-1.2	39.1	39.9	70.3	39.5	41.4	50.3	43.1	38.4
1396	-0.42	-1.05	-0.3	-0.6	-0.7	-0.75	-0.64	-0.9	45.8	39.6	47	44	43.1	42.5	43.6	40.8
1397	-0.84	-0.55	1.69	-0.3	-0.1	0.16	-0.2	-0.6	41.6	44.5	66.9	47	48.6	51.6	48	44.3
1398	-0.81	-0.9	-0.21	0.87	-0.2	-0.01	-0.87	-0.6	41.9	41	47.9	58.7	47.8	49.9	41.3	44.3

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
1399	1.22	1.56	1.55	0.98	1.09	1.01	0.73	0.94	62.2	65.6	65.5	59.8	60.9	60.1	57.3	59.4
1400	-1.11	1.49	1.19	-0.49	0.4	-0.21	0.18	1.37	38.9	64.9	61.9	45.1	54	47.9	51.8	63.7
1401	1.24	1.4	-0.6	1.02	1.03	0.45	1.3	1.11	62.4	64	44	60.2	60.3	54.5	63	61.1
1402	-0.78	-0.8	-0.45	-0.93	-1.7	1.59	1.6	1.64	42.2	42	45.5	40.7	32.7	65.9	66	66.4
1403	-0.74	1.42	0.8	1.41	2.15	1.97	1.81	0.81	42.6	64.2	58	64.1	71.5	69.7	68.1	58.1
1404	-0.87	-1.52	-1.11	-0.5	-0.5	-0.87	-0.89	0.47	41.3	34.8	38.9	45	44.6	41.3	41.1	54.7
1405	1.49	-0.86	-0.77	-1.02	-0.7	-0.57	-0.49	-0.7	64.9	41.4	42.3	39.8	43	44.3	45.1	43.3
1406	1.36	-1.3	1.76	-0.28	-1.7	-0.19	1.6	-1.4	63.6	37	67.6	47.2	33.1	48.1	66	35.5
1407	1.37	0	1.69	-0.79	-1.2	-0.14	-1.66	-1	63.7	50	66.9	42.1	37.8	48.6	33.4	40.1
1408	1.28	1.89	-0.78	2.14	1.52	1.97	1.49	1.77	62.8	68.9	42.2	71.4	65.2	69.7	64.9	67.7
1409	-0.44	-0.55	-1.06	1.03	0.36	1.53	-0	-0.2	45.6	44.5	39.4	60.3	53.6	65.3	50	48.2
1410	1.05	1.07	1.79	0.07	1.08	1.19	0.94	0.84	60.5	60.7	67.9	50.7	60.8	61.9	59.4	58.4
1411	-0.74	2.03	1.68	1.2	1.25	1.28	1.16	1.54	42.6	70.3	66.8	62	62.5	62.8	61.6	65.4
1412	-0.76	-0.31	-0.64	-0.23	-0.9	-0.98	-0.32	-0.2	42.4	46.9	43.6	47.7	41.3	40.2	46.8	48.3
1413	-0.87	-0.2	1.45	-0.49	-1	-1.16	-0.31	-1.3	41.3	48	64.5	45.1	39.7	38.4	46.9	37.1
1414	-1	1.69	0.67	1.32	1.57	1.51	1.44	1.4	40	66.9	56.7	63.2	65.7	65.1	64.4	64
1415	-0.93	1.23	-1.06	1.04	1.12	0.96	0.95	1.34	40.7	62.3	39.4	60.4	61.2	59.6	59.5	63.4
1416	-0.71	-1.01	1.42	-1.05	-0.9	0.03	-0.69	-1.2	42.9	39.9	64.2	39.5	41.4	50.3	43.1	38.4
1417	1.48	-1.78	-0.17	-0.78	-0.7	-0.79	-0.75	-1.6	64.8	32.2	48.3	42.2	43.1	42.1	42.5	33.9
1418	1.28	1.94	-0.45	1.76	1.43	1.64	1.88	1.61	62.8	69.4	45.5	67.6	64.3	66.4	68.8	66.1
1419	-1.22	-0.94	-0.46	-0.68	-0.6	-0.48	-0.41	-1	37.8	40.6	45.4	43.2	44.3	45.2	45.9	40
1420	-1.27	1.3	1.61	1.2	1.49	1.53	1.11	1.37	37.3	63	66.1	62	64.9	65.3	61.1	63.7
1421	-1.12	-0.46	1.77	-0.64	-0.9	0.45	-0.99	-1	38.8	45.4	67.7	43.6	41.3	54.5	40.1	40.2
1422	-0.57	-0.42	-0.37	-0.8	-0.4	-0.22	-0.44	-1.4	44.3	45.8	46.3	42	46.2	47.8	45.6	35.6
1423	1.39	-0.37	1.63	-0.25	-0	-0.46	-0.5	-0.8	63.9	46.3	66.3	47.5	49.6	45.4	45	42
1424	1.43	1.4	-0.86	1.32	1.36	1.34	1.71	1.69	64.3	64	41.4	63.2	63.6	63.4	67.1	66.9
1425	1.33	-0.8	-1.3	-0.83	-1.4	-0.98	-1.03	-2	63.3	42	37	41.7	35.8	40.2	39.7	30.1
1426	0.76	-0.46	1.55	-0.93	-0.1	-1.32	-0.52	-0.2	57.6	45.4	65.5	40.7	48.8	36.8	44.8	48.4
1427	1.49	-0.91	-1.21	-0.63	-0.6	0.69	-1.14	-1.3	64.9	40.9	37.9	43.7	44	56.9	38.6	37
1428	-0.82	1.83	1.66	1.17	1.51	0.91	1.11	1.93	41.8	68.3	66.6	61.7	65.1	59.1	61.1	69.3
1429	1.21	1.27	-0.77	1.49	1.4	1.32	1.71	1.23	62.1	62.7	42.3	64.9	64	63.2	67.1	62.3
1430	1.23	2.68	-0.25	1.92	1.64	1.05	1.44	1.75	62.3	76.8	47.5	69.2	66.4	60.5	64.4	67.5
1431	-0.81	-0.94	-0.38	-0.54	-0.3	-0.87	-0.62	0.11	41.9	40.6	46.2	44.6	46.5	41.3	43.8	51.1
1432	-0.7	-0.54	-0.48	-1.21	-0.7	-1.5	-0.64	-0.5	43	44.6	45.2	38	43.3	35	43.6	45.1
1433	-0.5	1.6	0.31	1.18	1.76	1.69	1.69	1.3	45	66	53.1	61.8	67.6	66.9	66.9	63

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
1434	-0.92	-0.8	-0.24	-0.83	0.23	-0.4	-1.01	-0.8	40.8	42	47.6	41.7	52.3	46	40	41.6
1435	1.36	-1.78	1.25	-0.62	-0.2	-0.71	-1.07	-1.3	63.6	32.2	62.5	43.8	48.4	42.9	39.3	37.1
1436	-0.82	1.46	1.05	1.63	1.64	1.15	0.94	1.63	41.8	64.6	60.5	66.3	66.4	61.5	59.4	66.3
1437	-1.33	-1.65	-0.41	-0.9	-0.5	-0.61	-0.58	-1.2	36.7	33.5	45.9	41	45.3	43.9	44.2	38.1
1438	1.55	-0.05	1.55	-0.23	-0.2	-0.79	-0.51	-0.4	65.5	49.5	65.5	47.7	48	42.1	44.9	45.5
1439	1.13	1.91	-0.63	1.55	1	0.78	1.06	0.91	61.3	69.1	43.7	65.5	60	57.8	60.6	59.1
1440	1.44	0.69	-0.83	-0.86	-1.2	-1.45	-0.61	-1.1	64.4	56.9	41.7	41.4	38.2	35.5	43.9	38.6
1441	-0.59	-0.52	-1.29	-0.91	-0.8	-1.11	-1.07	-0.3	44.1	44.8	37.1	40.9	42.4	38.9	39.3	46.7
1442	-0.89	-1	-0.54	-0.06	-0.2	-0.64	-0.19	-0.3	41.1	40	44.6	49.4	48	43.6	48.1	47.2
1443	-0.99	-0.91	-1.06	-0.3	-0.3	-0.01	-0.13	-0.4	40.1	40.9	39.4	47	46.5	49.9	48.7	46.2
1444	-0.76	-1.19	-0.99	-1.26	-0.7	-0.6	-0.69	-0.9	42.4	38.1	40.1	37.4	42.5	44.1	43.1	41.2
1445	-1.21	-1.14	-0.63	-0.67	0.53	-0.47	-1.35	-0.5	37.9	38.6	43.7	43.3	55.3	45.3	36.5	44.6
1446	-0.48	1.4	0.21	1.24	1.36	1.32	1.29	0.9	45.2	64	52.1	62.4	63.6	63.2	62.9	59
1447	-0.85	-0.87	-1.21	-0.29	-0.3	-0.49	-0.75	-0.4	41.5	41.3	37.9	47.1	47.4	45.1	42.5	46
1448	-0.41	1.2	1.73	1.02	1.02	0.83	1.1	1.09	45.9	62	67.3	60.2	60.2	58.3	61	60.9
1449	-1.35	1.24	-0.67	1.89	1.76	2.73	1.62	2.02	36.5	62.4	43.3	68.9	67.6	77.3	66.2	70.2
1450	-0.72	1.36	-1	2.01	1.96	1.15	1.35	1.37	42.8	63.6	40	70.1	69.6	61.5	63.5	63.7
1451	-0.99	-0.73	1.35	-0.71	-1.2	-1.2	-0.82	-0.9	40.1	42.7	63.5	42.9	37.9	38	41.8	40.6
1452	1.33	-1.05	-0.47	-0.59	-1	-0.54	-0.14	-0.7	63.3	39.6	45.3	44.1	40	44.6	48.6	43.1
1453	-0.9	-0.46	-0.82	-0.6	-0.7	-0.85	-1	-1.2	41	45.4	41.8	44	43.4	41.5	40	38.2
1454	-0.5	-0.93	-0.53	-0.31	-0.3	-0.23	-0.05	-1.3	45	40.7	44.7	46.9	46.6	47.7	49.5	37.1
1455	-0.24	1.48	-0.34	2.26	1.74	1.44	1.71	1.6	47.6	64.8	46.6	72.6	67.4	64.4	67.1	66
1456	-0.67	1.49	1.22	1.17	2.03	2.22	1.17	2.11	43.3	64.9	62.2	61.7	70.3	72.2	61.7	71.1
1457	-0.92	2.08	-0.51	1.87	1.47	1.02	1.49	1.22	40.8	70.8	44.9	68.7	64.7	60.2	64.9	62.2
1458	-0.83	-0.56	-0.22	-0.55	-0.8	-1.44	-1.08	-1.3	41.7	44.4	47.8	44.5	42.2	35.6	39.2	37.3
1459	1.49	-0.86	-0.46	0.07	-0.7	-0.43	-0.42	-0.5	64.9	41.4	45.4	50.7	43.1	45.7	45.8	44.8
1460	0.81	0.08	1.33	-1.03	-0.9	-0.26	-0.22	-0.6	58.1	50.8	63.3	39.7	40.6	47.4	47.8	44.3
1461	1.42	-0.89	-0.44	0.77	-0.6	1.02	-0.13	0.44	64.2	41.1	45.6	57.7	43.6	60.2	48.7	54.4
1462	-0.82	-0.52	-0.02	-1.13	-0.8	-1.11	-1.14	-0.2	41.8	44.8	49.8	38.7	42.4	38.9	38.6	47.9
1463	-0.99	1.68	1.3	2.26	2.14	1.9	2.43	0.01	40.1	66.8	63	72.6	71.4	69	74.3	50.1
1464	-0.93	-1.17	1.73	-1.31	-1.4	-0.79	-1.35	-1.9	40.7	38.3	67.3	36.9	36.1	42.1	36.5	31.4
1465	1.38	1.91	1.66	1.52	1.81	2.2	1.62	1.78	63.8	69.1	66.6	65.2	68.1	72	66.2	67.8
1466	-1.03	-0.62	-0.99	-0.71	-0.9	0.07	-0.78	-1	39.7	43.8	40.1	42.9	41.4	50.7	42.2	39.7
1467	-0.61	-0.15	-0.93	-1.75	-1.9	-1.04	-0.67	-1.4	43.9	48.5	40.7	32.5	31.3	39.6	43.3	36.2
1468	-0.54	-0.39	1.56	-0.69	-0.7	-1.16	0.17	-0.2	44.6	46.1	65.6	43.1	42.6	38.4	51.7	48.3

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
1469	-0.69	1.42	1.44	1.96	2.16	1.53	1.81	1.28	43.1	64.2	64.4	69.6	71.6	65.3	68.1	62.8
1470	1.33	-0.03	-1.03	-1.75	-1.2	-1.19	-0.92	-0.6	63.3	49.7	39.7	32.5	38.1	38.1	40.8	43.9
1471	1.11	-0.92	-1.13	-0.28	-0.6	-0.68	-0.29	-0.2	61.1	40.8	38.7	47.2	43.8	43.2	47.1	47.7
1472	-1.16	1.6	-0.62	1.66	1.76	1.41	1.54	1.75	38.4	66	43.8	66.6	67.6	64.1	65.4	67.5
1473	-0.55	-1.54	1.82	-0.73	-0.5	-0.87	-0.81	-0.7	44.5	34.6	68.2	42.7	44.6	41.3	41.9	43.4
1474	-1.31	2.08	1.95	1.59	1.47	1.02	1.48	1.14	36.9	70.8	69.5	65.9	64.7	60.2	64.8	61.4
1475	0.93	1.62	1.44	1.93	1.11	1.72	1.7	1.37	59.3	66.2	64.4	69.3	61.1	67.2	67	63.7
1476	-0.95	1.6	-0.87	1.71	1.76	2.73	1.09	1.48	40.5	66	41.3	67.1	67.6	77.3	60.9	64.8
1477	1.19	2.03	-1.08	1.42	1.52	2.28	1	1.75	61.9	70.3	39.2	64.2	65.2	72.8	60	67.5
1478	-0.75	1.43	-1.08	1.89	1.67	1.12	1.44	1.94	42.5	64.3	39.2	68.9	66.7	61.2	64.4	69.4
1479	-0.91	1.1	0.28	1.44	1.45	1.51	1.47	1.98	40.9	61	52.8	64.4	64.5	65.1	64.7	69.8
1480	1.16	1.49	-0.58	1.05	1.01	1.08	1.03	1.15	61.6	64.9	44.2	60.5	60.1	60.8	60.3	61.5
1481	1.47	1.79	-0.37	1.79	2.18	1.36	1.9	2.11	64.7	67.9	46.3	67.9	71.8	63.6	69	71.1
1482	-1.25	-1	1.53	-0.39	-0.9	-0.78	-0.41	-0.5	37.5	40	65.3	46.1	40.8	42.2	45.9	44.6
1483	1.17	-0.84	1.62	-0.59	-0.6	-0.39	-1.04	-0.9	61.7	41.6	66.2	44.1	44	46.1	39.6	40.6
1484	1.37	-0.62	0.2	-0.54	-1	-1.84	-0.79	-0.4	63.7	43.8	52	44.6	39.7	31.6	42.1	46.5
1485	-1.09	0.12	1.62	-0.71	-1.3	-0.98	-1.06	-0.6	39.1	51.2	66.2	42.9	36.7	40.2	39.4	43.5
1486	1.13	-1	-1.03	-0.78	-0.6	-0.38	-0.77	-0.6	61.3	40	39.7	42.2	43.6	46.2	42.3	44
1487	-0.97	-0.66	0.2	-0.31	0.44	1.32	0.31	1.58	40.3	43.4	52	46.9	54.4	63.2	53.1	65.8
1488	-0.81	-1.52	-0.33	-0.2	-1	-1.67	-1.13	-1.4	41.9	34.8	46.7	48	40.4	33.3	38.7	36.2
1489	1.23	-0.7	-0.68	-0.21	-0.7	-1.53	-0.65	-0.2	62.3	43	43.2	47.9	42.8	34.7	43.5	48.3
1490	-1.14	-1.19	-0.04	-0.44	0.3	-0.3	0.16	-0.3	38.6	38.1	49.6	45.6	53	47	51.6	47.4
1491	-0.97	-0.62	-0.53	-0.84	-0.5	-0.34	-0.67	-0.6	40.3	43.8	44.7	41.6	45.3	46.6	43.3	44.3
1492	1.27	-0.45	-0.67	-0.2	0.01	0.21	-0.66	-0.5	62.7	45.5	43.3	48	50.1	52.1	43.4	44.6
1493	-1.01	-0.59	-0.96	-0.44	-0.2	-0.41	-0.45	-0.4	39.9	44.1	40.4	45.6	48.4	46	45.5	46.5
1494	1.34	0.17	-0.79	-1.02	-0.7	0.45	-0.11	0.18	63.4	51.7	42.1	39.8	42.5	54.5	48.9	51.8
1495	1.21	-0.54	-1.05	-0.97	-0.9	-0.79	-0.65	-0.3	62.1	44.6	39.5	40.3	41.2	42.1	43.5	47.2
1496	-0.77	-0.51	1.6	-0.42	-0.2	0.33	-0.38	0.01	42.3	44.9	66	45.8	48.1	53.3	46.2	50.1
1497	-1.29	-0.7	1.64	-0.59	-0.1	-0.4	-0.53	-1.3	37.1	43	66.4	44.1	48.9	46	44.7	36.7
1498	1.3	-1.01	-0.9	-0.79	-0.4	-0.57	-0.23	0.12	63	39.9	41	42.1	45.9	44.3	47.7	51.2
1499	1.37	-1.19	-0.74	-0.73	-0.5	-0.48	-1.69	-0.7	63.7	38.1	42.6	42.7	44.6	45.2	33.1	43
1500	1.31	-0.92	-0.36	-0.55	-0	-0.45	-1.22	-0.8	63.1	40.8	46.4	44.5	49.6	45.5	37.8	41.8
1501	1.6	-1.16	-0.52	-0.73	-0.6	-1.74	-0.79	0.26	66	38.4	44.8	42.7	44	32.6	42.1	52.6
1502	1.28	-0.52	-0.57	-0.87	-0.8	-0.88	-0.65	-0.3	62.8	44.8	44.3	41.3	42.4	41.2	43.5	46.7
1503	-0.97	-0.92	1.62	0.34	-0	-0.22	-0.58	-0.8	40.3	40.8	66.2	53.4	49.8	47.8	44.2	41.8

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
1504	-1.23	-1.28	-0.36	-0.52	-0.6	-0.71	-0.62	-1.1	37.7	37.2	46.4	44.8	44.4	42.9	43.8	39.5
1505	0.67	-1.2	-0.21	-0.46	-0.9	-0.79	-0.85	-0.7	56.7	38	47.9	45.4	40.8	42.1	41.5	43
1506	-0.57	-0.67	-0.79	-0.18	-0.4	-0.85	-0.31	-0.3	44.3	43.3	42.1	48.2	46.4	41.5	46.9	46.7
1507	-1.35	-0.62	-0.64	-0.56	-0.7	0.78	-0.76	-0.5	36.5	43.8	43.6	44.4	42.5	57.8	42.4	45.3
1508	1.51	-0.16	-0.9	-0.27	-1.3	-0.14	-0.74	-0.8	65.1	48.4	41	47.3	37.2	48.6	42.6	42.2
1509	-0.37	-0.19	0.68	-0.56	-0.5	0.51	-0.28	-0.5	46.3	48.1	56.8	44.4	45.3	55.1	47.2	45.3
1510	0.91	-0.55	-0.72	-0.67	-0.1	-0.23	-0.31	-0.4	59.1	44.5	42.8	43.3	48.6	47.7	46.9	46.2
1511	-1.02	-0.37	-0.82	-0.95	-0.9	-1.37	-0.47	-0.4	39.8	46.3	41.8	40.5	41.3	36.3	45.4	45.7
1512	1.38	-0.33	-0.67	-0.12	-0.3	-0.55	-0.56	-0.1	63.8	46.7	43.3	48.8	46.8	44.5	44.4	48.9
1513	-0.92	-0.19	-1.02	-0.78	-0.5	-0.34	-0.62	-0.5	40.8	48.1	39.8	42.2	45.3	46.6	43.8	44.6
1514	-0.64	-0.43	-0.3	-0.8	-1	-0.17	-0.61	-0.7	43.6	45.7	47	42	40.4	48.3	43.9	43
1515	1.3	-0.89	-0.36	-0.23	-0.3	-0.41	0.22	-0.4	63	41.1	46.4	47.7	47.2	46	52.2	45.6
1516	1.37	-0.37	1.2	-0.15	-0.3	-0.85	-0.41	-0.7	63.7	46.3	62	48.5	47	41.5	45.9	42.5
1517	1.49	-0.68	-0.12	-0.52	-0.3	-0.56	-0.67	-0.6	64.9	43.2	48.8	44.8	47.2	44.4	43.3	44.2
1518	-0.51	0.08	-0.01	-0.19	-0.6	0.7	-0.58	-1.7	44.9	50.8	49.9	48.1	44.1	57	44.2	33.5
1519	-1.11	-0.37	1.13	-0.49	-0.3	-0.06	-0.39	-0.3	38.9	46.3	61.3	45.1	46.5	49.4	46.1	46.7
1520	-0.5	-0.8	0	-1.03	-1.4	-0.98	-0.98	-0.7	45	42	50	39.7	35.7	40.2	40.2	42.7
1521	-0.83	-0.29	0.25	0.87	0.9	1.34	-0.02	0.47	41.7	47.1	52.5	58.7	59	63.4	49.8	54.7
1522	-0.79	-1.28	-0.42	-0.91	-0.6	-0.51	-1.08	-0.7	42.1	37.2	45.8	40.9	44.4	44.9	39.2	43.4
1523	1.13	-0.83	-0.66	-0.82	-1.4	-1.21	-1.28	-0.6	61.3	41.7	43.4	41.8	36.1	37.9	37.2	43.5
1524	1.25	-0.09	1.74	-0.54	0.06	-0.71	-0.24	0.29	62.5	49.1	67.4	44.6	50.6	42.9	47.6	52.9
1525	-1.03	0	2.01	-1.67	-1.2	-0.14	-0.58	-0.8	39.7	50	70.1	33.3	37.6	48.6	44.2	41.6
1526	-0.81	-0.26	-0.8	-0.31	-0.9	0.35	-0.78	-0.4	41.9	47.4	42	46.9	41.3	53.5	42.2	46.1
1527	1.39	1.03	-1.29	1.78	1.84	2.76	2.43	1.98	63.9	60.3	37.1	67.8	68.4	77.6	74.3	69.8
1528	-0.89	1.73	-0.59	1.75	1.74	2.09	1.42	1.09	41.1	67.3	44.1	67.5	67.4	70.9	64.2	60.9
1529	1.23	-1.01	1.61	-1.15	-1.1	-0.23	-1.64	-1.3	62.3	39.9	66.1	38.5	38.9	47.7	33.6	37.1
1530	-0.73	-0.84	0.13	-0.49	-0.5	-1.04	-0.75	-0.1	42.7	41.6	51.3	45.1	45.2	39.6	42.5	48.9
1531	-1.23	-0.46	-0.86	0.02	0.85	0.91	-1.06	0.24	37.7	45.4	41.4	50.2	58.5	59.1	39.4	52.4
1532	-0.31	1.83	-0.61	1.96	1.83	2.73	1.63	1.81	46.9	68.3	43.9	69.6	68.3	77.3	66.3	68.1
1533	-0.52	1.69	2.03	1.5	1.66	1.8	2.43	1.88	44.8	66.9	70.3	65	66.6	68	74.3	68.8
1534	-0.61	1.89	0.15	1.17	1.52	1.99	1.6	1.62	43.9	68.9	51.5	61.7	65.2	69.9	66	66.2
1535	-1.26	1.55	0.85	1.92	1.78	2.59	1.71	1.85	37.4	65.5	58.5	69.2	67.8	75.9	67.1	68.5
1536	-0.55	-1.14	-0.81	-0.07	-0.2	-0.63	-0.65	-0.9	44.5	38.6	41.9	49.3	48	43.7	43.5	40.8
1537	1.16	-1.28	-1.02	-1	-0.5	-0.66	-0.55	-0.9	61.6	37.2	39.8	40	45.5	43.4	44.5	40.7
1538	-0.98	-0.18	-0.4	0.64	-0.4	-0.23	0.41	-0.5	40.2	48.2	46	56.4	45.8	47.7	54.1	44.7

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
1539	1.13	-1.16	-0.83	-0.82	-0.5	0.16	-0.71	-0.5	61.3	38.4	41.7	41.8	45.5	51.6	42.9	45.3
1540	1.12	-1.65	-0.72	-1.1	-0.7	-0.66	-1.69	-0.5	61.2	33.5	42.8	39	42.5	43.4	33.1	45.2
1541	-0.92	-0.09	1.41	0.32	-0.5	-0.87	0.43	-0.2	40.8	49.1	64.1	53.2	44.6	41.3	54.3	48.3
1542	-0.54	1.91	0.01	1.89	1.76	1.32	1.71	2.33	44.6	69.1	50.1	68.9	67.6	63.2	67.1	73.3
1543	1.25	1.48	0.71	1.97	2.2	1.36	1.35	2.7	62.5	64.8	57.1	69.7	72	63.6	63.5	77
1544	-0.79	1.43	2.11	2.06	2.09	1.9	2.47	1.45	42.1	64.3	71.1	70.6	70.9	69	74.7	64.5
1545	1.01	-0.56	-0.57	-0.7	-0.8	-1.44	-0.67	-1	60.1	44.4	44.3	43	42.2	35.6	43.3	40.4
1546	1.19	0.28	0.14	-0.27	-0.8	-0.6	-0.8	-0.1	61.9	52.8	51.4	47.3	42.4	44.1	42	48.8
1547	-0.56	-0.51	-0.36	-0.62	-0.2	0.45	-0.31	-0.3	44.4	44.9	46.4	43.8	48.1	54.5	46.9	46.9
1548	-0.83	-0.8	-0.01	-1.71	-1.1	-1.74	1.87	-1.5	41.7	42	49.9	32.9	38.9	32.6	68.7	35
1549	-0.8	0.46	-0.57	0.19	-0.6	-1.48	0.11	0.1	42	54.6	44.3	51.9	44.3	35.2	51.1	51
1550	-1.2	-1.16	1.54	-0.68	-0.4	-0.65	-0.38	-0.6	38	38.4	65.4	43.2	45.6	43.5	46.2	44.3
1551	-0.86	-0.53	-1.3	-0.98	-1	-1.13	-0.83	-0.3	41.4	44.7	37	40.2	40	38.7	41.7	46.6
1552	1.03	-0.41	-0.86	0.03	0.01	-0.38	-1.64	-0.5	60.3	45.9	41.4	50.3	50.1	46.2	33.6	45.3
1553	-1.3	-0.66	-0.66	-0.1	0.75	0.78	0.55	-0.8	37	43.4	43.4	49	57.5	57.8	55.5	42.1
1554	1.38	-0.84	1.78	-1.67	-1.5	-0.86	-1.64	-0.9	63.8	41.6	67.8	33.3	35.4	41.4	33.6	41.3
1555	1.07	0.21	1.53	-0.24	-0.5	0.6	0.12	-0.4	60.7	52.1	65.3	47.6	45.3	56	51.2	46.5
1556	1.14	1.53	-0.15	1.6	1.66	1.13	1.88	1.03	61.4	65.3	48.5	66	66.6	61.3	68.8	60.3
1557	-1	1.91	-0.37	1.88	1.96	1.32	1.89	1.42	40	69.1	46.3	68.8	69.6	63.2	68.9	64.2
1558	-1.13	2.08	2.32	1.87	1.78	1.63	1.89	2.03	38.7	70.8	73.2	68.7	67.8	66.3	68.9	70.3
1559	-0.59	1.1	-0.87	1.49	1.11	1.73	1.4	0.76	44.1	61	41.3	64.9	61.1	67.3	64	57.6
1560	-1.27	0.15	1.69	1.47	1.75	1.68	1.67	1.76	37.3	51.5	66.9	64.7	67.5	66.8	66.7	67.6
1561	-0.63	-0.68	-0.81	-1.06	-0.3	0.53	-0.51	-0.5	43.7	43.2	41.9	39.4	47.1	55.3	44.9	45
1562	-1.01	1.83	2.32	2.26	1.74	1.77	1.77	1.61	39.9	68.3	73.2	72.6	67.4	67.7	67.7	66.1
1563	1.27	2	2.32	1.8	1.83	2.76	2.47	2.18	62.7	70	73.2	68	68.3	77.6	74.7	71.8
1564	1.19	2.26	-0.87	1.69	-1.9	1.59	1.9	1.65	61.9	72.6	41.3	66.9	30.9	65.9	69	66.5
1565	-0.91	1.57	1.55	1.02	1.09	1.37	0.72	0.48	40.9	65.7	65.5	60.2	60.9	63.7	57.2	54.8
1566	-0.87	-0.03	1.66	-0.21	0.9	1.34	0.21	-0.2	41.3	49.7	66.6	47.9	59	63.4	52.1	47.6
1567	-0.93	1.4	0.1	1.32	1.08	1.17	1.3	0.97	40.7	64	51	63.2	60.8	61.7	63	59.7
1568	1.17	-0.8	1.35	-0.37	-1.7	-1.93	1.78	-1.4	61.7	42	63.5	46.3	33.1	30.7	67.8	35.5
1569	-0.71	2.08	1.86	1.42	1.47	1.13	1.79	0.81	42.9	70.8	68.6	64.2	64.7	61.3	67.9	58.1
1570	-1.28	-0.32	-0.6	-0.64	-1.5	-1.74	-0.7	-0.6	37.2	46.8	44	43.6	35.4	32.6	43	44.2
1571	-1.17	-1.19	-0.77	-0.37	-0.3	0.12	-0.42	-1	38.3	38.1	42.3	46.3	46.5	51.2	45.8	40
1572	-0.38	-1.3	1.76	0.21	-1.7	0.65	1.89	-1.4	46.2	37	67.6	52.1	33.1	56.5	68.9	35.5
1573	-0.79	0	0.19	-0.79	-1.2	-1.74	-1.69	-1.7	42.1	50	51.9	42.1	37.8	32.6	33.1	32.8

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
1574	1.2	1.91	-0.78	2.17	2.09	1.9	1.49	2.03	62	69.1	42.2	71.7	70.9	69	64.9	70.3
1575	-0.76	-0.55	-1.06	-0.33	0.35	-0.33	-0.02	-0.5	42.4	44.5	39.4	46.7	53.5	46.7	49.8	45.3
1576	-1.08	1.07	1.79	-0.31	1.08	1.19	0.85	0.16	39.2	60.7	67.9	46.9	60.8	61.9	58.5	51.6
1577	1.47	2.03	1.68	1.24	1.25	1.28	1.16	1.61	64.7	70.3	66.8	62.4	62.5	62.8	61.6	66.1
1578	-0.68	-0.3	-0.64	-0.4	0	-0.28	-0.67	-0.1	43.2	47	43.6	46	50	47.2	43.3	48.6
1579	1.11	-0.45	1.61	-0.64	0.11	-0.22	-0.32	-0.6	61.1	45.5	66.1	43.6	51.1	47.8	46.8	44.1
1580	-1.17	1.48	1.22	1.33	1.66	1.58	1.44	1.39	38.3	64.8	62.2	63.3	66.6	65.8	64.4	63.9
1581	1.19	1.23	-0.68	1.05	1.14	0.98	1.03	1.34	61.9	62.3	43.2	60.5	61.4	59.8	60.3	63.4
1582	-0.92	-1.01	-0.73	-1.07	-0.9	0.07	-0.69	-1.2	40.8	39.9	42.7	39.3	41.4	50.7	43.1	38.4
1583	1.33	-1.78	-0.84	-0.78	-0.7	-0.4	-1.05	-1.6	63.3	32.2	41.6	42.2	43.1	46	39.5	33.9
1584	-1.3	1.65	-0.45	1.51	1.93	0.89	2.17	2.16	37	66.5	45.5	65.1	69.3	58.9	71.7	71.6
1585	-0.66	-0.93	0.07	-0.68	-0.3	-0.87	-0.42	-0.5	43.4	40.7	50.7	43.2	46.5	41.3	45.8	45
1586	-0.67	1.3	1.35	1.24	1.5	1.53	0.79	1.37	43.3	63	63.5	62.4	65	65.3	57.9	63.7
1587	-0.94	-1.28	-0.88	-0.64	-0.8	0.45	-1.04	-0.4	40.6	37.2	41.2	43.6	41.9	54.5	39.6	46.1
1588	1.24	-0.42	-0.12	-0.72	-0.4	0.52	-0.78	0.1	62.4	45.9	48.8	42.8	46.2	55.2	42.2	51
1589	-0.73	-0.37	-1.02	0.13	-0	-0.46	-0.49	-0.2	42.7	46.3	39.8	51.3	49.6	45.4	45.1	48.3
1590	0.81	1.4	-1.08	1.31	1.36	1.34	1.71	1.69	58.1	64	39.2	63.1	63.6	63.4	67.1	66.9
1591	-0.55	-0.39	-1.3	-0.83	-0.9	-1.15	-1.03	-2	44.5	46.1	37	41.7	41	38.5	39.7	30.1
1592	1.34	-0.46	1.55	-0.31	-0.1	-0.01	-0.52	-0.2	63.4	45.4	65.5	46.9	49	49.9	44.8	47.6
1593	-0.74	-0.91	-1.21	-0.63	-0.6	0.1	-0.87	-1.3	42.6	40.9	37.9	43.7	44	51	41.3	37.1
1594	1.51	1.83	0.5	1.17	1.5	1.36	1.11	1.93	65.1	68.3	55	61.7	65	63.6	61.1	69.3
1595	-1.09	1.27	-0.77	1.49	1.4	1.32	0.87	1.2	39.1	62.7	42.3	64.9	64	63.2	58.7	62
1596	1.53	1.03	-0.25	1.92	1.97	1.44	1.46	1.75	65.3	60.3	47.5	69.2	69.7	64.4	64.6	67.5
1597	-0.46	-0.94	-0.8	-0.54	-0.3	-0.87	-0.4	-0.9	45.4	40.6	42	44.6	46.5	41.3	46	40.9
1598	1.28	-0.54	-0.28	-1.21	-0.7	-0.86	-0.64	-0.5	62.8	44.6	47.2	38	43.3	41.4	43.6	45.1
1599	-1.06	1.6	-1.02	1.18	1.76	1.69	1.67	1.75	39.4	66	39.8	61.8	67.6	66.9	66.7	67.5
1600	0.93	-0.8	-0.24	-0.24	0.23	-0.05	-1.01	-0.8	59.3	42	47.6	47.6	52.3	49.5	40	41.6
1601	1.19	-0.63	-0.57	-0.7	-0.8	-1.13	-1.07	-1.4	61.9	43.7	44.3	43	42.3	38.7	39.3	36.3
1602	-1.02	1.46	1.05	1.66	1.64	1.17	0.94	2.29	39.8	64.6	60.5	66.6	66.4	61.7	59.4	72.9
1603	0.74	-0.47	-0.88	-0.91	-0.9	-1.84	-0.58	-1.2	57.4	45.3	41.2	40.9	40.9	31.6	44.2	37.8
1604	-1.05	-0.39	-0.74	-0.24	-0.2	-0.68	-0.08	-0.2	39.5	46.1	42.6	47.6	48.4	43.2	49.2	48.1
1605	-0.68	1.91	1.44	1.58	1	0.82	1.07	0.91	43.2	69.1	64.4	65.8	60	58.2	60.7	59.1
1606	-0.51	0.7	-0.83	-0.88	-1.2	-1.45	-0.61	-1.1	44.9	57	41.7	41.2	38.2	35.5	43.9	38.6
1607	1.36	-0.52	-0.23	-0.87	-0.8	-0.46	-0.09	-0.3	63.6	44.8	47.7	41.3	42.4	45.4	49.1	46.7
1608	-0.33	-0.55	-0.53	-0.05	0.35	-0.98	-0.19	-0.3	46.7	44.5	44.7	49.5	53.5	40.2	48.1	47.2

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
1609	1.29	-0.91	-1.06	-0.3	-0.3	-0.48	-0.34	-0.4	62.9	40.9	39.4	47	46.5	45.2	46.6	46.2
1610	-0.46	-1	-0.99	-1.26	-0.6	0.69	-0.69	-0.9	45.4	40	40.1	37.4	43.8	56.9	43.1	41
1611	1.35	-0.44	-0.63	-0.07	-0.4	0.51	-0.5	-0.2	63.5	45.6	43.7	49.3	45.7	55.1	45	47.7
1612	1.16	1.4	0.47	1.05	1.36	1.75	1.21	0.86	61.6	64	54.7	60.5	63.6	67.5	62.1	58.6
1613	-0.89	-0.39	-1.21	-0.27	-0.6	0.51	-0.79	-0.4	41.1	46.1	37.9	47.3	44.1	55.1	42.1	45.9
1614	-0.92	1.2	1.73	1.02	1.02	0.83	1.1	1.09	40.8	62	67.3	60.2	60.2	58.3	61	60.9
1615	1.45	1.27	-0.25	1.89	1.76	2.73	1.44	2.02	64.5	62.7	47.5	68.9	67.6	77.3	64.4	70.2
1616	-0.83	1.36	-1	2.01	1.96	1.15	1.35	1.75	41.7	63.6	40	70.1	69.6	61.5	63.5	67.5
1617	1.43	-1.16	-0.94	-1.04	-0.8	-0.72	-0.84	-0.9	64.3	38.4	40.6	39.6	41.7	42.8	41.6	40.6
1618	-1.33	-0.94	1.36	0.09	-0.7	-1.53	-0.88	-0.5	36.7	40.6	63.6	50.9	42.8	34.7	41.2	45
1619	0.46	-1.19	-0.82	-0.83	-0.9	-0.55	-0.99	-1.2	54.6	38.1	41.8	41.7	40.8	44.5	40.1	38.2
1620	-1.04	-0.93	-0.53	0.02	-0.3	-0.47	-0.29	-0.7	39.6	40.7	44.7	50.2	46.6	45.3	47.1	43.1
1621	-0.68	1.48	-0.34	2.26	1.69	2.04	1.89	1.9	43.2	64.8	46.6	72.6	66.9	70.4	68.9	69
1622	-0.98	0.12	-0.5	-0.65	-0.6	-0.68	-0.51	-1.6	40.2	51.2	45	43.5	43.8	43.2	44.9	33.9
1623	-0.79	-1.19	1.66	-0.57	-0.4	-0.92	-0.7	-0.5	42.1	38.1	66.6	44.3	45.7	40.8	43	45.4
1624	-0.46	-0.37	-0.21	-0.57	-0.3	-0.23	-1	-0.9	45.4	46.3	47.9	44.3	46.9	47.7	40	41
1625	1.55	-1.65	0.16	-0.68	-0.6	0.96	-0.63	-1	65.5	33.5	51.6	43.2	44	59.6	43.7	40
1626	-0.8	-0.32	-0.46	-0.43	-0.6	-0.68	-0.36	0.02	42	46.8	45.4	45.7	43.8	43.2	46.4	50.2
1627	-1.23	-0.33	-0.87	-0.66	-0.3	0.45	-0.56	-0.8	37.7	46.7	41.3	43.4	46.7	54.5	44.4	41.8
1628	-0.67	-0.33	-0.15	-0.3	-0.1	-0.21	-0.13	-1.1	43.3	46.7	48.5	47	49.1	47.9	48.7	38.7
1629	-1.02	-0.78	1.73	-0.49	-0.2	-0.65	-0.65	-1.6	39.8	42.2	67.3	45.1	48	43.5	43.5	33.9
1630	-0.77	-0.59	-0.48	-0.59	-0.2	-0.67	-0.73	-1.1	42.3	44.1	45.2	44.1	48.4	43.3	42.7	39.5
1631	-0.83	-0.7	1.66	-0.74	-0.3	-0.03	-0.54	-0.2	41.7	43	66.6	42.6	47.2	49.7	44.6	47.6
1632	-0.61	-0.9	-0.67	-0.57	-0.2	0.19	-0.64	-0.6	43.9	41	43.3	44.3	47.7	51.9	43.6	44.4
1633	1.19	-1.13	0.2	-0.31	0.36	-0.21	-0.18	0.26	61.9	38.7	52	46.9	53.6	47.9	48.2	52.6
1634	1.65	-0.12	1.26	-0.76	-0.5	-0.71	-0.8	-1.1	66.5	48.8	62.6	42.4	44.5	42.9	42	38.8
1635	-0.25	-0.2	1.42	-0.65	-0.4	-0.65	-0.18	0.09	47.5	48	64.2	43.5	45.6	43.5	48.2	50.9
1636	-1.3	-0.84	-0.76	-0.72	-0.6	-1.74	-0.75	0.22	37	41.6	42.4	42.8	44	32.6	42.5	52.2
1637	-0.72	-0.91	0.28	-0.68	-0.1	-0.92	-0.56	-0.6	42.8	40.9	52.8	43.2	49.2	40.8	44.4	44.2
1638	0.98	-0.58	-0.24	-0.67	-1	-0.86	-0.57	-0.4	59.8	44.2	47.6	43.3	39.8	41.4	44.3	46.2
1639	1.06	-0.7	-0.47	-0.74	-0.3	-0.55	-0.29	-0.2	60.6	43	45.3	42.6	47.2	44.5	47.1	47.6
1640	-0.99	0.09	0	-0.01	-1.5	-0.28	-0.74	-0.2	40.1	50.9	50	49.9	35.4	47.2	42.6	48.4
1641	-0.71	-0.09	1.6	-0.91	-0.5	-1.78	-0.28	-0.2	42.9	49.1	66	40.9	44.8	32.2	47.2	48.2
1642	-0.73	-1.65	-1.06	-0.48	0.11	-0.22	-0.94	-0.3	42.7	33.5	39.4	45.2	51.1	47.8	40.6	46.7
1643	1.42	-0.53	2.01	-0.37	-0.6	-1.5	-0.67	-0.1	64.2	44.7	70.1	46.3	44	35	43.3	48.6

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
1644	-0.87	2.03	1.22	1.17	1.52	2.22	1.16	2.11	41.3	70.3	62.2	61.7	65.2	72.2	61.6	71.1
1645	-0.74	1.8	-0.51	1.87	1.23	1.19	1.49	1.57	42.6	68	44.9	68.7	62.3	61.9	64.9	65.7
1646	-0.31	-0.56	-0.71	-0.55	-0.8	-1.44	-1.08	-0.7	46.9	44.4	42.9	44.5	42.2	35.6	39.2	42.7
1647	-0.89	-0.86	-0.46	-0.68	-0.7	0.19	-0.42	-0.5	41.1	41.4	45.4	43.2	43	51.9	45.8	44.7
1648	-1.19	-0.54	1.33	0.73	0.3	-0.3	-0.31	0.27	38.1	44.6	63.3	57.3	53	47	46.9	52.7
1649	1.18	-0.88	-0.11	-0.93	-0.6	-0.38	-0.41	-0.4	61.8	41.2	48.9	40.7	43.6	46.2	45.9	45.6
1650	-0.85	-0.68	0.12	-0.86	-0.3	0.02	-1.13	-0.2	41.5	43.2	51.2	41.4	47.1	50.2	38.7	47.9
1651	-0.77	1.69	1.3	2.26	2.14	1.97	2.43	1.77	42.3	66.9	63	72.6	71.4	69.7	74.3	67.7
1652	-0.69	-1.17	1.73	-1.31	-1.4	-0.79	-1.35	-1.9	43.1	38.3	67.3	36.9	36.1	42.1	36.5	31.4
1653	1.04	1.95	-0.12	1.51	1.43	1.64	1.62	1.78	60.4	69.5	48.8	65.1	64.3	66.4	66.2	67.8
1654	1.13	-0.54	-0.99	-0.7	-0.7	-0.86	-0.79	-1	61.3	44.6	40.1	43	43.3	41.4	42.1	39.7
1655	-0.95	-0.15	-0.93	-1.75	-1.8	-1.04	-0.67	-1.4	40.5	48.5	40.7	32.5	31.9	39.6	43.3	36.2
1656	-0.84	-1.02	1.56	-0.59	0.03	0.26	-0.56	-0.9	41.6	39.8	65.6	44.1	50.3	52.6	44.4	41.2
1657	-0.66	1.42	-0.63	1.93	2.16	1.76	1.86	0.97	43.4	64.2	43.7	69.3	71.6	67.6	68.6	59.7
1658	-0.95	-0.03	-1.03	-1.68	-1.2	-0.25	-0.92	-1.2	40.5	49.7	39.7	33.2	38.1	47.5	40.8	38.1
1659	0.76	-0.92	-1.13	-0.28	-0.6	-0.68	-0.75	-0.2	57.6	40.8	38.7	47.2	43.8	43.2	42.5	47.6
1660	-0.79	1.07	-0.62	1.66	1.77	1.34	1.09	1.27	42.1	60.7	43.8	66.6	67.7	63.4	60.9	62.7
1661	1.45	-0.75	1.82	-0.73	-0.8	-0.61	-0.8	-0.7	64.5	42.5	68.2	42.7	41.7	43.9	42	43.4
1662	-0.93	1.65	1.95	1.59	1.32	1.75	1.48	1.15	40.7	66.5	69.5	65.9	63.2	67.5	64.8	61.5
1663	-0.78	1.62	-0.63	1.73	1.11	1.66	1.7	1.8	42.2	66.2	43.7	67.3	61.1	66.6	67	68
1664	-0.54	2.2	1.3	1.73	1.47	1.4	1.09	1.48	44.6	72	63	67.3	64.7	64	60.9	64.8
1665	-0.57	2.03	-1.08	1.13	1.52	0.96	1.66	1.75	44.3	70.3	39.2	61.3	65.2	59.6	66.6	67.5
1666	-0.79	1.43	-1.08	1.89	1.67	1.55	1.44	1.45	42.1	64.3	39.2	68.9	66.7	65.5	64.4	64.5
1667	-0.59	1.1	0.28	1.44	1.45	1.51	1.47	1.01	44.1	61	52.8	64.4	64.5	65.1	64.7	60.1
1668	0.07	1.49	-0.01	0.93	1	-0.29	1	1.15	50.7	64.9	49.9	59.3	60	47.1	60	61.5
1669	1.25	1.69	-0.37	1.79	2.18	2.11	2.1	2.11	62.5	66.9	46.3	67.9	71.8	71.1	71	71.1
1670	-0.86	0.12	1.53	-0.41	-0.6	0.78	-0.94	-0.6	41.4	51.2	65.3	45.9	43.8	57.8	40.6	44.5
1671	-0.47	-1.19	1.61	-0.83	-0.6	0.51	-1.04	-0.1	45.3	38.1	66.1	41.7	43.9	55.1	39.6	48.6
1672	-0.54	-1.19	-0.15	-0.74	-0.6	0.03	-0.42	0.12	44.6	38.1	48.5	42.6	43.8	50.3	45.8	51.2
1673	1.08	0.12	-0.39	-0.71	-1.3	-0.99	-1.06	-0.6	60.8	51.2	46.1	42.9	36.6	40.1	39.4	43.5
1674	-0.9	-1	-1.03	-0.72	-0.6	-0.3	-0.77	-0.6	41	40	39.7	42.8	43.6	47	42.3	44
1675	-0.03	0.36	-0.42	0.61	-0.2	-0.69	0.33	-0.2	49.7	53.6	45.8	56.1	47.6	43.1	53.3	48.1
1676	0.11	-1.52	-0.9	-1.28	-1	-0.77	-1.1	-1.4	51.1	34.8	41	37.2	40.2	42.3	39	35.8
1677	-0.85	-0.32	1.59	-0.38	0.06	-0.35	-0.65	-0.8	41.5	46.8	65.9	46.2	50.6	46.5	43.5	41.8
1678	0.68	0	-0.36	0.28	-0.1	-0.6	0.14	-0.4	56.8	50	46.4	52.8	49	44	51.4	46.2

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
1679	0.75	-0.73	-0.53	-1.21	-1.2	-0.14	-1.13	-0.6	57.5	42.7	44.7	38	37.7	48.6	38.7	44.3
1680	-0.88	-0.52	-0.67	-0.21	-0.6	-0.52	-0.84	-0.5	41.2	44.8	43.3	47.9	44.3	44.8	41.6	44.5
1681	-0.84	-0.59	-0.96	-0.31	-0.2	-0.71	-0.51	-0.8	41.6	44.1	40.4	46.9	48.4	42.9	44.9	41.6
1682	-1.03	-0.87	-0.43	-1.02	-0.3	-0.79	-1	0.16	39.7	41.3	45.7	39.8	47.3	42.1	40	51.6
1683	1.22	-0.87	-1.05	-0.97	-0.3	0.91	-0.65	-0.3	62.2	41.3	39.5	40.3	47.4	59.1	43.5	47.2
1684	-0.37	-0.51	1.6	-0.79	-0.2	-0.63	-0.5	-0.7	46.3	44.9	66	42.1	48.1	43.7	45	43.3
1685	1.29	-0	1.64	-0.59	-1.2	-1.09	-0.38	-1.3	62.9	50	66.4	44.1	38.1	39.1	46.2	36.7
1686	-0.94	-0.8	-0.87	-1.03	-1.4	-0.98	-0.98	-0.7	40.6	42	41.3	39.7	35.7	40.2	40.2	42.7
1687	1.32	0	0.25	0.07	0.16	-0.67	-0.02	-0.2	63.2	50	52.5	50.7	51.6	43.3	49.8	48.3
1688	1.04	-1.28	-0.15	-0.79	-0.6	-0.72	-1.09	-0.7	60.4	37.2	48.5	42.1	44.4	42.8	39.1	43.5
1689	-0.93	-0.83	-0.66	-1.13	-1.4	-0.98	-0.94	-0.6	40.7	41.7	43.4	38.7	35.8	40.2	40.6	43.5
1690	1.14	0.27	1.74	0.07	-0.7	-0.79	-0.24	0.68	61.4	52.7	67.4	50.7	43.2	42.1	47.6	56.8
1691	-0.39	-1.15	-0.79	-0.62	-0.9	-0.65	-1.19	-0.8	46.1	38.5	42.1	43.8	41	43.5	38.1	41.5
1692	-0.8	-0.26	-0.44	-0.49	-0.9	0.14	-0.39	-0.4	42	47.4	45.6	45.1	41.3	51.4	46.1	46.1
1693	-0.5	1.03	-1.29	1.79	1.84	1.77	1.89	1.92	45	60.3	37.1	67.9	68.4	67.7	68.9	69.2
1694	-0.43	1.73	-0.59	1.76	1.74	2.09	1.42	1.09	45.7	67.3	44.1	67.6	67.4	70.9	64.2	60.9
1695	-1.07	-0.72	1.61	-1.15	-1.8	-0.99	-0.82	-1	39.3	42.8	66.1	38.5	32.4	40.1	41.9	40.4
1696	-1.37	-0.92	-0.9	-0.5	-0	0.09	-1.05	-0.1	36.3	40.8	41	45	49.7	50.9	39.5	48.8
1697	-0.75	-0.37	-0.43	0.03	-0.1	-1.1	-0.27	0.26	42.5	46.3	45.7	50.3	49	39	47.3	52.6
1698	-0.78	1.83	-0.13	1.97	1.83	2.7	1.67	-1.4	42.2	68.3	48.7	69.7	68.3	77	66.7	35.5
1699	-0.28	2.68	2.03	1.5	1.66	0.83	1.71	2.83	47.2	76.8	70.3	65	66.6	58.3	67.1	78.3
1700	1.47	1.89	0.15	1.17	1.52	1.99	1.6	1.61	64.7	68.9	51.5	61.7	65.2	69.9	66	66.1
1701	-1.23	1.56	-0.45	1.9	1.78	2.59	1.71	1.84	37.7	65.6	45.5	69	67.8	75.9	67.1	68.4
1702	-0.55	-0.44	1.17	-1.01	-0.4	-0.19	0.07	0.27	44.5	45.6	61.7	39.9	45.8	48.1	50.7	52.7
1703	-1.32	-0.84	0.05	-0.98	-0.9	-0.79	-0.55	-0.8	36.8	41.6	50.5	40.2	40.8	42.1	44.5	42.2
1704	-0.77	0.36	-0.4	-0.31	-0.4	-0.22	-0.04	-0.8	42.3	53.6	46	46.9	46	47.8	49.6	42.1
1705	-0.52	-0.66	-0.66	-0.82	-0.8	0.15	-0.54	-0.5	44.8	43.4	43.4	41.8	42.3	51.5	44.6	45.3
1706	-1.35	-1.65	-0.41	-0.98	-0.7	1.13	-0.79	-1	36.5	33.5	45.9	40.2	42.5	61.3	42.1	40.4
1707	-0.79	-0.66	1.39	-0.44	0.3	-0.08	0.44	-0.5	42.1	43.4	63.9	45.6	53	49.2	54.4	45
1708	-0.53	1.62	-0.12	1.97	1.76	1.32	1.71	1.87	44.7	66.2	48.8	69.7	67.6	63.2	67.1	68.7
1709	-0.77	1.49	0.15	2.21	2.42	1.74	1.35	2.76	42.3	64.9	51.5	72.1	74.2	67.4	63.5	77.6
1710	-0.69	1.43	-1.58	2.01	2.09	2.2	2.1	1.45	43.1	64.3	34.2	70.1	70.9	72	71	64.5
1711	0.59	-0.56	-0.08	-0.69	-0.8	-1.44	-0.67	-1	55.9	44.4	49.2	43.1	42.2	35.6	43.3	40.4
1712	-1.48	0.28	-0.1	-0.27	-0.8	0.25	-0.8	-0.1	35.2	52.8	49	47.3	42.4	52.5	42	48.8
1713	-0.86	-0.24	-0.36	-0.14	-0.7	0.45	-1.03	-0.3	41.4	47.6	46.4	48.7	42.6	54.5	39.7	46.9

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
1714	-0.92	-0.8	-0.01	-1.68	-1.1	-1.74	1.86	-1.5	40.8	42	49.9	33.2	38.9	32.6	68.6	35
1715	1.15	0.82	-0.57	-0.19	-0.6	1.63	-0.45	0.01	61.5	58.2	44.3	48.1	44.1	66.3	45.5	50.1
1716	-1.11	-0.39	-0.84	-0.69	0.12	-0.21	-0.39	-0.6	38.9	46.1	41.6	43.1	51.2	47.9	46.1	44.3
1717	-0.78	-0.53	-1.3	-0.98	-1	-1.13	-0.83	-0.3	42.2	44.7	37	40.2	40	38.7	41.7	46.6
1718	1.29	-0.41	0.8	-1.13	0	0.45	-1.62	0.46	62.9	45.9	58	38.7	50	54.5	33.8	54.6
1719	-0.31	-0.44	-0.7	-0.1	-0.1	-0.68	-0.45	-0.8	46.9	45.6	43	49	49.2	43.2	45.5	42.1
1720	1.07	-0.84	1.78	-1.67	-1.5	-0.47	-1.64	-0.9	60.7	41.6	67.8	33.3	35.4	45.3	33.6	41.3
1721	-1.3	0.21	1.55	0.87	-0.5	0.7	-0.32	0.21	37	52.1	65.5	58.7	45.4	57	46.8	52.1
1722	0.63	1.53	-0.15	1.6	1.66	1.57	1.32	1.55	56.3	65.3	48.5	66	66.6	65.7	63.2	65.5
1723	1.37	1.91	-0.37	1.88	1.96	1.44	1.71	1.39	63.7	69.1	46.3	68.8	69.6	64.4	67.1	63.9
1724	1.27	2.2	0.19	1.82	1.78	1.64	1.88	1.92	62.7	72	51.9	68.2	67.8	66.4	68.8	69.2
1725	-0.94	1.1	-0.87	1.61	1.12	0.91	1.4	1.15	40.6	61	41.3	66.1	61.2	59.1	64	61.5
1726	0.69	0.22	1.69	0.01	2.58	1.6	1.51	1.89	56.9	52.2	66.9	50.1	75.8	66	65.1	68.9
1727	-1.33	-0.93	-0.81	-1.06	-0.5	-0.71	-0.73	-0.8	36.7	40.7	41.9	39.4	44.5	42.9	42.7	42
1728	1.14	2.2	-1.31	2.26	1.79	1.13	2.36	1.61	61.4	72	36.9	72.6	67.9	61.3	73.6	66.1
1729	1.41	1.83	-1.22	1.79	2.18	1.97	2.47	2.11	64.1	68.3	37.8	67.9	71.8	69.7	74.7	71.1
1730	1.43	1.57	-0.84	0.98	1.09	1.02	0.11	1.93	64.3	65.7	41.6	59.8	60.9	60.2	51.1	69.3
1731	1.27	0.92	1.66	1.17	0.18	-0.26	0.19	0.47	62.7	59.2	66.6	61.7	51.8	47.4	51.9	54.7
1732	0.82	1.36	0.1	1.04	1.45	1.51	1.32	0.98	58.2	63.6	51	60.4	64.5	65.1	63.2	59.8
1733	0.81	-0.72	1.35	0	-1.7	-1.93	1.61	-1.4	58.1	42.8	63.5	50	33.1	30.7	66.1	35.8
1734	0.69	2.2	1.86	1.41	1.47	1.13	1.29	1.28	56.9	72	68.6	64.1	64.7	61.3	62.9	62.8
1735	1.02	-0.32	1.85	-0.06	-1.5	-1.74	-0.51	-0.6	60.2	46.8	68.5	49.4	35.4	32.6	44.9	44.1
1736	1.21	0.05	-0.77	-0.3	-1.4	-1.74	-0.58	-0.1	62.1	50.5	42.3	47	35.7	32.6	44.2	48.6
1737	-0.79	-1.3	1.74	-0.28	-1.7	-0.19	1.89	-1.9	42.1	37	67.4	47.2	33.1	48.1	68.9	30.9
1738	1.33	-1.52	-1.24	-1.84	-1	-0.62	-1.69	-1.8	63.3	34.8	37.6	31.6	40	43.8	33.1	32.3
1739	-0.62	1.91	-0.78	1.5	2.09	1.9	1.89	2.06	43.8	69.1	42.2	65	70.9	69	68.9	70.6
1740	-0.81	-0.3	-1.06	-0.3	-0.6	-0.53	-0.01	-0.1	41.9	47	39.4	47	44.3	44.7	49.9	49.4
1741	1.24	1.07	1.79	0.98	1.09	1.01	0.4	0.16	62.4	60.7	67.9	59.8	60.9	60.1	54	51.6
1742	1.47	2.03	1.68	1.17	1.25	1.45	1.16	1.61	64.7	70.3	66.8	61.7	62.5	64.5	61.6	66.1
1743	-1.18	-0.37	-0.51	-0.92	-0.4	-0.19	-0.67	-1.6	38.2	46.3	44.9	40.8	45.8	48.1	43.3	33.9
1744	-1.01	-0.39	1.45	-0.4	-1.2	-1.19	-0.31	-0.3	39.9	46.1	64.5	46	38.1	38.1	46.9	47
1745	1	-1.19	0.89	-1.64	-0.5	-1.21	-1.71	-1.4	60	38.1	58.9	33.6	44.6	37.9	32.9	36.3
1746	-0.75	-0.94	1.8	-0.71	-0.6	0.02	-1.33	-0.6	42.5	40.6	68	42.9	44	50.2	36.7	44
1747	-0.93	-1.65	1.62	-0.79	-0.6	0.23	-0.9	-0.2	40.7	33.5	66.2	42.1	44.3	52.3	41	47.6
1748	-0.61	-0.55	-0.6	-0.68	-0.1	-1.25	-0.56	-0.2	43.9	44.5	44	43.2	48.6	37.5	44.4	47.7

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
1749	-0.32	-1.19	1.78	-0.78	-0.6	-0.71	-0.62	-0.4	46.8	38.1	67.8	42.2	44.4	42.9	43.8	46.5
1750	-0.85	-0.2	-0.45	-0.59	-1	-1.84	-0.47	-0.9	41.5	48	45.5	44.1	39.7	31.6	45.3	40.9
1751	-1.07	-1.17	0.91	-0.48	-0.1	-1.25	-0.61	-0.6	39.3	38.3	59.1	45.2	48.6	37.5	43.9	44.3
1752	1.02	-1.19	-0.43	-0.38	-0.3	0.02	0.09	-0.2	60.2	38.1	45.7	46.2	46.5	50.2	50.9	48.4
1753	-0.44	-0.18	1.25	0.07	0.16	0.45	-0.33	-0.3	45.6	48.2	62.5	50.7	51.6	54.5	46.7	46.9
1754	0.68	-1.65	-0.69	0.15	-0.9	-0.28	-0.42	-0.6	56.8	33.5	43.1	51.5	40.5	47.2	45.8	44.4
1755	0.96	-1.04	-0.04	-0.31	-0.7	0.15	-0.17	-0.5	59.6	39.6	49.6	46.9	42.8	51.5	48.3	44.8
1756	0.63	-0.89	1.2	-0.45	0.52	0.09	-0.21	-0.6	56.3	41.1	62	45.5	55.2	50.9	47.9	44.4
1757	-1.08	-0.32	-0.83	-0.85	-1.5	-1.04	0.06	-0.6	39.2	46.8	41.7	41.5	35.4	39.6	50.6	43.9
1758	-0.02	-1.28	2.01	-1.1	-0.6	-0.52	-1.08	-0.3	49.8	37.2	70.1	39	44.4	44.8	39.2	47.2
1759	-0.96	-0.89	1.63	-0.49	-0.4	0.7	-0.51	-0.1	40.4	41.1	66.3	45.1	45.7	57	44.9	49
1760	1.19	-1.19	-0.73	0.65	-0.3	-0.31	-0.89	-0.7	61.9	38.1	42.7	56.5	46.5	46.9	41.1	43.3
1761	1.14	-1.52	-0.25	0.38	-0.9	-0.15	-0.72	-0.5	61.4	34.8	47.5	53.8	41.2	48.5	42.8	44.6
1762	-0.78	-0.4	-0.53	0.11	-0.4	0.38	0.02	0.04	42.2	46	44.7	51.1	45.9	53.8	50.2	50.4
1763	1.2	-0.52	-0.66	-0.54	-0.3	-0.53	-0.85	-0.9	62	44.8	43.4	44.6	46.8	44.7	41.5	41.3
1764	-0.31	-0.33	-0.12	-0.11	-0.5	-1.18	-0.61	-1.4	46.9	46.7	48.8	48.9	45.1	38.2	43.9	36.3
1765	-0.74	-0.39	-0.59	-0.51	0.12	-0.06	-0.56	-0.4	42.6	46.1	44.1	44.9	51.2	49.4	44.4	45.7
1766	1.12	1.4	-0.69	1.77	2.03	2.09	1.39	1.87	61.2	64	43.1	67.7	70.3	70.9	63.9	68.7
1767	1.11	1.23	-0.77	1.04	1.14	0.96	1.03	1.34	61.1	62.3	42.3	60.4	61.4	59.6	60.3	63.4
1768	-0.77	-0.75	0.94	0.89	-0.5	-1.05	-0.68	-1.1	42.3	42.5	59.4	58.9	45.2	39.5	43.2	39.3
1769	1.28	-0.53	-0.76	-0.55	-0.8	-1.2	-0.77	-1.3	62.8	44.7	42.4	44.5	41.9	38	42.3	37.1
1770	1.11	1.73	-0.83	1.9	1.74	1.45	1.42	1.48	61.1	67.3	41.7	69	67.4	64.5	64.2	64.8
1771	-0.62	-0.93	-0.66	-0.3	-0.3	0.43	-1.33	-0.9	43.8	40.7	43.4	47	46.6	54.3	36.7	40.7
1772	-1.26	1.1	1.61	1.17	1.5	1.66	1.54	1.25	37.4	61	66.1	61.7	65	66.6	65.4	62.5
1773	-0.97	-1.28	-0.88	-1.64	-0.8	-0.72	-0.58	-0.4	40.3	37.2	41.2	33.6	41.7	42.8	44.2	46.1
1774	-0.37	-0.66	-0.12	0.07	0.24	-0.04	-0.17	-0.7	46.3	43.4	48.8	50.7	52.4	49.6	48.3	42.8
1775	-0.55	-0.84	1.63	-0.25	-0.3	-0.85	-0.97	-0.4	44.5	41.6	66.3	47.5	47	41.5	40.3	45.8
1776	-0.77	1.45	0.04	1.44	1.14	1.74	0.86	0.97	42.3	64.5	50.4	64.4	61.4	67.4	58.6	59.7
1777	1.46	-0.91	-1.3	-1.15	-1	-1.16	-0.63	-0.6	64.6	40.9	37	38.5	39.7	38.4	43.7	43.5
1778	1.1	-0.32	1.74	-0.49	-0.3	-0.46	0.02	-0.3	61	46.8	67.4	45.1	46.7	45.4	50.2	47.4
1779	-0.91	-0.7	-1.21	-0.84	-0.7	0.45	-1.1	-1	40.9	43	37.9	41.6	42.5	54.5	39	40.5
1780	-0.36	2.03	-0.35	1.13	1.52	2.22	1.67	1.15	46.4	70.3	46.5	61.3	65.2	72.2	66.7	61.5
1781	1.32	1.45	-0.73	1.44	1.14	1.74	0.86	0.96	63.2	64.5	42.7	64.4	61.4	67.4	58.6	59.6
1782	1.14	1.83	-0.57	1.6	1.52	1.77	1.89	2.16	61.4	68.3	44.3	66	65.2	67.7	68.9	71.6
1783	-0.71	-0.8	1.45	-0.38	-0.3	0.45	-0.57	-1	42.9	42	64.5	46.2	46.8	54.5	44.3	40

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
1784	0.95	-1.52	-0.62	-1.22	-1	0	-0.64	-0.5	59.5	34.8	43.8	37.8	39.7	50	43.6	45.1
1785	0.18	1.37	-0.73	1.66	2.18	1.86	1.35	1.72	51.8	63.7	42.7	66.6	71.8	68.6	63.5	67.2
1786	-0.34	-0.8	-0.24	-0.24	0.23	0.34	-0.71	-0.8	46.6	42	47.6	47.6	52.3	53.4	42.9	41.6
1787	1.31	-0.73	0.45	-0.72	-0.7	-0.57	-1.08	-1	63.1	42.7	54.5	42.8	43	44.3	39.2	40.5
1788	-0.63	2.03	1.05	1.61	1.67	1.27	1.52	1.75	43.7	70.3	60.5	66.1	66.7	62.7	65.2	67.5
1789	-0.59	-1.65	-0.88	-0.98	-0.7	-1.78	-0.8	-0.5	44.1	33.5	41.2	40.2	42.5	32.2	42	44.8
1790	-0.98	-0.05	-0.86	-0.59	-0.2	-0.8	-0.22	0.02	40.2	49.5	41.4	44.1	48	42	47.8	50.2
1791	1.42	1.91	-0.83	1.55	1	0.78	1.07	0.95	64.2	69.1	41.7	65.5	60	57.8	60.7	59.5
1792	-0.78	0.7	-0.87	-0.88	-1.2	-0.61	-0.61	-0.6	42.2	57	41.3	41.2	38.2	43.9	43.9	43.8
1793	-0.87	-0.73	-0.24	-1.04	-0.7	-0.59	-0.66	-0.9	41.3	42.7	47.6	39.6	43	44.1	43.4	40.9
1794	-0.84	-0.24	-0.58	-0.06	-0.1	-1.37	-0.19	-0.3	41.6	47.6	44.2	49.4	48.6	36.3	48.1	47.3
1795	1.59	-0.67	-1.06	-0.78	-0.4	-0.68	-0.31	-0.5	65.9	43.3	39.4	42.2	46.3	43.2	46.9	44.9
1796	-0.7	-1	-0.99	-1.26	-0.6	-1.25	-0.69	-1.4	43	40	40.1	37.4	43.8	37.5	43.1	36.3
1797	-0.72	-1.28	-0.63	-0.37	0.41	-0.2	-0.4	-0.1	42.8	37.2	43.7	46.3	54.1	48	46	49
1798	1.18	1.6	-0.79	1.49	1.66	0.83	1	1.22	61.8	66	42.1	64.9	66.6	58.3	60	62.2
1799	-0.55	-0.72	-1.21	-0.28	-1	-0.66	-0.97	-0.4	44.5	42.8	37.9	47.2	39.7	43.4	40.3	45.8
1800	-1.23	1.57	1.73	-0.02	1.09	1.01	-0.54	-0.3	37.7	65.7	67.3	49.8	60.9	60.1	44.6	47.4
1801	-0.32	1.95	-0.69	1.8	1.43	1.64	1.6	1.59	46.8	69.5	43.1	68	64.3	66.4	66	65.9
1802	1.39	1.33	-1	1.9	1.67	1.23	0.94	1.48	63.9	63.3	40	69	66.7	62.3	59.4	64.8
1803	1.11	-1.65	-0.97	-1.04	-0.7	0.45	-1.69	-1	61.1	33.5	40.4	39.6	42.5	54.5	33.1	40.4
1804	-0.49	-1.02	1.35	-0.78	-0.6	-0.47	-0.8	-0.7	45.1	39.8	63.5	42.2	43.8	45.3	42	43.2
1805	-0.4	-0.12	-0.82	-0.72	-0.5	-0.71	-0.68	-1.4	46	48.8	41.8	42.8	44.5	42.9	43.2	35.6
1806	-0.56	-0.93	-0.53	-0.07	-0.3	-0.47	-0.29	-1.1	44.4	40.7	44.7	49.3	46.6	45.3	47.1	39
1807	1.33	1.62	-0.46	1.31	1.79	2.09	1.89	1.87	63.3	66.2	45.4	63.1	67.9	70.9	68.9	68.7
1808	0.9	2.2	-0.69	1.17	1.47	1.4	1.17	2.13	59	72	43.1	61.7	64.7	64	61.7	71.3
1809	-0.99	1.54	-0.51	1.51	1.11	-0.46	1.49	1.57	40.1	65.4	44.9	65.1	61.1	45.4	64.9	65.7
1810	1.14	-0.93	-0.71	-1.05	-0.5	-0.71	-0.79	-0.6	61.4	40.7	42.9	39.5	44.5	42.9	42.1	44.1
1811	1	-1.19	-0.46	-0.3	-0.4	0.51	-0.32	-1.4	60	38.1	45.4	47	45.7	55.1	46.8	35.8
1812	0.1	-0.46	-0.81	-0.19	0.08	0.19	-0.04	0.27	51	45.4	41.9	48.1	50.8	51.9	49.6	52.7
1813	-0.03	-0.32	1.86	-0.35	-0.1	0.45	-0.13	-1.1	49.7	46.8	68.6	46.5	49.1	54.5	48.7	38.7
1814	1.4	-0.68	1.45	-0.86	-0.3	-0.02	-1.18	-0.3	64	43.2	64.5	41.4	47.1	49.8	38.2	46.7
1815	1.57	1.41	-0.87	2.23	1.83	2.76	1.74	1.84	65.7	64.1	41.3	72.3	68.3	77.6	67.4	68.4
1816	0.83	-1.17	1.73	-1.3	-1.4	-0.79	-0.76	-1.7	58.3	38.3	67.3	37	36.1	42.1	42.4	32.8
1817	1.17	1.33	-0.12	1.77	1.67	2.22	1.29	2.02	61.7	63.3	48.8	67.7	66.7	72.2	62.9	70.2
1818	-1.25	-1.19	-0.99	-0.73	-0.5	-0.37	-1.71	-1.3	37.5	38.1	40.1	42.7	44.6	46.3	32.9	37.1

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
1819	1.27	0	-0.93	-1.33	-1.2	-1.74	-0.63	-1.9	62.7	50	40.7	36.7	37.6	32.6	43.7	31.4
1820	0.99	-1.02	1.56	-0.55	0.03	0.26	-0.22	-0.9	59.9	39.8	65.6	44.5	50.3	52.6	47.8	40.7
1821	-0.95	1.8	-0.83	1.87	1.23	1.19	1.19	0.68	40.5	68	41.7	68.7	62.3	61.9	61.9	56.8
1822	1.6	-0.03	-1.03	-1.75	-1.2	-1.19	-0.93	-1.2	66	49.7	39.7	32.5	38.1	38.1	40.8	38.1
1823	1.19	-0.91	-1.13	-0.3	-0.6	-0.68	-0.53	-0.4	61.9	40.9	38.7	47	43.8	43.2	44.7	45.8
1824	-0.5	1.37	-0.62	1.28	2.17	2.22	1.35	1.01	45	63.7	43.8	62.8	71.7	72.2	63.5	60.1
1825	0.54	-0.72	0.36	-0.59	-0.5	-1.78	-0.84	-1.1	55.4	42.8	53.6	44.1	44.6	32.2	41.6	39.4
1826	0.82	1.1	1.95	1.49	1.12	1.31	1.81	1.8	58.2	61	69.5	64.9	61.2	63.1	68.1	68
1827	1.51	2.2	-0.83	1.72	1.47	1.4	1.09	1.28	65.1	72	41.7	67.2	64.7	64	60.9	62.8
1828	-0.59	1.74	1.3	1.44	1.69	2.04	1.89	1.9	44.1	67.4	63	64.4	66.9	70.4	68.9	69
1829	1.09	2.2	-1.08	1.03	1.47	1.4	1.67	1.15	60.9	72	39.2	60.3	64.7	64	66.7	61.5
1830	0.26	1.43	-1.08	1.02	1.66	1.58	1.79	2.02	52.6	64.3	39.2	60.2	66.6	65.8	67.9	70.2
1831	-0.81	1.36	0.28	1.22	1.8	1.65	1.46	1.02	41.9	63.6	52.8	62.2	68	66.5	64.6	60.2
1832	0.95	1.21	-0.01	0.92	1.01	0.21	1.1	1.17	59.5	62.1	49.9	59.2	60.1	52.1	61	61.7
1833	-0.83	1.37	-0.38	1.49	1.76	1.64	2.47	2.23	41.7	63.7	46.3	64.9	67.6	66.4	74.7	72.3
1834	-0.5	0.31	-0.22	-0.3	-0.7	-0.77	-0.09	-0.3	45	53.1	47.8	47	43.1	42.3	49.1	46.9
1835	0.92	-0.19	-0.47	-0.8	-0.5	-0.34	-0.14	0.09	59.2	48.1	45.3	42	45.3	46.6	48.6	50.9
1836	0.44	-0.46	-0.14	-1.02	-0.6	0.96	-1	0.16	54.4	45.4	48.6	39.8	43.7	59.6	40	51.6
1837	-0.68	-1.65	-0.56	-1.1	-1.1	-0.05	-1.25	-0.9	43.2	33.5	44.4	39	39.2	49.5	37.5	40.7
1838	-0.62	-0.4	-1.03	-1.67	-0.8	-1.37	-0.8	-0.6	43.8	46	39.7	33.3	42.3	36.3	42	43.5
1839	-0.87	-0.66	-0.42	-0.37	0.44	-0.19	0.26	-0.9	41.3	43.4	45.8	46.3	54.4	48.1	52.6	40.8
1840	-0.53	-1.78	-0.91	-1.64	-0.9	0.05	-1.31	-1.2	44.7	32.2	40.9	33.6	41.4	50.5	36.9	37.8
1841	-0.8	-0.32	1.59	-0.67	0.05	0.4	-0.65	-0.2	42	46.8	65.9	43.3	50.5	54	43.5	47.5
1842	-1.04	0.46	-0.36	-0.24	-0.6	-1.48	-0.2	-0.3	39.6	54.6	46.4	47.6	44.3	35.2	48	46.9
1843	0.49	-0.68	1.37	-1.21	-0.3	-0.85	-0.76	-0.5	54.9	43.2	63.7	38	47.1	41.5	42.4	45
1844	0.63	-0.19	-0.67	0.77	-0.5	0.91	0.02	-0.6	56.3	48.1	43.3	57.7	45.3	59.1	50.2	44.5
1845	0.41	-0.37	-0.96	-1.71	-0.3	-0.92	-0.42	-0.3	54.1	46.3	40.4	32.9	47	40.8	45.8	47.1
1846	0.56	-0.46	-0.79	-1.02	-0.6	-0.67	-0.73	0.16	55.6	45.4	42.1	39.8	43.7	43.3	42.7	51.6
1847	-0.76	-0.08	-1.05	0.38	-0.9	-0.79	0.07	-0.6	42.4	49.2	39.5	53.8	40.8	42.1	50.7	44
1848	-0.88	-0.24	1.6	-0.93	-0.4	-0.66	-0.71	-0.8	41.2	47.6	66	40.7	45.5	43.4	42.9	41.8
1849	-0.65	-0.72	1.64	-0.19	-0.5	-0.77	-0.63	-1	43.5	42.8	66.4	48.1	44.6	42.3	43.7	39.7
1850	-0.29	-0.72	0	-1.03	-1.7	-1.39	-1.35	-0.8	47.1	42.8	50	39.7	32.7	36.1	36.5	41.6
1851	-0.73	0.92	0.25	0.32	0.3	-0.5	-0.09	0.07	42.7	59.2	52.5	53.2	53	45	49.1	50.7
1852	0.81	-1.28	-0.99	-0.79	-0.6	-0.33	-1.08	-0.7	58.1	37.2	40.1	42.1	44.4	46.7	39.2	43.4
1853	1.12	-0.48	-0.66	-1.02	-1.3	-0.72	-0.53	-1.2	61.2	45.2	43.4	39.8	37.1	42.8	44.7	38.2

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
1854	0.86	-0.08	1.55	0.41	0.67	0.1	0.56	-0.6	58.6	49.2	65.5	54.1	56.7	51	55.6	43.7
1855	-0.56	-0.03	-0.79	-1.68	-1.2	-0.24	-1.27	-0.9	44.4	49.7	42.1	33.2	38.1	47.6	37.3	41.5
1856	1.12	-1.52	-0.44	-0.49	-0.7	-1.04	-0.63	-1.4	61.2	34.8	45.6	45.1	42.6	39.6	43.7	35.7
1857	-0.9	1.91	-1.29	1.19	2.47	1.74	1.46	2.29	41	69.1	37.1	61.9	74.7	67.4	64.6	72.9
1858	-0.24	1.74	-0.59	1.76	1.74	1.69	1.62	1.6	47.6	67.4	44.1	67.6	67.4	66.9	66.2	66
1859	-0.61	-0.83	1.61	-1.13	-1.4	-1.74	-0.94	-0.6	43.9	41.7	66.1	38.7	35.9	32.6	40.6	43.5
1860	1.16	-0.94	-0.9	-0.69	-0.2	-1.16	-0.58	-0.3	61.6	40.6	41	43.1	48	38.4	44.2	46.9
1861	1.04	-1.17	-0.05	-0.77	0.17	-0.26	-0.16	0.04	60.4	38.3	49.5	42.3	51.7	47.4	48.4	50.4
1862	-0.51	1.62	-0.61	1.97	1.79	2.09	1.71	1.87	44.9	66.2	43.9	69.7	67.9	70.9	67.1	68.7
1863	-0.26	1.37	2.03	1.87	1.76	0.78	2.47	2.21	47.4	63.7	70.3	68.7	67.6	57.8	74.7	72.1
1864	-0.38	1.89	0.15	1.6	1.52	1.99	1.44	1.37	46.2	68.9	51.5	66	65.2	69.9	64.4	63.7
1865	-0.69	1.62	-0.63	1.8	2.2	1.36	1.77	2.7	43.1	66.2	43.7	68	72	63.6	67.7	77
1866	0.23	-0.55	1.16	-0.39	0.39	0.28	-0.3	-0.1	52.3	44.5	61.6	46.1	53.9	52.8	47	49.3
1867	-0.95	-0.4	0.1	-0.13	-0.4	-0.19	-0.08	-0.2	40.5	46	51	48.7	45.9	48.1	49.2	47.5
1868	0.59	-0.43	1.3	-0.72	-0.7	0.45	-0.31	0.46	55.9	45.7	63	42.8	42.5	54.5	46.9	54.6
1869	-0.91	-0.48	0.1	-0.14	-0.6	-0.86	-0.5	-1	40.9	45.2	51	48.7	43.8	41.4	45	40.1
1870	-0.84	-1.65	1.77	-0.64	-0.5	-0.34	-0.57	-0.3	41.6	33.5	67.7	43.6	45.3	46.6	44.3	47.4
1871	0.08	-0.55	-0.99	-0.78	0.9	1.34	-0.27	0.3	50.8	44.5	40.1	42.2	59	63.4	47.3	53
1872	-0.86	-0.2	-0.57	-0.31	-0.3	-0.85	-0.31	0.65	41.4	48	44.3	46.9	47	41.5	46.9	56.5
1873	0.73	-0.26	-0.57	-0.17	0.22	-0.42	-0.28	0.04	57.3	47.4	44.3	48.3	52.2	45.8	47.2	50.4
1874	-0.34	-0.93	-0.79	-0.95	-0.5	-0.29	-0.67	-1.4	46.6	40.7	42.1	40.5	44.5	47.1	43.3	35.6
1875	0.62	0.09	1.79	-0.07	-0.9	-0.78	-0.5	-0.2	56.2	50.9	67.9	49.3	40.9	42.2	45	47.5
1876	-0.82	-0.89	1.8	-0.36	-0.7	0.14	-0.57	-0.2	41.8	41.1	68	46.4	42.8	51.4	44.3	47.5
1877	-0.66	-0.09	-0.28	-0.91	-0.5	-1.78	-0.28	-0.2	43.4	49.1	47.2	40.9	44.8	32.2	47.2	47.9
1878	-0.46	-0.05	1.39	-0.22	0.24	-0.02	-0.45	-0.8	45.4	49.5	63.9	47.8	52.4	49.8	45.5	41.9
1879	0.32	-0.3	-0.5	-0.59	-0.2	-0.83	-0.36	-0.8	53.2	47	45	44.1	47.9	41.7	46.4	41.6
1880	-0.75	-0.66	-1.03	-0.69	1.08	1.17	-0.4	-0.6	42.5	43.4	39.7	43.1	60.8	61.7	46	44.3
1881	0.04	-0.66	-1.03	-0.78	-0.4	-0.68	-0.3	-0.9	50.4	43.4	39.7	42.2	46.4	43.2	47	40.8
1882	-1.03	-0.05	1.54	-0.59	-0.2	-0.8	-0.34	-0.3	39.7	49.5	65.4	44.1	48	42	46.6	46.9
1883	-1.3	-0.54	1.53	-0.93	-0.4	-0.48	-0.08	-0.1	37	44.6	65.3	40.7	45.8	45.2	49.2	49.3
1884	0.26	0.09	-1.06	-0.65	-0.8	-0.6	-0.29	-0.2	52.6	50.9	39.4	43.5	42.4	44.1	47.1	48.4
1885	0.71	-0.86	0.37	0.07	0.8	1.4	-0.33	-0.4	57.1	41.4	53.7	50.7	58	64	46.8	46.2
1886	-1.04	-0.19	-0.81	-0.2	-0.5	-0.1	-0.82	-0.4	39.6	48.1	41.9	48	45.3	49	41.8	46.2
1887	0.87	-0.79	1.66	-0.53	-0.3	0.45	-0.37	-1	58.7	42.1	66.6	44.7	46.7	54.5	46.3	40
1888	0.69	-0.46	-0.87	0.77	-0.1	-0.6	-0.52	-0.7	56.9	45.4	41.3	57.7	49	44	44.8	43.2

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
1889	-0.94	-0.61	-0.15	-0.52	0.75	-0.2	0.14	-0.2	40.6	43.9	48.5	44.8	57.5	48	51.4	47.9
1890	0.73	-0.79	1.73	-0.93	-0.3	-0.47	0.17	0.01	57.3	42.1	67.3	40.7	46.6	45.3	51.7	50.1
1891	0.05	1.91	-0.63	0.49	0.16	-0.01	-0.69	0.95	50.5	69.1	43.7	54.9	51.6	49.9	43.1	59.5
1892	-1.09	-0.08	1.69	-0.77	-0.2	0.03	-0.27	0.3	39.1	49.2	66.9	42.3	47.8	50.3	47.3	53
1893	0.71	-0.09	1.3	0.05	-0.6	-0.72	-0.14	0.05	57.1	49.1	63	50.5	43.8	42.8	48.6	50.5
1894	-1.05	-0.24	-0.59	-0.41	-0.8	-1.37	-0.19	-0.4	39.5	47.6	44.1	45.9	42.2	36.3	48.1	46.3
1895	0.29	-1.52	-0.84	-0.07	-0.4	0.51	-1.04	-0.8	52.9	34.8	41.6	49.3	45.8	55.1	39.6	42
1896	-0.34	-1	1.5	-0.71	-0.9	-0.79	-0.67	-0.9	46.6	40	65	42.9	40.8	42.1	43.3	41
1897	0.76	0.08	-0.4	0.05	-0.9	-1.05	0.26	0.82	57.6	50.8	46	50.5	40.6	39.5	52.6	58.2
1898	-0.47	-1.05	0	-0.6	-0.2	-1.32	-0.67	-1.1	45.3	39.6	50	44	48.5	36.8	43.3	38.6
1899	0.85	-1.6	1.64	-0.63	-0.7	-0.6	-0.79	-0.8	58.5	34	66.4	43.7	42.5	44	42.1	42.2
1900	-0.34	0.21	1.41	-0.71	-0.5	-0.61	0.47	0.38	46.6	52.1	64.1	42.9	45.3	43.9	54.7	53.8
1901	0.76	1.62	0.39	1.31	1.79	2.09	2.53	1.87	57.6	66.2	53.9	63.1	67.9	70.9	75.3	68.7
1902	-1.11	1.69	0.15	1.63	1.76	1.44	1.48	1.4	38.9	66.9	51.5	66.3	67.6	64.4	64.8	64
1903	0.73	2.2	-1.21	2.01	2.42	2.07	1.71	1.34	57.3	72	37.9	70.1	74.2	70.7	67.1	63.4
1904	-0.63	-0.46	-0.69	-0.49	-0.7	-0.01	-0.99	-1.3	43.7	45.4	43.1	45.1	43.4	49.9	40.1	36.7
1905	0.61	-0.79	-0.11	0.16	-0.3	-0.55	-0.5	-0.8	56.1	42.1	48.9	51.6	46.8	44.5	45	42.5
1906	-0.45	-0.91	0.17	-0.11	-0.5	-0.71	-0.72	-0.8	45.5	40.9	51.7	48.9	45.5	42.9	42.8	42.1
1907	1.33	-1.78	-0.58	-1.75	-1.4	-1.21	-1.71	-2.1	63.3	32.2	44.2	32.5	36.1	37.9	32.9	28.7
1908	-1.12	-0.72	-0.57	-0.07	0.75	-0.23	0.03	-0.3	38.8	42.8	44.3	49.3	57.5	47.7	50.3	46.8
1909	1.32	-0.39	-0.56	-0.93	0.12	-0.21	-0.49	-0.4	63.2	46.1	44.4	40.7	51.2	47.9	45.1	45.8
1910	-0.77	-1.19	-1.3	-1.12	-0.5	0.15	-1.69	-1	42.3	38.1	37	38.8	44.6	51.5	33.1	39.8
1911	0.07	-0.41	-0.86	-0.46	0.01	0.78	-1.62	-0.7	50.7	45.9	41.4	45.4	50.1	57.8	33.8	43.2
1912	-0.69	0.09	-0.06	-0.09	0.33	-0.34	-0.61	-1.2	43.1	50.9	49.4	49.1	53.3	46.6	43.9	37.8
1913	-0.82	-1.01	1.78	-1.3	-1.1	-0.4	-1.27	-2	41.8	39.9	67.8	37	38.9	46	37.3	29.7
1914	1.31	0.21	0.14	-0.22	-0.5	0.09	-0.33	-0.3	63.1	52.1	51.4	47.8	45.4	50.9	46.7	47.4
1915	1.35	1.65	-0.15	1.62	1.36	1.75	1	0.97	63.5	66.5	48.5	66.2	63.6	67.5	60	59.7
1916	1.17	1.48	-0.37	1.82	2.42	1.44	2.47	1.34	61.7	64.8	46.3	68.2	74.2	64.4	74.7	63.4
1917	-0.66	2	-1.21	1.78	1.78	2.09	2.43	1.93	43.4	70	37.9	67.8	67.8	70.9	74.3	69.3
1918	-0.64	1.81	-0.87	1.92	1.24	1.19	1.31	1.75	43.6	68.1	41.3	69.2	62.4	61.9	63.1	67.5
1919	1.72	0.16	1.69	-0.63	-0.8	1.6	1.67	2.05	67.2	51.6	66.9	43.7	42.2	66	66.7	70.5
1920	-1.46	-0.12	-0.81	-0.77	-0.6	-0.71	-1.07	-1.1	35.4	48.8	41.9	42.3	44.4	42.9	39.3	39.3
1921	-0.72	2.2	-1.4	1.31	1.8	1.65	2.43	1.68	42.8	72	36	63.1	68	66.5	74.3	66.8
1922	-1.1	1.83	-1.4	1.79	1.81	1.97	1.42	1.93	39	68.3	36	67.9	68.1	69.7	64.2	69.3
1923	1.39	1.58	-0.84	1.53	1.11	1.37	0.48	0.58	63.9	65.8	41.6	65.3	61.1	63.7	54.8	55.8

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
1924	-0.99	1.27	1.19	0.61	0.18	-0.25	0.99	-0.1	40.1	62.7	61.9	56.1	51.8	47.5	59.9	49.3
1925	-0.48	1.36	0.1	1.04	1.45	1.51	0.86	0.97	45.2	63.6	51	60.4	64.5	65.1	58.6	59.7
1926	-1.33	-0.8	1.35	-1.74	-1.8	-1.03	1.6	-1.5	36.7	42	63.5	32.6	32.4	39.7	66	35.4
1927	-0.57	1.54	1.86	1.17	1.11	1.4	1.29	0.27	44.3	65.4	68.6	61.7	61.1	64	62.9	52.7
1928	1.53	-0.26	1.85	-0.3	-1.4	-0.9	-0.89	-0.4	65.3	47.4	68.5	47	35.7	41	41.1	45.9
1929	-0.74	-0.49	-0.4	-0.56	-0.8	-1.56	-0.36	-0.6	42.6	45.1	46	44.4	41.6	34.4	46.4	44.4
1930	-0.83	-0.8	-0.75	-1.75	-1.1	-1.84	1.78	-1.4	41.7	42	42.5	32.5	38.7	31.6	67.8	35.9
1931	1.04	-1.15	-1.24	-1.48	-0.9	-1.78	-1.29	-1.2	60.4	38.5	37.6	35.2	41	32.2	37.1	38.2
1932	-0.7	2.68	-0.78	1.79	1.64	1.1	1.88	1.28	43	76.8	42.2	67.9	66.4	61	68.8	62.8
1933	-0.9	-1.28	-0.92	-0.59	-0.1	-1.1	-0.58	-0.3	41	37.2	40.8	44.1	49	39	44.2	46.9
1934	-1.01	1.07	1.79	-0.24	1.08	1.19	-0.02	-0.5	39.9	60.7	67.9	47.6	60.8	61.9	49.8	44.5
1935	-0.68	2.03	1.68	1.37	1.31	1.3	0.85	1.19	43.2	70.3	66.8	63.7	63.1	63	58.5	61.9
1936	1.11	-0.43	-0.64	-0.44	-0.6	1.97	-0.67	-0.5	61.1	45.7	43.6	45.6	44	69.7	43.3	44.6
1937	1.01	-0.94	1.6	0.87	-0.7	-1.53	-0.21	-1	60.1	40.6	66	58.7	42.6	34.7	47.9	39.7
1938	-1.01	1.4	-0.69	1.73	2.03	0.21	1.38	1.18	39.9	64	43.1	67.3	70.3	52.1	63.8	61.8
1939	-0.83	1.22	-0.75	0.89	1.01	1.12	1.1	1.17	41.7	62.2	42.5	58.9	60.1	61.2	61	61.7
1940	0.57	-0.18	-0.73	-1.06	-1	-0.86	-0.38	-0.6	55.7	48.2	42.7	39.4	39.7	41.4	46.2	44.1
1941	-0.59	-1	-0.76	-0.9	-0.6	-1.42	-0.79	-1.1	44.1	40	42.4	41	43.6	35.8	42.1	39.3
1942	-0.33	1.69	-0.31	1.93	1.59	1.57	2.36	1.09	46.7	66.9	46.9	69.3	65.9	65.7	73.6	60.9
1943	1.42	-0.3	-0.66	-0.59	-0.9	-0.85	-0.41	0.04	64.2	47	43.4	44.1	41.2	41.5	45.9	50.4
1944	-1.21	1.1	1.54	1.17	1.5	1.66	1.08	1.09	37.9	61	65.4	61.7	65	66.6	60.8	60.9
1945	1.39	-1.28	-0.88	-1.64	-0.8	-0.72	-0.64	-0.4	63.9	37.2	41.2	33.6	41.7	42.8	43.6	46.1
1946	-0.88	-0.41	-0.12	-0.55	-0.4	-0.83	-1.09	-0.3	41.2	45.9	48.8	44.5	46.2	41.7	39.1	46.7
1947	1.51	0.12	-1.02	-0.42	-0.6	-0.71	-0.89	-0.5	65.1	51.2	39.8	45.8	43.8	42.9	41.1	44.5
1948	-0.67	1.6	-0.08	1.32	1.65	1.9	1.71	1.69	43.3	66	49.2	63.2	66.5	69	67.1	66.9
1949	-0.58	-0.8	-1.3	-1.15	-1.4	-1.74	-0.53	-1.2	44.2	42	37	38.5	35.7	32.6	44.7	38.1
1950	-0.3	-0.46	1.73	-0.33	-0.1	0.03	-0.54	-0.4	47	45.4	67.3	46.7	49	50.3	44.6	45.7
1951	1.3	-1	-1.21	-1.48	-0.6	-1.42	-0.29	-1.3	63	40	37.9	35.2	43.6	35.8	47.1	37.1
1952	-0.34	1.23	-0.89	1.56	1.76	1.41	1.31	0.97	46.6	62.3	41.1	65.6	67.6	64.1	63.1	59.7
1953	-0.77	1.31	-0.36	1.2	1.47	1.03	1.17	1.37	42.3	63.1	46.4	62	64.7	60.3	61.7	63.7
1954	-0.83	1.83	-0.76	1.77	1.52	1.8	1.46	2.13	41.7	68.3	42.4	67.7	65.2	68	64.6	71.3
1955	1.52	-0.39	1.47	-0.56	-0.2	-0.61	-0.7	0.04	65.2	46.1	64.7	44.4	48.2	43.9	43	50.4
1956	-0.75	-1.28	-0.62	-1.22	-0.3	0.33	-1.07	-0.9	42.5	37.2	43.8	37.8	46.5	53.3	39.3	40.7
1957	-0.35	1.07	1.52	1.24	1.77	1.63	1.7	1.91	46.5	60.7	65.2	62.4	67.7	66.3	67	69.1
1958	-1.24	0.12	-0.77	-0.42	-0.6	0.21	-0.61	-0.5	37.6	51.2	42.3	45.8	43.8	52.1	43.9	44.6

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
1959	0.8	-1.19	-0.82	0.37	-0.9	-0.26	-1.71	-0.8	58	38.1	41.8	53.7	40.6	47.4	32.9	42
1960	-0.19	1.47	1.05	1.42	1.64	1.15	0.89	2.29	48.1	64.7	60.5	64.2	66.4	61.5	58.9	72.9
1961	-0.66	-1.6	-0.88	-0.98	-0.7	0.45	-0.79	-0.5	43.4	34	41.2	40.2	42.5	54.5	42.1	44.8
1962	-0.7	-0.3	-0.61	0.11	-0.6	0.51	-0.08	-0	43	47	43.9	51.1	44.1	55.1	49.2	49.8
1963	-0.6	1.91	-0.83	0.98	0.9	1.36	1.08	0.92	44	69.1	41.7	59.8	59	63.6	60.8	59.2
1964	1.64	-0.92	0	-0.72	-0.4	0.45	-0.7	-0	66.4	40.8	50	42.8	46	54.5	43	49.9
1965	-0.74	-1.59	-1.1	-0.71	-0.9	-0.85	-0.67	-0.9	42.6	34.1	39	42.9	41.4	41.5	43.3	41
1966	-0.59	0.08	1.37	-0.04	-0.7	-0.86	-0.19	-0.3	44.1	50.8	63.7	49.6	43.3	41.4	48.1	47.2
1967	1.3	-0.8	-1.06	-0.72	0.23	-0.23	-0.08	-0.8	63	42	39.4	42.8	52.3	47.7	49.2	42
1968	-0.38	-1.17	-0.99	-0.44	-1	-0.79	-0.7	-1.4	46.2	38.3	40.1	45.6	39.9	42.1	43	36.3
1969	0.03	-0.79	-0.51	-0.15	-0.3	-0.34	-0.5	-0.7	50.3	42.1	44.9	48.5	46.8	46.6	45	42.5
1970	1.65	1.4	-1.01	1.32	1.36	1.31	1.28	0.27	66.5	64	39.9	63.2	63.6	63.1	62.8	52.7
1971	-0.41	-0.37	-1.21	-0.48	0.35	-0.34	-0.64	-0.3	45.9	46.3	37.9	45.2	53.5	46.6	43.6	46.9
1972	-0.55	1.58	1.73	1.02	1.09	1.37	0.73	1.09	44.5	65.8	67.3	60.2	60.9	63.7	57.3	60.9
1973	-0.53	1.95	-0.69	1.19	1.43	1.64	1.6	1.57	44.7	69.5	43.1	61.9	64.3	66.4	66	65.7
1974	-0.74	1.95	-1	1.9	1.21	1.13	1.44	2.02	42.6	69.5	40	69	62.1	61.3	64.4	70.2
1975	-1.08	-0.58	-1.15	-0.98	-0.6	-1.78	-0.58	-0.8	39.2	44.2	38.5	40.2	43.8	32.2	44.2	41.6
1976	0.96	-0.37	-1.08	-0.75	-0.3	-0.23	-0.49	-0.7	59.6	46.3	39.2	42.5	46.9	47.7	45.1	43.3
1977	-0.42	-1.17	-0.82	-0.83	-1.2	-0.79	-1.32	-0.6	45.8	38.3	41.8	41.7	38.1	42.1	36.8	44.4
1978	0.03	-0.93	1.36	-0.67	-0.3	-0.86	-0.3	-1.1	50.3	40.7	63.6	43.3	46.5	41.4	47	39
1979	0.25	1.43	-0.89	1.33	2.03	1.9	2.47	1.45	52.5	64.3	41.1	63.3	70.3	69	74.7	64.5
1980	-0.84	1.68	-0.69	0.89	1.24	1.21	1.17	1.15	41.6	66.8	43.1	58.9	62.4	62.1	61.7	61.5
1981	1.25	1.68	-0.51	0.89	1.25	1.44	1.17	1.15	62.5	66.8	44.9	58.9	62.5	64.4	61.7	61.5
1982	-0.75	-0	-0.71	-0.76	-1.2	-0.79	-1.14	-0.1	42.5	50	42.9	42.4	38.1	42.1	38.6	49.3
1983	-0.97	0.06	-0.46	-0.37	-1.4	-1.74	-0.42	-0.6	40.3	50.6	45.4	46.3	35.7	32.6	45.8	44.1
1984	-0.56	-0.63	1.33	-0.37	-0	0.04	0.05	0.52	44.4	43.7	63.3	46.3	49.9	50.4	50.5	55.2
1985	-0.61	-0.52	1.86	-0.48	-0.3	0.38	-1.33	-0.4	43.9	44.8	68.6	45.2	46.8	53.8	36.7	45.7
1986	-0.91	-0.93	1.45	-0.71	-0.5	-1.21	-0.63	-0.9	40.9	40.7	64.5	42.9	44.6	37.9	43.7	41
1987	1.34	1.41	-0.54	2.26	1.83	2.7	1.74	1.84	63.4	64.1	44.6	72.6	68.3	77	67.4	68.4
1988	-0.2	-0.72	1.73	-1.03	-1.7	-1.16	-1.35	-1.3	48	42.8	67.3	39.7	32.7	38.4	36.5	37.1
1989	-0.38	1.95	-0.89	1.28	1.21	1.74	2.43	2.02	46.2	69.5	41.1	62.8	62.1	67.4	74.3	70.2
1990	-1.04	-0.32	-0.99	-0.63	-0.8	-0.86	-0.57	-0.5	39.6	46.8	40.1	43.7	42.2	41.4	44.3	45.5
1991	1.06	-1.15	-0.93	-1.32	-0.9	-0.01	-0.63	-1.9	60.6	38.5	40.7	36.8	41	49.9	43.7	31.4
1992	1.25	-0.4	1.56	0.11	-0.4	0.25	-0.21	0.03	62.5	46	65.6	51.1	45.9	52.5	47.9	50.3
1993	-0.99	1.1	-0.83	1.93	1.12	0.96	1.17	1.25	40.1	61	41.7	69.3	61.2	59.6	61.7	62.5

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
1994	-0.47	-0.03	-1.03	-1.75	-1.2	-1.13	-0.93	-0.4	45.3	49.7	39.7	32.5	38.1	38.7	40.8	46.5
1995	1.35	-0.86	-1.13	-0.67	-0.3	-0.69	-0.39	-0.5	63.5	41.4	38.7	43.3	46.9	43.1	46.1	45.3
1996	-0.54	1.07	-0.62	1.24	1.76	1.63	1.88	1.09	44.6	60.7	43.8	62.4	67.6	66.3	68.8	60.9
1997	-0.45	-1.14	1.09	-0.73	-0.9	-0.62	-0.81	-0.7	45.5	38.6	60.9	42.7	41	43.8	41.9	43.3
1998	1.22	2.03	-0.14	1.58	1.52	2.22	1	1.11	62.2	70.3	48.6	65.8	65.2	72.2	60	61.1
1999	-1.08	2.03	-0.83	1.8	1.83	1.82	1.62	1.37	39.2	70.3	41.7	68	68.3	68.2	66.2	63.7
2000	-0.57	2.2	-0.87	1.28	1.47	1.21	1.35	1.28	44.3	72	41.3	62.8	64.7	62.1	63.5	62.8
2001	-0.66	1.1	-1.08	1.61	1.12	1.31	1.81	1.84	43.4	61	39.2	66.1	61.2	63.1	68.1	68.4
2002	-0.71	2	-0.4	1.42	1.9	1.8	1.62	1.47	42.9	70	46	64.2	69	68	66.2	64.7
2003	-0.98	1.18	0.28	1.25	1.52	2.04	1.54	0.43	40.2	61.8	52.8	62.5	65.2	70.4	65.4	54.3
2004	-0.44	-1.02	-1.15	0.46	0.03	-0.68	-0.21	0.34	45.6	39.8	38.5	54.6	50.3	43.2	47.9	53.4
2005	1.55	-0.4	-0.21	-0.11	0.24	-0.03	0.26	-1	65.5	46	47.9	48.9	52.4	49.7	52.6	40.4
2006	1.09	-0.2	-1.06	0.03	0.72	-0.3	-0.19	0.65	60.9	48	39.4	50.3	57.2	47	48.1	56.5
2007	-0.67	-0.7	-0.55	-0.78	-0.2	-0.1	-0.28	0.3	43.3	43	44.5	42.2	47.9	49	47.2	53
2008	1.13	-0.05	0.2	-0.52	-0.2	-0.8	-0.69	0.44	61.3	49.5	52	44.8	48	42	43.1	54.4
2009	-0.74	-0.53	-1.29	-0.33	-0.3	0.45	-0.08	0.27	42.6	44.7	37.1	46.7	46.5	54.5	49.2	52.7
2010	-0.56	0.09	-0.04	-0.77	-0.4	-0.3	-0.28	0.3	44.4	50.9	49.6	42.3	45.8	47	47.2	53
2011	1.22	-0.86	-0.46	-0.66	-0.3	-0.92	-0.19	-0.5	62.2	41.4	45.4	43.4	46.9	40.8	48.1	45.3
2012	-0.5	-0.38	1.73	-0.51	0.12	0.09	-0.09	-0.4	45	46.2	67.3	44.9	51.2	50.9	49.1	45.8
2013	-0.76	-0.52	-0.64	0.26	-0.3	0.12	-0.79	-1.2	42.4	44.8	43.6	52.6	46.9	51.2	42.1	38.5
2014	1.61	-1.17	-0.82	-0.84	-0.3	-0.69	-0.76	-0.5	66.1	38.3	41.8	41.6	46.9	43.1	42.4	45.3
2015	1.33	-1.13	-0.45	0.4	-0.7	-0.38	-0.61	-0.9	63.3	38.7	45.5	54	42.6	46.2	43.9	40.8
2016	1.29	-0.09	1.61	-0.5	-0.6	-0.68	-0.02	-0.3	62.9	49.1	66.1	45	43.8	43.2	49.8	46.9
2017	1.19	-0.29	-0.43	-0.1	-0.7	0.77	-0.39	-0.5	61.9	47.1	45.7	49	42.6	57.7	46.1	45
2018	0.78	-0.84	1.45	0.28	-0.3	-0.87	-0.89	-0.4	57.8	41.6	64.5	52.8	46.5	41.3	41.1	46.5
2019	-0.11	-0.55	-0.67	-0.3	-0.1	0.45	-0.79	-0.6	48.9	44.5	43.3	47	48.6	54.5	42.1	44.3
2020	-0.87	-0	1.69	-0.65	-1.2	-1.1	-0.8	-1.2	41.3	50	66.9	43.5	38.1	39	42	38.2
2021	-0.56	-0.38	-0.59	-0.4	0.13	0.77	-0.33	-0.4	44.4	46.2	44.1	46	51.3	57.7	46.7	46.3
2022	-0.49	-0.91	-0.36	-0.78	-0.9	-0.78	-0.72	-0.7	45.1	40.9	46.4	42.2	40.8	42.2	42.8	42.7
2023	-0.41	-0.7	-0.89	-0.61	-0.7	0.17	-0.54	-0.6	45.9	43	41.1	43.9	42.6	51.7	44.6	43.8
2024	0.63	-0.39	1.61	-0.55	-0.2	-0.82	-0.79	-0.2	56.3	46.1	66.1	44.5	47.9	41.8	42.1	47.5
2025	-0.67	1.49	-0.01	0.95	1	1.08	1.07	1.17	43.3	64.9	49.9	59.5	60	60.8	60.7	61.7
2026	-0.24	1.69	-0.37	2.17	2.09	2.11	1.88	2.03	47.7	66.9	46.3	71.7	70.9	71.1	68.8	70.3
2027	-1.14	0.12	-0.44	-0.41	-0.6	0.01	-0.24	-0.5	38.6	51.2	45.6	45.9	43.8	50.1	47.6	44.6
2028	-0.67	-0.46	1.62	-0.52	-0.1	-0.39	-0.65	-0.4	43.3	45.4	66.2	44.8	49	46.1	43.5	46.3

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
2029	-0.57	-0.7	-0.14	-0.72	-0.3	0.03	-0.87	-0.5	44.3	43	48.6	42.8	47.2	50.3	41.3	45
2030	-1.05	-0.79	1.33	-0.71	-0.7	0.45	-1.05	-0.6	39.5	42.1	63.3	42.9	43.2	54.5	39.5	43.5
2031	-0.5	-1	-1.03	-0.72	-0.6	-0.3	-0.76	-0.6	45	40	39.7	42.8	43.6	47	42.4	44
2032	-0.86	-0.26	-0.42	0.22	0.18	-0.26	0.34	0.27	41.5	47.4	45.8	52.2	51.8	47.4	53.4	52.7
2033	0.02	-1.52	-0.9	-1.3	-1	-1.39	-1.11	-1	50.2	34.8	41	37	40.2	36.1	38.9	40.2
2034	-0.34	-0.32	1.57	-1	0.05	-0.21	-0.23	-0.5	46.6	46.8	65.7	40	50.5	47.9	47.7	44.9
2035	0.05	-0.06	-0.57	0.02	-0.2	-0.01	-0.26	0.46	50.5	49.4	44.3	50.2	48	49.9	47.4	54.6
2036	-1	-0.73	1.67	-1.2	-1.2	-0.14	-1.18	-0.4	40	42.7	66.7	38	37.7	48.6	38.2	45.5
2037	-0.66	-1.03	-0.18	-0.2	-0.8	-0.7	-0.7	-0.4	43.4	39.7	48.2	48	42.4	43	43	45.7
2038	-0.56	-0.58	-0.71	-0.44	-0.2	-0.71	-0.14	-0.9	44.4	44.2	42.9	45.6	48.4	42.9	48.6	41
2039	-0.61	-0.46	-0.43	-1.02	-0.6	-0.61	-0.32	0.17	43.9	45.4	45.7	39.8	43.7	43.9	46.8	51.7
2040	-1.97	-0.87	-1.05	-0.98	-0.3	-0.79	-0.65	-0.3	30.3	41.3	39.5	40.2	47.4	42.1	43.5	47.2
2041	-0.89	-0.51	-0.84	-0.66	-0.2	-0.62	-0.82	-0.6	41.1	44.9	41.6	43.4	48.1	43.8	41.9	43.7
2042	-0.89	-0	1.64	-0.59	-1.2	-1.09	-0.65	-1	41.1	50	66.4	44.1	38.1	39.1	43.5	39.7
2043	-0.54	-0.8	-0.87	-1.03	-1.4	-0.98	-0.98	-0.7	44.6	42	41.3	39.7	35.7	40.2	40.2	42.7
2044	-0.27	0.31	0.25	0.77	0.2	-0.18	-0.02	-0.4	47.3	53.1	52.5	57.7	52	48.2	49.8	45.8
2045	-0.94	-1.28	-0.99	-0.79	-0.6	0.2	-1.08	-0.7	40.6	37.2	40.1	42.1	44.4	52	39.2	43.4
2046	1.54	-0.83	-0.66	-1.13	-1.4	-0.98	-1.03	-0.6	65.4	41.7	43.4	38.7	35.8	40.2	39.7	43.5
2047	0.93	-0.08	1.55	0.66	0.68	0.33	-0.35	0.21	59.3	49.2	65.5	56.6	56.8	53.3	46.5	52.1
2048	-0.85	0	-0.79	-0.62	-1.2	-1.2	-1.19	-0.8	41.5	50	42.1	43.8	37.9	38	38.1	41.5
2049	-0.15	-1	-0.44	-0.49	-1.2	-1.86	-0.44	-1.1	48.5	40	45.6	45.1	38.3	31.4	45.6	38.7
2050	1.54	1.03	-1.29	1.79	1.84	1.64	0.94	2.37	65.4	60.3	37.1	67.9	68.4	66.4	59.4	73.7
2051	-0.88	1.74	-0.59	1.9	1.74	1.45	1.62	2.37	41.2	67.4	44.1	69	67.4	64.5	66.2	73.7
2052	-0.67	-1.01	1.61	-1.03	-1.1	-0.99	-0.82	-1.7	43.3	39.9	66.1	39.7	38.9	40.1	41.8	32.6
2053	1.09	-0.29	-0.9	-0.5	-0.3	-0.55	-1.05	-0.1	60.9	47.1	41	45	47.2	44.5	39.5	48.8
2054	-1.24	0.26	-0.43	0.03	-0.9	-0.62	-0.28	0.26	37.6	52.6	45.7	50.3	41	43.8	47.2	52.6
2055	-0.78	1.83	-0.61	1.96	1.83	2.7	1.63	1.81	42.2	68.3	43.9	69.6	68.3	77	66.3	68.1
2056	-0.69	2.68	2.03	1.5	1.66	0.83	1.71	1.88	43.1	76.8	70.3	65	66.6	58.3	67.1	68.8
2057	-0.52	1.89	0.15	1.17	1.52	1.99	1.6	1.62	44.8	68.9	51.5	61.7	65.2	69.9	66	66.2
2058	-1.28	2.68	0.17	1.92	2.47	2.59	1.74	1.85	37.2	76.8	51.7	69.2	74.7	75.9	67.4	68.5
2059	-1.26	0.13	1.17	-1	-0.6	-0.68	-0.49	-0.8	37.4	51.3	61.7	40	43.8	43.2	45.1	41.9
2060	-0.66	-0.53	1.52	-0.44	-0.6	0.67	-0.56	-0.3	43.4	44.7	65.2	45.6	43.7	56.7	44.4	46.7
2061	-0.82	0.94	-0.4	-0.46	-0.5	-0.71	-0.65	-0.6	41.8	59.4	46	45.4	45.3	42.9	43.5	44
2062	-1.08	-1.19	-0.01	-0.8	-0.7	0.77	-0.53	-0.5	39.2	38.1	49.9	42	42.6	57.7	44.7	45.3
2063	-0.75	-1.55	1.63	-0.59	-0.7	-1.78	-0.8	-0.5	42.5	34.5	66.3	44.1	42.5	32.2	42	44.8

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
2064	-0.97	-0.4	1.41	0.77	1.25	1.45	0.45	-0.1	40.3	46	64.1	57.7	62.5	64.5	54.5	49.2
2065	-0.75	1.48	-0.93	1.97	1.79	1.12	1.71	1.87	42.5	64.8	40.7	69.7	67.9	61.2	67.1	68.7
2066	-0.57	1.49	0.15	2.21	2.42	1.74	1.71	2.83	44.3	64.9	51.5	72.1	74.2	67.4	67.1	78.3
2067	-0.37	2.44	-1.4	2.01	2.42	2.07	1.7	1.34	46.3	74.4	36	70.1	74.2	70.7	67	63.4
2068	-0.54	-0.52	-0.69	-0.7	-0.8	-0.71	-0.67	-1	44.6	44.8	43.1	43	42.4	42.9	43.3	40.4
2069	-0.65	0.28	-0.1	-0.27	-0.8	-0.6	-0.52	-0.1	43.5	52.8	49	47.3	42.4	44.1	44.8	48.9
2070	1.35	-1.13	1.22	-0.14	-0.3	-0.54	-0.39	-0.3	63.5	38.7	62.2	48.7	46.8	44.6	46.1	46.9
2071	-0.56	-0.8	-0.01	-1.71	-1.1	-1.74	1.78	-1.4	44.4	42	49.9	32.9	38.7	32.6	67.8	35.8
2072	-0.59	-0.26	-0.57	-0.07	-0.2	0.03	-0.2	0.01	44.1	47.4	44.3	49.3	48.1	50.3	48	50.1
2073	1.36	-0.61	0.13	-0.68	-0.5	0.09	-0.56	-0.6	63.6	43.9	51.3	43.2	45.3	50.9	44.4	44.2
2074	0.81	-0.67	-1.3	-0.98	-0.2	-0.69	-0.84	-0.9	58.1	43.3	37	40.2	47.7	43.1	41.6	40.8
2075	0.98	-1.14	0.79	-0.62	-0.6	-1.44	-0.31	0.09	59.8	38.6	57.9	43.8	43.6	35.6	46.9	50.9
2076	1.34	-1.04	0.15	-0.08	-0.2	-0.69	0.03	-0.8	63.4	39.6	51.5	49.2	47.6	43.1	50.3	42.1
2077	1.18	-0.84	1.78	-1.67	-1.5	-0.47	-1.69	-0.9	61.8	41.6	67.8	33.3	35.4	45.3	33.1	41.3
2078	-0.63	0.21	0.14	-0.21	-0.5	-0.01	-0.33	-0.3	43.7	52.1	51.4	47.9	45.4	49.9	46.7	47.4
2079	1.25	1.43	-0.15	1.71	2.16	1.83	1.35	1.55	62.5	64.3	48.5	67.1	71.6	68.3	63.5	65.5
2080	1.09	1.91	-0.37	1.88	1.96	1.9	1.71	1.39	60.9	69.1	46.3	68.8	69.6	69	67.1	63.9
2081	-0.61	2	-1.4	1.77	1.78	1.63	2.43	1.92	43.9	70	36	67.7	67.8	66.3	74.3	69.2
2082	0.71	1.81	1.3	1.49	1.23	1.19	1.11	1.75	57.1	68.1	63	64.9	62.3	61.9	61.1	67.5
2083	-0.92	1.77	1.68	-0.43	1.31	1.63	1.51	1.65	40.8	67.7	66.8	45.7	63.1	66.3	65.1	66.5
2084	-0.29	-0.93	-0.81	-0.71	-0.5	-1.22	-0.73	-0.8	47.1	40.7	41.9	42.9	44.6	37.8	42.7	42
2085	-0.75	2.2	-1.4	1.25	1.79	1.12	2.17	1.66	42.5	72	36	62.5	67.9	61.2	71.7	66.6
2086	-0.38	1.83	-1.4	1.79	1.76	1.97	1.42	2.02	46.2	68.3	36	67.9	67.6	69.7	64.2	70.2
2087	-0.26	0.22	1.73	-1.72	-0.8	1.6	1.59	2.05	47.4	52.2	67.3	32.8	42.4	66	65.9	70.5
2088	-0.68	1.49	1.54	1.28	1.01	1.1	-0.32	0.04	43.2	64.9	65.4	62.8	60.1	61	46.8	50.4
2089	-0.33	0.92	1.66	1.03	0.89	0.3	0.05	-0.4	46.7	59.2	66.6	60.3	58.9	53	50.5	45.8
2090	1.54	1.36	-0.86	1.04	1.45	1.51	1.3	0.97	65.4	63.6	41.4	60.4	64.5	65.1	63	59.7
2091	1.2	-0.72	1.35	0	-1.7	-1.93	1.67	-1.4	62	42.8	63.5	50	33.1	30.7	66.7	35.8
2092	1.23	1.54	1.86	1.62	1.11	2.76	1.79	1.23	62.3	65.4	68.6	66.2	61.1	77.6	67.9	62.3
2093	1.47	-0.66	1.82	-0.19	-0.4	-0.41	0.38	-0.9	64.7	43.4	68.2	48.1	46.4	46	53.8	41.3
2094	1.47	-0.62	-0.36	0.02	-0.8	-0.67	-0.12	-0.7	64.7	43.8	46.4	50.2	42.5	43.3	48.8	42.7
2095	-0.76	1.79	-0.76	0.15	2.26	1.73	1.37	1.66	42.4	67.9	42.4	51.5	72.6	67.3	63.7	66.6
2096	1.05	-1.52	-1.26	-1.84	-1	0.35	-1.66	-1.3	60.5	34.8	37.4	31.6	40	53.5	33.4	37.1
2097	-1.03	1.91	-0.78	1.5	2.09	1.9	1.89	2.06	39.7	69.1	42.2	65	70.9	69	68.9	70.6
2098	-1.01	-0.09	-1.06	-0.14	-0.2	-0.35	-0.08	0.55	39.9	49.1	39.4	48.7	48	46.5	49.2	55.5

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
2099	1.28	1.07	1.79	0.77	1.09	1.01	-0.39	-0.1	62.8	60.7	67.9	57.7	60.9	60.1	46.1	49.3
2100	1.21	2.03	1.68	1.17	1.25	1.45	1.11	1.61	62.1	70.3	66.8	61.7	62.5	64.5	61.1	66.1
2101	1	-1.78	-0.65	-0.37	-0.3	-0.69	-0.44	0.27	60	32.2	43.5	46.3	46.9	43.1	45.6	52.7
2102	1	-0.19	1.45	-0.07	-0.5	-0.79	-0.44	-0.3	60	48.1	64.5	49.3	45.3	42.1	45.6	46.9
2103	0.59	1.48	-0.69	1.32	1.66	1.58	1.44	1.39	55.9	64.8	43.1	63.2	66.6	65.8	64.4	63.9
2104	0.55	1.23	-0.75	1.05	1.14	0.98	1.03	1.34	55.5	62.3	42.5	60.5	61.4	59.8	60.3	63.4
2105	1.1	-1.01	1.42	-1.05	-0.9	0.03	-0.69	-1.2	61	39.9	64.2	39.5	41.4	50.3	43.1	38.4
2106	0.92	-1.78	-0.69	-0.78	-0.7	0.45	-0.9	-0.6	59.2	32.2	43.1	42.2	43.1	54.5	41	44.5
2107	-0.56	1.99	0.1	2.14	1.83	1.51	2.36	1.97	44.4	69.9	51	71.4	68.3	65.1	73.6	69.7
2108	-1.19	-0.24	-0.66	-1.02	-1.2	-1.93	-0.42	-0.6	38.1	47.6	43.4	39.8	38.2	30.7	45.8	44.1
2109	-0.99	1.31	-0.89	1.2	1.5	1.53	0.76	1.37	40.1	63.1	41.1	62	65	65.3	57.6	63.7
2110	1.31	-0.47	-0.88	-1.48	-0.9	-0.77	-0.64	-0.4	63.1	45.3	41.2	35.2	40.9	42.3	43.6	46.1
2111	0.87	0.29	-0.12	-0.07	-0.8	-0.6	-0.19	-0.3	58.7	52.9	48.8	49.3	42.4	44.1	48.1	47.3
2112	-0.84	1.49	1.54	0.28	1	0.83	0.73	0.09	41.6	64.9	65.4	52.8	60	58.3	57.3	50.9
2113	-0.46	1	1.66	-0.39	0.16	0.33	0.05	0.36	45.4	60	66.6	46.1	51.6	53.3	50.5	53.6
2114	-0.93	1.36	-0.04	1.04	1.45	1.51	1.3	0.97	40.7	63.6	49.6	60.4	64.5	65.1	63	59.7
2115	-0.88	-0.72	1.35	-0.36	-1.7	-0.19	1.89	-1.5	41.2	42.8	63.5	46.4	33.1	48.1	68.9	35
2116	-0.83	1.54	1.86	1.88	1.11	1.66	1.48	1.22	41.7	65.4	68.6	68.8	61.1	66.6	64.8	62.2
2117	0.57	-0.66	-0.6	-0.72	-0.4	0.7	-0.61	-0.1	55.7	43.4	44	42.8	46.4	57	43.9	49.3
2118	-0.32	-1.28	-0.41	0.02	-0.3	-0.85	-0.12	0.92	46.8	37.2	45.9	50.2	47	41.5	48.8	59.2
2119	1.58	1.31	-0.42	0.32	-0.3	1.73	1.37	1.65	65.8	63.1	45.8	53.2	46.9	67.3	63.7	66.5
2120	-0.81	-0.13	-1.24	-1.84	-1.9	-1.23	-1.69	-1.3	41.9	48.7	37.6	31.6	31.3	37.7	33.1	36.9
2121	1.22	1.89	-0.78	1.5	1.52	2.28	1.49	1.4	62.2	68.9	42.2	65	65.2	72.8	64.9	64
2122	-0.98	-0.09	-1.06	-0.49	-0.2	-0.8	-0.09	-0.6	40.2	49.1	39.4	45.1	48	42	49.1	44.1
2123	-0.77	1.07	1.79	0.12	1.08	1.01	-0.09	-0.2	42.3	60.7	67.9	51.2	60.8	60.1	49.1	47.6
2124	-0.68	2.03	-0.18	1.17	1.25	1.45	1.52	1.61	43.2	70.3	48.2	61.7	62.5	64.5	65.2	66.1
2125	-0.8	-1.01	-0.64	0.87	0.12	-0.22	-0.28	0.32	42	39.9	43.6	58.7	51.2	47.8	47.2	53.2
2126	-0.16	-0.78	1.61	-0.3	-0.7	0.15	0.03	-0.6	48.4	42.2	66.1	47	43.1	51.5	50.3	44.3
2127	-1.03	1.54	-0.69	1.32	1.66	1.58	1.44	1.57	39.7	65.4	43.1	63.2	66.6	65.8	64.4	65.7
2128	0.99	1.91	1.8	1.06	1	0.78	1.03	1.37	59.9	69.1	68	60.6	60	57.8	60.3	63.7
2129	-0.62	-1.01	-0.73	-1.09	-0.9	0.07	-0.69	-1.2	43.8	39.9	42.7	39.1	41.4	50.7	43.1	38.4
2130	-0.36	-1.52	-0.69	-0.55	-0.5	-0.34	-0.9	-1.1	46.4	34.8	43.1	44.5	45.3	46.6	41	39.5
2131	0.8	2	-0.92	1.24	1.81	2.22	1.39	1.93	58	70	40.8	62.4	68.1	72.2	63.9	69.3
2132	0.83	0.07	-0.66	-0.38	-1.4	-1.04	-0.42	-0.6	58.3	50.7	43.4	46.2	35.7	39.6	45.8	44.1
2133	-0.79	0.07	-1.06	-0.61	-1.4	-0.88	-0.91	-1.1	42.1	50.7	39.4	43.9	35.7	41.2	40.9	38.6

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
2134	-0.8	-0.62	-0.51	-0.38	0.75	0.05	-0.27	-0.6	42	43.8	44.9	46.2	57.5	50.5	47.3	43.7
2135	1.39	-1.55	-0.9	-0.72	0.75	-0.45	-0.21	-0.4	63.9	34.5	41	42.8	57.5	45.5	47.9	45.8
2136	-0.74	-0.26	-0.59	-0.64	0.21	-0.15	0.18	0.65	42.6	47.4	44.1	43.6	52.1	48.5	51.8	56.5
2137	0.36	-0.91	-0.7	-0.07	-0.8	-1.13	-0.91	-0.7	53.6	40.9	43	49.3	42.4	38.7	40.9	42.6
2138	0.39	0.09	1.74	-0.21	0.31	-1.74	-0.61	-0.1	53.9	50.9	67.4	47.9	53.1	32.6	43.9	49.4
2139	0.89	-0.2	-0.28	-0.38	-0.7	-0.79	-0.35	-0.4	58.9	48	47.2	46.2	43.2	42.1	46.5	45.7
2140	-0.72	-0.52	-0.84	-0.78	-0.1	-1.32	0.34	0.37	42.8	44.8	41.6	42.2	48.7	36.8	53.4	53.7
2141	0.87	-0.43	-0.67	0.02	-0.5	-0.16	-0.26	0.3	58.7	45.7	43.3	50.2	45.3	48.4	47.4	53
2142	1.25	-0.51	-0.36	-0.59	-0.2	-0.3	-0.9	-0.4	62.5	44.9	46.4	44.1	48.1	47	41	45.8
2143	1.3	-0.29	-0.81	-0.93	-1.1	-0.6	-0.73	-0.6	63	47.1	41.9	40.7	39.2	44	42.7	44.2
2144	1.11	-0.84	-0.63	-0.44	0.3	-0.49	-0.36	-0.1	61.1	41.6	43.7	45.6	53	45.1	46.4	48.6
2145	-1.09	-0.29	-0.12	-0.21	-0.9	-1.56	0.11	0.97	39.1	47.1	48.8	47.9	41.4	34.4	51.1	59.7
2146	-0.7	-0.08	0.02	0.07	0.6	1.75	0.3	0.04	43	49.2	50.2	50.7	56	67.5	53	50.4
2147	-0.59	-0.79	1.44	-0.38	-0.3	0.45	-0.19	-1	44.1	42.1	64.4	46.2	46.8	54.5	48.1	40.1
2148	0.51	-0.92	-0.74	-0.55	-0	-0.45	-0.54	-0.6	55.1	40.8	42.6	44.5	49.6	45.5	44.6	44.1
2149	0.46	-0.26	-0.59	-0.35	-0.2	0.11	-0.22	0.27	54.6	47.4	44.1	46.5	48	51.1	47.8	52.7
2150	0.52	-0.4	-0.53	-0.14	-0.4	-0.19	-0.08	0.14	55.2	46	44.7	48.7	45.9	48.1	49.2	51.4
2151	-0.45	-0.09	-0.59	-1	-0.2	-0.71	-0.82	-0.5	45.5	49.1	44.1	40	47.9	42.9	41.8	45.3
2152	0.6	-1.55	-0.79	-0.31	-0.3	-0.8	-0.51	-0.9	56	34.5	42.1	46.9	47.2	42	44.9	41.3
2153	-0.67	1.6	1.35	1.24	1.65	1.19	0.79	1.37	43.3	66	63.5	62.4	66.5	61.9	57.9	63.7
2154	0.3	-0.69	-0.88	-0.63	-0.9	-1.25	-0.58	-1.3	53	43.1	41.2	43.7	41.4	37.5	44.2	37.1
2155	-0	-0.37	-0.12	-0.72	-0.3	-0.92	-0.31	-0.7	50	46.3	48.8	42.8	47	40.8	46.9	43.3
2156	-0.14	-0.52	1.63	0.28	-0.3	-1.32	-0.28	-0.9	48.6	44.8	66.3	52.8	46.9	36.8	47.2	40.9
2157	-0.45	1.45	-1.03	1.44	1.14	1.74	0.86	0.96	45.5	64.5	39.7	64.4	61.4	67.4	58.6	59.6
2158	-0.82	-0.91	0.18	-1.13	-1	-1.56	-0.63	-1.9	41.8	40.9	51.8	38.7	39.7	34.4	43.7	30.8
2159	-0.45	-0.46	-0.82	-0.35	-0.1	0.12	-0.72	-0.2	45.5	45.4	41.8	46.5	49	51.2	42.8	47.6
2160	-0.32	-0.47	-1.21	-1.38	-0.9	-0.77	-0.29	-1.3	46.8	45.3	37.9	36.2	40.9	42.3	47.1	37.1
2161	-0.75	1.68	-0.89	1.04	1.31	1.31	1.67	1.15	42.5	66.8	41.1	60.4	63.1	63.1	66.7	61.5
2162	-0.25	1.45	-0.51	1.44	1.14	1.74	0.86	0.77	47.5	64.5	44.9	64.4	61.4	67.4	58.6	57.7
2163	-0.1	1.03	-0.76	1.9	1.97	1.44	1.46	1.61	49	60.3	42.4	69	69.7	64.4	64.6	66.1
2164	-1.17	-0.29	-0.82	-0.11	-0.4	-0.19	-0.39	-0.1	38.3	47.1	41.8	48.9	45.8	48.1	46.1	48.6
2165	0.18	-1.01	-0.62	-0.71	-0.8	0.03	-0.66	-0.9	51.8	39.9	43.8	42.9	41.6	50.3	43.4	41.1
2166	1.18	1.07	-0.79	1.24	1.76	1.65	1.7	1.9	61.8	60.7	42.1	62.4	67.6	66.5	67	69
2167	1.29	0.14	-0.77	-0.42	-0.6	0.51	-1	-0.6	62.9	51.4	42.3	45.8	43.8	55.1	40	44.5
2168	1.06	-1.19	-0.82	0.16	-0.5	-0.87	-0.8	-0.8	60.6	38.1	41.8	51.6	44.6	41.3	42	42.2

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
2169	0.99	2	1.05	1.44	1.93	1.77	0.94	2.29	59.9	70	60.5	64.4	69.3	67.7	59.4	72.9
2170	1.38	-1.52	-0.88	-0.98	-0.9	0.13	-0.79	-0.5	63.8	34.8	41.2	40.2	41.2	51.3	42.1	44.8
2171	1.36	-1.05	1.54	-0.07	0.01	-0.37	-0.08	-0.1	63.6	39.6	65.4	49.3	50.1	46.3	49.2	48.6
2172	-0.78	1.91	-0.83	1.04	0.9	1.36	1.08	0.93	42.2	69.1	41.7	60.4	59	63.6	60.8	59.3
2173	1.35	-0.92	0	-0.49	-0.4	-0.56	-0.45	-0.4	63.5	40.8	50	45.1	46	44.4	45.5	45.8
2174	-0.17	-1.01	-1.1	-0.71	-0.8	0.03	-0.66	-0.9	48.3	39.9	39	42.9	41.5	50.3	43.4	41
2175	0.96	0.08	1.67	-0.04	-0.7	-0.86	-0.19	-0.3	59.6	50.8	66.7	49.6	43.3	41.4	48.1	47.4
2176	-0.36	-0.54	-1.06	-0.51	-0.4	-0.92	-0.08	-0.8	46.4	44.6	39.4	44.9	45.7	40.8	49.2	42
2177	0.74	-0.69	-0.99	-0.44	-1.2	-1.93	-0.69	-1.4	57.4	43.1	40.1	45.6	38.2	30.7	43.1	36.3
2178	0.72	-1.28	0.06	-0.27	-0.4	-0.57	-0.4	-0.1	57.2	37.2	50.6	47.3	45.9	44.3	46	49
2179	-0.12	1.6	1.64	1.32	1.66	1.97	1	1.22	48.8	66	66.4	63.2	66.6	69.7	60	62.2
2180	0.24	-0.52	-1.21	-0.39	-0.3	-0.33	-0.69	-0.3	52.4	44.8	37.9	46.1	46.8	46.7	43.1	46.9
2181	0.38	1.58	1.73	1.02	1.11	1.4	0.75	1.09	53.8	65.8	67.3	60.2	61.1	64	57.5	60.9
2182	-0.31	1.95	-0.69	1.19	1.43	1.64	1.6	1.57	46.9	69.5	43.1	61.9	64.3	66.4	66	65.7
2183	-0.66	1.68	-1.06	1.5	1.93	1.69	1.46	1.78	43.4	66.8	39.4	65	69.3	66.9	64.6	67.8
2184	-0.35	-0.53	-1.15	-0.46	-0.9	-0.48	-0.69	-1.4	46.5	44.7	38.5	45.4	41.4	45.2	43.1	36.3
2185	-0.54	-0.37	-1.1	-0.22	-0.3	0.2	-0.75	-0.7	44.6	46.3	39	47.8	46.9	52	42.5	43.4
2186	-0.89	-0.93	-0.82	-0.95	-0.5	0.22	-1.18	-1.4	41.1	40.7	41.8	40.5	44.5	52.2	38.2	35.6
2187	-0.55	-0.62	1.67	-0.11	-0.8	-0.67	-0.64	-0.8	44.5	43.8	66.7	48.9	42.5	43.3	43.6	41.9
2188	-0.85	1.62	-1	1.97	1.79	2.09	1.89	1.87	41.5	66.2	40	69.7	67.9	70.9	68.9	68.7
2189	-0.01	1.68	-0.69	0.89	1.24	1.21	1.17	1.15	49.9	66.8	43.1	58.9	62.4	62.1	61.7	61.5
2190	0.91	1.68	-0.51	0.89	1.25	1.45	1.17	1.09	59.1	66.8	44.9	58.9	62.5	64.5	61.7	60.9
2191	1.17	-1.14	-0.71	-1.05	-1.4	-0.47	-0.66	-0.6	61.7	38.6	42.9	39.5	35.7	45.3	43.4	44.1
2192	-0.72	-0.49	-0.46	-0.79	-0.8	0.03	-0.11	-1.1	42.8	45.1	45.4	42.1	41.6	50.3	48.9	39.5
2193	-1.17	-0.56	0.29	-0.52	-0	-0.21	0.16	-0.3	38.3	44.4	52.9	44.8	49.8	47.9	51.6	47.3
2194	-1.05	-0.37	1.86	-0.49	-0	-0.46	-1.35	-1.2	39.5	46.3	68.6	45.1	49.6	45.4	36.5	38.5
2195	-0.94	-0.93	1.45	-0.69	-0.5	-1.21	-0.69	-0.5	40.6	40.7	64.5	43.1	44.6	37.9	43.1	45.2
2196	0.98	1.37	-0.87	2.21	1.76	1.69	1.56	2.37	59.8	63.7	41.3	72.1	67.6	66.9	65.6	73.7
2197	0.71	-1.17	1.73	-1.3	-1.4	-0.79	-0.76	-1.7	57.1	38.3	67.3	37	36.1	42.1	42.4	32.8
2198	1.25	2	-0.89	1.28	1.81	2.22	1.29	2.02	62.5	70	41.1	62.8	68.1	72.2	62.9	70.2
2199	-0.41	-0.75	-0.99	-0.71	-0.5	0.19	-0.78	-1	45.9	42.5	40.1	42.9	45.1	51.9	42.2	39.7
2200	-0.41	-1.15	0.31	-1.32	-0.9	-1.78	-1.29	-1.2	45.9	38.5	53.1	36.8	41	32.2	37.1	38.2
2201	-1.12	-0.4	1.56	0.11	-0.4	-0.57	-0.64	0.03	38.8	46	65.6	51.1	45.9	44.3	43.6	50.3
2202	1.16	1.68	-0.83	1.17	1.25	1.44	1.17	1.15	61.6	66.8	41.7	61.7	62.5	64.4	61.7	61.5
2203	-0.95	-1.01	-1.03	-1.33	-1.1	-1.74	-0.76	-1.3	40.5	39.9	39.7	36.7	38.9	32.6	42.4	36.7

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
2204	-0.52	-0.32	-1.06	-0.67	-0.3	0.45	-0.22	-0.5	44.8	46.8	39.4	43.3	46.7	54.5	47.8	45.3
2205	0.44	2.03	-0.62	1.42	1.83	1.51	1.88	1.31	54.4	70.3	43.8	64.2	68.3	65.1	68.8	63.1
2206	0.15	-0.89	0.22	-0.74	-0.7	-1.53	-1.25	-0.7	51.5	41.1	52.2	42.6	42.5	34.7	37.5	43.3
2207	-0.52	1.1	0.66	1.49	1.12	1.31	1.48	1.8	44.8	61	56.6	64.9	61.2	63.1	64.8	68
2208	-0.57	1.47	-0.83	1.28	1.64	1.11	1.4	1.48	44.3	64.7	41.7	62.8	66.4	61.1	64	64.8
2209	1.19	1.74	-0.87	1.41	1.68	1.31	1.4	1.87	61.9	67.4	41.3	64.1	66.8	63.1	64	68.7
2210	0.04	1.4	-1.08	1.58	1.76	1.76	1.48	1.15	50.4	64	39.2	65.8	67.6	67.6	64.8	61.5
2211	-0.49	1.43	-0.59	1.75	1.67	1.45	0.89	1.45	45.1	64.3	44.1	67.5	66.7	64.5	58.9	64.5
2212	-0.17	1.36	0.28	1.25	1.81	2.17	1.47	0.4	48.3	63.6	52.8	62.5	68.1	71.7	64.7	54
2213	1.28	1.23	-0.58	0.89	1.01	1.12	1.11	1.17	62.8	62.3	44.2	58.9	60.1	61.2	61.1	61.7
2214	-0.84	1.69	-0.37	1.82	1.76	2.11	2.47	2.23	41.6	66.9	46.3	68.2	67.6	71.1	74.7	72.3
2215	-0.55	-0.26	-0.21	-0.36	-1.4	-0.92	-0.31	-0.8	44.5	47.4	47.9	46.5	35.7	40.8	46.9	41.6
2216	1.07	-1.55	-0.47	-0.14	-0.4	-0.56	-1.04	-0.1	60.7	34.5	45.3	48.7	45.9	44.4	39.6	48.6
2217	-0.52	-0.7	-0.71	-0.75	-0.3	-0.55	-0.39	-0.2	44.8	43	42.9	42.5	47.2	44.5	46.1	47.6
2218	-0.36	0.14	1.34	-1.1	-1.4	-0.99	-1.27	-0.9	46.4	51.4	63.4	39	36.1	40.1	37.3	40.7
2219	-0.51	-0.79	-1.03	-0.65	-0.7	-0.23	-0.5	-0.9	44.9	42.1	39.7	43.5	43.2	47.7	45	40.7
2220	-0.09	-0.65	-0.42	0.04	0.44	0.34	0.31	-0.3	49.1	43.5	45.8	50.4	54.4	53.4	53.1	46.8
2221	-0.01	-0.7	-0.9	-1.05	-1.2	-0.61	-1.31	-1	49.9	43	41	39.5	38.2	43.9	36.9	40.1
2222	0.96	-0.93	-0.43	-0.3	-0.3	-0.47	-0.65	-1.3	59.6	40.7	45.7	47	46.6	45.3	43.5	36.7
2223	-0.33	-0.26	-0.57	0.16	-0.2	0.54	0.39	0.07	46.7	47.4	44.3	51.6	48.1	55.4	53.9	50.7
2224	-0.52	-0.18	1.67	-1.04	-1	-0.37	-0.67	-0.6	44.8	48.2	66.7	39.6	39.7	46.3	43.3	44.1
2225	0.68	-1.03	-0.2	-0.34	-0.8	-0.7	-0.53	-0.4	56.8	39.7	48	46.6	42.4	43	44.7	45.7
2226	-0.32	-0.37	-0.86	-0.37	-0.3	-0.71	-0.41	-0.3	46.8	46.3	41.4	46.3	47	42.9	45.9	47.1
2227	0.02	-0.92	-0.04	-0.72	-0.4	-0.01	-0.61	-1.2	50.2	40.8	49.6	42.8	45.7	49.9	43.9	37.8
2228	-0.31	-0.53	-1.05	0.29	-0.5	-0.03	-0.49	-0.7	46.9	44.7	39.5	52.9	44.7	49.7	45.1	43.2
2229	-0.35	-0.78	-0.86	-0.82	1.01	1.12	-0.71	-0.6	46.5	42.2	41.4	41.8	60.1	61.2	42.9	44.2
2230	-1.18	-1.3	1.64	-0.78	-0.6	-0.32	-1.71	-0.7	38.2	37	66.4	42.2	44.2	46.8	32.9	43.2
2231	-0.01	-0.8	0	-1.03	-1.4	-0.98	-0.98	-0.7	49.9	42	50	39.7	35.8	40.2	40.2	42.7
2232	-0.31	1	-0.28	0.3	-0.2	-0.61	-0.05	0.07	46.9	60	47.2	53	48.1	43.9	49.5	50.7
2233	-0.73	-1.28	-0.95	-0.79	-0.6	0.02	-1.08	-0.5	42.7	37.2	40.5	42.1	44.4	50.2	39.2	45.3
2234	0.25	-0.37	-0.66	-1.01	-0.9	-0.37	-1.03	-1.2	52.5	46.3	43.4	39.9	41	46.3	39.7	38.2
2235	1.38	-0.18	1.74	0.18	0.16	-0.67	0.35	0.14	63.8	48.2	67.4	51.8	51.6	43.3	53.5	51.4
2236	-0.85	-1.15	1.95	-1.26	-0.9	-0.62	-1.18	-0.8	41.5	38.5	69.5	37.4	41	43.8	38.2	42.1
2237	-0.38	-1.19	-0.44	-0.3	-0.4	-0.28	-1.05	-1.4	46.2	38.1	45.6	47	45.7	47.2	39.5	35.6
2238	1.27	1.91	-1.29	1.75	2.47	1.74	1.89	2.29	62.7	69.1	37.1	67.5	74.7	67.4	68.9	72.9

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
2239	-0.21	1.95	-0.59	1.5	1.21	1.12	1.44	1.94	47.9	69.5	44.1	65	62.1	61.2	64.4	69.4
2240	-0.91	-0.83	1.61	-1.12	-1.4	-1.74	-0.63	-0.6	40.9	41.7	66.1	38.8	36	32.6	43.7	43.6
2241	0.78	0.87	-0.9	-0.62	-0.6	0.36	0.19	-0.5	57.8	58.7	41	43.8	44	53.6	51.9	45.3
2242	1.05	-0.89	-0.04	-0.5	-0.2	-0.61	-0.22	0.46	60.5	41.1	49.6	45	48.1	43.9	47.8	54.6
2243	-0.64	1.43	-0.61	1.93	2.03	2.2	2.53	1.28	43.6	64.3	43.9	69.3	70.3	72	75.3	62.8
2244	-0.98	1.9	2.03	1.87	1.76	1.41	2.47	2.23	40.2	69	70.3	68.7	67.6	64.1	74.7	72.3
2245	0.87	1.89	0.15	1.88	1.52	1.99	1.44	2.13	58.7	68.9	51.5	68.8	65.2	69.9	64.4	71.3
2246	0.84	1.62	0.17	1.8	2.2	1.36	1.52	2.7	58.4	66.2	51.7	68	72	63.6	65.2	77
2247	-0.49	-1.55	-0.48	-0.41	-0.5	1.13	-0.45	-0.4	45.1	34.5	45.2	45.9	45.5	61.3	45.5	45.5
2248	-0.56	-0.75	-0.5	-0.71	-0.5	-1.16	-0.67	-1.3	44.4	42.5	45	42.9	45.1	38.4	43.3	37.1
2249	0.04	0.08	-0.4	-0.91	-0.9	-0.26	-0.09	-0.2	50.4	50.8	46	40.9	40.6	47.4	49.1	48.4
2250	-0.65	-1.3	-0.87	-0.41	-0.6	-1.44	-0.64	-0.6	43.5	37	41.3	45.9	43.6	35.6	43.6	44
2251	0.15	-0.67	1.64	-0.55	-0.2	-0.48	-0.89	-1.9	51.5	43.3	66.4	44.5	47.7	45.2	41.1	30.7
2252	-0.49	-0.55	1.41	-0.51	-0.2	-0.71	0.73	-0.1	45.1	44.5	64.1	44.9	47.9	42.9	57.3	49.3
2253	-1.01	1.62	-0.93	1.31	1.79	2.09	1.89	1.87	39.9	66.2	40.7	63.1	67.9	70.9	68.9	68.7
2254	-0.05	1.79	0.15	1.77	1.94	1.86	1.71	1.81	49.5	67.9	51.5	67.7	69.4	68.6	67.1	68.1
2255	-0.46	1.49	-1.4	2.21	2.42	1.74	1.71	1.4	45.4	64.9	36	72.1	74.2	67.4	67.1	64
2256	-0.47	-0.11	-0.69	-0.76	-0.6	-0.71	-0.8	-1.1	45.3	48.9	43.1	42.4	44.4	42.9	42	38.8
2257	-0.39	-0.94	-0.48	-0.07	-0.6	-0.33	-0.76	-0.1	46.1	40.6	45.2	49.3	44.1	46.7	42.4	48.9
2258	0.85	-0.56	-0.57	-0.72	-0.6	-0.31	-0.71	-0.1	58.5	44.4	44.3	42.8	44.3	46.9	42.9	49.4
2259	0.66	-0.8	-0.01	-1.74	-1.8	-1.03	-1.71	-2.1	56.6	42	49.9	32.6	32.4	39.7	32.9	28.7
2260	-0.04	0.71	-0.59	0.21	-0.3	-0.69	-0.36	-0.3	49.6	57.1	44.1	52.1	46.9	43.1	46.4	46.9
2261	0.24	-0.53	1.54	-0.55	-0.7	-0.61	-0.28	-0.5	52.4	44.7	65.4	44.5	43.1	43.9	47.2	44.7
2262	0.11	-0.32	-1.3	-0.72	-0.8	-0.86	-1.27	-1	51.1	46.8	37	42.8	42.2	41.4	37.3	39.8
2263	-0.26	0.92	-1.29	-0.21	0.24	-0.02	0.05	0.27	47.4	59.2	37.1	47.9	52.4	49.8	50.5	52.7
2264	0.08	0.31	-0.69	-0.01	0.18	-0.24	-0.02	0.32	50.8	53.1	43.1	49.9	51.8	47.6	49.8	53.2
2265	1.68	-0.7	1.79	-0.71	0.16	-0.67	0.11	0.09	66.8	43	67.9	42.9	51.6	43.3	51.1	50.9
2266	0.38	-0.62	-0.63	-0.06	0.75	0.12	-0.16	0.64	53.8	43.8	43.7	49.4	57.5	51.2	48.4	56.4
2267	-0.27	0.92	-0.12	0.19	0.04	-0.57	1	0.14	47.3	59.2	48.8	51.9	50.4	44.3	60	51.4
2268	0.42	-0.4	-0.04	-0.08	0.75	0.33	-0.15	0.14	54.2	46	49.6	49.2	57.5	53.3	48.5	51.4
2269	0.35	0.23	-0.5	0.84	0.03	-0.35	0.26	0.09	53.5	52.3	45	58.4	50.3	46.5	52.6	50.9
2270	-0.14	-0.04	0.2	0.05	0.25	0.08	0.22	-0.6	48.6	49.6	52	50.5	52.5	50.8	52.2	44.3
2271	0.58	-0.44	-0.79	-0.72	-0.5	-0.66	-0.39	-0.7	55.8	45.6	42.1	42.8	45.5	43.4	46.1	43.4
2272	-0.38	0.31	1.54	0.18	0.18	1.02	-0.02	0.31	46.2	53.1	65.4	51.8	51.8	60.2	49.8	53.1
2273	-0.77	-0.18	1.64	-0.69	-0.6	-0.32	-0.18	-1	42.3	48.2	66.4	43.1	44.2	46.8	48.2	40.2

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
2274	0.21	-0.04	-1.37	-0.01	0.24	0.07	-0.52	0.05	52.1	49.6	36.3	49.9	52.4	50.7	44.8	50.5
2275	0.17	-0.05	2.1	-0.16	-0.3	0.43	0.02	0.04	51.7	49.5	71	48.4	46.6	54.3	50.2	50.4
2276	0.06	0.36	0.15	-0.38	0.26	0.09	-0.51	-0.2	50.6	53.6	51.5	46.2	52.6	50.9	44.9	48
2277	-0.72	-0.58	-0.76	-0.06	0.16	0.17	0.56	-0.2	42.8	44.2	42.4	49.4	51.6	51.7	55.6	47.7
2278	0.26	-0.04	-1.06	-0.07	0.24	0.34	-0.02	-0.6	52.6	49.6	39.4	49.3	52.4	53.4	49.8	44.3
2279	0.12	-0.72	1.53	0.43	-0.3	-0.53	0.02	0.02	51.2	42.8	65.3	54.3	46.8	44.7	50.2	50.2
2280	0.35	0.92	0.38	0.17	-0.9	0.19	-0.45	-0.2	53.5	59.2	53.8	51.7	41.3	51.9	45.5	47.6
2281	-0.12	0.88	-0.45	0.11	0.62	0.3	0.19	-0.2	48.8	58.8	45.5	51.1	56.2	53	51.9	47.7
2282	-0.2	-0.4	-1.1	-0.19	0.75	0.77	-0.15	-1.1	48	46	39	48.1	57.5	57.7	48.5	39.3
2283	0.53	-0.27	-0.53	-0.52	0.06	-0.38	0.39	0.85	55.3	47.3	44.7	44.8	50.6	46.2	53.9	58.5
2284	-0.71	0.31	1.62	-0.77	0.04	-0.02	0.41	-0	42.9	53.1	66.2	42.3	50.4	49.8	54.1	49.7
2285	-0.3	-0.57	-0.99	-0.53	0.24	-0.03	1.58	-0.6	47	44.3	40.1	44.7	52.4	49.7	65.8	44.3
2286	-0.3	-0.65	-0.89	0.42	0.44	0.13	-0.04	-0.3	47	43.5	41.1	54.2	54.4	51.3	49.6	47.4
2287	-0.59	-0.62	-0.7	-0.43	-0.5	-1.45	-1.06	-0.4	44.1	43.8	43	45.7	45.5	35.5	39.4	45.5
2288	-0.03	-0.79	1.52	0.16	-0.2	-0.71	-0.02	0.96	49.7	42.1	65.2	51.6	47.9	42.9	49.8	59.6
2289	-0.39	0.36	1.53	0.32	-0.1	-0.92	0.26	0.07	46.1	53.6	65.3	53.2	49.2	40.8	52.6	50.7
2290	0.26	1.59	0.04	0.2	0.03	-0.55	0.35	0.14	52.6	65.9	50.4	52	50.3	44.5	53.5	51.4
2291	0.76	-0.05	1.41	-0.04	-0.5	-1.21	0.11	-0	57.6	49.5	64.1	49.6	44.6	37.9	51.1	50
2292	0.73	-0.04	-0.6	-0	0.24	0.08	-0.16	0.59	57.3	49.6	44	50	52.4	50.8	48.4	55.9
2293	-0.49	-0.26	-0.38	-0.59	0.21	-0.42	-0.57	-0.5	45.1	47.4	46.2	44.1	52.1	45.8	44.3	44.6
2294	-0.26	0.08	-0.63	-0.55	-0.9	-1.22	-0.29	0.27	47.4	50.8	43.7	44.5	40.6	37.8	47.1	52.7
2295	0.27	0.91	1.68	0.61	0.68	0.58	0.26	-0.3	52.7	59.1	66.8	56.1	56.8	55.8	52.6	46.9
2296	0.37	1.27	-0.43	0.16	0.16	-0.26	0.11	0.16	53.7	62.7	45.7	51.6	51.6	47.4	51.1	51.6
2297	0.83	-0.78	0.76	-0.51	0.16	0.31	-0.54	-0.1	58.3	42.2	57.6	44.9	51.6	53.1	44.6	48.9
2298	0.1	-0.26	-0.2	-0.2	-1	-1.23	-0.65	-1.2	51	47.4	48	48	40.4	37.7	43.5	38.2
2299	-0.35	-0.08	-0.53	0.07	0.59	0.45	-0.16	0.22	46.5	49.2	44.7	50.7	55.9	54.5	48.4	52.2
2300	-0.5	-0.89	-0.62	-0.01	-0.2	0.09	-0.02	-0.1	45	41.1	43.8	49.9	47.9	50.9	49.8	49.4
2301	0.22	1.23	1.53	0.05	0.3	-0.3	-0.58	0.27	52.2	62.3	65.3	50.5	53	47	44.2	52.7
2302	-0.13	-0.45	1.39	-0.59	0.06	0.19	-0.02	-0.1	48.7	45.5	63.9	44.1	50.6	51.9	49.8	49.4
2303	0.5	-0.08	-0.57	0.07	0.58	-0.47	0.26	0.24	55	49.2	44.3	50.7	55.8	45.3	52.6	52.4
2304	-0.32	0.79	1.73	0.34	-0	-0.21	-0.37	0.72	46.8	57.9	67.3	53.4	49.8	47.9	46.3	57.2
2305	-0.21	0.2	-0.47	-0.52	-0.2	-0.3	0.13	-0.6	47.9	52	45.3	44.8	47.9	47	51.3	44.3
2306	0.11	0.09	-0.67	-0.18	0.31	-1.74	-0.61	-0.7	51.1	50.9	43.3	48.2	53.1	32.6	43.9	43
2307	-0.22	-0.4	-0.3	0.05	0.75	0.45	-0.15	-1.1	47.8	46	47	50.5	57.5	54.5	48.5	39.3
2308	-0.33	-0.56	-0.04	-0.17	0.75	0.59	0.39	0.04	46.7	44.4	49.6	48.3	57.5	55.9	53.9	50.4

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
2309	-0.56	0.09	-0.65	0.26	0.35	-0.34	-0.41	0.71	44.4	50.9	43.5	52.6	53.5	46.6	45.9	57.1
2310	-0.8	-0.2	-0.28	0.07	0.89	0.19	-0.08	0.23	42	48	47.2	50.7	58.9	51.9	49.2	52.3
2311	0.06	0.91	-1.15	-0.31	0.56	-0.47	0.22	0.89	50.6	59.1	38.5	46.9	55.6	45.3	52.2	58.9
2312	-0.17	-0.78	-0.67	-0.18	1.47	1.4	0.05	1.06	48.3	42.2	43.3	48.2	64.7	64	50.5	60.6
2313	0.12	0.46	0.16	-0.68	-0.6	-0.31	0.13	-0.6	51.2	54.6	51.6	43.2	44.3	46.9	51.3	44.3
2314	0.3	0.23	-0.47	-0.52	-0.6	-0.85	0.45	-0.6	53	52.3	45.3	44.8	43.8	41.5	54.5	44.3
2315	0.52	0.36	-0.34	0.87	0.3	-0.5	0.73	0.12	55.2	53.6	46.6	58.7	53	45	57.3	51.2
2316	-0.08	0.26	-0.34	0.19	0.04	0.77	0.05	-0.3	49.2	52.6	46.6	51.9	50.4	57.7	50.5	46.9
2317	-0.47	-0.65	-0.69	-0.53	0.44	-0.19	-0.32	-0.6	45.3	43.5	43.1	44.7	54.4	48.1	46.8	44.3
2318	0.01	-0.18	-0.09	-0.46	-0.3	-0.06	-0.49	0.01	50.1	48.2	49.1	45.4	46.9	49.4	45.1	50.1
2319	0.6	0.08	1.44	-0.51	-0.9	-0.23	-0.02	-0.7	56	50.8	64.4	44.9	40.6	47.7	49.8	43.1
2320	0.15	-0.45	1.68	-0.19	0.89	0.38	-0.19	-0.7	51.5	45.5	66.8	48.1	58.9	53.8	48.1	42.7
2321	0.08	0.97	-0.79	-0.35	-0.5	-0.79	-0.25	0.02	50.8	59.7	42.1	46.5	45.1	42.1	47.5	50.2
2322	0.08	0.46	-1.15	-0.41	-0.6	-1.48	-0.21	-0.1	50.8	54.6	38.5	45.9	44.3	35.2	47.9	48.6
2323	1.31	1	-0.59	0.16	-0.3	-0.55	-0.76	0.13	63.1	60	44.1	51.6	47.2	44.5	42.4	51.3
2324	0.81	-0.29	1.69	-0.23	-0.6	-0.97	-0.65	0.73	58.1	47.1	66.9	47.8	43.6	40.3	43.5	57.3
2325	0.32	-0.62	-0.58	-0.27	-0.1	-0.41	-0.66	-0.2	53.2	43.8	44.2	47.3	48.6	46	43.4	48.3
2326	0.46	1.03	-0.67	-0.14	-0.3	-0.87	0.6	0.09	54.6	60.3	43.3	48.6	46.5	41.3	56	50.9
2327	0.06	-0.04	-0.26	0.01	0.24	0.08	-0.09	0.07	50.6	49.6	47.4	50.1	52.4	50.8	49.1	50.7
2328	0.62	0.31	0.77	0.02	-0.5	0.51	-0.19	0.06	56.2	53.1	57.7	50.2	45.5	55.1	48.1	50.6
2329	0.31	0.53	-0.38	0.42	-0.6	0.02	0.1	0.52	53.1	55.3	46.2	54.2	44.3	50.2	51	55.2
2330	-0.54	-1.13	-0.3	0.04	0.75	-0.23	-0.14	-1.1	44.6	38.7	47	50.4	57.5	47.7	48.6	39.3
2331	-0.14	-0.32	1.8	-0.02	0.89	-0.01	0.66	0.14	48.6	46.8	68	49.8	58.9	49.9	56.6	51.4
2332	-0.26	-0.4	-0.44	-0.07	-0.4	0.2	-0.51	-1.1	47.4	46	45.6	49.3	45.9	52	44.9	39.5
2333	0.34	-0.29	-0.13	-0.14	-0.7	-0.71	-0.57	-0.2	53.4	47.1	48.7	48.7	42.6	42.9	44.3	47.5
2334	-0.39	-0.63	-0.42	-0.17	-0	0.04	0.04	-0.5	46.1	43.7	45.8	48.3	50	50.4	50.4	44.5
2335	-0.27	0.32	-0.71	0.16	0.18	0.3	0.22	0.37	47.3	53.2	42.9	51.6	51.8	53	52.2	53.7
2336	-0.16	-0.84	-0.46	0.19	0.75	0.77	0.05	0.27	48.4	41.6	45.4	51.9	57.5	57.7	50.5	52.7
2337	-0.41	0.36	1.22	-0.07	0.26	0.41	-0.29	-0.3	45.9	53.6	62.2	49.3	52.6	54.1	47.1	46.6
2338	0.41	-0.55	-1.4	-0.71	0.23	-0.04	-0.13	0.31	54.1	44.5	36	42.9	52.3	49.6	48.7	53.1
2339	0.35	-0.62	0.55	0.16	0.75	0.1	-0.24	0.71	53.5	43.8	55.5	51.6	57.5	51	47.6	57.1
2340	-0.33	0.37	-0.36	0.19	0.27	0.33	0.23	-0.1	46.7	53.7	46.4	51.9	52.7	53.3	52.3	49.4
2341	-0.54	-0.63	-0.99	-0.5	-0	0.17	0.03	-0.1	44.6	43.7	40.1	45	49.9	51.7	50.3	49.3
2342	-0.34	-0.72	-0.79	-0.66	-0.6	-0.92	-0.36	-0.8	46.6	42.8	42.1	43.4	43.6	40.8	46.4	41.6
2343	-0.86	-0.26	1.53	0.07	0.22	-0.41	-0.16	-0.4	41.4	47.4	65.3	50.7	52.2	46	48.4	46.5

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
2344	-0.5	-0.22	-1.29	0.77	-0.7	-1.53	-0.08	0.52	45	47.8	37.1	57.7	42.8	34.7	49.2	55.2
2345	-0.5	-0.65	1.59	0.58	0.44	0.09	0.31	0.02	45	43.5	65.9	55.8	54.4	50.9	53.1	50.2
2346	0.02	0.53	1.62	0.74	-0.4	-0.69	-0.01	-0.1	50.2	55.3	66.2	57.4	46.3	43.1	49.9	49.1
2347	-0.48	-0.06	-0.67	-0.47	0.56	0.09	0.27	-0.7	45.2	49.4	43.3	45.3	55.6	50.9	52.7	42.6
2348	-0.62	0.97	-0.34	-0.43	-0.3	-0.48	0.05	-0.3	43.8	59.7	46.6	45.7	46.5	45.2	50.5	46.7
2349	0.04	-0.08	1.56	1.03	-0.2	-0.48	-0.11	0.73	50.4	49.2	65.6	60.3	47.7	45.2	48.9	57.3
2350	0.09	-0.18	1.63	-0.72	-0.8	-1.13	0.94	-0.6	50.9	48.2	66.3	42.8	42.4	38.7	59.4	44.5
2351	0.07	0.36	-1.29	0.19	-0.4	-0.19	-0.09	-0.3	50.7	53.6	37.1	51.9	45.8	48.1	49.1	46.9
2352	-0.17	1.03	0.1	0.2	-0.4	-0.85	-0.14	0.13	48.3	60.3	51	52	46.4	41.5	48.6	51.3
2353	0.36	-0.53	1.56	-0.31	-0.5	-0.61	-0.35	0.3	53.6	44.7	65.6	46.9	45.3	43.9	46.5	53
2354	-0.11	0.08	-0.87	-0.59	-0.9	-1.09	0.26	0.7	48.9	50.8	41.3	44.1	40.6	39.1	52.6	57
2355	-0.53	0.54	-0.46	-0.35	-0.4	-0.69	0.66	0.27	44.7	55.4	45.4	46.5	46.3	43.1	56.6	52.7
2356	-0.34	0.09	0.91	0.04	0.34	-0.34	0.22	-0.7	46.6	50.9	59.1	50.4	53.4	46.6	52.2	42.8
2357	-0.11	-0.61	0.02	0.11	-0.2	-0.61	-0.24	0.03	48.9	43.9	50.2	51.1	48.1	43.9	47.6	50.3
2358	0.08	0.94	-0.59	0.71	-0.5	-1.21	-1.03	1.55	50.8	59.4	44.1	57.1	44.6	37.9	39.7	65.5
2359	-0.43	0.21	-0.77	0.02	-0.5	0.2	0.73	0.39	45.7	52.1	42.3	50.2	45.4	52	57.3	53.9
2360	-0.63	0.08	1.74	0.2	0.75	-0.23	0.05	0.14	43.7	50.8	67.4	52	57.5	47.7	50.5	51.4
2361	0.15	-0.27	-0.13	0.16	0.89	0.33	-0.24	1.15	51.5	47.3	48.7	51.6	58.9	53.3	47.6	61.5
2362	0.74	0.92	-0.53	0.19	0.06	-0.01	0.89	-0.7	57.4	59.2	44.7	51.9	50.6	49.9	58.9	42.5
2363	0.8	0.36	-0.52	0.16	0.18	-0.05	0.89	0.04	58	53.6	44.8	51.6	51.8	49.5	58.9	50.4
2364	0.44	0.37	1.54	0.33	0.3	-0.41	0.23	-0.5	54.4	53.7	65.4	53.3	53	46	52.3	45.3
2365	-0.26	0.36	-0.84	1.02	0.75	0.04	0.23	0.95	47.4	53.6	41.6	60.2	57.5	50.4	52.3	59.5
2366	0.75	0.39	0.17	0.16	0.27	-0.02	0.23	0.18	57.5	53.9	51.7	51.6	52.7	49.8	52.3	51.8
2367	0.94	-0.06	-0.25	0.88	0.26	0.09	0.05	0.45	59.4	49.4	47.5	58.8	52.6	50.9	50.5	54.5
2368	0.58	0.09	-0.42	-0.17	0.33	-0.34	-0.82	0.04	55.8	50.9	45.8	48.3	53.3	46.6	41.8	50.4
2369	-0.12	-0.04	-0.62	-0.01	0.24	0.08	0.54	0.09	48.8	49.6	43.8	49.9	52.4	50.8	55.4	50.9
2370	0.04	-1.78	1.8	0.18	0.44	-0.19	-0.49	-0.9	50.4	32.2	68	51.8	54.4	48.1	45.1	40.7
2371	-0.28	-0.11	1.41	0.07	0.75	0.77	-0.76	0.2	47.2	48.9	64.1	50.7	57.5	57.7	42.4	52
2372	0.72	-0.29	1.8	0.71	-0.6	-0.33	0.03	1.24	57.2	47.1	68	57.1	44.2	46.7	50.3	62.4
2373	0.57	-1.78	-1.19	-0.12	0.43	-0.2	-0.49	-0.8	55.7	32.2	38.1	48.8	54.3	48	45.1	41.8
2374	-0.46	-0.64	-0.59	0.2	0.44	0.19	0.11	-0.3	45.4	43.6	44.1	52	54.4	51.9	51.1	46.9
2375	-0.4	-1.17	-0.18	-0.78	-0.2	-0.82	-1.06	-0.1	46	38.3	48.2	42.2	47.9	41.8	39.4	48.6
2376	-0.07	0.97	-0.31	0.29	0.02	-0.37	-0.02	0.55	49.3	59.7	46.9	52.9	50.2	46.3	49.8	55.5
2377	-0.28	-0.29	-0.73	0.1	0.16	0.4	-0.29	-0.4	47.2	47.1	42.7	51	51.6	54	47.1	45.7
2378	0	0.31	-0.42	-0.09	0.04	-0.02	0.5	0.02	50	53.1	45.8	49.1	50.4	49.8	55	50.2

ID	SATM	CON	VAL	MOT	ANX	PER	ENJ	TEA	S.SATM	S.CON	S.VAL	S.MOT	S.ANX	S.PER	S.ENJ	S.TEA
2379	-0.45	0.29	-0.28	-0.2	0.53	-0.47	0.03	0.16	45.5	52.9	47.2	48	55.3	45.3	50.3	51.6
2380	-0.24	0.36	1.95	0.18	0.2	-0.14	-0.66	0.3	47.6	53.6	69.5	51.8	52	48.6	43.4	53
2381	0.28	-0.18	0.1	0.08	0.16	0.82	0.11	0.37	52.8	48.2	51	50.8	51.6	58.2	51.1	53.7
2382	0.86	0.61	1.67	0.87	-0.4	-0.69	-0.15	0.27	58.6	56.1	66.7	58.7	46.3	43.1	48.5	52.7
2383	-0.12	0.28	-0.57	-0.24	-0.2	-0.02	-0.17	0.21	48.8	52.8	44.3	47.6	47.8	49.8	48.3	52.1
2384	-0.46	-0.18	-0.69	0.44	0.16	0.09	-0.37	-0.9	45.4	48.2	43.1	54.4	51.6	50.9	46.3	41
2385	-0.6	-0.04	-0.43	0.01	0.24	0.08	0.66	0.09	44	49.6	45.7	50.1	52.4	50.8	56.6	50.9
2386	-0.35	0.92	-0.6	0.2	-0.6	-1.78	-0.36	-0.3	46.5	59.2	44	52	43.8	32.2	46.4	46.9
2387	-0.4	0.36	-0.73	0.16	0.18	-0.24	-0.02	0.32	46	53.6	42.7	51.6	51.8	47.6	49.8	53.2
2388	0.27	-0.22	-0.28	-0.03	-0.6	0.02	-0.72	-0.2	52.7	47.8	47.2	49.7	44.1	50.2	42.8	47.5
2389	0.17	-0.26	-0.57	-0.84	-0.7	-0.78	0.11	0.9	51.7	47.4	44.3	41.6	43.3	42.2	51.1	59
2390	-0.15	-0.06	-1.11	0.07	0.57	0.09	-0.26	0.22	48.5	49.4	38.9	50.7	55.7	50.9	47.4	52.2
2391	0.45	-0.89	-0.66	-0.61	-0.2	-0.53	-0.14	0.27	54.5	41.1	43.4	43.9	47.9	44.7	48.6	52.7
2392	-0.01	-0.29	-0.8	0.02	0.89	0.08	-0.2	1.87	49.9	47.1	42	50.2	58.9	50.8	48	68.7
2393	-0.41	-0.64	-0.57	0.16	0.44	0.13	0.31	-0.4	45.9	43.6	44.3	51.6	54.4	51.3	53.1	46.3
2394	-0.2	-0.18	-0.18	0.3	0.54	-0.47	0.52	0.09	48	48.2	48.2	53	55.4	45.3	55.2	50.9
2395	0.16	0.08	-1.29	-0.21	0.49	-0.47	0.05	0.16	51.6	50.8	37.1	47.9	54.9	45.3	50.5	51.6
2396	0.22	0.36	-1.05	-0.21	0.07	-0.26	-0.26	0.16	52.2	53.6	39.5	47.9	50.7	47.4	47.4	51.6
2397	1.12	0.95	-0.25	-0.32	-0.5	-0.61	0.23	0.05	61.2	59.5	47.5	46.8	45.3	43.9	52.3	50.5
2398	-0.27	-0.53	-0.09	-0.53	-0.6	0.51	0.03	0.12	47.3	44.7	49.1	44.7	44	55.1	50.3	51.2
2399	0.21	0.63	-0.83	0.77	-0.6	0.7	-0.19	0.02	52.1	56.3	41.7	57.7	44.3	57	48.1	50.2
2400	-0.06	-0.62	-0.66	-0.07	1.01	1.1	-0.22	-0.2	49.4	43.8	43.4	49.3	60.1	61	47.8	48.3

SATM ------ Trait levels for the Full scale

CON-------Trait levels for the Confidence component

VAL------- Trait levels for the Value component

MOT------ Trait levels for the Motivation component

ANX------- Trait levels for the Anxiety component

S.SATM ------ T-Scores for the Full scale

S.CON-------T-Scores for the Confidence component

S.VAL------- T-Scores for the Value component

S.MOT------ T-Scores for the Motivation component

S.ANX------- T-Scores for the Anxiety component

PER-------- Trait levels for the Perseverance component

S.PER-------- T-Scores for the Perseverance component

TEA-------- Trait levels for the Teachers component

S.TEA-------- T-S for Scores Teachers component