4. DISCUSSION

4.1. Translation Process

Development of a questionnaire in terms of cross linguistic and cultural boundaries needs a direct attention to the utilization of language and cultural factors since it will describe the comparable reliability and validity between the source questionnaire and the developed questionnaire. The first main objective of this survey study is to develop an Indonesian version of Food Neophobia Scale from the source version which is English food neophobia scale developed by Pliner and Hobden in 1992. Therefore, such phases like forward translation, synthesis and resolution from 2 or more translations, back-translation, review of the translated version vs back-translation version, adjustments, and final conclusion are needed in terms of developing the appropriate questionnaire (Ohrbach et al., 2013).

This study used 3 experts in English to translate the questionnaires, and 3 other experts to do a back translation, so that the final translated FNS can be adjusted. After the translation had already made, the field testing and validation research were done in order to know whether the questionnaire was reliable or not. This method is suitable with the statement of Ohrbach et al (2013), where there are 2 phases that are needed in the study of cross cultural studies, which involving questionnaires as a tool. These 2 phases are translation and cultural adaptation.

There were 6 experts participated in this study. Firstly, 3 of them were asked to translate the questionnaire. After that, the first focus group discussion was done to synthesize a questionnaire. Second, the other 3 experts back-translated the synthesized questionnaire. Then the back-translated questionnaire were discussed in the second focus group discussion, where the final adjustment and conclusion were included in the discussion. Table 2, 3, and 4 show how the process of translation has been done. This process of translation is aimed to achieve equivalence in different dimensions, how to perform secondary analysis and the effect of cultural bias (Harkness, 2006). English and Indonesian languages seem to have a different cultural background. Thus the translation
applied should consider the context in each statement translated from the source language.

Table 2 shows the first phase of translation method, which is a forward translation. Item number 1 in the questionnaire “I am constantly sampling new and different foods” has been translated into “saya selalu mencoba makanan yang baru dan berbeda”. There are some differences in how the experts try to translate this item. Translator 2 has changed the word “constantly” with “secara teratur” and the addition of “makanan”. But the conclusion in the discussion has expelled those words because the word “constantly” in the context of language have a meaning of “always”, which is also a word used in the back-translation process in the item number 1 (Table 3) and it is not in the context of “ordered ways” when compared to Indonesian language. As can be seen in the Cambridge dictionary (Cambridge, 2008), the meaning of constantly is all the time or often. Thus the word “selalu” is described an appropriate translation since it has the closest meaning with the word “constantly” and “always”. The word “makanan” is also expelled from the sentence because of the efficiency to avoid reusing word.

The other example can be seen in other items such as item number 2 (“I don’t trust new foods), where the translators have removed the word “makanan yang belum pernah saya rasakan sebelumnya” in translator 3 to “saya tidak percaya makanan baru”. The word “baru” has a broader meaning and acts as a direct translation of a word “new”. It can be something that never been tried before either it is a new or novel things or something that is not new but the respondents feel unfamiliar about it. Similar with Cambridge dictionary (2008), where “new” means recently created or having started to exist recently. The word “ethnic” in some items such as item number 5 and 10 have been translated differently. Item number 5 has their word “ethnic”, which replaced with “makanan daerah”, while item 10 stays with the word “etnik”. These differences are made because the word “makanan etnik” or ethnic foods towards Indonesian language is not a familiar word to use, since “daerah” is more familiar and has the closest meaning with “ethnic”. However “restoran etnik” or “ethnic restaurant” is a familiar word, which people already understand about the meaning when it is combined with the word “restaurant”.
Indonesia is a country with various cultures. There are approximately 33 provinces with different cultures and customs followed by their foods (Badan Pusat Statistik, 2013). The term of ethnic food seems to have a deeper meaning in Indonesia. Ethnic food is a food from countries other than the home market, hence a different food culture from the familiar cuisines of the home country. In the other hands, the ethnic food term in Indonesia is not just food from different countries but particularly also a traditional food that represents the culture of a particular ethnic group (Chuah, 2016). Further explanation, culture in particular ethnic group is described as particular ethnic (racial, religion based, national) or cultural group favours, such as Chinnesse, Javanese, Padang, etc (Verbeke & Lopez, 2005). Hence, the word *ethnic*, should be utilized in different context by certain cultures, since food behavior reflects the attitudes, beliefs, and perspectives of life of each populations (Previato & Behrens, 2015).

Table 3 shows the back-translation process after the first 3 translators had done their discussion about the first translation. It can be seen that the conclusion in most items have a pattern that the translators have the word translated with the word, which has the closest meaning and is not disturbing the grammar arrangement. According to the discussion, this translation method has been done by the translators in order to avoid any misinterpretation toward the sentence. Taking an example in item 3, which translator 1 have chosen the word translated to “I will not taste any food unless I know its ingredients”. However, the conclusion is “If I don’t know the ingredients of a food, I do not want to try it”. This has been done probably to avoid the respondents have a different interpretation. Table 4 describes the final conclusion of synthesizing the Indonesian version. It seems that there are no major revision regarding the first translations. About two changes occur in item 3 and 9, which the word “kandungan” has been changed to “bahan” in item 3, and the additional word of “akan” in item 9. The change in item 3 has been done because the word “kandungan” is a word that describing a content in a food such as protein, carbohydrates, etc. But “bahan” has means ingredient or what is in the food in general not chemically or scientifically.
4.2. Demographic Data

As can be seen in Table 5, there were 381 respondents participated in this study. According to Ohrbach et al (2013), in terms of assessing the internal consistency, which is an internal fit of items of target language version (in this study refers to Indonesian language) compared to source language, a clinical evaluation with minimum 200 respondents per setting is needed. However, if the questionnaire’s items are extremely well-fitting, only about 30-50 respondents are needed. These subjects should be based on a good selection. In this study, the subjects were selected from an undergraduate students in 4 faculties that having English subjects. These 4 faculties are the faculty of Psychology, Business and Management, Language and Arts, and Agricultural Technology. The respondent’s English grades were also asked in order to understand the cross cultural questionaires where respondents should understand the basic meaning of both language used in this study which are English and Indonesian language (Previato & Behrens, 2015).

This study involved 276 female and 105 male undergraduate student with the age ranged mostly from 18 to 21 with the mean 19.66 ± 0.89. According to Verbeke & Lopez (2005) there is a relation between age, gender, and education in terms of food consumption to novel foods. Gender differences such as male and female actually have no differences with their perceptance in novel foods. Age differences have some relation with food neophobia since usually, people with younger age have fewer novel food to accept rather than the older one. However, some researches found negative relations toward food neophobia like what is Harper & Sanders (1975) in Pliner & Salvy (2004) found that 1.5 years old child were more likely to accept a novel food than were 3.5 year olds. This means that the age differences are related to food neophobia regarding with their period or condition in those age. For example 1.5 years old child are more likely to accept a novel food because there is a child period where they learn which foods are edible and this period occurs in the age of 2. Other demographic variables show some relations where individuals living in rural areas are described to be more neophobic than their more urban counterparts. Education also has a negative relation with FNS scores (Pliner & Salvy, 2004).
4.3. Translation and Validation into Indonesian Language

In terms of cross culture study, all instruments that are needed to measure should be adapted in both culture. This is the most common reason why translation process of instrument is needed. Thus, in order to get a satisfactory result, most researchers try to adapt the instruments into other culture by translating from source questionnaires to other languages required. This translation usually considers the culture and custom in each region that basically make them easy to understand (Harkness & Schoua-Glusberg, 1998). Some studies (Garcia et al., 2015; Previato & Behrens, 2015) used a translation method in order to adapt in a certain culture, so that the evaluation needed for the study can be well observed. However, not only translation that is needed, a validation method to make sure that the translated instrument can be used to measure what is intended to measure consistently with a high reproducibility, is necessary (Murti, 2011).

Due to the cross cultural study where the researcher compared the original and translated FNS, an Intraclass Correlation was used. Intraclass correlation coefficient (ICC) is a method to measure an agreement between different rater (i.e. questionnaire) and same subject on the measurement they are getting in a consistent result (Murti, 2011). According to Miot (2016), analysis of agreement (i.e. ICC) tests the capacity of the same subject/phenomenon, using different instrument, or using the same instrument at different times or when performed by different examiners, or some combinations of these conditions to arrive at identical results (with the same units of measurements). These agreement analysis can be aimed to calibrate some instruments, to test reliability of scales/measures, to assess the equivalence of measurement tools, to make a judgment in tests of ability, to test repeatability or reproducibility, and to conduct diagnostic analysis and psychometric agreement (Miot, 2016).

Based on what is presented in Table 6, the translated Indonesian version of FNS has been proved to be a reliable psychometric instrument to assess food neophobia in Indonesia, since the ICC of the total sum of the items in the scale is very high, i.e. 0.846, which confirming the reliability of the scale between both questionnaires. In previous study described the translation into Brazilian Portuguese (Previato & Behrens, 2015), the ICC found was 0.903 revealing the stability and internal reliability of the
translated scale. The result 0.846 has a meaning that 84.6% of FNS score variance come from the real score variance between 2 questionnaires. That makes the translated and original FNS form a perfect agreement that the scores are consistent each other by 84.6% (Murti, 2011).

Another reliability measurement test that has been used in this study is cronbach alpha coefficient. The differences of ICC and Cronbach alpha are that alpha coefficient measures the internal consistency on a questionnaire and do not relate other raters like what ICC does. Alpha coefficient is commonly used to determine the reliability of the instrument translated and it can be a tool to screen a new formed questionnaire whether there are items to be corrected or not (Tavakol & Dennick, 2011). The alpha coefficient has been found to be acceptable and it almost reaches 0.8 ($\alpha = 0.783$). Hence, it is possible to confirm that all items in the translated questionnaire can be inserted in the final Indonesian FNS, which the translation is expected to be reliable and reproducible, making it sense to use in research regarding Indonesian individutals.

The Wilcoxon test shows that there are 3 items that having significant differences, which are items 6, 7, and 8. Wilcoxon test is used when there are pairs of related items that are matched and it is rated by the same assessors (i.e. respondents) using an ordinal or higher level of measurement scale (Bower, 2009). Therefore, the significant differences in those items reveals that the values responded in both questionnaire are preferred differently by the respondent, where P value for items 6, 7, and 8 respectively are 0.008, 0.003, and 0.004 respectively. The possibilities of the value in items 6, 7, and 9 are probably from the eating lifestyle among students in Indonesia. Item 6 stands for “at dinner parties, I will try new food / di pesta makan malam, saya mau mencoba makanan baru”. The term ”dinner parties” has different perspective with “pesta makan malam” since students are not usually having dinner parties in their eating lifestyle. Male respondents have an influence of having a dinner lifestyle, which is not related with a dinner party (Saufika et al., 2012).

Ideally, a young adult period of a human (period of undergraduate student) is a period that reaches the top peak of healthiness, strength, energy, and immune system. Hence,
an eating lifestyle should be taken into consideration since it influences the healthiness of a person. However, Indonesian students usually have bad eating habits, since they like to eat snacks, cakes, etc (Saufika et al, 2012). Thus, item 7 which is “I am afraid to eat things I have never had before / saya takut makan makanan yang belum pernah saya coba sebelumnya” is differently perceived by the respondents specifically in the words “afraid” and “takut”. The word “particular” in item 8, which is “I am very particular about the foods I will eat / saya sangat pilih-pilih makanan yang akan saya makan” has been translated to “pilih-pilih” or “picky”, since it particularly refers to a certain or specific term. It is similar with the interpretation of Ritchey et al (2003), where “particular” was described as “finicky” or a person who favorites things if they know in every detail. Previato & Behrens (2015) reported that item 8 reflects some interest such as dietary restrictions or health concern rather than food neophobia. The limitation of Wilcoxon test is when the difference between the score is zero, they are not used in the statistical calculation, and may contributed to the non-reproducibility of data related to those items.

In order to make a deep examination, the validation test of whole respondents is compared to a validation test towards students with English grades ranges from A-AB. There are 150 students that having A-AB grades. Based on Table 8, there is an increase of alpha coefficient from 0.783 to 0.806 and ICC from 0.846 to 0.859 which change the classification in Cronbach alpha coefficient from good realiability to great reliability (>0.8). The interesting result occurs in the Wilcoxon P value, which the significance different is reduced to only item 8. The same thing happens with Previato & Behrens et al (2015) that item 8 has a P value below 0.05 at 95% confidence interval which means that item 8 still has a different perception toward the respondents. Thus, a hypothesis from this study is that the knowledge of English language does have impact of the respondents to be likely understand both questionnaires and thus giving an increase in the validity and reliability.
4.4. FNS of focused ethnic food

Table 7 shows the classification of the food neophobia scales towards 381 respondents since the FNS of Indonesian version has a good reliability. About 30.45% of the respondents have food neophobia traits in their food lifestyle and the others are classified as neutral (67.45%) and neophilic (2.10%). FNS measures the subject expectation of how much the subjects would like to try novel foods that are not yet tasted. This means that 30.45% of the students in 4 faculties have anticipated reactions towards any novel food. They will likely to think that novel foods are pictured as unpalatable, not save, or some issues related to their avoidance in novel foods. Thus, a forced exposure to novel foods can disconfirm the expectation of bad taste that in other word may result in reducing neophobia. Due to this reason, exposure of novel foods has been done in this study. The novel foods in this study use the term of ethnic food since Indonesia has a lot of ethnic foods.

Based on Table 9, there were 4 ethnic foods chosen due to the classification of the 2 highest score and the 2 lowest score of familiarity. The respondents placed 10 ethnic foods presented in a paper to ten columns where the columns described the familiarity from left to right. The most left column shows the most familiar food followed to the most unfamiliar food in the most right column. Those 4 chosen ethnic foods are pempek Palembang and ayam betutu for the most familiar foods respectively also sate ulat sagu and umbut rotan for the most unfamiliar foods respectively. The reason why familiarity becomes the variable to pick the food tested in the FNS is because of food neophobia is considered to be an avoidance or reluctance of novel food where novel food is described as a food that is new or unfamiliar food (Pliner & Hobden, 1992).

Based on Table 10, all four questionnaires of focused ethnic food have an acceptable reliability and reproducibility. About 100 respondents selected from this study have been selected from the faculty of Agricultural Technology in Soegijapranata Catholic University. The selection of Agricultural Technology students in this research is done because of educational reasons, since Agricultural Technology students may have wider understanding towards food. Ohrbach et al (2013) states that there will be sample for at least 30 if the subjects are matched well with the questionnaires. In term of food
neophobia, Pliner et al (1993) found that the expectation against novel food is less palatable than the usual. Food neophobia is a trait of a person that conclude if the person have the trait of food neophobia towards food in general or not. Thus, table 11 does not indicate that the person is neophobia or not towards four specific ethnic food. But, this table indicate the effect of familiarity towards their willingness to eat ethnic food. The expectations about the palatability of novel foods indicate their willingness to taste the innovated foods. In this study, Table 11 shows that the four selected ethnic foods creating a pattern where respondents tend to have an avoidance behavior when it is related with the unfamiliarity of food products (*umbut rotan* and *sate ulat sagu*). In addition, the behaviors are changing to be willing when it comes to familiar food products which are *pempek Palembang* and *ayam betutu*.

Many factors can affect human in terms of their reluctance of avoidance in any novel foods. Factors like age, social aspect, gender, educations have a relation with food neophobia (Verbeke & Lopez, 2005). Consumers are considered to have a better willingness to eat novel foods as their age arise. However, Pliner & Hobden (1992) stated that age are negatively correlated with FNS Score and it needs a reserve judgement on the question of the real relation between male and female since it can be the result of the subject selection bias. Beliefs and trust also increase their willingness in trying novel foods. Picky eater or people who are very picky about the foods they will eat have their score in food neophobia higher than those who don’t (Kauer et al., 2015). Direct or indirect information about taste and beneficiality such as advertisement and slogan related to any unknown might have an influence of consumers in accepting food. Therefore, pre-exposure method such as direct or indirect information about the taste and beneficiality, flavor, picture of the novel food, etc may contribute the reduced neophobia (Leufkens, 2012). In addition their environment and social conditions such as doing the FNS test in home and in the lab or accepting the test from their family or relatives do reduce their neophobia scores since it will support their beliefs to try when there are something familiar that is supporting the test (Pliner & Salvy, 2004).