# The development of a Soft Skill questionnaire for Compulsory University Courses based on Blended Learning

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## ABSTRACT

This study focuses on enrichment of soft skills elements embedded in a compulsory university course, namely, the Ethnic Relations through blended learning. A questionnaire was developed to measure the embedded soft skills elements i.e. teamwork, communication skills and problem-solving & critical thinking. A pilot study was done to test the reliability and validity of the instrument amongst first year students enrolled in the Ethnic Relations course. It also aims to measure the early stage of soft skills embedment amongst students. The questionnaire contains 5 parts, part A consist of demography information, part B on communication skills, part C on critical thinking & problem solving, part D team work skills and Part E – an open ended question on the respondents experiences and reflection. A total of 232 completed questionnaire were analysed using Statistical Package for Social Science (SPSS) version 22 and structure equation modelling (SEM). The findings of the study showed that the validity and reliability of the questionnaire was suitable in measuring the level of soft skills amongst the students.

**Keywords:** soft skill, questionnaire, validity, reliability, structure equation modelling

**Introduction**

The main role of universities is to become an organization that are able to supply human capital for the countries' development especially in situation where there is transition in the industry from economic based to knowledge based (Altbach, 1991; Chew & Lee,1995). In order to achieve this, universities should have good and relevant academic programmes that can facilitate the students' entry into the working world that demands a high level of soft skills. Salih (2008) reasoned that incorporating soft skills development into university curricula would contribute to the formation of a holistic human capital who can think of a future in which environment, societal and economic considerations are balanced in the pursuit of development.

In Malaysia, the situation with regards to graduate unemployment has raised concerns among policy makers and the general public. The Malaysian government has ascribed the increasing number of jobless graduates to a low "product quality" by the country's institutions of higher learning. They have asserted that the new graduates lack "expertise and skills, especially soft skills, required by employers and competitive job markets" (Ministry of Higher Education Malaysia, 2006 pp. 1–2). In an attempt to remedy the situation, in 2006, the Ministry of Higher Education, Malaysia (MOHE), recommended that all public institutions of higher learning in the country incorporate soft skills training into their curricula. MOHE had proposed a set of measures to ensure a more balanced approach to the infusion and acquisition of soft skills at the tertiary level, including the development of better instructional and assessment strategies, a wider integration of leadership skill in the formal curriculum and the addition of a training component solely based on coursework (Devadason et al., 2010)

University courses or general studies are compulsory courses that each undergraduate has to take in the universities. The main objective of the government to introduce all these university courses such as Ethnic Relations, Islamic and Asian Civilization (TITAS), and Basic Entrepreneurship Culture is to instil the much needed soft skills such as positive values, leadership, team work and communication skills among students (Jabatan Pembangunan Sumber Manusia, 2009). This study looks at one of the university course i.e. Ethnic Relations which aims to instil awareness while providing experiences in managing diversity, practising positive values, instil national identity and accepting socio-cultural diversity among multi-ethnic Malaysians towards achieving social harmony besides the above mentioned soft skills (Nazri Muslim & Mansor Mohd, 2011). The teaching and learning of this course is carried out in the form of blended learning i.e. class lectures, individual assignments, group activities and online learning. At the end of the course, students are expected to be able to practice positive values, strengthened national identity, and accept ethnic socio-cultural diversity besides developing the intended soft skills (Nazri Muslim & Mansor Mohd, 2011).

Blended learning is also known as "new normal" in higher education learning (Norberg, Dziuban & Moskal, 2011). Currently, in Malaysia, the use of the term blended learning involves combining internet and digital media with established classroom teachings that require the physical co-presence of teacher and students. This includes different learning or instructional methods (lecture, discussion, guided practice, reading, games, case study and simulation), different delivery methods (live classroom or computer mediated) and different scheduling (synchronous or asynchronous). According to Sivakumar, Namasivayam, Al- Atabi & Ramesh (2013), combining a formal classroom element with the web-based learning environment can offer a more comprehensive collaborative learning and problem-solving skills

that are almost similar to an informal workplace learning environment. Many studies also have been carried out to show the effectiveness of blended learning for the present time and method.

Blended learning is used as the teaching and learning approach in the Ethnic Relations course because it helps to generate the best and most suitable learning experience for our students in line with the expected learning outcome of the course. For the first few weeks of the semester, classes are conducted in the traditional manner; with the presence of the lecturers. Such face to face interaction between the lecturers and the students at the initial phase of learning Ethnic Relations is very crucial. The lecturers will explain the outline, the significance and expected learning outcome of the course. The lecturers will also introduce the activities and assignments required from the students in completing this course throughout the semester. Basically every student is required to work on three assignments besides participating in the class activities. One of the three assignment required is an individual assignment where students are required to go online to complete some activities related to ethnic relations. Some of these online activities include, watching ethnic relations you tube and giving the personal comments related to the story, answering questions related to the online text given, writing up their personal experience and uploading their photos and stories online to be shared with other friends. All of these give value added experiences to the students in the learning of the course.

The other two assignments required from the students are based on group work. Students are required to do a critical analysis of a journal document given to each group. The critical analysis will be based on the concepts and ideas the students have learnt in their class lectures and are to be supported by evidences found through their online searches on other related documents such as newspapers, journal articles, books and etc. As a group, the students are

also required to produce a video that highlights the beauty and strength of the diverse cultures and religion in the country. Students will discuss among the group members and the lecturer during face to face class lectures as well as online interaction after class hours on the development and production of this video assignment. Students will make use of the various technology and digital media in the production of their own group video. Hence, the teaching and learning of the Ethnic Relations course is made very interesting and fruitful; filled with different learning experiences with the use of the blended learning approach. It does not depend on the traditional rote learning; learning only from the lecturers but such blended learning approach has flipped the classroom to enable the students themselves to be able to learn independently and to empower them to produce the learning outcome they wish to experience. Through this teaching and learning experiences, the students were also able to develop the intended soft skills such as communication skills, teamwork and critical thinking skills.

**Objective of the Study**

The top ten soft skills required by Malaysian employers are integrity, willingness to learn, communication skills, initiative, achievement and orientation, teamwork skills, interpersonal skills, flexibility, high self- esteem and critical thinking skills (Yasmin Mohd Adnan et.al, 2012). Kashefi, Ismail & Yusof (2012) study showed that industries are not satisfied with the quality of graduates, especially in engineering graduates who lack technically incompetent, communication and critical thinking skills and team work. Among the most significant weaknesses of the local graduates is the weakness in the mastery of communication skills, one of the skills required by employers (Briggs & Hodgsm (in Ahmad Esa et al., 2005); Zaiton Mohd Hassan, 2003).

This study intends to see if the 3 soft skills elements that are embedded in the ethnic relations course does contribute to the holistic development of the student. To enable one to measure the soft skills, an instrument needs to be developed to measure the communication, critical thinking & problem solving and team work skills. Communication skills is defined as the ability to communicate the ideas clearly, effectively and confidently with others from different culture. Critical thinking and problem solving is defined as having the ability to analyze problems and make justified evaluation within a multicultural environment. Teamwork is defined as the ability to build good relations, interact with others from different culture and work effectively with the team in reaching the same objective. The findings of the study will provide a psychometrically sound and operationally valid measure of the 3 soft skills.

**Methodology**

*Development of the questionnaire*

The questionnaire was first designed by two of the authors who have more than 12 years of experience teaching the ethnic relations course. This was to ensure that the question asked were directly relevant to the Ethnic Relations course and was adaptable within the context of the Malaysian academic culture. The first draft of the questionnaire was then distributed to two focus groups of 12 students consisting of 1st year students both male and female. Each focus group session was moderated by two authors and two research assistant. Based on the comments of the students, some of the items were modified for greater clarity and depth. The amended draft was checked by another three independent lecturers teaching the Ethnic Relations course for clarity and that the questions were relevant in measuring the intended construct. It also aimed to measure early stage of soft skills embedment amongst students.

*Pilot test*

The pilot test was carried using a sample of first year undergraduates enrolled in the ethnic relations course in a public university. A total of 350 questionnaire forms were distributed to several teaching groups from the Ethnic Relations course. The questionnaire contains 5 parts, part A consist of demography information, part B on communication skills (13 items) (Appendix A), part C on critical thinking and problem solving (12 items) (Appendix B), part D team work skills (13 items) (Appendix C) and Part E – an open ended question on the respondents experiences and reflection, the expected time of completion was 15 minutes. The responses were measured using a five point Likert-type scale with anchors on "strongly disagree to strongly agree". The students were asked of their responses by agree or disagreeing with the statements given.

From the total, only 232 forms were accepted and analysed for the pilot survey. As the highest number item in a section was 13, using a ratio of cases to variables of 10:1 (Netemeyer, Bearden, & Sharma, 2003), a sampling of 232 was considered sufficient to test the validity and reliability of the instrument. Data analysis was first carried out using Statistical Package for Social Science (SPSS) version 22. The reliability of the questionnaire was measured using the Cronbach's alpha coefficient. Principle component analysis was used to determine the validity of the construct, after which the three constructs were also re validated using confirmatory factor analysis (CFA).

**Findings**

The reliability of each dimensions of the questionnaire was measured using internal consistency via Cronbach's alpha coefficient. The results indicated that the Cronbach alpha for intention to measure was well above .70 as recommended by Nunnally (1978) (Table 1). The

result determined that all items within the scales were stable enough to assess the intended construct.

Table 1:   The Cronbach's Alpha of the 3 construct

| Construct | Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | No of items | Remarks |
|---|---|---|---|---|
| Communication Skills | .697 | .736 | 13 | Good |
| Critical Thinking and Problem Solving | .764 | .845 | 12 | Good |
| Teamwork | .791 | .819 | 13 | Good |

The validity measurement used was construct validity i.e. convergent and discriminant validity. Principle component analysis was utilized to determine the construct validity using promax rotation.

An examination of the correlation matrix revealed that for Communication Skills Item 4, 5, 6,8,10 and 11, had many coefficients below .3 indicating or suggesting a really weak relationship between the variables (Tabachnick & Fidell, 2007).  Upon deleting these items communication skills had only 7 items, following which,  the suitability of the factor analysis was proven as the value of Kaiser-Meyer-Olkin (KMO) was .803 which was good (Hutcheson & Sofroniou, 1999, p 224-225) and the Bartlett test of sphericity was highly significant ($p <$ .001; df=21; Approx. Chi-Square=433.593) ( Table 2). The determinant value for communication skills was .150, which indicates absences of multicollinearity (Tabachnick & Fidell, 2001). Going over the anti-image correlation matrix divulged that the measure of sampling adequacy for all of the individual items was between .760 and .857, supporting their

retention in the analysis (Hair, Black, Babin, Anderson & Tatham, 2006). The communalities

for all of the items were greater than .40 (Costello & Osborne, 2005) except for Item No.7

(.350) however, since the items was not lower than 0.2 thus it was not dropped (Child, 2006)

(Table 2). Furthermore, according to Child (2006) factor with low loadings can be considered

for removal after examining the rotated factor matrix.


The analysis divulged the presence of a single factor with eigenvalues exceeding 1; the first

factor accounted has a variance of 3.226 explaining 46.086 % of the total variance (Table 2).

The interpretation of the one factor was consistent with the definition of communication skills,

i.e. the ability to communicate the ideas clearly, effectively and confidently with others from

different culture. The factor loadings in the rotated factor matrix for all the individual items

were more than .6, thus proofing convergent validity (Table 2). Furthermore, all items had

loaded significantly on to one factor, hence proofing discriminant validity.


Table 2: One factor solution for communication skills

| | Items | | Factor Loadings | Communalities |
|---|---|---|---|---|
| 1 | Aktiviti ini menjadikan saya lebih bertanggungjawab untuk mewujudkan konumikasi yang lebih baik dengan etnik lain. | | .715 | .511 |
| 2 | Saya dapat menyampaikan mesej kepentingan hubungan etnik yang baik melalui video. | | .688 | .473 |
| 3 | Saya gembira dapat melakukan perbincangan bersama ahli kumpulan untuk menghasilkan video. | | .683 | .467 |
| 7 | Saya selesa bertanya apabila arahan yang diberikan oleh ketua kurang jelas. | | .586 | .350 |
| 12 | Saya dapat berkomunikasi dengan rakan yang mempunyai budaya yang berlainan. | | .648 | .420 |
| 13 | Saya merasa gembira mendengar pembentangan yang dibuat oleh rakan/ kumpulan lain. | | .686 | .471 |

| 7 | Aktiviti yang dilakukan mengajar saya untuk berkomunikasi dengan lebih baik bersama rakan daripada pelbagai kaum. | | .735 | .540 |
|---|---|---|---|---|
| | Eigenvalue | 3.226 | | |
| | % Variance | 46.086 | | |
| | KMO and Barlett's Test    Appx Chi Square | .803 433.593 | | |
| | df | 21 | | |
| | Sig | .000 | | |

An examination of the correlation matrix revealed that for critical thinking & problem solving Items 7 and 9 had many coefficients below .3 indicating or suggesting a really weak relationship between the variables (Tabachnick & Fidell, 2007).  Upon deleting this items critical thinking & problem solving skills had 10 items, the value of Kaiser-Meyer-Olkin (KMO) was .898 which was superb (Hutcheson & Sofroniou, 1999, p 224-225) and the Bartlett test of sphericity was highly significant ($p < .001$; df=45; Approx. Chi-Square=1068.211) ( Table 3). The determinant value was .009, which indicates absences of multicollinearity (Tabachnick & Fidell, 2001). Going over the anti-image correlation matrix divulged that the measure of sampling adequacy for all of the individual items was between .854 and .948, supporting their retention in the analysis (Hair, Black, Babin, Anderson & Tatham, 2006). The communalities for all of the items were greater than .40 (Costello & Osborne, 2005) except for Item No.11 (.375) and Item No. 3 (.370), however since the items was not lower than 0.2 thus it was not dropped (Child, 2006) (Table 3).

The analysis divulged the presence of a single factor with eigenvalues exceeding 1; the first factor accounted has a variance of 5.160 explaining 51.596 % of the total variance (Table 3). The interpretation of the one factor was consistent with the definition of critical thinking and problem solving is defined as having the ability to analyze problems and make justified

evaluation within a multicultural environment. The factor loadings in the rotated factor matrix for all the individual items were more than .6, thus proofing convergent validity (Table 3). Furthermore, all items had loaded significantly on to one factor, hence proofing discriminant validity.

Table 3: One factor solution for critical thinking & problem solving

| | Items | | Factor Loadings | Communalities |
|---|---|---|---|---|
| 1 | Saya dapat membuat kritikan yang membina tentang isu-isu semasa berkaitan hubungan etnik. | | .652 | .425 |
| 2 | Saya dapat memikirkan secara kritikal setiap perkara yang saya buat dan lihat. | | .746 | .556 |
| 3 | Saya suka memikirkan masalah-masalah yang rumit dan mencabar minda. | | .608 | .370 |
| 4 | Saya berminat untuk mencipta idea baru berhubung permasalahan yang berlaku dalam masyarakat. | | .729 | .531 |
| 5 | Saya dapat mencari penyelesaian terhadap sesuatu isu/permasalahan dalam hubungan etnik. | | .799 | .639 |
| 6 | Saya berpeluang menafsir isu-isu semasa secara akademik melalui dokumen rasmi yang ditetapkan. | | .786 | .618 |
| 8 | Saya mahir dalam menyusun idea dan pemikiran saya dengan teliti sebelum memulakan perbualan. | | .720 | .519 |
| 10 | Saya dapat menganalisis segala permasalahan daripada isu-isu hubungan etnik melalui kajian yang dilakukan. | | .723 | .523 |
| 11 | Saya dapat menyesuaikan diri kepada pelbagai budaya rakan sekumpulan yang berlainan kaum. | | .612 | .375 |
| 12 | Saya dapat membuat penilaian yang tepat dalam pelbagai situasi yang kompleks. | | .777 | .603 |
| | Eigenvalue | 5.160 | | |
| | % Variance | 52.394 | | |
| | KMO and Barlett's Test      Appx Chi Square | .898 1068.211 | | |
| | df | 45 | | |
| | Sig | .000 | | |

An examination of the correlation matrix revealed that for teamwork, Items 1, 2, 5, 10 & 13 had many coefficients below .3 indicating or suggesting a really weak relationship between the variables (Tabachnick & Fidell, 2007). Upon deleting this items teamwork skills had 8 items, the value of Kaiser-Meyer-Olkin (KMO) was .908 which was superb (Hutcheson & Sofroniou, 1999, p 224-225) and the Bartlett test of sphericity was highly significant (p < .001; df=28; Approx. Chi-Square=993.412) ( Table 4). The determinant value was .013, which indicates absences of multicollinearity (Tabachnick & Fidell, 2001). Going over the anti-image correlation matrix divulged that the measure of sampling adequacy for all of the individual items was between .877 and .944, supporting their retention in the analysis (Hair, Black, Babin, Anderson & Tatham, 2006). The communalities for all of the items were greater than .40 (Costello & Osborne, 2005) except for Item No.7 (.350), however since the items was not lower than 0.2 thus it was not dropped (Child, 2006) (Table 4).

The analysis divulged the presence of a single factor with eigenvalues exceeding 1; the first factor accounted has a variance of 4.748 explaining 59.354 % of the total variance. The interpretation of the one factor was consistent with the definition of teamwork is defined as the ability to build good relations, interact with others from different culture and work effectively with the team in reaching the same objective. The factor loadings in the rotated factor matrix for all the individual items were more than .6, thus proofing convergent validity (Table 4). Furthermore, all items had loaded significantly on to one factor, hence proofing discriminant validity.

Table 4: One factor solution for teamwork

| | Items | | Factor Loadings | Communalities |
|---|---|---|---|---|
| 3 | Saya sedia memberi pertolongan kepada rakan yang menghadapi masalah. | | .831 | .691 |
| 4 | Saya akan melakukan tugasan yang telah dibahagikan sesama ahli kumpulan dengan rasa tanggungjawab. | | .802 | .643 |
| 6 | Saya selalu meminta pendapat dan persetujuan rakan sekumpulan sebelum memutuskan sesuatu perkara. | | .775 | .601 |
| 7 | Saya tetap meneruskan tugasan yang diamanahkan meskipun terdapat rakan sekumpulan yang menarik diri. | | .591 | .350 |
| 8 | Saya percaya bahawa menolong rakan lain adalah sama penting dengan menolong diri saya sendiri. | | .828 | .686 |
| 9 | Saya sanggup menyelesaikan segala tugas yang diamanahkan walaupun saya terpaksa bekerja lebih masa. | | .737 | .544 |
| 11 | Saya dapat membina hubungan baik dengan rakan sekumpulan yang berlainan bangsa. | | .811 | .658 |
| 12 | Saya dapat menghormati segala sikap yang ditunjukkan oleh rakan. | | .759 | .576 |
| | Eigenvalue | 4.748 | | |
| | % Variance | 59.354 | | |
| | KMO and Barlett's Test     Appx Chi Square | .908 993.412 | | |
| | df | 28 | | |
| | Sig | .000 | | |

*Confirmatory factor analysis*

The three constructs i.e communication skills, critical thinking & problem solving skills and teamwork skills were re validated using confirmatory factor analysis (CFA). CFA was done separately for every construct. The results indicate that the construct reliability for the 3 constructs was well above the recommended value of .7 (Table 5).   Validity was achieved as the Fitness Indexes for each construct achieved the required level  (Figure 1,2 and 3) and the AVE was above .5 except for communication skills which was .4 (Table 5). Discriminant

validity was measured via the Modification Indices (MI). High value of MI indicates the respective items are redundant, for the three constructs the MI was below 10.0.

Table 5: Results summary for the Measurement Model

| Constructs | Items | Outer Loading | Composite Reliability | Cronbach's Alpha | AVE | Discriminant Validity |
|---|---|---|---|---|---|---|
| Communication skills | | | 0.796 | 0.801 | 0.400 | Yes |
| | 1 | .679 | | | | |
| | 2 | .658 | | | | |
| | 3 | .629 | | | | |
| | 7 | .499 | | | | |
| | 9 | .565 | | | | |
| | 12 | .539 | | | | |
| | 13 | .612 | | | | |
| Critical thinking & Problem solving | | | 0.892 | 0.894 | 0.506 | Yes |
| | 1 | 0.554 | | | | |
| | 2 | 0.675 | | | | |
| | 3 | 0.519 | | | | |
| | 4 | 0.653 | | | | |
| | 5 | 0.778 | | | | |
| | 6 | 0.783 | | | | |
| | 8 | 0.686 | | | | |
| | 10 | 0.704 | | | | |
| | 11 | 0.585 | | | | |
| | 12 | 0.76 | | | | |
| Teamwork | | | 0.900 | 0.896 | 0.532 | Yes |
| | 3 | 0.82 | | | | |
| | 4 | 0.787 | | | | |
| | 6 | 0.744 | | | | |
| | 7 | 0.537 | | | | |
| | 8 | 0.8 | | | | |
| | 9 | 0.678 | | | | |
| | 11 | 0.749 | | | | |
| | 12 | 0.679 | | | | |

Figure 1: Summary of Fit Indices for Communication skills using CFA
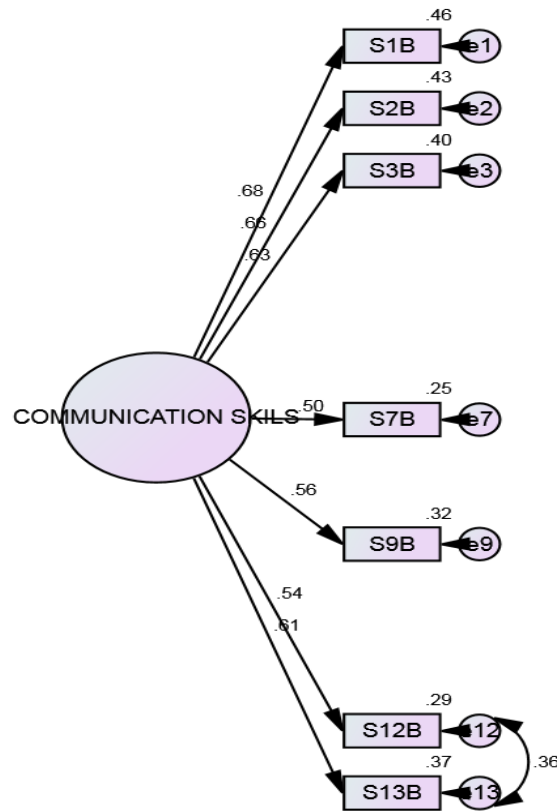


Chi-square (df) = 36.245 (13);  P value (>=0.05) = .001
;Relative Chi-Sq (<=5) = 2.788; AGFI (>=0.9) = .913
;GFI (>=0.9) = .959; CFI (>=0.9) = .944; IFI (>=0.9) = .946
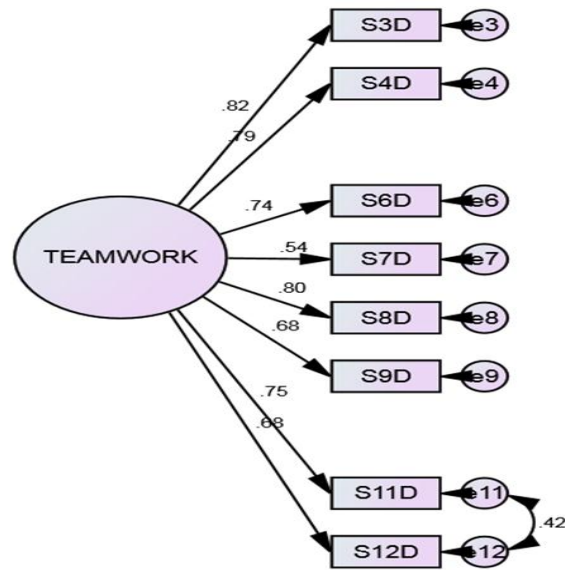;RMSEA (<=0.08) = .088
(Standardized estimates)

Figure 2: Summary of Fit Indices for Critical Thinking and Problem Solving skills using CFA
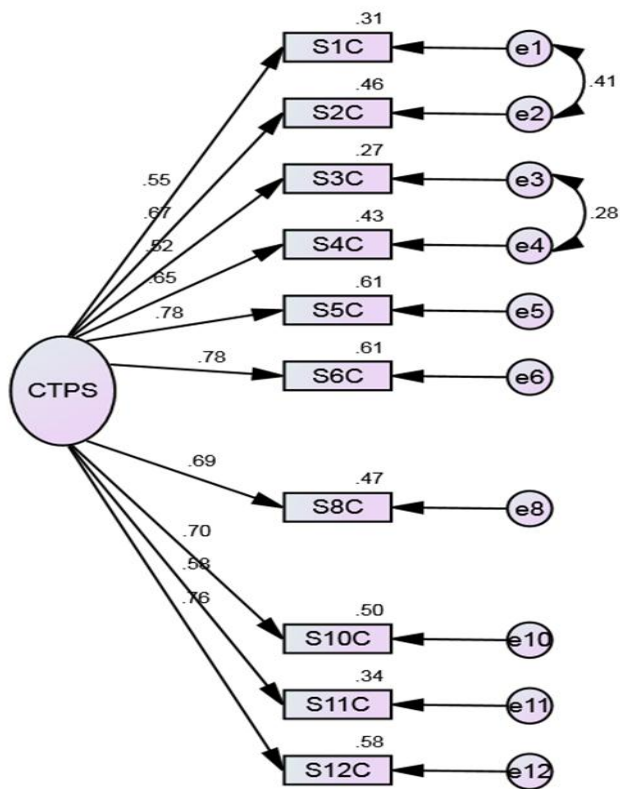


Chi-square (df) = 86.773 (33);  P value (>=0.05) = .000
;Relative Chi-Sq (<=5) = 2.629; AGFI (>=0.9) = .884
;GFI (>=0.9) = .930; CFI (>=0.9) = .948; IFI (>=0.9) = .949
;RMSEA (<=0.08) = .084

Figure 3: Summary of Fit Indices for Teamwork skills using CFA



Chi-square (df) = 46.902 (19);  P value (>=0.05) = .000
;Relative Chi-Sq (<=5) = 2.469; AGFI (>=0.9) = .906
;GFI (>=0.9) = .950; CFI (>=0.9) = .972; IFI (>=0.9) = .972
;RMSEA (<=0.08) = .080

**Discussion and Conclusion**

Based on the result of both the principle component analysis and confirmatory factor analysis,

the items measuring the Communication skills, Critical Thinking & Problem Solving skills and

Teamwork skills constructs demonstrated reliability, unidimensionality, validity and stability

across the Malaysia sample. Only in the second part of the study, the instrument was used to

measure the soft skills via pre/post test to measure the shift in the soft skills after the course

was taught via blended learning. The pre/post test learning outcome data provides in an

objective manner in which to assess the degree of value created via the teaching of blended learning and soft skills development among the student's.

Conversely, we reviewed Part E of the questionnaire on the respondents experience and reflection of the ethnic module course to understand the student's readiness. The findings showed that the knowledge that the students gained from the teaching and learning of the module had opened their mind towards establishing a concept of tolerance among ethnic. The students also came up with suggestions to include in the ethnic relations course, topics from other countries, having open discussions on the subject and relating the subject to contemporary issues, locally and globally (The Sun Daily, 11/08/2006). Hence, the methods of teaching must be suitable and varied enough to attract the student's interest, and increase the student's understandings. Lecturers must play their roles and always be ready to follow student's trend of learning which is now leading towards the use technology-based teaching.

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Items measuring communication skills

| Bil. | Item | STS | TS | AS | S | SS |
|------|------|-----|----|----|----|----|
| 1. | Aktiviti ini menjadikan saya lebih bertanggungjawab untuk mewujudkan konumikasi yang lebih baik dengan etnik lain. | | | | | |
| 2. | Saya dapat menyampaikan mesej kepentingan hubungan etnik yang baik melalui video. | | | | | |
| 3. | Saya gembira dapat melakukan perbincangan bersama ahli kumpulan untuk menghasilkan video. | | | | | |
| 4. | Saya sering mengelak dari bertanya kerana tidak yakin dengan jawapan yang akan saya berikan | | | | | |
| 5. | Saya cenderung bercakap lebih banyak daripada rakan lain apabila berada dalam kumpulan. | | | | | |
| 6. | Saya lebih suka mendiamkan diri semasa sesi perbincangan kumpulan dilakukan. | | | | | |
| 7. | Saya selesa bertanya apabila arahan yang diberikan oleh ketua kurang jelas. | | | | | |
| 8. | Saya sentiasa merasa gugup apabila mengemukakan idea di hadapan rakan-rakan. | | | | | |
| 9. | Saya dapat berkomunikasi dengan rakan yang mempunyai budaya yang berlainan. | | | | | |
| 10. | Saya akan mengelak situasi yang memaksa saya berhubung dan berinteraksi dengan orang lain. | | | | | |
| 11. | Saya dapat membentangkan hasil tugasan dengan baik di hadapan raka-rakan. | | | | | |
| 12. | Saya merasa gembira mendengar pembentangan yang dibuat oleh rakan/ kumpulan lain. | | | | | |
| 13. | Aktiviti yang dilakukan mengajar saya untuk berkomunikasi dengan lebih baik bersama rakan daripada pelbagai kaum. | | | | | |

Items measuring Critical Thinking and Problem Solving

| Bil. | Item | STS | TS | AS | S | SS |
|------|------|-----|----|----|---|----|
| 1. | Saya dapat membuat kritikan yang membina tentang isu-isu semasa berkaitan hubungan etnik. | | | | | |
| 2. | Saya dapat memikirkan secara kritikal setiap perkara yang saya buat dan lihat. | | | | | |
| 3. | Saya suka memikirkan masalah-masalah yang rumit dan mencabar minda. | | | | | |
| 4. | Saya berminat untuk mencipta idea baru berhubung permasalahan yang berlaku dalam masyarakat. | | | | | |
| 5. | Saya dapat mencari penyelesaian terhadap sesuatu isu/permasalahan dalam hubungan etnik. | | | | | |
| 6. | Saya berpeluang menafsir isu-isu semasa secara akademik melalui dokumen rasmi yang ditetapkan. | | | | | |
| 7. | Saya dapat menyampaikan mesej yang terdapat dalam dokumen rasmi semasa sesi pembentangan. | | | | | |
| 8. | Saya mahir dalam menyusun idea dan pemikiran saya dengan teliti sebelum memulakan perbualan. | | | | | |
| 9. | Saya selalu membiarkan rakan sekumpulan memikirkan penyelesaian terhadap sesuatu isu berkaitan masyarakat pelbagai etnik. | | | | | |
| 10. | Saya dapat menganalisis segala permasalahan daripada isu-isu hubungan etnik melalui kajian yang dilakukan. | | | | | |
| 11. | Saya dapat menyesuaikan diri kepada pelbagai budaya rakan sekumpulan yang berlainan kaum. | | | | | |
| 12. | Saya dapat membuat penilaian yang tepat dalam pelbagai situasi yang kompleks. | | | | | |

Items measuring Teamwork

| Bil. | Item | STS | TS | AS | S | SS |
|------|------|-----|----|----|----|-----|
| 1. | Saya suka melakukan sesuatu mengikut cara tersendiri daripada mengikut struktur yang ditetapkan. | | | | | |
| 2. | Saya mempunyai keinginan supaya rakan sekumpulan menganggap diri saya sebagai pemimpin. | | | | | |
| 3. | Saya sedia memberi pertolongan kepada rakan yang menghadapi masalah. | | | | | |
| 4. | Saya akan melakukan tugasan yang telah dibahagikan sesama ahli kumpulan dengan rasa tanggungjawab. | | | | | |
| 5. | Saya selalu membuat keputusan penting secara bersendirian tanpa mengharapkan bantuan ahli kumpulan yang lain. | | | | | |
| 6. | Saya selalu meminta pendapat dan persetujuan rakan sekumpulan sebelum memutuskan sesuatu perkara. | | | | | |
| 7. | Saya tetap meneruskan tugasan yang diamanahkan meskipun terdapat rakan sekumpulan yang menarik diri. | | | | | |
| 8. | Saya percaya bahawa menolong rakan lain adalah sama penting dengan menolong diri saya sendiri. | | | | | |
| 9. | Saya sanggup menyelesaikan segala tugas yang diamanahkan walaupun saya terpaksa bekerja lebih masa. | | | | | |
| 10. | Saya merasakan diri saya lebih berkebolehan membuat sesuatu kerja berbanding rakan lain. | | | | | |
| 11. | Saya dapat membina hubungan baik dengan rakan sekumpulan yang berlainan bangsa. | | | | | |
| 12. | Saya dapat menghormati segala sikap yang ditunjukkan oleh rakan. | | | | | |
| 13. | Saya berpendapat bahawa saya tidak perlu bertanggungjawab terhadap keputusan yang dibuat oleh rakan sekumpulan. | | | | | |