CROSS-CULTURAL COMMUNICATION BEHAVIOUR IN INTERNATIONAL ENGINEERING PROJECTS: CHINESE AND SOUTH AFRICAN PERSPECTIVES

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ABSTRACT

Past researchers and practitioners have realised that merely developing scheduling techniques is not enough to ensure successful engineering projects, and that communication behaviour is also a critical cultural issue for achieving project success. In this article, the communication behaviour of Chinese project managers is assessed in a cultural context, and the effect of communication behaviour on five project activities (project communication, negotiation, conflict solving, contract process, and team building) is evaluated. This is an empirical study that makes use of surveys to explore the cultural differences between Chinese and South African engineering project managers in respect of their communication behaviour, and the effects of those differences on the five project management activities in the construction industry. There are significant differences between Chinese and South African project managers in their communication behaviour in three project activities. However, there seems to be no significant difference between their communication behaviours in the contract process.

OPSOMMING

Navorsers en praktiserende projekbestuurders het reeds tot die gevolgtrekking gekom dat skeduleringstegnieke op hulle eie nie voldoende is om suksesvolle projekte te verseker nie. Kommunikasiegedrag is ook 'n kritieke kulturele faktor wat kan bydra tot suksesvolle projekte. In hierdie artikel word die kommunikasiegedrag van Chinese projekbestuurders in 'n kulturele konteks geassesseer en die uitwerking van die kommunikasiegedrag op vyf projekbestuursaktiwiteite (projekkommunikasie, onderhandeling, konflikhantering, kontrakproses en spanbou) word geëvalueer. Hierdie is 'n empiriese studie waar steekproewe gebruik word om kulturele verskille betreffende kommunikasiegedrag tussen Chinese en Suid-Afrikaanse projekbestuurders, en die uitwerking daarvan op die vyf projebestuursaktiwiteite in die konstruksiebedryf te ondersoek. Beduidende verskille tussen Chinese en Suid-Afrikaanse projekbestuurders se kommunikasiegedrag tydens drie projekatiwiteite word aangetoon. Tydens die kontrakteringsproses skyn daar egter geen beduidende verskil in kommunikasiegedrag te wees nie.

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1. PROJECT MANAGEMENT AS A CULTURALLY SENSITIVE CONCEPT

In this age of globalisation, transnational projects in the construction industry encounter challenges when coordinating multicultural team members. With the flourishing of international projects in the global business environment, project management requires a high level of professional expertise and understanding of cultural diversity [1], [2]. In the past, researchers have pointed out that management practices are embedded in national cultures, and that looking for an effective universal way of management would be pointless [1]. Muriithi and Crawford [3] argue that Western management concepts may not be applicable to other cultures. They suggest that one can make appropriate modifications to current management theories by studying cultural differences. Hofstede [4] points out that management theories from the United States contain a number of idiosyncrasies that are not necessarily shared by management in other countries.

Project management theory has been developed over many years. Researchers and practitioners have realised that, on its own, the development of scheduling techniques is not sufficient to ensure successful engineering projects [5], [6]. Pheng and Leong [5] conducted research on international construction in China, and found that cultural differences are a critical factor that could affect the outcome of an international project. In this era of globalisation it is essential for international project managers to understand key concepts in cross-cultural management and project management. Chen and Partington [6] did a comparative study of Chinese and Western relationships in construction project management work concepts. Pheng and Leong [5] attempted to examine the extent to which Western project management ideas have been supported in the Chinese culture. The article recommends that practical considerations in specific situations should be based on the knowledge that project management is not universal and that it is culture-sensitive.

Although multicultural project teams are becoming more and more common, little research is available on construction-specific multicultural teams. Many construction organisations are unable to deal with the cultural factors affecting their project teams [7]. Although it is recognised that there are differences between the concepts ‘cross-cultural’, ‘multicultural’, and ‘intercultural’, these concepts may sometimes be used interchangeably in this paper with the main aim of focusing on the element of cultural differences in the context of the research.

2. RESEARCH OBJECTIVES AND BRIEF LITERATURE REVIEW

This research aims to explore the effect of communication behaviour on project management activities, and the difference between Chinese project managers and South African project managers, focusing mainly on the engineering and construction industry. The work is largely based on, and is an adaptation of, a paper delivered by the authors at the 2010 PICMET Conference in Phuket, Thailand.

The main research objectives are as follows:
(i) Identification of typical Chinese communication behaviours.
(ii) Establishing how Chinese communication behaviours affect engineering project management activities.
(iii) Comparative research on project communication by Chinese and South African project managers.
(iv) Development of a systematic framework for modelling, analysis, and management of intercultural communication behaviours in international project management.

2.1 Assessment of the concept of culture

An understanding of the concept of culture is important both for project companies that run projects in an international environment and for project team members with diverse cultural backgrounds.

Before discussing cultural differences in international project management, an understanding of the meaning of 'culture' is necessary. The project management method is not universal, but is culturally sensitive [6]. People often talk about cultures, such as the Western culture, African culture, or Eastern culture. Therefore the questions can be posed: what is culture, and what elements characterise different cultures? No single definition can entirely encapsulate the term 'culture' [5]; but to contextualise the current research, some definitions are provided and contrasted.

Culture is a complex, multidimensional construct that can be studied from different perspectives. "Culture is the collective programming of the mind which distinguishes one group or category of people from another" [4]. Howes and Tah [8] define culture as required knowledge based on assumptions and perceptions used to generate social behaviour. Gray and Larson [14] believe that culture is "a system of shared norms, beliefs, value, and customs that bind people together, creating shared meaning and a unique identity". The definition of Howes, like that of Gray and Larson, emphasises systems and shared values.

The elements of a culture can be classified into two groups [10]:
(i) Observable elements that constitute 'surface culture', such as customs, clothing, food, technology, arts, behaviour, etc.
(ii) Hidden elements, called 'deep culture', such as values, beliefs, and systems of thinking.

Culture can be borderless in certain instances, and several countries may share similar cultural profiles – for example, the USA, the UK, and Australia [8], and some countries in eastern Asia. When people share similar norms, values, and religions, they have similar cultures.

Culture can be characterised by analysing certain dimensions. When people step into a culture with which they are not familiar, they need a process to immerse themselves in it. One such process is called 'culture shock'. Culture will, to a large extent, determine what motivates people to work positively or negatively. This is particularly crucial when team players from different nationalities come together to work in another country.

Some cultural research was conducted by Hofstede [11],[12],[4],[13], based on a study of IBM's employees in 40 countries and regions. The author identified four dimensions of culture:
(i) Dimension 1: power distance – level of hierarchy, equality, and participative decision-making in a society.
(ii) Dimension 2: individualism versus collectivism – the extent to which people define the selves as individual entities or members of groups.
(iii) Dimension 3: masculinity versus femininity – the level of assertiveness, aggression, confrontation.
(iv) Dimension 4: uncertainty avoidance – the extent to which uncertainty is tolerated.

These four dimensions differentiate national cultures, and so can be used to analyse them.

"Cultures can also be categorised as either high-context or low-context cultures. In the high-context cultures, most of the information is inferred from the context of a message; little is explicitly conveyed. In low-context cultures, context is less important and information is explicitly spelled out." [14]

The concept of culture can also be defined at organisational, industrial, and national levels, with all levels being relevant in the context of international project management [15]. In this study, cultural differences, and especially national cultural differences between international project team members that affect international project activities, will be researched.

In the concept of culture, communication is an important issue. Communication systems are products of culture [16].

Interpretation of communication and intercultural communication

Defining communication is a difficult task because it is so multi-dimensional and imprecise [32]. Communication is the perception of verbal (worded) and nonverbal (without words) behaviours and the assignment of meaning to them [17].

Norales [14] points out that some guidelines should be kept in mind when communicating across cultures:
(i) Different cultures have different value systems.
(ii) To assume that what is 'normal' behaviour in one culture is 'normal' in another culture is invalid.
(iii) The cultural differences that exist in nonverbal behaviour should be recognised.

Intercultural communication is a challenging task in international project management. Communicating across cultures is often difficult. Misunderstanding one's counterparts in a global workplace can definitely affect project achievements negatively. A lack of effective communication can seriously hamper the establishment of mutual trust and confidence between the project team members [7].

China is a growing player in the global and international economic arena, and the business relationship between China and South Africa has become closer. So it is important to identify some typical Chinese communication behaviours, and to explore the communication differences between Chinese and South African project managers.

The identification of typical Chinese communication behaviours

China's history stretches over 5,000 years, with specific and notable cultural characteristics. Some typical Chinese communication behaviours (denoted as B) that may impact international project activities (denoted as A) have been identified from a literature review:

Communication – the purpose is maintaining satisfactory harmony [18],[19],[20], [21],[22]

The sub-behaviours of B can be summarised into five categories:

B1: Communicating indirectly with others, and trying to avoid anyone lose 'face/image' to pursue a conflict-free interpersonal and social relationship [21].

B2: Communicating appropriately is more important than revealing the truth [18].

B3: Announcing decisions during meetings, while discussions are held upfront and in private [18].

B4: Not delivering all the information by using vague language to protect oneself (Hua Liu San Fen) [18],[20],[22].

B5: Unwillingness to take the initiative in communication with others [19].

In a project team environment, the above cultural behaviours could affect certain project management activities.

Identification of five project management activities that could be affected by cultural differences

In this research, five project management activities that were identified as being prone to cultural differences were chosen for the primary research survey ('A1' denotes, for example, Activity 1):

A1: Project communication: Cultural differences include the language barrier. Language differences are recognised as a critical cause of the obstruction of effective communication [15], [5], [9].

A2: Project negotiation: Differences in culture can affect the negotiation style in some situations. Pheng and Leong [5] argue that Chinese culture shapes the negotiation style used in China.

A3: Project conflict resolution: Chen and Partington [6] state that cultural differences result in Chinese and UK project managers describing different approaches to resolving conflicts. Chan [24] maintains that the causes of disputes and the different methods of resolving disputes are both closely associated with a society's unique culture.

A4: Project contract process: Chan, Wong and Scott [23] conducted a study on managing projects in China. They found that some of the difficulties in contract management resulted from the characteristics of Chinese culture.

A5: Project team building: Chen and Partington [6] conducted empirical research to compare the Western and Chinese project managers' perceptions of their work. The results showed that cultural differences result in a preference for different organisational structures.

3. THE RESEARCH METHODOLOGY DESIGN

Although the questionnaire design used in this research to assess some of the previously identified project management activities was based on the Chinese culture, South African project managers were also asked to participate in order to illustrate differences where applicable. A survey was conducted to validate the communication behaviours from a literature study prior to the main survey. The questionnaire and research design were done in accordance with the recommendations of Cooper and Schindler [25], using a combination of convenience and purposive sampling. The samples of both South African (63 valid returned questionnaires) and Chinese project managers (75 valid returned questionnaires) were selected mainly from advanced courses for experienced project managers. In the questionnaire participants were asked to rate the importance of a specific communication behaviour during a specific project activity – for example, Behaviour 2 during Activity 1 (denoted as B2A1 in later sections). An additional survey incorporating 20 different South African project management participants and 20 Chinese project management participants was conducted to validate the solutions that mitigate the negative effects of cross-cultural communication.

In this study, several statistical techniques were used to examine empirically the proposed model. The cultural behaviours impacting on project activities by Chinese and South African project managers were explored by using the t-test for independent samples. In addition, the strength of the relationship between cultural behaviours and project activities was explored using Spearman's rho correlations. This statistical technique determines the strength of the correlation between two variables (with a significant level of $p<0.001$). Moreover, the relationships between mitigating solutions and cultural differences were explored using the same statistical technique. This does not necessarily prove causation, but it helps to establish the basis for further research using the conceptual model.

The research methodology can be interpreted using the diagram in Figure 1.

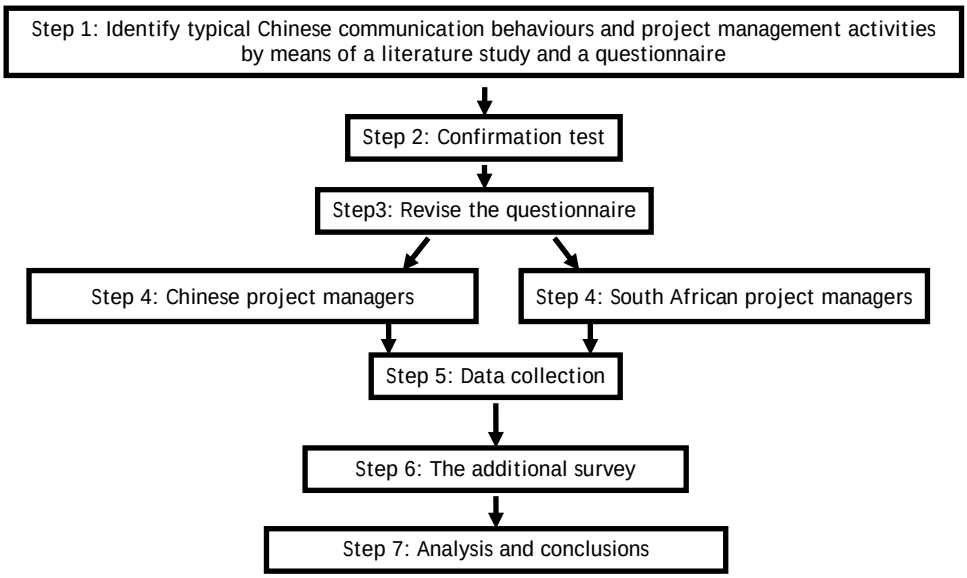

Figure 1: Research design method

4. DATA ANALYSIS AND RESULTS

From the preliminary data, 75 Chinese project managers and 63 South African project managers were identified for participation in the survey, partly on the grounds of their project management experience. The SPSS software package was applied as the analysis tool for this study. The data analysis was conducted on three levels, as indicated in Figure 2.

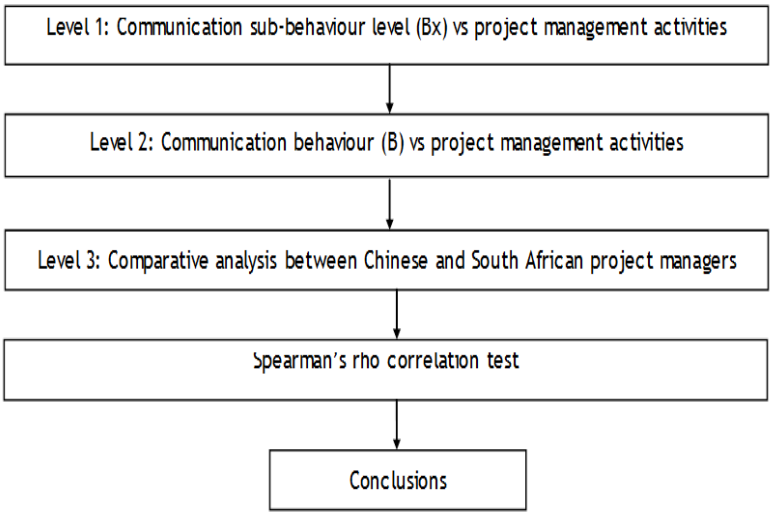

Figure 2: Data analysis levels

4.1 Demographics of participants

The demographics of participants can be described by using Figure 3 and 4. The majority of both the Chinese and South African project managers were aged between 25 and 35 years. Most of the participants from both samples had less than ten years' working experience.

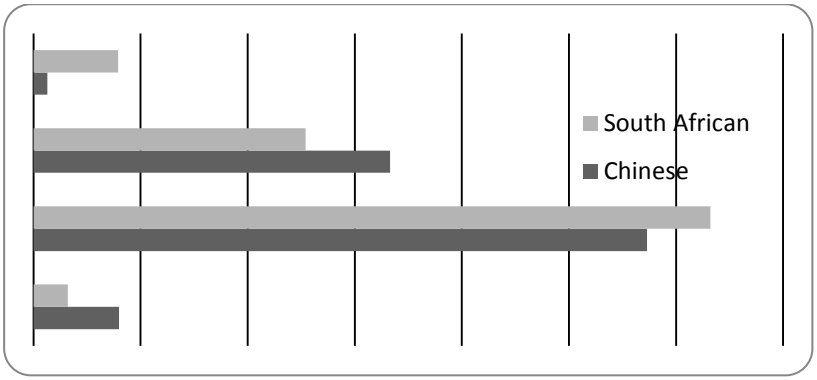

Figure 3: Age distribution of Chinese and South African participants

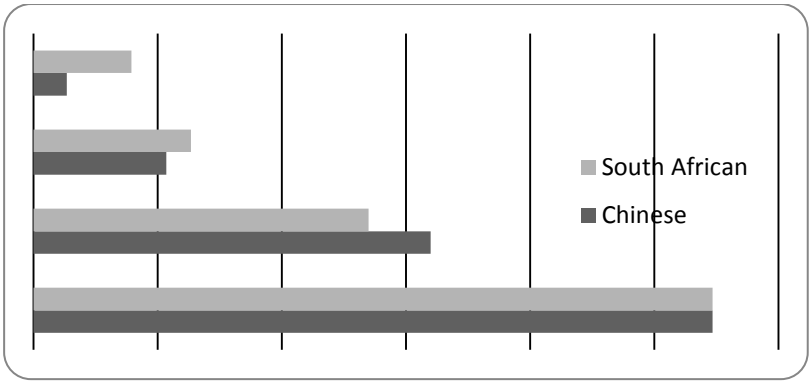

Figure 4: Working experience distribution of Chinese and South African participants

4.2 Confirmation survey and renumbering of variables

The participants in the confirmation test were 25 Chinese project managers selected from an advanced project management course, all of whom had at least three years' working experience. A behaviour was eliminated when more than 50% of the respondents rejected it. Some authors argue that Chinese people communicate in the way indicated by B1 (*Indirect communication with others and trying to make nobody lose face/image to pursue a conflict-free interpersonal and social relationship)* and by B5 (*unwilling to take the initiative to communicate with others)*. However, most Chinese respondents who participated in the confirmation survey did not agree with these statements. The purpose of the literature review in this research was to identify typical Chinese communication behaviours. If the respondents did not agree with the findings from the literature, it was decided that those communication behaviours should not be included in the questionnaire for the next survey, because they might distort the survey. After the confirmation survey, three communication behaviours were validated and agreed on by the Chinese respondents, namely B2, B3 and B4.

The variables used in the survey can be generalised and renumbered as indicated in Table 1. B1 and B5 of the previous list of variables were removed due to the results of the confirmation survey. The previous B2, B3 and B4 were renumbered B1, B2, and B3 respectively. The notation 'B1A1', for example, indicates Behaviour 1 in associated Activity 1.

The relevant variables identified in the survey are listed in Table 1.

B: Communication – maintaining satisfactory harmony is the purpose	
B1A1	Communicating appropriately is more important than revealing the truth during project communication.
B1A2	Communicating appropriately is more important than revealing the truth during project negotiation.
B1A3	Communicating appropriately is more important than revealing the truth during project conflict resolution.
B1A4	Communicating appropriately is more important than revealing the truth during the project contract process.
B1A5	Communicating appropriately is more important than revealing the truth during project team building.
B2A1	Announcing decisions during meetings, while discussions are held upfront and privately during project communication.
B2A2	Announcing decisions during meetings, while discussions are held upfront and privately during project negotiation.
B2A3	Announcing decisions during meetings, while discussions are held upfront and privately during conflict resolution.
B2A4	Announcing decisions during meetings, while discussions are held upfront and privately during the contract process.
B2A5	Announcing decisions during meetings, while discussions are held upfront and privately during project team building.
B3A1	Not delivering all the information by using vague language to protect oneself (Hua Liu San Fen) during project communication.
B3A2	Not delivering all the information by using vague language to protect oneself (Hua Liu San Fen) during project negotiation.
B3A3	Not delivering all the information by using vague language to protect oneself (Hua Liu San Fen) during project conflict resolution.
B3A4	Not delivering all the information by using vague language to protect oneself (Hua Liu San Fen) during the project contract process.
B3A5	Not delivering all the information by using vague language to protect oneself (Hua Liu San Fen) during project team building.

Table 1: The identified variables in the survey

4.2.1 Level 1: Data analysis of the effects of communication behaviour on PM activities at sub-behaviour level

The analysis of the ratings (B1, B2, B3) for communication behaviours in activities (A1, A2, A3, A4, A5) from the survey results is shown in Table 2 and Table 3. Some interesting observations are highlighted in the tables and will be discussed.

In an item-level analysis, the results for Chinese project managers were categorised into two sections according to the level of effects. Five items were above 2.00 (see Table 2). B1.A1 was rated the highest by the Chinese project managers. This means that, in project communication, Chinese project managers like to use appropriateness instead of telling the truth in order to maintain a harmonious relationship. B3.A1 was rated in the second place after B1.A1. This is also recognised as a characteristic of Chinese communication behaviour in project management communication. Chinese project managers do not deliver all the information to their counterparts due to self-protection. South African project managers gave all items a low rating on average. This was reasonable, because the questionnaire design was based on the Chinese culture.

An interesting point that should be noted is that one item scored below 1.00 (B1.A3) in the South African survey, as shown in Table 3, while the Chinese project managers rated this item relatively high. In this regard there is a big difference between the two groups. The implication of this is that South African project managers seem to disagree with Chinese project managers on this communication behaviour in the project management activity (B1.A3): *Communicating appropriately is more important than revealing the truth in conflict resolution.* This means that South African managers do not behave like Chinese project managers in project conflict resolution. This situation may cause new conflicts during project conflict resolution.

Chinese	N	Minimum	Maximum	Mean	Std deviation
B1.A1	75	0	5	2.91	1.726
B3.A1	75	0	5	2.31	1.924
B3.A2	75	0	5	2.23	1.984
B1.A3	75	0	5	2.17	1.920
B2.A1	75	0	5	2.16	1.925
B2.A2	75	0	5	1.81	1.964
B1.A5	75	0	5	1.76	1.895
B3.A3	75	0	5	1.72	1.857
B1.A2	75	0	5	1.71	1.880
B2.A3	75	0	5	1.69	1.860
B2.A5	75	0	5	1.44	1.742
B3.A5	75	0	5	1.43	1.702
B3.A4	75	0	5	1.35	1.782
B2.A4	75	0	5	1.35	1.728
B1.A4	75	0	5	1.23	1.783
Valid N (listwise)	75				

Table 2: Surveyed results of Chinese respondents on Level 1

It is interesting to note that B1.A4 was rated the lowest by both groups. This means that the two sides agreed that communication in the contract process should be straight and to the point, aimed at telling or revealing the truth.

4.2.2 Level 2: Communication behaviour effects on PM activities

In this section, an average value of each rated communication behaviour was calculated to represent communication AveBAx:

AveBAx = (B1Ax+B2Ax+B3Ax)/3

The reliability tests using SPSS showed that communication behaviour (B) could be represented by calculating the mean of measurements B1, B2, and B3 for the various activities. The results of the two surveyed groups are listed in Tables 4 and 5.

South African	N	Minimum	Maximum	Mean	Std deviation
B2.A1	63	0	5	1.67	1.926
B2.A5	63	0	5	1.56	2.038
B1.A1	63	0	5	1.56	1.899
B2.A2	63	0	5	1.37	1.799
B3.A1	63	0	5	1.22	1.773
B2.A3	63	0	5	1.19	1.777
B1.A2	63	0	5	1.17	1.700
B2.A4	63	0	5	1.16	1.743
B3.A4	63	0	5	1.13	1.727
B3.A2	63	0	5	1.11	1.733
B3.A5	63	0	5	1.11	1.788
B3.A3	63	0	5	1.00	1.732
B1.A5	63	0	5	1.00	1.675
B1.A3	63	0	5	.98	1.540
B1.A4	63	0	5	.94	1.564
Valid N (listwise)	63				

Table 3: Surveyed results of South African respondents on Level 1

Chinese	N	Minimum	Maximum	Mean	Std deviation
AVEBA1	75	.00	5.00	2.4578	1.38609
AVEBA2	75	.00	5.00	1.9156	1.43225
AVEBA3	75	.00	5.00	1.8622	1.44892
AVEBA5	75	.00	5.00	1.5422	1.41716
AVEBA4	75	.00	5.00	1.3067	1.40757
Valid N (listwise)	75				

Table 4: Results of Chinese respondents on Level 2

South African	N	Minimum	Maximum	Mean	Std deviation
AVEBA1	63	.00	5.00	1.4815	1.45269
AVEBA5	63	.00	5.00	1.2222	1.47743
AVEBA2	63	.00	5.00	1.2169	1.34692
AVEBA4	63	.00	5.00	1.0741	1.35261
AVEBA3	63	.00	5.00	1.0582	1.35670
Valid N (listwise)	63				

Table 5: Results of South African respondents on Level 2

According to Table 4, the outstanding average communication behaviour of project managers that affects project management activities is AveBA1 (*A1: project communication*). AveBA1 was rated first by the Chinese respondents. South African project managers also rated AveB4A1 the highest in the survey. This indicates that both sides have a tendency to maintain a satisfactory and harmonious environment during project communication activities. This also shows that both South African and Chinese project managers try to avoid conflict during project communication. AveB4A4 (*in A4: Project contract process*) was rated relatively low by the two groups. This means that both Chinese and South African project managers try to convey the information in the project contract management process activity clearly and comprehensively. They endeavour to mitigate the cultural effects of communication behaviour on the contract management process. On this point, there was a similar result in the analysis of the Level 1 measurement level. The average SD value was a little higher in the South African project manager group than in the Chinese project manager group. This could be because the South African culture is more diverse than that of China.

4.2.3 Level 3: Group comparative analysis of communication behaviours by Chinese and South African project managers

In this section, the SPSS t-test for independent samples was used to compare group means from the results of the data analysis of Level 2.

There were two groups: South African project managers (denoted as group 0) and Chinese project managers (denoted as Group 1). The purpose of this test was to determine if there were differences in the ways in which the two groups scored the impacts of each behaviour on the five project activities. A significant level of 0.05 was selected (there is 95% confidence that the difference is not a chance difference).

From the results of the t-test (Table 6), AveBA1, AveBA2, and AveBA3 were recognised to be rated differently (at a significant level of 0.05) by Chinese and South African project managers in terms of communication behaviour effects on project activities. The ultimate purpose of communication behaviour (B) for Chinese project managers is to maintain satisfactory harmony. In order to achieve this, Chinese project managers often use B1, B2, and B3 as tools. The statistical results show that the communication behaviours of the two groups in project communication (A1), project negotiation (A2) and project conflict resolution (A3) activities are significantly different. The main implication of the difference is that the South African group disagrees with the Chinese group's communication behaviour in project activities, because the mean value of the South African group is much lower than that of the Chinese group.

Although there is no significant difference in variables BA4 and BA5, this does not mean that they are risk-free. It may only imply that the two groups' communication behaviours in

project contract process and project team building activities are more similar than in some of the other activities.

	South African/ Chinese	N	Mean	Std deviation	Sig/No (level 0.05)
AVEBA1	South African	63	1.4815	1.45269	Sig
	Chinese	75	2.4578	1.38609	
AVEBA2	South African	63	1.2169	1.34692	Sig
	Chinese	75	1.9156	1.43225	
AVEBA3	South African	63	1.0582	1.35670	Sig
	Chinese	75	1.8622	1.44892	
AVEBA4	South African	63	1.0741	1.35261	No
	Chinese	75	1.3067	1.40757	
AVEBA5	South African	63	1.2222	1.47743	No
	Chinese	75	1.5422	1.41716	

Table 6: Results of Chinese and South African respondents on Level 3

	A1: Project communication	A2: Project negotiation	A3: Project conflict resolution	A4: Project contract process	A5: Project team building
Communication	*0.890*	*0.955*	*0.947*	*0.964*	*0.956*

Table 7: Correlation coefficients for the relationship between communication and PM activities

Spearman's rho was initially used to explore whether there is a statistically significant relationship between the two variables. The correlation coefficients are reported in Table 6. All the coefficients in the table are statistically significant ($p<0.001$) and positive. Moreover, all coefficients are larger than 0.7, which indicates strong correlations. This means that there is a significant and strong positive relationship between communication behaviour and PM activities.

4.3 Mitigating solutions

Twenty further South African and twenty further Chinese project managers were selected to participate in an additional survey. The participants were requested to rate the proposed mitigating solutions to overcome the communication behaviour differences. If there was no agreement with the proposed mitigating solution, '0' had to be selected, otherwise a choice was given using a five-point Likert scale (1=slightly agree to 5=strongly agree). The results after analysing the survey data are shown in Table 8.

After analysing the data gathered in the additional survey, the correlation coefficient was 0.867, which is statistically significant (at level $p<0.001$). This result shows that there is a significant and positive relationship between mitigating solutions and impacts on cultural differences.

4.4 A conceptual model to link communication behaviour with project management

In the previous sections, some communication behaviours of Chinese project managers were identified from the literature, and a comparative analysis was conducted using the results of the survey. It was indicated that when differences in cultural communication behaviour occur, it could lead to problems in the successful execution of international projects with multi-cultural teams.

Mitigating solutions	Percentage of disagreement	Percentage of agreement	Means and SD
Use intermediaries	5.00%	95.00%	Mean:2.7692 SD: 1.37538
Learn host country culture	2.50%	97.50%	Mean:4.1 SD :1.17233
Create organisation culture	2.50%	97.50%	Mean:3.45 SD :1.25983
Embrace different cultures	2.50%	97.50%	Mean:3.9 SD :1.29694

Table 8: Agreements or disagreements on the proposed mitigating solutions

There are also resulting risks for the projects. These influences can be conceptually modelled (as shown in Figure 5), using the results of the literature reviews and analysis of statistical survey data shown in previous sections. This model is in the exploratory stages, and further research will be done in future to confirm more statistical detail, causality and further cultural behaviours.

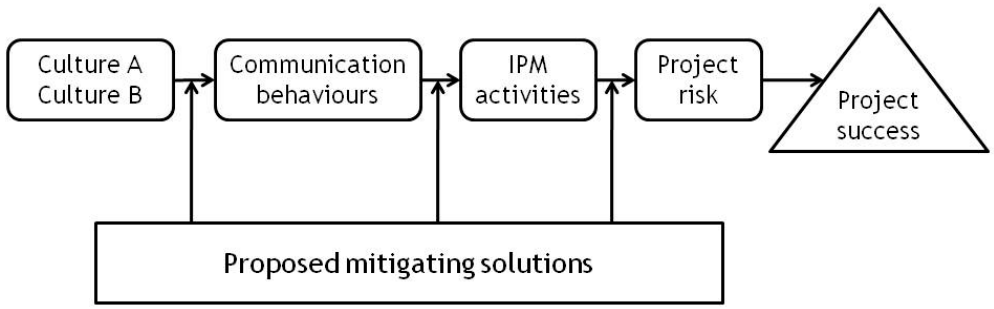

Figure 5: Conceptual model for cultural differences on international projects

5. CONCLUSIONS

It is always a challenge for a project manager to work in an international team. Communicating across cultures is a critical factor in the international project management context.

This research has indicated a statistically significant difference between the communication behaviours in certain project management activities of two groups of South African and Chinese project managers in the engineering and construction environment.

Because of the diversity of the global village, it will become increasingly important for project management practitioners and academics to know how to control and mitigate the negative effects of cultural differences. The conceptual model for cultural difference in communication that has been presented may be useful in mitigating risks in international projects, but will require further research to affirm more detailed relationships.

The main limitation of this research is the limited number of participants in the survey due to resource access, time, and funding. Another factor that could affect the results is the diversity of South African culture, which makes the standard deviation of results for the South African group higher than that of the Chinese group. Future studies could consider the influence of this factor on the results. The questionnaire was developed from a Chinese perspective. It may be useful to subject both groups to a questionnaire developed from a

South African cultural perspective to determine the influence of cultural bias in questionnaire design. This is another area for future research.

6. REFERENCES

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