This paper discusses findings of the evaluation of the Start and Improve Your Business (SIYB) program in Botswana, a United Nations program aimed at developing entrepreneurial skills in developing countries. This is a quantitative study that utilized a survey questionnaire to collect data from 197 entrepreneurs in Botswana. Two initial groups participated (those who did the SIYB training and those who did not) to evaluate entrepreneurs’ behaviors, skills and attributes for potential significant differences between these groups. Although some of the factors were associated with each other, overall attributes and skills factors did not indicate any significant difference. The study has implications for policy makers and entrepreneurship educators.

**Entrepreneurship Education: An Evaluation of Behaviour, Skills and Attributes of Botswana Entrepreneurs**

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ABSTRACT: This paper discusses findings of the evaluation of the Start and Improve Your Business (SIYB) program in Botswana, a United Nations program aimed at developing entrepreneurial skills in developing countries. This is a quantitative study that utilized a survey questionnaire to collect data from 197 entrepreneurs in Botswana. Two initial groups participated (those who did the SIYB training and those who did not) to evaluate entrepreneurs’ behaviors, skills and attributes for potential significant differences between these groups. Although some of the factors were associated with each other, overall attributes and skills factors did not indicate any significant difference. The study has implications for policy makers and entrepreneurship educators.

Keywords: entrepreneurship, training, program evaluation

INTRODUCTION

Although the field of entrepreneurship is expanding fast and research has been conducted in the past two decades, there still has been relatively a few studies conducted on the impact of entrepreneurship education and training, (McMullan, Chrisman and Vesper, 2001), particularly in developing countries. Stakeholders in training institutions, including academics and policy makers, have sought to find a relationship between the training and performance of firms (Patton, Marlow & Hannon, 2000). However, the relationship between participation in management training and small business performance is currently not well established (Westhead & Storey, 1996). Hindle and Cutting (2002) found that pharmacists who acquired and implemented the entrepreneurial education offered in the Pharmacy Advice Program experienced greater job satisfaction than those who had no known entrepreneurial education. However, no marked financial advantages resulting from those who undertook entrepreneurial education were evident (Hindle & Cutting, 2002). Prior study by Cosh, Duncan, and Hughes (1998) found that whilst training was strongly related to employment and sales growth, it was however, unrelated to profit margins. Overall, the literature on the relationship between training and performance is inconclusive (Westhead & Storey, 1997). Entrepreneurship education and training seems to have a positive effect on the perceived feasibility of entrepreneurship or on entrepreneurial self-efficacy. (Lepoutre, Justo,
Terjesen, & Bosma, 2010). However, the “entrepreneurial education” does not necessarily create entrepreneurs, but can promote the possibilities or capacities for participants to be entrepreneurs (Ferreira, Do Paco, Raposo, & Rodrigues, 2011).

The primary focus of this paper is to present findings of the study undertaken in Botswana, which determined the efficacy of the SIYB, a United Nations program developed in Sweden, aiming at developing entrepreneurial and business skills in developing countries. SIYB operates in more than 80 countries and is arguably the largest and longest lived such program in history (Samuelsen, 2003). However, there is no rigorous empirical evidence supporting the efficacy of this program. Our study fills this gap. In Botswana the program was introduced in 1983 but has only been evaluated once in 1993. So, the world’s largest entrepreneurial training program continues to run in Botswana at great expense despite the absence of hard evidence concerning its efficacy.

This study examined relationships among three broad factors of entrepreneurship: internal factors, skills factors and the key entrepreneurial factors. In essence, the primary focus of this research was to investigate whether these factors were associated with business performance. Due to a number of factors including an excellent database, Botswana provided the best test environment for assessing the efficacy of both the specific SIYB program and a range of generic issues pertaining to entrepreneurship education in developing countries.

Findings of this study do raise some important questions about SIYB and all entrepreneurial education programs designed in developed countries operating in Botswana. Key questions are: Can a training program designed in developed countries work in a developing country? How effective is the SIYB program in Botswana? It is always possible to address these questions and other questions put forward in the main study by calling for more detailed research of the SIYB program. Overall, the study makes a useful contribution to three fields: program evaluation research; entrepreneurship education; and economic development.
ENTREPRENEURSHIP AND ENTREPRENEURSHIP EDUCATION

Entrepreneurship is a difficult concept to define in clear terms. In common usage the word entrepreneurship is linked to enterprise creation, but the term has a wider application (Martins, 2007). Some researchers, (Tang, Kacmar, and Busenitz 2012) believe that entrepreneurship can be used more specifically to identify individuals who stimulate economic progress by finding new and better ways of doing things.

Blackman and Hindle (2007) have enhanced Klyver’s (2005) model that describes Davidson’s (2003, 2004) classification of the two principal ‘schools’ of definitional emphasis in the entrepreneurship literature: (1) “the emergence perspective”, and (2) “the opportunity perspective”. The “emergence perspective” emphasises the dynamics of new organization creation whether or not the venture includes innovation “the development of new means-ends relationships as a core component” (Blackman & Hindle 2007). The ‘opportunity perspective’ suggests that entrepreneurial opportunities involve the discovery and evaluation of new relationships between means and ends, irrespective of whether this involves the creation of a new venture or not. Entrepreneurship, in this perspective, is defined as “the discovery, evaluation and exploitation of opportunities whatever the organizational mode of pursuit.” (Shane & Venkataraman 2000). These two perspectives are illustrated in table 1.

<table>
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<th>Table 1</th>
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The empirical work performed for this paper does not, as it were, ‘take sides’ in the debate regarding definitions. The philosophical stance adopted in this paper is inclusive and eclectic enough to take a broad view of entrepreneurship: any activity that could be classified in any of quadrants A, B and C (Table 1)

The European Union Green Paper on Entrepreneurship (European Commission, 2003) set out a range of benefits that can be associated with entrepreneurship. These benefits include contributing to economic growth by job creation and growth; fostering social and economic cohesion particularly in less developed regions; being crucial to competitiveness and productivity improvements; unlocking personal potential and satisfying a range of social interests, by making wealth, jobs and diversity of choice for
citizens available. Thus, through entrepreneurship, the call is made for nations to have new ways of doing things; to be innovative and creative; to have the willingness to take calculated risks – in terms of time, equity or career; to recognise opportunities and evaluate them and to possess many other essential ingredients of entrepreneurship. Encouraging entrepreneurship therefore is viewed as a central key to creating jobs and to improving competitiveness, social integration and economic growth, especially in developing countries and this can only be done though changing the societies’ mindsets through entrepreneurial education and training which is relevant to their situations.

Entrepreneurship education poses a definitional problem. Literature abound (Blenker, Dreisler, Faegeman & Kjelden, cited in Fayolle and Klandt 2006, p.22) that indicates that there is no common agreement over what constitutes entrepreneurship education or how it is taught (Kirby, 2007). The nature of entrepreneurship education is even made more complicated by the fact that there is not much clarity about what the outputs are designed to be. The lack of clarity about the intended outputs leads to significant diversity surrounding the inputs (Pittaway & Cope 2007). As Kyro (2005) notes, approaches to entrepreneurship education are likely to vary between continents and between countries as well as according to the target group. Botswana, like most developing countries, gives priority to supporting entrepreneurship through education and training of existing and prospective entrepreneurs as well as the provision of entrepreneurship education at tertiary institutions. A brief background on Botswana is provided next.

BACKGROUND ON BOTSWANA

Botswana is a landlocked country in southern Africa. It shares boarders with Zambia in the north, Zimbabwe in the east, South Africa in the south and south-east and Namibia in the west. The population of Botswana is around two million (Botswana Statistics Report, 2014). Since Botswana’s independence in 1966, it has achieved remarkable economic growth, socio-political stability and education. The country’s economy is highly dependent on the mining and beef industries. The discovery of diamonds has turned Botswana into the middle-income category; however the country still faces the problem of economic
diversification, employment creation, income distribution and poverty. To feed its population, Botswana depends highly on foreign markets for the import of basic goods.

To alleviate the problem of dependency on the proceeds of diamonds and beef and with the realization that “diamonds were not forever”, the government of Botswana has put in place programs aiming to develop indigenous entrepreneurship in the country. Like any other developing country, organizational and managerial skills are considered to be crucial bottlenecks to entrepreneurial development in Botswana. Without such skills, indigenous entrepreneurs are unable to take advantage of opportunities or to advance technical change seen to be more important than capital inputs. The major obstacle to economic development in Botswana is not so much the shortage of capital, but the shortage of skill and knowledge needed to mobilize, organize and coordinate capital and other resources of production (Moremong-Nganunu, 2009). The crucial role of entrepreneurs as the productive resource that coordinates and organizes others is indicated by Lewis (1954, in Jones-Dube, 1984) that, to lend money to entrepreneurs who lack managerial capacity is merely to throw it down the drain.

THE IMPORTANCE OF SIYB PROGRAM EVALUATION IN BOTSWANA

Calder (1994) notes that education is one of the most highly researched evaluation fields. It is important for educational and training institutions to have proper evaluation systems in order to review their performances and modify the implementation of their programs. The determination of the key points to be evaluated is crucial for any teaching or training institution and it should be done in such a way that it matches the goals of the institution (Calder, 1994).

There are no studies related to the evaluation of entrepreneurial training programs in Botswana. Aspects of entrepreneurship that have been studied in Botswana range from the investigations of the level of entrepreneurship (Ronan and Chinyoka, 1997), key motivations of entrepreneurship (Mgaya and Magembe 2007; Rametse and Huq, 2014; 2015), to discussions of the role of culture (Themba, Makgosa, Phambuka-Nsimbi, & Iyanda 1999) and government policies (Bonu, 1999) on entrepreneurship skill development. A low level of entrepreneurship was also found in Botswana. In fact, small business
entrepreneurs were found to be performing badly in a number of personality characteristics, business skills and attitudinal traits (Ronan et al., 1997).

Despite the amount of attention accorded to a wide range of issues relating to entrepreneurship in Botswana, research is still lacking. For instance, some studies relied on desk research without empirical evidence (Bonu, 1999; Themba et al., 1997). The empirical studies focused on different target groups such as experts that offered financial assistance to entrepreneurs (Ronan and Chinyoka, 1997) and university students (Mgaya and Magembe 2007), which offer varied views about entrepreneurial behaviour in Botswana, hence, the importance of this study.

**THE CORE VARIABLES**

Entrepreneurship literature reveals many internal attributes and skills essential for successful entrepreneurship. Moremong-Nganunu (2009) scrutinized and synthesized the work of seminal entrepreneurship theorists and came up with entrepreneurship variables essential for entrepreneurship education. The key variables derived from Moremong-Nganunu’s synthesis include among others, motivation, innovation and self-efficacy which are considered to be the key attributes for entrepreneurship; Opportunity evaluation and competitiveness which reflect the core behavioural aspects of entrepreneurship and problem solving and negotiation competencies which are considered the essential entrepreneurship skills as illustrated in figure 1.

< insert figure 1 here>

Entrepreneurial training as a procedural approach benefits from understanding the attributes and preparation of the trainees (motivation, innovation and self-efficacy). These allow the development of an entrepreneurial program emphasizing the skills needed for success. These may include problem-solving and negotiation skills among others. At the end of the training programme, achievement of behaviour change as an objective of training is pivotal.

Entrepreneurship education highlights three conceptual categories that are at the heart of an ideal entrepreneurship training program. Instruction needs to: inform *behaviour*, enhance certain *attributes* and develop specific *skills*. Distilling all the collected wisdom of the entrepreneurship education literature, we
believe the following can be argued. First, the key behaviours to be gained from an entrepreneurship training program should be the ability to evaluate opportunity and the ability to be competitive in a highly competitive market place. Second, the three entrepreneurial attributes arising from the literature are of key importance to the development of an entrepreneur – these entail motivation, innovation and self-efficacy. Third, at the broadest level of generality the key entrepreneurial skills are, fundamentally, problem solving and negotiation. In addition to variables adopted from entrepreneurship literature, variables from the SIYB programme pertaining to enabling environment such as reconciling business and family, adaptation to business needs, institutional and family support were used in this study.

The resultant main hypothesis is: participants of the SIYB program performed better than non-participants in entrepreneurial behaviour, skills and attitudes.

**METHODS**

The initial stage of the research consisted of an extensive review of literature in the fields of entrepreneurship. The review guided the formulation of the conceptual framework, which led to the research propositions and hypotheses. The study explored the propositions that entrepreneurs with high internal factors would have skills factors (H1), which would result in entrepreneurship factors (H2), with consequential positive business performance (H3). From the constructs distilled from the literature, the preliminary design of the questionnaire was structured. Questionnaires were the primary research tools. They were pre-tested with a sample of 20 business people who had undergone training in SYIB and those who had not been trained in SYIB, as well as entrepreneurship educators and trainers. Further refinements were made after pre-testing. Two subgroups were identified from Molepolole, one of the major villages in Botswana, for participation in the study. The first group consisted of the Integrated Field Services (IFS) assisted entrepreneurs who were indigenous Batswana who had been through SIYB program. The list of IFS registered clients constituted the sampling frame and the sample was randomly selected from the list. One hundred and seventy five entrepreneurs (50% of the population) were selected for the study.

The second group consisted of non-IFS assisted or independent Batswana small and medium sized indigenous entrepreneurs who were not registered with IFS and had never undertaken SIYB courses. A
list of licensed and registered entrepreneurs in Molepolole was used for sampling. The list, which indicated that there were about one thousand small and medium scale businesses in Molepolole, was obtained from the Kweneng District Council Licensing Department.

The design of the questionnaire was informed by several reviews of the entrepreneurship literature. For instance, works of Chrisman and McMullan (2002) on the evaluation of small business assistance programmes and those of McMullan, Chrisman and Vesper (2001 on evaluating entrepreneurial support programmes were sources of information for questions, which were concerned with the economic impact of the SIYB programme on entrepreneurs. Many of the questions were formulated based on the SIYB training materials as an evaluative measuring instrument must measure the behaviours that the programme was designed to change (Posavac, 1975). A self-efficacy measure used was an adaptation from a published document by Jerusalem and Schwarzer (1992) that has a self-efficacy scale designed to measure self-confidence. The questionnaire consisted of six main sections. Section one dealt with entrepreneurial cognition. The second section covered issues of enabling business environment. Section three had questions on starting a business. Section four assessed the main topics covered in the SIYB programme.

Leedy (2001) notes that rating scales are more useful when behaviour, attitude or other phenomena of interest are evaluated on a Likert type continuum of “strongly disagree” to “strongly agree” (Leedy, 2001). Most of the questions were closed and asked respondents to indicate their responses on a predetermined scale. In particular, questions on sections one, two and four were closed and requested respondents to indicate their responses on a 7-point Likert Scale. The Likert-type response format was used as it is simple to construct and administer. Furthermore, with this type of rating, respondents can understand the purpose of the scales; hence it is highly suitable for self-completion surveys. The Likert-type scales used ranged from ‘strongly disagree’ (1) to ‘strongly agree’ (7).

Section three of the questionnaire consisted of closed questions that required “yes” or “no” answers. Section five included demographic information, while section six evaluated the economic results of SIYB entrepreneurship training interventions on its beneficiaries. Questions in section six were
concerned with business success as indicated in changes in sales, cash flow, assets, employment and costs. Questions relating to financial matters of entrepreneurs were regarded as being sensitive; hence stated at the end of the questionnaire. Respondents were also required to provide their profiles. Additional questions such as age and sex and those related to the background of their businesses were included.

Indigenous Batswana entrepreneurs who used SIYB consisted of the following: Out of the sampled number, 91 completed questionnaires were returned, representing a response rate of 52%. This sample of respondents accounted for 26% of the total number of entrepreneurs on the database. Indigenous Batswana entrepreneurs who had not used SIYB procedure is explained as follows: During these visits, the researcher identified 400 independent entrepreneurs. Only 200 (50%) of the total identified independent entrepreneurs were sampled by simple random sampling. Out of the 200 sampled entrepreneurs, only 110 returned completed questionnaires, constituting 25% of the total identified population and 55% of the total sample.

Statistical procedure included MANOVA, which is a commonly used multivariate technique. It assesses the relationship between two or more dependent variables and classificatory variables of factors (Cooper & Schindler, 2001). To conduct the MANOVAs, respondents were divided into four groups. This is in line with the MANOVA assumption that the size of the compared groups should be equal and not lower than 20 (Pallant, 2005). The total number of respondents from the “no training group” was 63 while that of other groups ranged from 22 to 24. To meet the MANOVA assumption, the no training group was randomly selected to make the number roughly equal to the other groups’ numbers and 35 respondents were randomly chosen for the purpose of conducting MANOVAs. The results of the MANOVAs are as follows.

One-way between-groups multivariate analyses of variance (MANOVAs) were conducted to assess if there were differences between the four groups in the study. The groups were: (1) Participants who did not take part in any training; (2) Participants who did other training; (3) Participants who did SIYB and other training; (4) Participants who did both SIYB but no other training.
Four main dependent variables were used as follows:

(1) **Psychographics** – motivation and self-efficacy:  (2) **Enabling environment** – support from government and banks, support from family and competition: (3) **SYB skills achievement** – ability to reconcile family and business and ability to adapt to business needs: (4) **IYB skills achievement** – problem solving, opportunity seeking, innovation and negotiation skills.

Preliminary assumption testing was conducted to check for normality, linearity, univariate and multivariate outliers, homogeneity of variance-covariance matrices and multicollinearity. No serious violations were noted.

**RESULTS**

**Psychographics – motivation and self-efficacy:** Table 2 displays the means and standard deviations for the Likert-scale measures of motivation and self-efficacy for each group.

<insert table 2 here>

A multivariate analysis of variance indicated there was no significant difference in motivation and self-efficacy for participants in different training groups (Wilks’ Lambda = .898, F(6,222) = 2.45, p-value =0.0606, $\eta^2 =.05$).

**Enabling environment: support from government and banks, support from family and competition**

Table 3 displays the means and standard deviations for the measures of support from government and banks, support from family and competition for each group.

<insert table 3 here>

The results of three variables in the enabling environment (family support, support from government and banks, and competition) indicate no statistical difference between all the groups of training (Wilks’ Lambda = .910 F(9,268) = 1.18, p-value = .31, $\eta^2 =.03$). These results suggest that people, who have training and those who have no training do not show any difference in support from family, government and banks, and competition.
SYB skills achievement: ability to reconcile family and business, ability to adapt to business needs

Table 4 displays the means and standard deviations for the measures of SYB skills achievement for each group.

< insert table 4 here>

The results of two variables in the skills achievement measure (ability to adapt to business and ability to reconcile family and business) indicate no statistical difference between all the groups (Wilks’ Lambda = .917, F(6.222,) = 1.66, p-value = .14, \( \eta^2 = .04 \)). These results suggest that people who have training and those with no training show the same ability in the adaptation to business and in the level of reconciling family and business.

IYB skills achievement: problem solving, opportunity seeking, innovation and negotiation skills:

Table 5 displays the means and standard deviations for the measures of IYB skills achievement for each group.

<insert table5 here>

A multivariate analysis of variance revealed a significant difference in IYB skills achievement measures (problem solving skills, opportunity seeking skills, management innovation skills and product innovation skills) for participants from different group of training (Wilks’ Lambda =.785, F(15,298.54) =1.83 p-value =.03, \( \eta^2 =.08 \)). Moreover, univariate tests also showed a significant difference in the mean for problem solving skills \( (F (3,112) = 3.74, p-value = .01, \eta^2 = .09) \) and in the mean level of opportunity seeking \( (F(3,112) = 3.77, p-value = .01, \eta^2 =.09 ) \) for participants in the different groups.

As the results indicate that there is a statistical significant difference between the groups, a follow up test was conducted to inspect the level of problem-solving skills and opportunity between those participants who did training and those who did not do any training at all. The results of planned contrasts revealed that, participants who did not do training presented significantly lower level of opportunity
seeking than those who did training ($t(112) = 3.06, p-value = .003$). These results indicate that people who have done training exhibited more opportunity evaluating skills than those who did not do training. However, contrary to expectation, participants who did some training did not significantly display higher score in problem solving skills than those who did not do training ($t(112) = 1.48, p-value = .14$). These results suggest that people who did training did not have any more problem-solving skills than those who did not do training.

**CONCLUSION**

The study has attempted to provide a quantitative assessment of the Start and Improve Your Business (SIYB) entrepreneurial training program in Botswana. The findings suggest no evidence of program effects in a range of outcomes between the different groups. In particular, there were no significant differences on a composite measure of business performance. Nevertheless, small differences, albeit non-significant, were observed between groups on many important measures. The groups of those who participated in the SIYB program scored consistently higher than those who did not attend the course on the measure ‘ability to reconcile family and businesses and the measure of ‘ability to adapt to business needs’. Moreover, contrast analysis also showed that opportunity evaluating skills were demonstrated much more among those trained than those not trained. Given that there were largely insignificant differences between the groups, it was a challenge to develop a structural model for predicting the relationship between entrepreneurship education and business performance.

A more courageous interpretation of results would be that SIYB program implemented in Botswana failed to meet expectations in respect of its own objectives. It is important to conduct further research on SIYB program worldwide to evaluate its impact on small businesses.
REFERENCES


Table 1- Two main perspectives of entrepreneurship research

<table>
<thead>
<tr>
<th>Organizational Context</th>
<th>Principal Action Focus</th>
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<tbody>
<tr>
<td>New Organizations</td>
<td>Creation of new means and ends relationships</td>
</tr>
<tr>
<td>(A) Innovation oriented venture creation</td>
<td>(B) Non-innovation oriented venture creation</td>
</tr>
<tr>
<td>Existing Settings</td>
<td>(C) Innovation oriented venturing in existing contexts (e.g. corporate venturing; licensing via markets etc.)</td>
</tr>
</tbody>
</table>

Sources: Klyver 2005; Blackman and Hindle 2007.

Figure 1: Key attributes for Entrepreneurship.

Table 2: Means and Standard Deviations for psychographics measures

<table>
<thead>
<tr>
<th>Measure</th>
<th>N35 No training</th>
<th>N24 Only others</th>
<th>N35 SYB and others</th>
<th>N22 IYB and others</th>
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<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
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<tr>
<td>Motivation</td>
<td>4.51</td>
<td>1.38</td>
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<td>.92</td>
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<td>Self-efficacy</td>
<td>3.11</td>
<td>.53</td>
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<td>.59</td>
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Table 3: Means and Standard Deviations for enabling environment measures

<table>
<thead>
<tr>
<th>Measure</th>
<th>N35 No training</th>
<th>N24 Only others</th>
<th>N35 SYB and others</th>
<th>N22 IYB and others</th>
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<tr>
<td>Family support</td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
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<td>Family support</td>
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<td>1.49</td>
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<td>Government/Bank Support</td>
<td>3.37</td>
<td>1.31</td>
<td>3.49</td>
<td>1.05</td>
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<tr>
<td>Competition</td>
<td>363</td>
<td>1.15</td>
<td>3.98</td>
<td>1.23</td>
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### Table 4: Means and Standard Deviation for SYB skills achievement measures

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<th>Measure</th>
<th>N35 No training</th>
<th>N24 Only others</th>
<th>N35 SYB and others</th>
<th>N22 IYB and others</th>
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<td>Ability to adapt</td>
<td>M:3.19</td>
<td>M:2.85</td>
<td>M:2.97</td>
<td>M:3.27</td>
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<td></td>
<td>SD:1.18</td>
<td>SD:1.64</td>
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<td>Ability to reconcile family and business</td>
<td>M:3.06</td>
<td>M:2.30</td>
<td>M:2.29</td>
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<td></td>
<td>SD:1.06</td>
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<td>SD:1.12</td>
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### Table 5: Means and Standard Deviation for IYB skills achievement measures

<table>
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<tr>
<th>Measure</th>
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<th>N24 Only others</th>
<th>N35 SYB and others</th>
<th>N22 IYB and others</th>
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<tr>
<td>Problem solving</td>
<td>M:3.99</td>
<td>M:3.80</td>
<td>M:4.44</td>
<td>M:4.78</td>
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<td>SD:1.16</td>
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<td>Opportunity</td>
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<td>M:4.26</td>
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