This study examined preservice teachers' beliefs in light of potential cultural differences in perceived efficacy in Taiwan and America. Subjects were 240 preservice teachers at the beginning or the ending points of their teacher education programs in Taiwan and 231 comparable American preservice teachers. Subjects completed a revised version of the Gibson and Dembo (1984) teacher efficacy scale. Multivariate tests indicated that the preservice teachers in these two countries may have conceptually different expectations of teaching (e.g., parental support, social awareness, individual effort). However, efficacy beliefs of preservice teachers in these two countries showed a similar pattern regarding their capability to adjust to individual children. Findings suggest that, in both countries, preservice teachers' efficacy beliefs may be influenced by the context of their studies, by their increasing competence and experience as teachers, and by cultural perspectives. Contains 19 references. (Author/HTH)

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Culture and Educational Experiences Influence American and Taiwan

Pre-Service Teachers’ Efficacy Beliefs

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Abstract

Two hundred and forty pre-service teachers at the beginning and ending points of their teacher education programs in Taiwan and 231 comparable American pre-service teachers completed a revised version of the Gibson and Dembo (1984) teacher efficacy scale.

Multivariate tests indicated that the pre-service teachers in these two countries may have conceptually different expectations of teaching (e.g., parental support, social awareness, individual effort). However, efficacy beliefs of pre-service teachers in these two countries showed a similar pattern regarding their capability to adjust to individual children.

Results suggest that, in both countries pre-service teachers' efficacy beliefs may be influenced by the context of their studies, by their increasing competence and experience as teachers, and by cultural perspectives.
Culture and Educational Experiences Influence American and Taiwan Pre-Service Teachers' Efficacy Beliefs

As teacher efficacy beliefs are examined in an increasingly varied number of contexts, questions about the adequacy and robustness of the construct across differing cultural and national boundaries are beginning to emerge (Ares, Gorrell, & Boakari, 1997, 1998; Lin & Gorrell, in press). While perceived efficacy appears to be a factor in human functioning across many domains (Bandura, 1997), we are concerned with the usefulness of the construct when trying to understand teacher preparation and development in other countries. A series of studies associated with teacher efficacy beliefs, using slightly modified versions of the most commonly employed teacher efficacy scale (Gibson & Dembo, 1984) are raising the possibility that teacher efficacy needs to be considered as a variable construct that draws heavily upon cultural differences from country to country (Ares, Gorrell & Boakari, 1997, 1998; Gorrell, Hazareesingh, Carlson, & Sjoblom, 1993; Gorrell & Hwang, 1995; Lin & Gorrell, in press; Rich, Lev, & Fischer, 1996). Thus, teacher efficacy may incorporate dimensions of belief that go beyond the two-factor approach of Gibson and Dembo's well-documented instrument.

Teacher efficacy is not single factor frame of reference (Ashton & Webb, 1986; Gibson & Dembo, 1984; Guskey & Passaro, 1994; Soodak & Podell, 1996; Woolfolk & Hoy, 1990). It incorporates beliefs about whether a particular teacher can make a difference with students (personal efficacy) and whether teachers in general can make a difference with students (general efficacy). Efficacy beliefs influence pre-service teachers in their education programs (Lortie, 1973;
Zeichner, 1980). Some studies (Hollingsworth, 1989; Spector, 1990; Zeichner, 1980) show that teacher preparation programs appear to advance attitudes and beliefs of pre-service teachers as they progress through their programs of study.

While researchers have examined pre-service teachers’ efficacy extensively in the United States, they are just beginning to explore the nature or structure of pre-service teacher efficacy beliefs in other countries. For example, Rich, Lev and Fischer’s (1996) study of the validity of the Gibson and Dembo teacher efficacy scale in Israel indicated a similar factorial structure of the teacher efficacy scale as with an American sample. Their study suggests that these factorial similarities reflect similarities in the ways that American and Israeli teachers conceptualize their relationships with students and their influences on student achievement.

In a different vein, a study comparing American, Swedish, and Sri Lankan pre-service teachers (Gorrell, Hazareesingh, Carlson, & Sjoblom, 1993) found that American pre-service teachers were more positive in their beliefs about the general efficacy of teaching than the Swedish and Sri Lankan teachers, while Sri Lankan pre-service teachers revealed higher levels of personal efficacy than American pre-service teachers. Since that study did not consider the factor structures of the instrument in each country, the findings may disguise some important conceptual differences in perceived efficacy among respondents in each country. Likewise, Gorrell and Hwang’s (1995) study of beginning and ending pre-service early childhood and elementary students in South Korea showed higher levels of personal teaching efficacy beliefs among ending students than among beginning students, even though they did not differ from beginning to end in their responses to the general teaching efficacy items. This study yielded results that were interpretable in terms of the two-factor structure of teacher efficacy, but the actual factor
structure for the Korean sample was not formally explored because of the limited (N=90) sample size.

Results from the studies in Israel, Korea, and Sweden tend to confirm the general finding that, when teachers gain experience, their sense of personal efficacy becomes more salient (Soodak, & Podell, 1996). Thus, the growth of knowledge during teacher education programs may lead to strengthening and crystallizing pre-service teachers' efficacy beliefs. Some confirmation of that trend was found in a study of beginning and ending pre-service teachers in Brazil (Ares, Gorrell, & Boakari, 1997, 1998), wherein pre-service teachers at the end of their program of study had more focused and integrated beliefs about the efficacy of their efforts to help students achieve, even though a strong distrust of public institutions appeared to attenuate their beliefs about their personal efficacy overall. Additionally, Lin and Gorrell's (in press) study of Taiwan pre-service teachers suggested that beginning-level and ending-level pre-service teachers had some conceptual differences in their sense of efficacy. Relationships between items that represent the factors of family and of teacher effectiveness are more integrated into the ending-level pre-service teachers' conceptions of teaching.

In the current study, we examined pre-service teachers' beliefs in light of potential cultural differences in perceived efficacy in Taiwan and America. This study of cross-cultural and cross-sectional differences recognizes the complex nature of teachers efficacy beliefs and intends to examine a variety of culture background and learning experience variables considered to be important in the efficacy beliefs of pre-service teachers in Taiwan and America.
Teacher Education in Taiwan

In Taiwan, a special division of preschool teacher education has been built into the organization of the four year teacher education program that provides formal education for prospective kindergarten and elementary teachers. While Taiwan elementary teachers are taught in teacher colleges or universities, kindergarten teachers are also taught in teachers colleges which offer bachelor’s degrees or they may be taught in normal schools which operate below the bachelor’s degree level. Teaching in Taiwan is a highly respected profession. Because school teachers are well paid, highly respected, and have high job security, teaching tends to attract highly capable individuals and to be their profession for life.

In Taiwan, nation-wide entry examinations are used for teacher education programs. Students’ entry into the teaching profession is determined by government bodies in collaboration with teacher preparation programs. Pre-service teachers follow a national curriculum and are required to take a combination of general education, teaching pedagogy, psychology courses, and practice teaching. The four years of course work include 148 credits in primary education, education psychology, teaching principles, types of teaching materials and methods in language arts, social studies, mathematics, natural sciences, music, fine arts, crafts, and teaching practice. Licensing requirements include a full-year internship and a licensing test at the end of the internship.

In sum, there are some differences and similarities between Taiwan and American early childhood and elementary education programs. While some differences are found in the way curriculum is determined and length of internship, similarities are found in the primary teacher’s gender and the program goal to prepare generalists at the early childhood and elementary
education levels. In Taiwan and in America, the teaching force is almost entirely composed of women at the pre-primary and primary school levels. Both countries require the completion of secondary education for entry into teacher preparation programs. However, Taiwan students enter into teacher preparation during their first year of their program while American students usually do not formally enter into teacher preparation programs until their third year of college. With these similarities and differences in mind, we explore how teacher efficacy for pre-service teachers differ within each country at the beginning and ending of their respective programs.

Method

Participants

All of the Taiwan participants were enrolled in practical, college-based four year teacher training programs. In 1996, they were selected to be in this study from four teacher colleges and one polytechnic institute which admits senior high (vocational) graduates to receive four years of education. Seven hundred and fourteen early childhood and elementary pre-service teachers who are prepared for teaching children in child care, preschool, kindergarten and elementary school participated in this study. In order to match American sample, 240 out of 714 pre-service teachers in the Taiwan sample were randomly chosen. The sample was composed of two groups: (a) those students entering teacher education programs -- 143 students completing their first year of the teacher training program (62 students enrolled in early childhood education, 81 students enrolled in elementary major), and (b) students near the endpoint in their teacher education programs -- 97 students completing their third year of the teacher training program (46 students enrolled in early childhood education, 51 students enrolled in elementary major). Ninety-nine percent of the participants were under twenty-five years of age, and approximately 80 % were female. Since
Taiwan’s teacher education curriculum is adopted nationally, requirements differed very little between programs. The difference between the two groups is that the pre-service teachers completing their third year of the teacher training program, in addition to completing two more years of background and methods courses, completed the requirement of teaching one week in a classroom. Subjects participated voluntarily in answering questionnaires.

All of the participants in the American sample were enrolled either in the early childhood program or the elementary education program at a southern university. Two hundred and thirty-one early childhood and elementary pre-service teachers who were preparing to teach children in child care, preschool, kindergarten and elementary school participated in this study. The sample was composed of two groups: (a) 121 students just entering the teacher education program (60 early childhood and 61 elementary) and (b) 110 students in their final quarter of their program (60 early childhood and 50 elementary). Ninety-four percent of the subjects were under twenty-five years of age and approximately 95% of participants were female. Ending-level students in early childhood programs completed 300 hours of practical work with children prior to their student teaching and ending-level students in elementary programs completed 160 hours of practical work prior to their student teaching. Subjects volunteered to answer the questions on the instrument.

**Instrument**

The teacher efficacy scale was developed by Gibson and Dembo (1984) for measuring the two dimensions of personal teaching efficacy (PE) and general teaching efficacy (TE). Sixteen out of the original thirty items had acceptable reliability coefficients based upon principal components factor analysis. In the present study, the instrument was a slightly revised form of Gibson and Dembo’s (1984) Teacher Efficacy Scale reflecting an early childhood education emphasis. For
example, references to earning grades were replaced with references to doing well in school. The revised instrument contains those 16 items plus two other items that reflect issues associated with cultural differences (items # 9 & 13). Demographic information includes age, gender, level of the teacher, and minor or collateral field and degree. Each item is rated on a 5-point Likert scale from strongly agree (5) to strongly disagree (1) with a neither agree nor disagree as the mid point (See Appendix for examples of the items). Higher total scores on this scale reflect higher levels of perceived efficacy.

Data analysis

Multivariate analysis of variance (MANOVA) procedures were used to determine if statistically significant differences existed between the cross-country and cross-sectional samples representing pre-service teachers in Taiwan and America at the beginning and ending points of their teacher training programs. When group differences were identified, follow-up univariate analysis were conducted.

Results

There were overall significant differences between Taiwan and American pre-service teachers’ efficacy beliefs at the beginning- and ending-levels. Based on Taiwan and American pre-service teachers’ reports, we found there also were significant differences between beginning- and ending-level pre-service teachers’ responses on the teacher efficacy scale (Gibson & Dembo, 1984) in these two countries. The internal consistency estimate (Cronbach’s Alpha) for the total sample was .724
Differences in Efficacy Between Taiwan and American Samples

The results of the MANOVA revealed overall statistically significant differences in pre-service teachers' efficacy beliefs in Taiwan and America, $F (18, 443)= 43.38, p<.001$. To determine the effect size, we used $\eta^2$. Values of $\eta^2$ that fall below .01 are considered to be weak effect sizes; from .06 to .14, moderate; and above .14, strong (Green & Akey, 1997). The $\eta^2$ of .638 indicated that the 18-item teacher efficacy scale was very strong in differentiating the two groups. The Wilks’ Lambda of .362 indicated more than 60% of the variance in the synthetic variable was attributed to differences between these two countries. American pre-service teachers were statistically significantly higher than Taiwan pre-service teachers on the total score of the teacher efficacy scale. The means and standard deviations for teachers' efficacy beliefs in these two countries and groups (beginning-level, ending-level) are presented in Table 1.

Insert Table 1 about here

Differences Between Beginning-Level and Ending-Level of Pre-Service Teachers

In the overall MANOVA, Wilks’ Lambda (.919), $F (18, 443)= 2.17, p<.005$, $\eta^2=.081$, we found a statistically significant difference between beginning-level and ending-level pre-service teachers’ efficacy beliefs. The means and standard deviations for teachers’ efficacy beliefs were 60.17 (5.9) in the beginning-level and 61.49 (8.02) in the ending-level. MANOVA also revealed a statistically significant interaction related to country and the point where pre-service teachers were in the teacher education programs (beginning or ending levels), $F (18, 443)= 2.75, p<.001$, $\eta^2=.101$. 

11
Univariate Analyses for American and Taiwan Differences

Since there was a statistically significant main effect found from the comparison between American and Taiwan pre-service teachers, we conducted follow-up univariate analysis that revealed that American pre-service teachers were statistically significantly higher than Taiwan teachers on 14 of the 16 items. Taiwan pre-service teachers were statistically significantly higher than American pre-service teachers on 2 items (see Table 2). Two other items revealed no statistically significant differences.

American Pre-Service Teachers’ Efficacy Beliefs

Because there was a statistically significant interaction revealed in the MANOVA, we looked at the differences between beginning-level and ending-level pre-service teachers in each country. Multivariate analysis for the American sample revealed statistically significant differences between these two groups on the teacher efficacy measures, Wilks’ Lambda = .79, $F$ (18, 209) = 2.99, $p < .05$. The $\eta^2$ based on Wilks’ Lambda was strong, .995. Follow up univariate analysis of variance for the total score on the efficacy scale indicated that American pre-service teachers’ sense of efficacy beliefs increased during their teacher education (beginning-level, mean=63.98, ending-level, mean=66.39). The internal consistency estimate for this sample was .612.

Follow-up univariate analysis of variance for the 18 dependent variables are presented in Table 3. Significant univariate $F$ values were found for items 2, 3, 5, 9, 10, 17, in two groups of pre-service teachers (beginning-level group, ending-level group).
Taiwan pre-service teachers’ efficacy beliefs

Multivariate analysis of variance for the Taiwan sample found statistically significant differences between beginning group and ending group on the teacher efficacy measures, Wilks’ Lambda = .850, F (18, 217) = 2.12, p = .006. The multivariate $\eta^2 = .15$. Univariate analyses of variance for the sum of 18 items revealed that ending-level pre-service teachers’ efficacy score lower than beginning-level pre-service teachers (beginning-level, mean=56.97, ending-level, mean=55.93). Univariate analysis conducted on each item as follow-up tests to the MANOVA (see Table 3) revealed that items 2, 4, 11 on the group variable were statistically significantly different. The internal consistency estimate for this sample was .545.

Discussion

Results from the study indicate that in the Taiwan and American samples, beginning-level and ending-level, there were marked differences on this particular scale. American pre-service teachers had higher efficacy beliefs than Taiwan pre-service teachers both at the beginning and ending of programs. Some significant differences for individual efficacy items were found between Taiwan and American groups. These scale item differences indicated that the pre-service teachers in these two countries may have conceptually different expectations of teaching (see Table 2 for a comparison of statistically significantly different items across countries). For example, in the Taiwan sample, teachers’ effectiveness typically counts on partnerships with parents. The pre-service teachers in Taiwan do not think that they are less effective because they expect support
from students’ home environment and parents. This finding is consistent with the finding from Lin and Gorrell’s (in press) study of pre-service teachers’ efficacy in Taiwan. Additionally, pre-service teachers in Taiwan are aware of the problems in early childhood education (e.g. a high child-to-adult ratio). This awareness may affect their answers to the questions in conservative ways which are reflected in their lower scores on this particular scale (Lin, 1998). They generalized the questions in a broad sense which reflected their perspectives and social attitudes of teachers and education in Taiwan. In comparison, an American emphasis on individualism and individual effort as being effective means of making a difference may account for the American participants’ higher levels of efficacy in that they hold the belief that they can succeed despite difficult odds (Ashton & Webb, 1986).

Across the whole sample, pre-service teachers’ efficacy beliefs increased during the process of teacher education. This finding may be understood in terms of increasing competence and experience in teaching. However, a closer look at this result reveals differences between the two countries; American pre-service teachers’ scores were higher at the end and Taiwan pre-service teachers’ scores were lower at the end when comparing them with the beginning scores. When results from the two countries are pooled, it is the higher American scores that create the statistically significant, but functionally unimportant difference. Thus, it becomes more germane to discuss the changes that occur in each country rather than concentrating on the results of the pooled scores of both countries.

American pre-service teachers’ sense of efficacy increased during their teacher education program. The ending-level pre-service teachers have a higher sense of efficacy in their ability to guide difficult children, their extra effort in making differences in children’s learning, knowing
more effective ways of teaching, having good teaching abilities to reach many children, having confidence in their effectiveness in teaching even children without guidance at home and in offering cultural learning experiences. These specific differences may reflect an emphasis in their teacher preparation courses on teaching children with widely different abilities and backgrounds, a perspective that has grown in importance in recent American school curricula. Additionally, their experiences during student teaching would be likely to increase their perceptions of their ability to teach a relatively wide number of different students.

When we look at items on this instrument that appear to reflect strong positive beliefs (mean of 3.80 or higher), we see that American early childhood and elementary education pre-service teachers generally have a strong sense of their ability to adjust their teaching to different developmental levels, offer culturally appropriate learning experiences to children from diverse backgrounds, negotiate differences with parents and children from different backgrounds, use effective strategies for handling disruptive students, provide appropriate alternative learning experiences for children who are not successful, and teach children effectively. They also tend to believe that positive experiences at school can make up for negative experiences outside of school.

The ending-level pre-service teachers in Taiwan reported a lower sense of efficacy than the beginning-level teachers in their ability to guide difficult children, to overcome the influence of the home environment and to be successful without parental support. Their sense of effectiveness is not independent from a sense of a sharing responsibility with parents for children’s learning. The beginning-level pre-service teachers in Taiwan believe that they have to take the majority of the responsibility for children’s learning at school which is in contrast to the ending-level view. Some of the early childhood and elementary education pre-service teachers’ responses (items with means
above 3.80) reflect a similar pattern as American pre-service teachers, reflecting beliefs in their capability to adjust a task to the learners’ developmental level and respond to individual differences. These similarities in emphasis on adjusting to individual children may reflect similar program-level orientations toward teaching all children.

The total teacher efficacy scores on 16 items of American pre-service teachers in the present study were significantly higher than those scores of pre-service teachers in Taiwan. Taiwan pre-service teachers were significantly higher than American pre-service teachers on 2 items (items #6 & 8). Perhaps Taiwan pre-service teachers do not reveal the same sense of teachers’ efficacy as American pre-service teachers do. Since the instrument was created by using American samples, it is possible that some items are not suitable to apply to differing cultural perspectives. The findings support our views that the pre-service teachers’ efficacy beliefs may be influenced by the structural context of their study, by the goals orientation in their teacher training programs and by cultural perspectives.

Parental support of teachers is revealed differently in the two countries. Responses to some items may vary due to semantic issues and cross-cultural differences regarding parent support in the contents of teacher efficacy beliefs. For example, item 11 refers to difficulties teachers may face if they do not have parental support. For this item, there was no statistically significant difference between the beginning-level and ending-level group in the American sample. For the Taiwan sample, however, the statistically significant difference shows that ending-level pre-service teachers are more likely to agree that they need parental support. In addition, there is a clear difference between the pre-service teachers in both countries in how they respond to this item. Taiwan pre-service teachers agree with this item more, suggesting that they view the relationships between
parents and teachers as more collaborative. The difference in interpretation of this item between
the two countries suggests that the relationship between parents (family) and teacher effectiveness
is more connected with Taiwan pre-service teachers' conceptions of teaching. The family is the
center of education in Taiwan and parents play a major role in encouraging and supporting their
children's education (Chiang & Green, 1995). In a Chinese society, teachers and parents are given
indisputable authority in their educational duties. Therefore, teachers' sense of effectiveness is
shared with parents' responsibilities for their children's education. Pre-service teachers perceive
the importance of family responsibility in student learning (Lin & Gorrell, in press). Their beliefs in
parental support are integral to their effectiveness as a teacher. Although there is a similar belief in
America that teachers need the support of parents, American responses to this item emerge from a
stronger sense that parental support is not commonly given to teachers, thereby limiting their
effectiveness. Because the American culture tends to emphasize the strength of the individual, this
item also reflects their belief that they have to be successful even without parental support.

What can be learned from the differences found in teacher efficacy beliefs between Taiwan
and America which related to kindergarten, primary and elementary teachers? First, the significant
interaction between the two countries suggests that cultural values shape pre-service teachers
beliefs about their efficacy. Next the significant main effects suggest that American early childhood
and elementary programs do effect change in pre-service teacher efficacy beliefs and that change is
toward a stronger sense of efficacy. Taiwan early childhood and elementary programs also change
pre-service teachers efficacy belief in a direction that is consistent with cultural values. Future
studies should include an exploration of other cross-country and cross-section issues to see if
these same patterns exist in teacher education programs in other countries.
Table I. Mean Scores of Pre-service teachers by group and country

<table>
<thead>
<tr>
<th></th>
<th>America</th>
<th>Taiwan</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>Beginning-level</td>
<td>63.98</td>
<td>4.91</td>
<td>56.97</td>
</tr>
<tr>
<td>Ending-level</td>
<td>66.39</td>
<td>5.84</td>
<td>55.93</td>
</tr>
<tr>
<td>Total</td>
<td>65.13**</td>
<td>5.49</td>
<td>56.55</td>
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</table>

**p<.01

*p<.05
Table 2. Means for each item by country

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<thead>
<tr>
<th>Item</th>
<th>America</th>
<th>Taiwan</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Family background*</td>
<td>1.56**</td>
<td>1.98**</td>
</tr>
<tr>
<td>2. Guide difficult children</td>
<td>3.78**</td>
<td>3.37**</td>
</tr>
<tr>
<td>3. Extra effort</td>
<td>3.31**</td>
<td>2.92**</td>
</tr>
<tr>
<td>4. Home environment*</td>
<td>1.27**</td>
<td>2.98**</td>
</tr>
<tr>
<td>5. Guidance at home*</td>
<td>1.82**</td>
<td>2.63**</td>
</tr>
<tr>
<td>6. Adjust to student’s level</td>
<td>4.00*</td>
<td>4.11*</td>
</tr>
<tr>
<td>7. Home environment*</td>
<td>1.49**</td>
<td>2.50**</td>
</tr>
<tr>
<td>8. Better ways of teaching</td>
<td>3.03**</td>
<td>3.30**</td>
</tr>
<tr>
<td>9. Offer culturally learning experience</td>
<td>4.12**</td>
<td>3.79**</td>
</tr>
<tr>
<td>10. More effective ways of teaching</td>
<td>3.74</td>
<td>3.63</td>
</tr>
<tr>
<td>11. Parent support*</td>
<td>2.80**</td>
<td>3.57**</td>
</tr>
<tr>
<td>12. Know how to intervene</td>
<td>4.30</td>
<td>3.99</td>
</tr>
<tr>
<td>13. Ability to positively negotiate differences</td>
<td>3.99**</td>
<td>3.76**</td>
</tr>
<tr>
<td>14. Know strategies for handling misbehavior</td>
<td>4.14**</td>
<td>3.78**</td>
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<tr>
<td>15. Positive school experience</td>
<td>3.97**</td>
<td>3.75**</td>
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<tr>
<td>16. Provide appropriate alternatives</td>
<td>4.11**</td>
<td>3.83**</td>
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<tr>
<td>17. Not able to reach children*</td>
<td>2.14**</td>
<td>3.13**</td>
</tr>
<tr>
<td>18. Able to teach effectively</td>
<td>3.99**</td>
<td>3.20**</td>
</tr>
</tbody>
</table>

Note: Items with a asterisk (1, 4, 5, 7, 11, 17) are negative. Lower scores indicate more positive responses on those items.

*p < .01, **p < .05
Table 3. Means for each item by group and country

<table>
<thead>
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<th>item</th>
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</thead>
<tbody>
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<td></td>
<td>beginning</td>
<td>ending</td>
<td>beginning</td>
<td>ending</td>
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<td>1. Family background*</td>
<td>1.66</td>
<td>1.45</td>
<td>1.94</td>
<td>2.01</td>
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<tr>
<td>2. Guide difficult children</td>
<td>3.66*</td>
<td>3.90*</td>
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<td>3.24*</td>
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<tr>
<td>3. Extra effort</td>
<td>3.17*</td>
<td>3.46*</td>
<td>2.92</td>
<td>2.92</td>
</tr>
<tr>
<td>4. Home environment*</td>
<td>1.27</td>
<td>1.26</td>
<td>2.86*</td>
<td>3.11*</td>
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<tr>
<td>5. Guidance at home*</td>
<td>1.99*</td>
<td>1.66*</td>
<td>2.57</td>
<td>2.68</td>
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<td>6. Adjust to student's level</td>
<td>3.97</td>
<td>4.02</td>
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<tr>
<td>7. Home environment*</td>
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<td>1.49</td>
<td>2.54</td>
<td>2.47</td>
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<tr>
<td>8. Better ways of teaching</td>
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<td>3.15</td>
<td>3.22</td>
<td>3.39</td>
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<tr>
<td>9. Offer culturally learning experience</td>
<td>3.91**</td>
<td>4.32**</td>
<td>3.86</td>
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<td>10. More effective ways of teaching</td>
<td>3.62*</td>
<td>3.86*</td>
<td>3.59</td>
<td>3.68</td>
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<tr>
<td>11. Parent support*</td>
<td>2.69</td>
<td>2.92</td>
<td>3.44*</td>
<td>3.70*</td>
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<tr>
<td>12. Know how to intervene</td>
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<td>4.01</td>
<td>3.96</td>
<td>4.01</td>
</tr>
<tr>
<td>13. Ability to positively negotiate differences</td>
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<td>4.06</td>
<td>3.76</td>
<td>3.75</td>
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<tr>
<td>14. Know strategies for handling misbehavior</td>
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<tr>
<td>15. Positive school experience</td>
<td>3.98</td>
<td>3.96</td>
<td>3.85</td>
<td>3.66</td>
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<tr>
<td>16. Provide appropriate alternatives</td>
<td>4.08</td>
<td>4.14</td>
<td>3.85</td>
<td>3.81</td>
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<tr>
<td>17. Not able to reach children*</td>
<td>2.30*</td>
<td>1.99*</td>
<td>3.17</td>
<td>3.09</td>
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<tr>
<td>18. Able to teach effectively</td>
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</tbody>
</table>

Note: Items with an asterisk (1, 4, 5, 7, 11, 17) are negative. Lower scores indicate more positive responses on those items.

* p<.05
** p<.01
Appendix: Items on the teacher efficacy scale

1*  The amount a child can learn is primarily related to family background.
2   I can successfully guide even the most difficult children.
3   When a child learns something better than he or she normally learns, many times it is because I exerted extra effort.
4*  The hours in my class have little influence on children compared to the influence of their home environment.
5*  If children do not receive guidance at home, they aren’t likely to accept any guidance.
6   When a child is having difficulty with a task, I am usually able to adjust it to his or her developmental levels.
7*  A teacher is very limited in what he or she can achieve because a child’s home environment is a large influence on his or her development.
8   When a child performs at a higher developmental level for his or her age, it is usually because I have found better ways of working with that child.
9   I can offer culturally appropriate learning experiences to children from diverse backgrounds.
10  When children improve their ways of working with materials, it is usually because I found more effective ways of facilitating their learning.
11* If parents would do more with their children, I could do more.
12  If a child gets frustrated interacting in a learning situation, I know how to intervene to help him or her feel successful.
13  I have the ability to positively negotiate differences I have with parents and children from different ethnic, economic, and cultural backgrounds.
14  If a child in my class becomes disruptive and noisy, I feel assured that I know some strategies for dealing with the situation.
15  Positive experiences at school can make up for negative experiences outside school.
16  If a child is not successful completing a learning experience, I would be able to provide appropriate alternatives to help that child succeed.
17* Even a teacher with good teaching abilities may not reach many children.
18  If a child learns something thoroughly, this might be because I was able to teach him or her effectively.

*Items are reverse-scaled to create a total score


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