

# *Journal of Invitational Theory and Practice*

Volume 17, 2011



# *JITP*



INTERNATIONAL ALLIANCE FOR INVITATIONAL EDUCATION®

The *Journal of Invitational Theory and Practice* (JITP) promotes the study, application, and research of invitational theory. It publishes articles to advance invitational learning and living and the foundations that support this theory of practice, particularly self-concept theory and perceptual psychology.

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## Editor's Comments

Daniel E. Shaw, Ph.D., M.Ed., Editor

### This Issue

#### A Different Look and Feel

Volume 17, 2011 of the JITP is “different” from past issues in a few ways. Some of you may have noticed one change immediately, by the presence of the QR code on our cover. For those unfamiliar with QR codes, I will explain later. Those of you with smart phones, I hope your response was positive. Before further describing what’s “different”, let me briefly state what has not changed! In a word, content. The JITP still continues to publish articles which promote the tenets of invitational theory and practice, self-concept theory, and perceptual psychology. This has been one of the journal’s purposes since it first appeared in the winter of 1992 under the editorship of IAIE “long marcher” John J. Schmidt. Most of us call him Jack, which he warmly and genuinely encourages.

#### Rationale

The rationale for the changes/differences, are rooted in our nation’s current turbulent economy and changes in technology. These are times, as you well know personally, that require watching our pennies. To the best of my knowledge (I’m not the treasurer); IAIE is on solid financial ground. Hence, our membership need not worry for the alliance.

As editor of the journal, I am obligated to contain costs in order to stay within budget. The cost for all that is involved in the final production of the journal has risen. Printing, paper, and postage are at the very top of the list. The physical weight of our publication is directly correlated to the cost of mailing the JITP to our membership and other subscribers.

The journal’s board of editors want to provide you with an increasingly higher quality academic journal, at the lowest possible cost to IAIE, with minimal sacrifice to our readers and the actual physical aspect of the journal itself. I hope you find the changes to be a move in a positive direction.

#### QR Codes

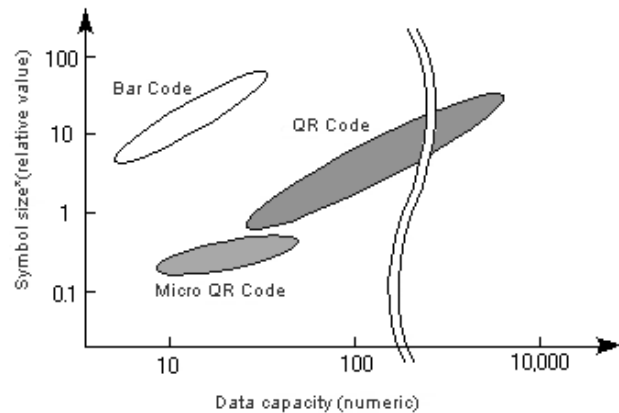


The QR Code® used in this issue is one of many styles of two dimensional symbols, developed in 1994 by Denso Wave Inc. of Japan, with the main objective of “Code read easily for the reader”<sup>1</sup>.

#### Footnote

<sup>1</sup><http://www.denso-wave.com/qrcode/index-e.html>

This type of symbol encodes significantly more data in a smaller size as indicated in the graph<sup>1</sup> below.



The QR Code® is used as a way to provide people with immediate or further information. I’m sure you’ve seen it in magazines, product wrappers, and a variety of other places. It



evolved as the next step up from the red laser read bar codes we find on the thousands of products we see, use, or consume on a daily basis.

Inventory and price of physical goods are instantly tracked for the business owner. At the grocery or department store (to name but two places), the individual operating the “cash register” is better able to more quickly move the line of customers to the end of their shopping experience. The bar code system produces a more accurate, detailed, and multiuse receipt for the purchaser.

#### What’s In It for You?

For you the reader of the JITP, I have strategically placed an assortment of *QR codes for you to scan with your smart phone* which contain useful information literally at your fingertips. The following are the main formatting changes in this issue.

- QR Codes
- Space saving layout
- Smaller fonts, page margins, and gutter

Send an “email to the editor” letting me know what you think of the different look; good, bad, neutral, whatever reaction(s) you have. [danshaw@nova.edu](mailto:danshaw@nova.edu)

# The Role of Invitational Education and Intelligence Beliefs in Academic Performance



Citation

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## Abstract

*The purpose of the present study is to examine the role of Invitational Education and intelligence beliefs in the academic performance of high school students. The research population comprised all male and female students studying at high schools in the academic year of 2009-2010 in Kashmar, a city in Iran. Selected through multi-stage random sampling The research sample included 540 students (270 females and 270 males). The research instruments were the Invitational Teaching Survey (Amos, Purkey, & Tobias, 1984), and Intelligence Beliefs Questionnaire (Zabihi, 2005). Students' grade point average was used as an indicator of academic performance during high school. Data were analyzed using path analysis of direct and indirect effects of Invitational Education on intelligence beliefs and performance of high school. The results showed that of the sub-components of Invitational Education, as described in the Invitational Teaching Survey (Amos, Purkey & Tobias, 1984), consideration has positive and significant effect on incremental intelligence and performance. Coordination has positive and significant effect on inherent intelligence beliefs. Skill has positive and significant effect on incremental intelligence and performance. Incremental intelligence beliefs have positive and significant effect on performance. Consideration has negative and significant effect on inherent intelligence beliefs. Coordination has negative and significant effect on inherent intelligence beliefs. Inherent intelligence beliefs have negative and significant effect on performance. Skill has negative and significant effect on inherent intelligence beliefs. Consideration, coordination and skill components of Invitational Education have indirect and significant effect on performance through inherent and incremental intelligence beliefs. These findings show that it is necessary to take the role of Invitational Education and intelligence beliefs into account when studying academic performance.*

## Invitational Theory and Practice

Invitational Theory and Practice (ITP) is a collection of suppositions, beliefs, attitudes, and behaviors that seek to explain the relationship between communication and self-concept ITP describes a means of intentionality summoning people to realize their potentials in areas of worthwhile human endeavor. Its purpose is to address the global nature of human existence and opportunity, and to make life a more exciting, satisfying and an enriching experience. In education, how teachers can encourage or discourage students to learn is among the main issues in ITP (Purkey, Schmidt, & Novak, 2010).

The basic assumptions of Invitational Education are as follows:

1. *Respect*: Human beings are able, valuable, and are to be treated accordingly. Believing this will lead teachers to have a more humanistic and ethical approach to education, and will summon learners to have a more profound learning.

2. *Trust*: Living at truly adequate, fully functioning life is a cooperative, collaborative activity where process is as important as product.
3. *Optimism*: People possess relatively untapped potential in all areas of worthwhile human endeavor. (Product is the outcome of process. What process a student goes through and how a student goes through the process affect the product and the learning outcome).

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4. *Care* \* (see editor's note): To demonstrate concern by sharing warmth, empathy, positive regard, and interest in others, specifically with the intention to help them reach their potential.
5. *Intentionality*: Human potential is best realized by creating and maintaining welcoming place, policies, programs, and by people who are intentionally inviting with themselves and others, personally and professionally (People have a profound and massive capacity to learn knowledge and skills (Purkey, Schmidt & Novak, 2010).

### **Invitational Teaching Survey (ITS)**

The 43 ITS items fall into two dimensions, personal and professional teacher practices. The personal dimensions measure the teacher's ability to encourage students to feel good about themselves and their ability in general. The professional dimension measures the teacher's ability to encourage students to learn and appreciate course content. Within those two dimensions there are five subscales. The subscale on the personal dimension includes consideration and commitment. Commitment contains the items that indicate the teachers resolve to promote students social and emotional health. Consideration contains items that measure the teacher's ability to communicate caring for the students as a unique individual.

The three subscales on the professional dimension include coordination, proficiency and expectation. Coordination measures a preparation planning through combination of instructional strategies that create and maintain a superior academic climate. Proficiency items measure the ability to demonstrate competency in specialty area and exhibit efficient management. Expectation is a single subscale item that measures the ability to project high expectation for student's academic success (Amose, Smith & Purkey, 2004).

Numerous studies have shown the effect of Invitational Education on academic performance and achievement. Gresham (2007) shows that Invitational Education decreases students' anxiety in mathematics and as a result increases their performance on this course. Kitchens and Wenta (2007) concluded that teaching mathematical concepts involves much more than a cognitive focus on understanding the mathematics and presenting it to a class. Equally important are a focus on the personal growth of students and a focus on the personal and professional development of teachers. "If I know and feel that I am accepted I can relax and improve in my efforts to grow as a student or teacher." Hunter and Smith (2007) concluded that applying the principles of ITP in art class not only actualizes students' potentials, but also paves the way for a positive and elevated atmosphere for all students and teachers. In theoretical models of motivational

achievement, personal beliefs are seen as the main determiners of achievement. In fact, the assumption underlying all these theories is that people's expecting success and their perception of their abilities in doing various tasks plays an important role in motivation and behavior (Dweck & Leggett, 1988).

Dweck (1999) says that our beliefs shape our surroundings, make our experiences meaningful, and in general forms people's meaning and behavior systems. One set of the beliefs is intelligence beliefs. According to Dweck (1975) intelligence beliefs include inherent intelligence beliefs and increase intelligence beliefs. People with inherent intelligence beliefs believe that their traits are constant and can be measured. In contrast, people with increased intelligence beliefs believe that intelligence is not constant and changeable, and it can be increased through experience and effort. According to Dweck and Leggett (1988) intelligence beliefs have an effect on the way people interpret their successes and failures and also on institutionalizing progress aims.

The invitational messages students send themselves and others not only provide a lens through which students perceive efficacy-building information but also bear direct influence on students' academic efficiency beliefs. The invitations central to all students' learning are not only self-generated but are, in large, part the product of teaching that invites students to learn. Teachers who purposefully create situations that invite students to see themselves as able, valuable, and responsible boost academic confidence and well-being (Usher & Pajares, 2006a).

Usher and Pajares (2006b) reported that social persuasions were predictive of the academic and self-regulatory efficacy beliefs of middle school girls, but not of boys, for whom vicarious experience was predictive, suggesting that girls may be more attentive to what others tell them when forming beliefs about their capabilities. Usher and Pajares (2006a) come to the conclusion that self-efficacy beliefs have direct and positive relationship with inviting oneself and others.

Pajares (1994) made connections between invitational theory and Bandura's (1986) social-cognitive theory. He concluded that inviting messages help create and strengthen self-efficacy beliefs whereas disinviting messages weaken self-efficacy.

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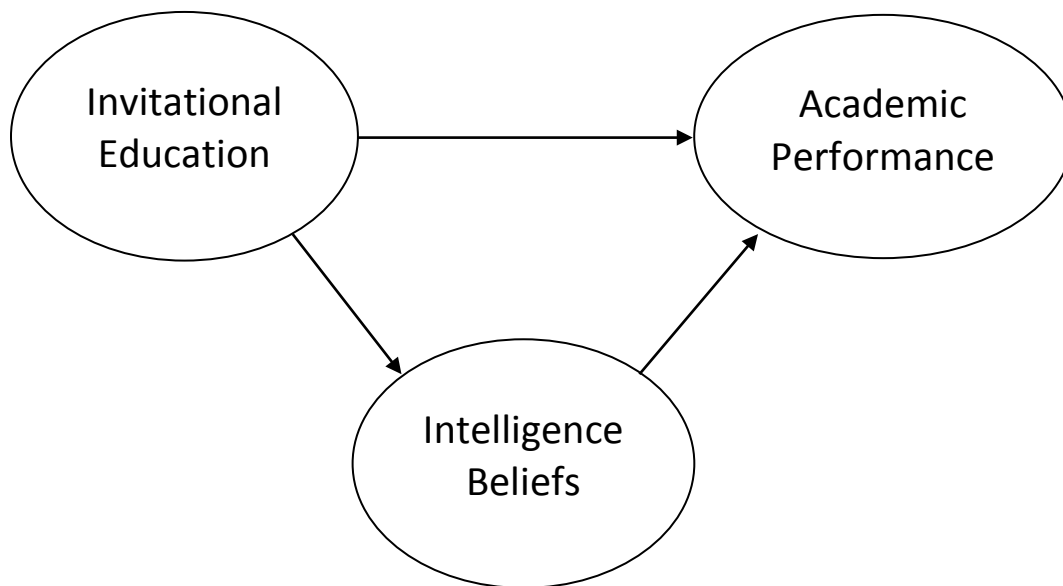
\* Editor's Note: *To update this current work and for purposes of theoretical consistency, the editor has included the element and definition of "Care" in the author's list. At the time of the original work, ITP had not yet introduced this fifth element.*

Good and Brophy's (2003) research reveals that success expectations affected the outcomes of instructional events, but the linkage was tenuous and certainly not likely to be causal. What they found was a medial variable: expended effort. They hypothesized that when teachers or students felt that they would be successful, they were more likely to expand the effort necessary to realize success in the selected endeavor. The success is not based on "beliefs" but based on the "action" that resulted from the belief. Good and Brophy (2003) refer to this recognition as effort-outcome covariance. In effect, the harder you try the more likely you are to succeed. The more you believe you will succeed; the harder you will try. Invitational Education employs this effort-outcome linkage that is mediated not simply by outcomes, but by the perceptions of the likelihood of various outcomes based on very personal assumptions about how the world operates. Living and learning success is nurtured and supported by assisting the learner in understanding these perceptions and accepting invitations and opportunities to develop his or her abilities

Therefore, the messages teachers, parents, and others send to children become the messages students carry with them throughout their lives. In addition to fostering students' competence, teachers must also nurture students' confidence and carefully consider the impact of the message they send, for these messages might well turn into the very messages students send themselves (Usher & Pajares, 2006a).

Based on what has been presented the present study aimed at studying the indirect and significant effect of Invitational Education on performance through inherent and incremental intelligence beliefs. To predict any possible relationship among the variables and academic performance, based on existing literature, a model was selected. Having evaluated the relationship among variables in the model, confirmatory factor analysis (CFA), fitness of model was carried out.

The original model is given in Figure 1



**Figure 1.** Original Model

## Method

The present research is a correlational study using causal modeling. Considering the limitation of correlation and regression analysis in determining the causal paths among variables (Bandura, 1986), social-cognitive theorists emphasize the use of causal methods such path analysis and structural modeling analysis. The statistical population of the study included all high school students (majoring in humanities, experimental sciences, mathematics and physics) studying in the academic year of 2009-2010 in Kashmar. The research sample included 540 students (270 females, 270 males), selected through multi-stage random sampling: the city was divided into three regions (north, center and south), and then four schools in each region and three classes in each school were randomly selected.

To measure inviting teacher behavior, the Invitational Teaching Survey (Amos, Purkey, & Tobias, 1984) was used. Preliminary work to construct the questionnaire dates back to Purkey, Amos, and Tobias, 1984. The questionnaire uses the Likert-scale ranging from “very seldom or never” to “very often or always.” It has two dimensions and five sub-scales. Its dimensions include personal and professional invitation. Its sub-scales are: consideration, commitment, coordination, skill and expectation

Cronbach’s alpha coefficient was reported to be .95 by Amos (1985) and .94 by Smith (1987). According to Amos (1985) and Smith (1987), criterion validity was used to determine its validity. They showed there was a positive correlation between invitational teaching survey and Student Attitudinal Outcome Measures (SAOM) (Amose, Smith, & Purkey, 2004). The results all show the high reliability and validity of the measure. Therefore, it seems that the questionnaire can be a valid measure. To investigate the reliability, Cronbach’s alpha was employed (see Table 1).

To measure students’ intelligence beliefs, Zabihi Intelligence Beliefs Questionnaire (2005) was used. It has four factors (Inherent, Increase, Educable and Contextual) and has 19 questions altogether, based on Likert-scale ranging from “I strongly disagree” to “I totally agree.” To determine the validity of the questionnaire, CFA methods were employed. Zabihi calculated the internal consistency of sub-tests to determine the reliability of the measure using Cronbach’s alpha coefficient. Before the final administration of the questionnaire, a pilot administration was carried out among 30 pre-university students. The resulting Cronbach alpha was calculated to be approximately .76. The final administration, with a sample of 400, gave an index of .61. In this study for investigate the reliability of the instrument the Cronbach’s alpha was employed (see Table 1).

**Table 1.** Cronbach’s alpha for invitational teaching survey and intelligence beliefs questionnaire. Students’ grade point average (GPA) in the first semester of 2009 was used as an indication of their academic performance.

Instrument							
ITS	Scales	Consideration	Commitment	Coordination	Skill	Expectation	Total
		.75	.68	.66	.77	...	.90
IBQ	Scales	Inherent	Increase	Educable	Contextual		Total
		.8	.79	.82	.76		.85

## Results

Descriptive statistics indices (mean, standard deviation, minimum, maximum) have been shown in table 2. Mean and standard deviation show that there is a good distribution in scores.

Table 3 shows the correlation coefficients among the variables. The correlation matrix shows that there is a significant relationship between consideration, coordination, skill, and expectation (some components of invitational

teaching, exogenous variable) and inherent and incremental intelligence (two components of intelligence beliefs, endogenous variable). There is a significant relationship between consideration and inherent and incremental intelligence; commitment and incremental: educability and contextual; coordination with educability and contextual; expectation and incremental.



Based on correlations, of the variables of Invitational Education, consideration, coordination, and skill and of the variables of intelligence beliefs, incremental and inherent were chosen for path analysis. The effect of independent exogenous and endogenous variables on academic

performance showed that the model predicts .37 of the academic performance variance. Exogenous variables of consideration, coordination, and skill had significant effect on academic performance with regression coefficients of .16, -.07, and .08, respectively.

**Table 2.** Descriptive statistics for Invitational Education, intelligence beliefs and academic performance measures.

Measures	M	SD	Min	Max
Consideration	6.31	39.83	12.27	50.45
Commitment	7.16	51.28	10.09	62.45
Coordination	6.15	37.82	9.10	46
Skill	6.04	36.53	9.10	49
Expectation	1.17	1.36	1	5
Inherent	15.79	2.03	9	21
Increase	11.24	2.43	3.75	16.25
Educable	9.61	1.45	3	11.67
Contextual	17	4.45	6.14	30.71
Average	15.19	2.65	9.75	20

**Table 3.** Correlations between Invitational Education, intelligence beliefs and academic performance measures

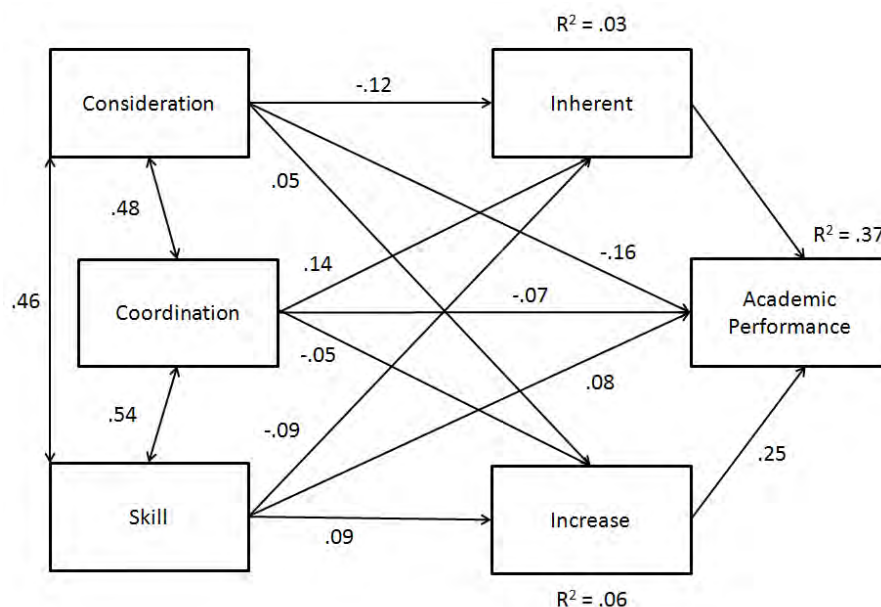
Measures	1	2	3	4	5	6	7	8	9	10
1. Consideration	-									
2. Commitment	.39**	-								
3. Coordination	.43**	.61**	-							
4. Skill	.47**	.56**	.54**	-						
5. Expectation	.30**	.45**	.55**	.38**	-					
6. Inherent	-.11*	.005	.05	-.08	-.009	-				
7. Increase	.16**	.09*	.05	.22**	.09*	-.13**	-			
8. Educable	.04	.09*	.09*	.002	.04	.16**	.11**	-		
9. Contextual	.07	.09*	.09*	.10*	.001	-.02	.12**	.18**	-	
10. Average	.45**	.08	.10*	.36**	.11	-.27**	.38**	-.08	.01	-

Note. \* $p < .05$  \*\*  $p < .01$

Exogenous variables of consideration, coordination, and skill had significant effect on endogenous variables of intelligence beliefs with regression coefficients of -.12, .14, -.09 respectively. Exogenous variables of consideration, coordination, and skill had significant effect on incremental intelligence belief with regression coefficients of .05, -.05, and .09 respectively. The effect of independent endogenous

variables of the study (incremental and inherent intelligence) on dependent endogenous variable (academic performance) was estimated to be .03 and .06.

Predicted variances of independent endogenous variables (inherent and incremental intelligence) .03 and .06 respectively. Furthermore, Figure 2 shows the path analysis of variables.



**Figure 2.** Path analysis model for Invitational Education, intelligence belief and academic performance. Not all effects are significant at .05.

Since the aim of the study has been to investigate the predictive role of Invitational Education and intelligence beliefs and determine the degree of the direct and indirect effect of these variables on academic performance, path analysis has been employed. After calculating the parameters, fitness of the model was measured (see Table 4). Of all statistics fitness of four indices was more important: GFI, AGFI, RMSEA, and chi-square. The most important statistic is chi-square. This statistic measures the difference between observed and measures matrix. The insignificance of this statistic shows the fitness of the model. Chi-Square is 4.89 with  $df=1$ , which is significant at  $p=.02$ . However, since the size of the sample is big, the significance cannot be used to reject the null hypothesis and be generalized to the

population. To decrease its dependency on sample size, we discuss other indices and their interpretation. AGFI=.95 and GFI=.90, with values close to 1, show the fitness of the model. Considering the residues and errors, the low value of RMSEA=.08 show the fitness of the model. One of the results of path analysis is the measurement of indirect and the whole effect of variables on each other.

The results show that of the exogenous variables the indirect effect of consideration, coordination, and skill through inherent and incremental intelligence was significant, .02, -.02, and .03, respectively. Comparing direct and indirect effect, it can be seen that indirect effects are of lower values than direct values; however, they are significant.

**Table 4.** Fitting indexes of model

Index	GFI	AGFI	RMSEA	Chi-Square	df	P
Estimate	.90	.95	.08	4.89	1	.02

It means that consideration, coordination, and skill can predict academic performance of students better than the time in which inherent and increase mediate this relation.

### Discussion

The present study aimed at investigating the role of invitational education and intelligence beliefs on academic performance was significant and the effect of independent exogenous and endogenous variables on academic performance showed that the model predicts .37 of the

academic performance variance. The results showed that exogenous variables of consideration, coordination, and skill had significant indirect effect on academic performance through inherent and incremental intelligence. Comparing direct and indirect effect, it can be seen that indirect effects of consideration, coordination and skill are of lower values than direct values; however, they are significant. It can be interpreted that, in addition to intelligence beliefs, there are other powerful intervening variables.

The results of this current study are in concert with those of Good and Brophy (2003) and Pajares(1994). Pajares (1994) believes that positive invitations students send themselves and other students creates and fosters self-efficacy beliefs. These beliefs help to maintain efforts to compensate for low academic performance. According to him, social-cognitive theory and invitational approach provide some guidelines that increase students' self-confidence and merits. The results indicate that invitational approach leads students to have positive beliefs about their abilities, which increase their efforts and perseverance. However, it should be noticed that the indirect effect is low but is significant.

The results showed that exogenous variables of consideration, coordination, and skill had significant effect on dependent endogenous variable of incremental intelligence belief. Coordination was the only one with negative effect. The results are in concert with those of Usher and Pajares (2006b). They reported that social persuasions were predictive of the academic and self-regulatory efficacy beliefs of girls, but not of boys. They believe that when girls are forming their beliefs, they give more attention to others' beliefs. Zeeman (2006) says that counselors or therapists trained in and applying reality therapy or invitational counseling will usually see positive results and improvement in the quality world, thoughts, actions and lives of their clients. Usher and Pajares(2006a)concluded that there is a relationship between self-efficacy beliefs and inviting oneself and others.

The result also confirms Pajares (1994). He concluded that there is connection between invitational theory and Bandura's (1986) social cognitive theory. He concluded that inviting messages help create and strengthen self-efficacy beliefs whereas disinviting messages weaken self-efficacy. According to the researcher's knowledge, nearly there is no research indicating the lack of relationship between invitation and beliefs on the basis of results, one of the influential sources of self-efficacy is inviting messages sent by others. Since people are influenced by our opinions, we should try to positively affect their potentials by our messages. Coordination had negative effect on incremental intelligence belief but positive effect on inherent intelligence belief can be interpreted by arguing coordination is seen as hard disciplines imposed by teachers.

The results showed that the exogenous variables of, consideration, coordination, and skill, has significant effect on academic performance with coordination having negative effect. Again interpreting coordination as hard discipline can be the reason for the negative effect. The results are in concert with those of Gresham (2007), Kitchens and Wenta (2007), Hunter and Smith(2007), Usher and Pajares (2006b),

Purkey and Aspy (2003). In addition, little no research indicating the lack of relationship between Invitational Education and academic performance was found. Research found in this field showed a relationship between them. The results indicate that invitation plays an important role in improving academic performance, and is a variable that should be given special attention. Perhaps it is because human beings want their abilities and gifts to be respected, and positive human relationships greatly influences in realizing their gifts.

The effect of independent exogenous variables (inherent and incremental intelligence beliefs) on dependent endogenous variable was significant. The results indicating the relationship between inherent and academic performance are not in agreement with those of Dupeyrat and Marine (2005). They found the relationship to be  $-.14$ , which is not significant. The results indicating the relationship between increase and academic performance are not in agreement with those of Dupeyrat and Marine (2005). They found the relationship insignificant. Dupeyrat and Marine (2005) found similar results about educable component; both found no significant relationship between educable and academic achievement. Mahdian (2007) concluded that there was a relationship between increase, inherent, and contextual components and academic achievement. However, in the present study, the relationship between inherent components was found to be positive.

Based on the results, the more we believe that as intelligence increases, the more we will try. In other words, believing in controllability will lead to better results and vice versa. According to Weiner's attribution theory, whether we believe intelligence can be measured or not, affects our subsequent behavior (Weiner, 2005).

Based on the findings of the present study and the effect that invitational education and intelligence beliefs have on academic performance, it is necessary to provide the optimal conditions for the improvement of the variables. This calls for the teaching of strategies to and increasing awareness in teachers, parents, and all involved in educational system. Introducing a relevant course in teacher training programs and in-service teaching to promote teachers' knowledge on the variables studies seems to be appropriate. It also seems necessary to change the intelligence beliefs and to establish positive and effective attributions among students.

There are a number of limitations in the present study. The educational system authorities did not cooperate fully with the researchers. Lack of direct access to girl schools made us ask school counselors to administer the questionnaire. The inherent problems in questionnaires such self-report, and bias is another group of limiting factors. The interpretation

of the results should be in the light of these limitations. Diversity of using instrument in this field leads the results of many studies to be different. Consequently, more studies with different instrument are suggested. In addition, it would

be more productive if some other effective variables, which can mediate between Invitational Education and academic performance, would be employed in future studies.

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# The Perceived School Climate in Invitational Schools in Hong Kong: Using the Chinese Version of the Inviting School Survey-Revised (ISS-R)



Citation

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## Abstract

*This article describes the use of the Chinese translation of the revised Inviting School Survey (ISS-R; Smith, 2005; Smith & Bernard, 2004) to measure the invitational climate of seven invitational secondary schools in Hong Kong. The five subscales of Chinese version of ISS-R were found to be valid and reliable in a sample of 706 Grade 11 students. Students' perceptions of the invitational climate in the key areas of people, places, processes, policies, and programs (5P's) were analyzed. It is suggested that indications of invitational climate in the 5P's could facilitate teachers' and administrators' consideration in improving invitational practices to cater for the needs of different groups of students.*

Hong Kong, like many other parts of the world, has experienced waves of education reform over the past thirty years (Cheng, 2003). Most recently, the Education Bureau in Hong Kong has implemented significant curriculum reforms requiring a paradigm shift in teaching and learning approaches. The aim is to enhance students' ability to adapt to a fast changing knowledge-based society and to meet the challenges of globalization and information technology in the future (CDC, 2001). Despite criticisms of increased workload for teachers and a lack of adequate professional support for such change, much progress has been made over the past decade. An example of the effort made by the Education Bureau is the introduction of the concept of Invitational Education (IE) to schools in 2002. Invitational Education has been identified internationally as an effective school development framework (Purkey & Novak, 1988). There is much support now for the notion of creating an inviting school environment and developing students' self-concept and positive perceptions of school as important foundations for quality education. It is suggested that much untapped potential of students could be more effectively developed if a school adopts the IE approach.

At present, over 100 schools in Hong Kong have adopted Invitational Education as a conceptual framework, and principals and teachers in these schools have reported improvement in their students' performance. Students have been provided opportunities to realize their potential, and as a result they have more confidence in learning and have become more active learners.

## Key Features of Invitational

Invitational Education (Purkey, 1978) requires a particular set of beliefs that practitioners must accept regarding self and others. These beliefs are based on four elements – respect, trust, optimism and intentionality. In this context, “intentionality” refers to the deliberate intention of staff in schools to create policies, programs, practices and environments that are welcoming to all students. These four elements in Invitational Education interact and are interdependent within the educative process. Practitioners who accept these beliefs have a greater chance of creating an inviting school (Purkey & Novak, 1988).

Invitational Education provides a general framework for thinking about and acting on what is believed to be worthwhile in schools. Purkey (1996) considers that Invitational Education is still evolving, but already points in a hopeful direction by offering a systematic approach to the educative process, encouraging school improvement, and providing ways to make schools much more inviting places as perceived by students.

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Invitational education can be thought of as a perceptually anchored and self-concept-focused approach to the educative process that centers on the principle that human potential can best be realized by places, policies, programs and processes that are specifically designed to invite personal development, and by people who are intentionally inviting of others. The principle illustrates how Invitational Education works. In practice, Invitational Education focuses on the people, places, processes, policies and programs that transmit overt and covert “messages” promoting and influencing human relationships and fostering individual potential. These “messages” are the basic units of Invitational Education, and educators need to have a systematic way of looking at them. Where necessary, messages may need to be modified in order to become more positive and encouraging, both in their tone and their intention.

Ideally, people, places, processes, policies and programs in schools should be so intrinsically inviting as to create a school climate in which each individual is encouraged and inspired to develop to his or her highest level intellectually, socially, physically, psychologically and morally (Purkey & Schmidt, 1990). In Hong Kong, this principle offers a sound framework for implementing the sixth important aim in the Curriculum Development Council Report *Learning to Learn: Life-long Learning and Whole-person Development* (CDC: 2001). The aim is that schools should be given the space, professional autonomy and flexibility to develop their own school-based curricula to improve students' learning capabilities in ways best suited to their needs, abilities and aspirations.

### **The 5P's of the Invitational Model**

As described by Smith (2005), the Invitational Model embodies contributions and influences from five domains—people, places, processes, policies and programs. These domains are summarized briefly below.

*People:* From the standpoint of the Invitational Model, people are the most important component (Purkey & Novak, 1996). People establish and maintain the “invitational climate” in a school through their actions, attitudes, words and relationships. It is fundamental to the invitational model that all individuals should demonstrate respect for one another. In school, this respect is evident in the caring, supportive and encouraging behaviors that teachers, other adults and students display toward others (Smith, 2007). Teachers and peers are the two main types of people in a school which have great influence on the invitational climate. Studies have demonstrated the importance of the teacher-student relationship in contributing to students' overall perception of school climate. Ryan and Patrick (2001) have shown that student perception of teacher

warmth and support can accurately predict student engagement. In addition, students who have positive relationships and interactions with teachers tend to have above average achievement (Osterman, 2000). Zins, Weissberg, Wang, and Walberg (2004) have pointed out that “caring” classroom environments increase student engagement by providing the opportunity for supportive relationships, participation in school life, and pursuit of academic goals.

Peer relationships are also influential. The relationships that exist between children and their peers play a significant role in their sense of belonging at school (French & Conrad, 2001; Zins et al., 2004). The particular significance of these peer relationships is heightened during adolescence and impacts on many aspects of the adolescent's life. Peer relationships, and the social networks that children develop seem to affect adolescent engagement in school (Mullis, Rathge & Mullis, 2003). Those students who are more engaged in school, and have a network of friends who are also engaged, tend to have more positive educational experiences (Rice, 1999). This relationship is very evident during the middle school years. At that stage of schooling it has been found that children who have previously been low achievers tend to increase motivation and academic performance once they are included in a peer group of high achievers (Ryan, 2000, 2001).

*Places:* Places or environments are also key components in the Invitational Education model. A pleasant physical environment is crucial for helping students feel valued and comfortable. Unfortunately, classrooms and school workshops, particularly at secondary school level, are often “uninviting” because they are crowded, untidy, bleak and impersonal. Changing the physical environment is often a relevant starting point for making a school more inviting, accepting and motivating for students.

*Processes:* Within the IE model, processes involve not only dealing with subject matter, method or style of delivery, and interactions among students but also the social, emotional and communicative context in which this occurs. Student learning and development are unlikely to be optimized, for example, when classroom processes are executed by teachers who convey a lack of concern for students' feelings or who resort to harsh criticism, rudeness, impatience or ridicule. Under the operating principles of the Invitational Model teachers must always find time to be caring, encouraging, civil, and warm in their teaching and their interactions with students.

*Policies:* In the context of schools, “policy” refers mainly to guidelines, procedures and directives that regulate such functions as teaching, assessment, extra-curricular activities

and behavior management. Under the Invitational Model, all policies are seen to convey an overt or covert message to students and to teachers. That message may reflect trust or distrust, respect or disrespect, encouragement or constraint. Policies in school reveal much about the policy-makers and their degree of trust and respect for their students as people.

*Programs:* The fifth P, programs, represents an area that can be either inviting or off-putting (de-motivating) for students. Some programs are not intrinsically interesting to students, and are therefore not perceived as “inviting.” Often programs focus too much on examination grades, teaching to the syllabus, conformity rather than creativity, and give scant attention to students’ wider interests and needs. Some programs, by their titles or stated aims tend to label individuals as “different” (e.g. “remedial”, “gifted”) and can have negative effects on students’ self-esteem, motivation and confidence.

In summary, Invitational Education is an integrative approach, and the five Ps should be viewed as a whole rather than the sum of parts. People, places, processes, policies, and programs in schools interact and are instrumental in inviting students to feel positive about school and about themselves, and to realize their full potential. Educators who are aware of, and respect, the five basic assumptions of Invitational Education and the five Ps are better able to create a school climate that is inviting and supporting the best from their students.

### **School Climate**

A positive school climate is characterized by trust, effective communication, cooperation, and warmth and commitment shown by school staff towards students, leading to a sense of membership in the school community (DeLuca & Rosebaum, 2000). It has been suggested that the perceived quality of school climate is directly linked to students’ academic performance (Haynes, Emmons, & Ben-Avie, 1997; Purkey & Smith, 1983). Schools that emphasize and develop a supportive learning environment, where learning can occur within a caring, safe atmosphere with high expectations and many opportunities for reinforcement have shown the greatest improvement in academic achievement (Zins et al., 2004). Students in these schools are more engaged in learning, feel more attachment to the school and staff, and exert greater effort. The orderly environment provides structure for student learning and the attachment promotes better communication among all members of the school community. Longitudinal studies have also suggested that school climate can impact upon student achievement (Esposito, 1999; Ross & Lowther, 2003). Most importantly, in a study carried out by Brookover, Schweitzer, Schneider, Beady, Flood and Wisenbaker (1978), school climate was

found to be a more significant factor in predicting student achievement than the variables of race and socioeconomic status.

School climate can be conceptualized at two levels. First, at school level (i.e., as an integral property of a school that teachers and administrators intentionally set out to establish through policies, practices and programs). School-level aspects of climate are perhaps experienced and perceived with the same intensity by all students. Second, school climate is further interpreted at the level of an individual student (i.e., how a particular student actually experiences and perceives school climate day by day). This latter view holds that climate is a psychological property of the individual, influenced strongly by such personal factors such as prior experience, attitude toward authority, degree of success and recognition in academic and social domains, and happiness within the school situation. Under this assumption, climate will be perceived differently by each student based on his or her personal characteristics, experiences and perceptions.

### **Purpose of the Study**

The purpose of this study was to examine students’ perceptions of school climate in secondary schools in Hong Kong where principles and practices of Invitational Education have been implemented. The instrument used was a translated version of the revised Inviting School Survey (ISS-R) (Smith, 2005; Smith & Bernard, 2004), as described below. The following specific research questions were formulated for the study. 1) Are there differences in the perceptions of school climate in the five domains of people, places, processes, policies, and programs among boys and girls? 2) Are there differences in the perceptions of school climate in the five domains of people, people, places, processes, policies, and programs among students of low average and high achievement levels? 3) Are there differences in the perceptions of school climate in the five domains of people, people, places, processes, policies, and programs among students from different schools?

### **Method**

#### **School Selection**

Since 2004, outstanding Invitation Education schools in Hong Kong have been receiving an Inviting School Award from the International Alliance for Invitational Education (IAIE). Schools that have shown even more IE achievement, as assessed by the IAIE, would further receive the Inviting School Fidelity Award. All of the seven secondary schools receiving the Inviting School Fidelity Award, and all of the three secondary schools receiving the Inviting School Award in 2008 were selected for this questionnaire survey. Eventually, seven of the ten schools agreed to participate.

## Participants

The students selected to take part were all Grade 11 students attending the IE schools. These students were selected because, after five years, they were assumed to have a very good working knowledge of all facets of the school environment. At Grade 11 level they would also have little difficulty in understanding and responding thoughtfully to the questionnaire items. As the questionnaire survey was carried out with all Grade 11 students of all schools, the sample size of 706 was adequate for statistical analyses.

## Instrument

Based on the revised Inviting School Survey (ISS-R) (Smith, 2005), a Chinese version of ISS-R (translated by Clio Chan, present chairperson of the IAIE in Hong Kong) was used for the study. The survey items were designed to reveal students' perceptions of invitational climate of their own schools in the five areas of people, places, processes, policies, and programs.

The original Inviting School Survey (ISS) was designed to assess invitational school climate (Purkey 1984; Purkey & Schmidt, 1987). The basic belief behind the instrument is that "everything counts" in a student's education, from the physical environment in which they spend their days to the way each individual student is treated in the classroom (Smith, 2005). The original 100-item instrument was revised in 1990 to include the five areas as outlined in Invitational Education theory (Purkey, 1984; 1990; Purkey & Fuller, 1995). This checklist was designed to be used with Grade 4 students and above. As a result of further research and feedback from users, the 100-item version was revised and reduced later to 50 items (the ISS-R) in order to facilitate its use in schools (Smith, 2005; Smith & Bernard, 2004).

The ISS-R consists of five subscales representing the degree to which schools are felt by their students to be "welcoming" in the five areas: People (e.g. Teachers work to encourage students' self-confidence), Places (e.g. Classrooms offer a variety of furniture arrangements), Processes (e.g. People often feel welcome when they enter the school), Policies (e.g. School policy permits and encourages freedom of expression by everyone), and Programs (e.g. The school sponsors extracurricular activities apart from sports). The items were integrated with a Likert-type scale with response options ranging from "Strongly Agree" (5) to "Agree" (4) "Undecided" (3) "Disagree" (2) "Strongly Disagree" (1).

The ISS-R provides five sub-scores for the five areas, and one composite total score from all the items combined. The responses to the whole scale are intended to represent a picture of life in school as perceived by respondents (e.g. Administrators, Teachers, Students, and Parents). In addition to helping assess the invitational climate of schools, the ISS-R can also assist school personnel in identifying weaknesses in the system that could be corrected (Smith, 2007).

The reliability (internal consistency) of the ISS-R was reported to be acceptable for instruments of this type (Smith, 2005). The Cronbach's Coefficient Alphas for the five subscales of People, Places, Policies, Processes, Programs, and Total were .77, .66, .52, .49, .48, and .88 respectively. The Guttman' Split-Half Reliability Alphas for the five subscales and Total were .75, .65, .57, .54, .46, and .86 respectively (Smith, 2005). In the present Chinese sample, the internal reliability ( $\alpha$ ) of the subscales of the Chinese translation of ISS-R (which had not been reported previously) was found to range from .77 to .89; and for the total scale, the Cronbach's Coefficient Alpha was .96 (see Table 2).

In addition to the ISS-R, data collected from the survey questionnaire also included students' self-reported academic achievement level and gender. Students were asked on the questionnaire to report whether they were usually in the top 25%, the middle 50%, or the bottom 25% in class examinations and assessments.

The Chinese version of ISSR has been examined with Cronbach's Coefficient alpha and confirmatory factor analysis. After confirming the factorial validity of the ISSR, the differences of the subscales of ISSR between gender, achievement and schools sampled were investigated with three ANOVAs.

## Results

Participants in the survey comprised 369 (52.3%) male students and 333 (47.2%) female students; from seven schools (4 students did not report their gender). In terms of achievement, as self-reported by students, 165 students were within the top 25%, 313 students in the middle 50%, and 129 in the bottom 25% (99 did not report their achievement level). In the Chinese translation of ISS-R, the item means of overall results ranged from 2.86 to 3.71, on a 5-point scale (Table 1).



**Table 1.** Item means, standard deviations, and item-total correlations for the Chinese ISS-R

<i>People (n = 629, missing value = 40)</i>				
3. The principal involves everyone in the decision-making process.	3.08	0.90	0.53	0.46
6. Teachers in this school show respect for students.	3.62	0.84	0.56	0.57
9. Teachers are easy to talk with.	3.53	0.86	0.55	0.58
12. Teachers take time to talk with students about students' out-of-class activities.	3.70	0.85	0.55	0.55
15. Teachers are generally prepared for class.	3.71	0.81	0.49	0.48
18. Teachers exhibit a sense of humor.	3.55	0.94	0.54	0.51
21. People in this school are polite to one another	3.36	0.86	0.61	0.58
24. Teachers work to encourage students' self-confidence.	3.38	0.88	0.66	0.63
27. The principal treats people as though they are responsible.	3.49	0.82	0.60	0.57
30. Students work cooperatively with each other.	3.52	0.84	0.51	0.50
33. People in this school want to be here.	3.24	0.89	0.63	0.60
36. People in this school try to stop vandalism when they see it happening.	3.39	0.86	0.53	0.53
39. Teachers appear to enjoy life.	3.33	0.87	0.52	0.49
42. School pride is evident among students.	3.14	0.91	0.65	0.60
45. Teachers share out-of-class experiences with students.	3.64	0.89	0.59	0.59
48. Teachers spend time after school with those who need extra help.	3.54	0.81	0.59	0.56
<i>Places (n = 633, missing value = 36)</i>				
4. Furniture is pleasant and comfortable.	3.38	0.90	0.55	0.56
8. The air smells fresh in this school.	3.33	0.95	0.45	0.47
13. The school grounds are clean and well-maintained.	3.35	0.92	0.62	0.62
16. The restrooms in this school are clean and properly maintained.	2.86	1.09	0.58	0.57
20. The principal's office is attractive.	3.02	0.90	0.55	0.47
25. Bulletin boards are attractive and up-to-date.	3.24	0.94	0.57	0.52
28. Space is available for student independent study.	3.66	0.93	0.53	0.49
32. Fire alarm instructions are well posted and seem reasonable.	3.29	0.94	0.49	0.47
37. Classrooms offer a variety of furniture arrangements.	3.17	0.91	0.63	0.60
40. Clocks and water fountains are in good repair.	3.03	1.04	0.50	0.49
44. There are comfortable chairs for visitors.	3.37	0.88	0.60	0.54
49. The lighting in this school is more than adequate.	3.69	0.87	0.54	0.47

*Policies (n = 627, missing value = 42)*

5. Teachers are willing to help students who have special problems.	3.68	0.84	0.58	0.49
11. Students have the opportunity to talk to one another during class activities.	3.57	0.85	0.57	0.49
19. School policy permits and encourages freedom of expression by everyone.	3.30	0.92	0.66	0.55
26. The messages and notes sent home are positive.	3.66	0.74	0.64	0.51
34. A high percentage of students pass in this school.	3.07	0.96	0.58	0.50
41. School buses rarely leave without waiting for students.	3.14	0.77	0.46	0.40
47. The grading practices in this school are fair.	3.32	0.91	0.62	0.51

*Processes (n = 642, missing value = 27)*

1. Students work cooperatively with one another.	3.45	0.81	0.55	0.46
7. Grades are assigned by means of fair and comprehensive assessment of work and effort.	3.43	0.86	0.53	0.47
14. All telephone calls to this school are answered promptly and politely.	3.27	0.91	0.56	0.47
22. Everyone arrives on time for school.	3.40	0.86	0.55	0.53
29. People often feel welcome when they enter the school.	3.24	0.94	0.64	0.60
35. Many people in this school are involved in making decisions.	3.16	0.92	0.61	0.53
43. Daily attendance by students and staff is high.	3.52	0.84	0.57	0.53
50. Classes get started quickly.	3.38	0.90	0.53	0.52

*Programs (n = 657, missing value = 12)*

2. Everyone is encouraged to participate in athletic (sports) programs.	3.50	0.85	0.48	0.52
10. There is a wellness (health) program in this school.	3.42	0.85	0.62	0.53
17. School programs involve out of school experience.	3.53	0.92	0.59	0.57
23. Good health practices are encouraged in this school.	3.35	0.85	0.65	0.58
31. Interruptions to classroom academic activities are kept to a minimum.	3.35	0.86	0.53	0.49
38. The school sponsors extracurricular activities apart from sports.	3.48	0.91	0.64	0.61
46. Mini courses are available to students.	3.59	0.86	0.54	0.52

*Note.* \* ITR = Item Total Correlation; items are from the Manual of ISS-R (Smith, 2007.p.9); with permission from Professor K. H. Smith.

Only one item scored below 3.0: “The restrooms in this school are clean and properly maintained.” The item with highest score was: “Teachers are generally prepared for class.” As shown in Table 2, the item means of the subscales of the Chinese translation ranged from 3.27 to 3.50, on a 5-point scale. The reliability of the Chinese translation of ISS-R was investigated. Cronbach’s Coefficient Alphas

for the five subscales of People, Place, Process, Policy and Program and for Total score were calculated. The Cronbach’s alphas of all sub-scales in the Chinese version of ISS-R were found to range from .77 to .89, as indicated in Table 2. In the confirmatory factor analysis, a five factor model provided slightly better fit (CFI = .818, SRMR = .047, RMSEA = .057, 90% CI = .055-.059).

**Table 2.** Inter-correlations, reliabilities, and summary statistics for the Chinese ISS-R

Subscales		1	2	3	4	5	Coefficient Alpha	Item Means Mean (Scale SD)
1	People	-					.89	3.46 (0.54)
2	Programs	0.81	-				.85	3.45 (0.61)
3	Processes	0.84	0.76	-			.77	3.35 (0.58)
4	Policies	0.86	0.78	0.82	-		.80	3.39 (0.57)
5	Places	0.83	0.76	0.81	0.82	-	.81	3.27 (0.58)
<b>6</b>	<b>Total Scale</b>	<b>0.93</b>	<b>0.89</b>	<b>0.91</b>	<b>0.92</b>	<b>0.92</b>	<b>.96</b>	<b>3.39 (0.52)</b>
<b>Female sample (n= 281)</b>								
1	People	-					.89	3.50 (0.49)
2	Programs	0.79	-				.86	3.51 (0.57)
3	Processes	0.83	0.75	-			.78	3.39 (0.55)
4	Policies	0.86	0.76	0.83	-		.82	3.41 (0.53)
5	Places	0.82	0.77	0.82	0.84	-	.82	3.29 (0.56)
<b>6</b>	<b>Total Scale</b>	<b>0.92</b>	<b>0.88</b>	<b>0.91</b>	<b>0.92</b>	<b>0.92</b>	<b>.96</b>	<b>3.42 (0.49)</b>
<b>Male sample (n= 306)</b>								
1	People	-					.89	3.43 (0.57)
2	Programs	0.82	-				.84	3.40 (0.65)
3	Processes	0.84	0.76	-			.76	3.30 (0.61)
4	Policies	0.86	0.79	0.81	-		.79	3.38 (0.59)
5	Places	0.83	0.76	0.80	0.80	-	.80	3.27 (0.61)
<b>6</b>	<b>Total Scale</b>	<b>0.94</b>	<b>0.90</b>	<b>0.91</b>	<b>0.93</b>	<b>0.92</b>	<b>.96</b>	<b>3.37 (0.55)</b>

*Note.* All correlations are significant at the 0.01 level. Subscales of ISS-R use a 5-point scale.  
Total sample (N= 590)

**Table 3.** Univariate analysis of variance of ISS-R sub-scale and total scores by gender

ISS-R	Male (N=290)	Female (N=266)	F	$\eta^2$
	Mean (SD)	Mean (SD)		
People	3.42 (0.57)	3.49 (0.48)	1.833	0.003
Places	3.28 (0.61)	3.29 (0.55)	0.036	0.000
Policies	3.38 (0.60)	3.40 (0.53)	0.163	0.000
Processes	3.32 (0.60)	3.39 (0.54)	2.065	0.004
Programs	3.41 (0.63)	3.51 (0.55)	3.702	0.007
Total	3.36 (0.55)	3.42 (0.49)	1.336	0.002

*Note.* \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ . *F* test was based on *df* = 554.

**Table 4.** Univariate analysis of variance of ISS-R sub-scale and total scores by students' self-perceived achievement level

	Top 25% (N=132)	Middle 50% (N=258)	Bottom 25% (N=105)		
ISS-R	Mean (SD)	Mean (SD)	Mean (SD)	F	$\eta^2$
People	3.54 <sup>a</sup> (0.61)	3.45 <sup>ab</sup> (0.53)	3.32 <sup>b</sup> (0.47)	4.432*	0.018
Places	3.32 (0.66)	3.28 (0.56)	3.23 (0.57)	0.702	0.003
Policies	3.45 <sup>a</sup> (0.65)	3.41 <sup>ab</sup> (0.57)	3.25 <sup>b</sup> (0.48)	3.987*	0.016
Processes	3.38 (0.64)	3.38 (0.57)	3.25 (0.53)	1.981	0.008
Programs	3.49 (0.68)	3.47 (0.59)	3.39 (0.54)	0.931	0.004
Total	3.44 (0.61)	3.40 (0.52)	3.29 (0.46)	2.410	0.010

Note. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .  $F$  test was based on  $df = 492$ . Values with differing superscripts indicate significant within-row mean score differences between groups of students with different self-perceived achievement levels, using Bonferroni comparisons.

### Differences in Perceived School Climate between subgroups of gender, achievement and school

Due to the fact that school number 7 contained only 37 students, this sample size was deemed insufficient for MANOVA. The following MANOVA — with gender, achievement and school as predictors and the subscales of ISS-R as dependent variables — was therefore conducted without the sample from school number 7. When all three independent variables were analyzed in the same MANOVA, no significant interaction effects were found. ANOVAs were conducted on the Grade 11 students, with gender (valid  $n = 554$ ), achievement (valid  $n = 495$ ) and school (valid  $n = 559$ ), as separate independent variables in three separate analyses and People, Places, Policies, Processes, and Programs subscales as dependent variables. Regarding the People subscale score, the results indicated significant main effects for Achievement Level ( $F(2, 495) = 4.432$ ,  $p = .012$ , Partial Eta Squared = .018) and School ( $F(5, 559) = 5.175$ ,  $p < .001$ , Partial Eta Squared = .045), and non-significant main effects for Gender ( $F(1, 556) = 1.833$ ,  $p = .176$ , Partial Eta Squared = .003). Regarding the Places subscale score, the results indicated significant main effects for School ( $F(5, 559) = 3.100$ ,  $p = .009$ , Partial Eta Squared = .027), while non-significant main effects for Achievement Level ( $F(2, 495) = 0.702$ ,  $p = .496$ , Partial Eta Squared = .003) and Gender ( $F(1, 556) = 0.036$ ,  $p = .849$ , Partial Eta Squared = .000). Regarding the Policies subscale score, the results indicated significant main effects for Achievement Level ( $F(2, 495) = 3.987$ ,  $p = .019$ , Partial Eta Squared = .016) and School ( $F(5, 559) = 7.240$ ,  $p < .001$ , Partial Eta Squared = .061), while non-significant main effects for Gender ( $F(1, 556) = 0.163$ ,  $p = .686$ , Partial Eta Squared = .000). Regarding the Processes subscale score, the results indicated significant main effects for School ( $F(5, 559) = 6.030$ ,  $p < .001$ , Partial Eta Squared = .052), while non-significant main effects for Achievement

Level ( $F(2, 495) = 1.981$ ,  $p = .139$ , Partial Eta Squared = .008) and Gender ( $F(1, 556) = 2.065$ ,  $p = .151$ , Partial Eta Squared = .004). Regarding the Programs subscale score, the results indicated significant main effects for School ( $F(5, 559) = 4.393$ ,  $p = .001$ , Partial Eta Squared = .038), while non-significant main effects for Achievement Level ( $F(2, 495) = 0.931$ ,  $p = .395$ , Partial Eta Squared = .004) and Gender ( $F(1, 556) = 3.702$ ,  $p = .055$ , Partial Eta Squared = .007). Regarding the ISSR total score, the results indicated significant main effects for School ( $F(5, 559) = 5.539$ ,  $p < .001$ , Partial Eta Squared = .048), while non-significant main effects for Achievement Level ( $F(2, 495) = 2.410$ ,  $p = .091$ , Partial Eta Squared = .010) and Gender ( $F(1, 556) = 1.336$ ,  $p = .248$ , Partial Eta Squared = .002).

To follow up with the significant main effect of Achievement Level on the two subscales of People and Policy and the significant main effect of School on the five subscales of People, Places, Policies, Processes and Programs, multiple comparison tests were performed under Bonferroni criterion to adjust for multiple tests within different categories of Achievement Level and School. Multiple comparison tests among Achievement Level revealed that students in the top 25% achievement level scored significantly higher than students in the bottom 25% achievement level in terms of People subscale score (mean difference = 0.21,  $p = .009$ ) and Policies subscale score (mean difference = 0.20,  $p = .023$ ) (Table 6). From multiple comparison tests among School, for the People subscale score, students in School 4 scored significantly higher than School 1 (mean difference = 0.21,  $p = .046$ ), School 2 (mean difference = 0.40,  $p = .001$ ), School 3 (mean difference = 0.30,  $p = .001$ ), and School 5 (mean difference = 0.31,  $p = .019$ ) (Table 7). For the Places subscale score, students in School 4 scored significantly higher than School 5 (mean difference = 0.37,  $p = .006$ ). For the Policies subscale score,

students in School 4 scored significantly higher than School 1 (mean difference = 0.24,  $p = .026$ ), School 2 (mean difference = 0.48,  $p < .001$ ), School 3 (mean difference = 0.32,  $p < .001$ ), School 5 (mean difference = 0.45,  $p < .001$ ) and School 6 (mean difference = 0.25,  $p = .012$ ). For the Processes subscale score, students in School 4 scored significantly higher than School 1 (mean difference = 0.26,  $p = .009$ ), School 2 (mean difference = 0.47,  $p < .001$ ), and School 5 (mean difference = 0.37,  $p = .004$ ). Students in School 6 also scored significantly higher than School 2 (mean difference = 0.33,  $p = .012$ ) in the Processes subscale score. For the Programs subscale score, students in School 4 scored significantly higher than School 2 (mean difference = 0.36,  $p = .012$ ), School 3 (mean difference = 0.24,  $p < .048$ ), and School 5 (mean difference = 0.36,  $p = .011$ ). For the ISSR total score, students in School 4 scored significantly higher than School 1 (mean difference = 0.21,  $p = .047$ ), School 2 (mean difference = 0.39,  $p = .001$ ), School 3 (mean difference = 0.26,  $p = .004$ ), and School 5 (mean difference = 0.37,  $p = .001$ ).

### Discussion

The findings from this study suggest that respondents appeared to have no difficulty in understanding the Chinese language questionnaire items and applying them to their own school experiences. There are no significant differences in the perceptions of school climate in the five domains of people, places, processes, policies, and programs among boys and girls.

There are significant differences in the perceptions of school climate in the domains of people and policies among students of low average and high achievement levels. There are significant differences in the perceptions of school climate in the five domains of people, people, places, processes, policies, and programs among students from different schools.

Regarding any investigation of school climate, it is important to reiterate that there is some disagreement among researchers as to whether climate is a property of schools or is a reflection of the subjective perception by the participants in that school. Most researchers believe that climate is a property of the school, and teachers and students simply experience that climate in their daily interactions within the school. The opposite view holds that climate is a psychological property of the individual within the school. In this scenario, the perceived climate will be different for each participant based on personal characteristics and experiences. It has been suggested that the extent to which individuals agree on climate factors could be measured and used to construct a tool for assessing school climate. For example, Lindell and Brandt (2000) have suggested that

“average climate” within the school is a meaningful phenomenon, and ratings from observers and participants could be combined to form a rough measure of “climate quality.” A problem that arises from such a rough estimation of climate quality is that it is difficult then to implement suitable strategies to improve or change school climate because of the diversity of personal perceptions of students.

Some particular features of a school that is viewed positively by some students may not be viewed in the same way by others. Between these two views of school climate is a belief that climate is actually a property of both the school and of individuals. The findings from this study supported this third position and suggest that school climate could be a school property in some areas, but an individually perceived aspect in other areas. The purpose of conducting the ANOVAs of ISS-R subscale scores against participants’ self-reported achievement ratings was to identify those among the five Ps through which invitational climate was perceived differently among students of different academic achievement.

The present study revealed that students of different academic achievement had significantly different perceptions of invitational climate in two domains, namely People and Policies (Table 6). Lower ability students felt less positive than higher achievers about the people and policies in their schools, perhaps as a result of less than satisfying encounters with both. On the other hand, those areas through which the invitational climate was perceived as the same among students of different academic achievement (Processes, Programs and Places) suggests that invitational climate perceived by students in these areas was a school-level property that is not influenced by academic ability.

Three main practical implications can be derived from the findings of this study. First, the practice of IE in the areas of “people” and “policies” might be more effective if differentiated for students of different academic levels. Such differentiated IE practice under “people” could be implemented in areas of teacher-student relationships (e.g., establishing a particularly supportive and encouraging relationship between teachers/counselors and lower-ability students; school principals being more approachable to lower-ability students) and in the peer group. In terms of policies, differences in ability might necessitate greater flexibility in assessment practices, assignment policy, streaming or grouping policy, and promotion policy according to students’ ability level. In general, it would be desirable to strengthen the messages of trust, respect and optimism to students of lower academic achievement through these two areas. Second, schools could focus more on increasing school-level IE practices in the areas of

Processes, Programs and Places since these seem to impact equally on higher- and lower-ability students. Third, the Chinese version of ISS-R could be used by individual schools for assessing the invitational climate perceived by their students with different characteristics. This may enable identification of those areas of IE practice that need (or need not) be modified to cater for individual differences among students. This information could allow school-level or group-level IE practices to be more adaptable.

The fact that ISS-R was found to be valid and reliable for use in a Chinese context might encourage similar studies to be carried out in primary schools and/or schools in other Chinese communities such as Chinese mainland or Taiwan. To date, the IE research which has been carried out in Hong Kong comprises almost entirely qualitative studies (Chieh,

2004; Hui, 2009; Poon, 2010; Wong, 2007). There is a need now for a large-scale quantitative study, for example, exploring the effects of varying IE practices in controlled and closely monitored ways. Findings from these studies should add much more knowledge to the principles and practices of IE.

Although the Chinese version of ISS-R was used here to investigate the invitational climate of schools already committed to Invitation Education, it could also be used effectively as a measure in non-IE schools. These schools might have adopted similar or additional practices that result in a positive invitational climate; and again investigating what they do can add much knowledge to IE theory and practice.

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# The Role of Feedback in Enhancing Students' Self-regulation in Inviting Schools

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Citation

## Abstract

*This paper explores the importance of self-regulation and the role of feedback in encouraging such regulation from social cognitive and socio-cultural perspectives. The effects and value of various influences within the social and cultural environment are reviewed. In the context of inviting schools, thought is presented to the issue of how the 'Five Ps' (People, Programs, Policies, Places, and Processes) all provide various forms of feedback and input that could encourage self-regulation. In particular, the authors discuss how a reporting system that provides detailed and personalized feedback to students in an inviting setting can be one important way of facilitating students to reach their full potential as autonomous learners. Suggestions for consideration by school staff, and for future researchers, are provided.*

It can be argued that one of the most important challenges facing teachers today is that of helping students become better *self-regulated* learners.

According to Zimmerman (2000, p.14), "Self-regulation refers to self-generated thoughts, feelings, and actions that are planned and cyclically adapted to the attainment of personal goals." In the context of schools, self-regulation is evident not only when students control their own behavior in and out of the classroom (self-discipline or self-control), but also when, during lessons, they are able to set their own goals, plan appropriate strategies for achieving these goals, monitor, evaluate and adapt their own actions, and control their effective use of available learning time and resources (Ormrod, 2010). A large body of empirical evidence suggests that self-regulated learners are more effective, confident, resourceful, and persistent in learning (Pintrich, 1995; Schunk & Zimmerman, 1994; Winne & Hadwin, 1998; Zimmerman & Campillo, 2003). Developing well-adjusted and autonomous learners is one of the key aims of all schools that subscribe to the model of Invitational Education (Purkey & Novak, 1996).

### Self-regulation

Self-regulation is developed and enacted at multiple levels (Yowell & Smylie, 1999), and there are many influences, internal and external to the learner, that can enhance or obstruct the development of self-regulation.

To assist our understanding of self-regulation in learning contexts it is necessary to consider, from an integrative perspective, the relationship between social influences that control behavior and self-regulation (Volet, et al., 2009; Zimmerman, 2000). Self-regulation can be viewed from both a social-cognitive and social-cultural perspective. Two of the

basic tenets of social cognitive theory are that, 1) people can learn from observing others and interacting with them, and 2) that behavior can become increasingly self-regulated. From the social-cognitive perspective, self-regulation is viewed as a reciprocal interaction involving personal, behavioral, and environmental processes (Bandura, 1986; Zimmerman, 2000). In this context, personal self-regulation is a covert process of self-monitoring in order to adjust cognitive and affective states so that an individual can perform with high efficiency. Behavioral self-regulation as described here refers to the processes of self-observation and strategic adjustment of goal setting, actions, and reactions. This self-evaluative process enables a person to make necessary adjustments to improve his or her own responses as necessary for achieving higher performance. This perspective on self-regulation highlights individuals' cognitions and interpretations of contexts that afford or constrain engagement and participation. From the socio-cultural perspective (Vygotsky, 1978), self-regulation is interpreted through the overall dynamic regulatory process by which the social environment supports or impedes individuals' internalization of social and cultural influences (Volet, et al., 2009). Although individual and social regulatory processes are distinct and occurring at different systemic levels, they operate together to influence an individual's learning and development by what might be termed 'co-regulation' (Fogel, 1993). This perspective, at a

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macro level, provides a broader picture in which co-regulation (individual control + social influences) impacts individual development through opportunities to operate and receive feedback within a social context (McCaslin, 2009; McCaslin & Hickey, 2001). In the school setting, these influences typically include the people a student comes in contact with, the programs of study and activities the student engages in, including the processes and practices involved in learning and teaching. They may also include various forms of input and support that fall under the general category of guidance and counseling of students (Lapan, 2004; Lapan et al., 2002).

### **Environmental Factors Influencing Self-regulation**

Research has shown that the development of self-regulated learning can be facilitated by factors operating in the learning environment (Pintrich, 1995; Schunk and Zimmerman, 1994). These factors (or influences) promote self-regulation, for example, by creating a climate where students feel free to take more responsibility for their own learning, providing them with good models of self-regulation to observe and emulate (Zimmerman, 2000). Within the classroom environment, self-regulation can be effected by such outside interventions as providing students with constructive feedback on their efforts, teaching them effective strategies for tackling learning tasks either independently or collaboratively, making learning processes more explicit, and actively encouraging self-monitoring. Teachers should keep students well informed with statements that describe tasks to be attempted and the assessment criteria for achievement in a particular area of study. This guidance is necessary for starting the effective feedback flows that enables self-regulated learning (Rust, Price & O'Donovan, 2003). Of the many environmental influences that enhance or impede the development of self-regulation, feedback is among the most important (Black & Wiliam, 1998; Butler & Winne, 1995; Fisher & Frey, 2009; Hattie & Timperley, 2007; Kluger & DeNisi, 1996).

### **The Role of Feedback**

Drawing upon educational and psychological models, Butler and Winne (1995) outlined a model of self-regulation in which they identified the important role of feedback. After careful analysis of dynamic cognitive activities, they confirmed that feedback is a catalyst in every self-regulated activity, triggering a student's engagement in self-regulated learning. Similarly, feedback (both internal and external) appears as an essential component within some well-established self-regulation models (Bangert-Drowns et al., 1991; Nicol & Macfarlane-Dick, 2006; Pintrich, 2000; Winne & Hadwin, 1998; Zimmerman & Campillo, 2003).

Feedback to learners tends to exist everywhere. For example, when teachers give students descriptive or corrective feedback during an activity, or when they give them written reports on their progress, they are providing intentional feedback. Unintentional or incidental feedback is represented by the positive and negative consequences (outcomes) arising at all times from students interacting with their social and physical environment. It is even suggested that most individuals monitor their environment for feedback signals on how well they are doing in a particular situation, and often actively seek or request feedback from others on how well they are doing (Hawk & Shah, 2008).

In the self-regulated learning model proposed by Nicol and Macfarlane-Dick (2006), they address the issue of how feedback principles help to promote self-regulation. In their model, external feedback refers to the contributions by peers (for example, in a collaborative group context), or teachers' remarks or written progress report, or even some invisible culture within a school setting. Internal feedback refers to the individual's ongoing monitoring and awareness of outcomes and the suitability or inappropriateness of his or her efforts and responses, resulting in the development of an internal self-regulatory process.

Most forms of feedback can be powerful incentives for learning and for becoming a more autonomous learner (Fisher & Frey, 2009; Hawk & Shah, 2008); however, not all types of feedback are equally effective in promoting learning (Hattie & Timperley, 2007; Lipnevich & Smith, 2008). For example, research has shown that individualized narrative feedback, which provides a large amount of descriptive information and is more process-oriented focusing on how to improve and overcome difficulties, is most effective in promoting improvement in student learning (Butler, 1988; Elawar & Corno, 1985; Lipnevich & Smith, 2008). Positive, narrative feedback, which is supportive and non-judgmental, can encourage teacher-student dialogue and foster positive motivation for enhancing self-esteem and autonomy (Hawk & Shah, 2008).

Much of the feedback that skilled teachers regularly provide to individual students during lessons tends to fall within the teaching strategy known as 'scaffolding.' Visual feedback (such as directly demonstrating a skill or process) and verbal feedback (such as giving cues, explanations and error correction) help a learner to close the gap between what he or she can already do unaided and the higher demands of a particular activity or task. Under Vygotsky's (1978) socio-cultural perspective on learning this strategy can be thought of as narrowing the 'zone of proximal development' (ZPD). Vygotsky defines ZPD as the distance between the actual

developmental level of the student and the level he or she can achieve under adult or peer guidance. In other words, feedback is a crucial factor in advancing learning (Eggen & Kauchak, 2009).

As Hawk and Shah (2008) point out, teachers need to interact positively with their students at an individual level and provide them with constructive developmental feedback not only on their progress but on the most effective ways to learn. Similarly, Nicol and Macfarlane-Dick (2006) emphasize the impact of external feedback on the process of self-regulation. They suggest that feedback should include clarifying to the learner what good performance is, facilitating self-assessment by the learner, encouraging teacher and peer dialogue, and encouraging positive motivation and self-esteem. Teachers' guidance could help students set goals, make good use of learning strategies and resources, and manage their own emotions.

Feedback, from the learners' perspective, is not simply a cognitive process because it influences how they feel about themselves and affects their emotions. As Butler and Winnie (1995, p.254) point out, "Feedback's roles in learning are mediated by a learner's beliefs and knowledge." For example, a learner's prior experience and beliefs can modify the effects of feedback and can thus influence how the underlying causes of failure or success are interpreted. How students interpret external feedback will significantly affect the acquisition of self-regulation and self-efficacy.

#### **School Reporting System as a Source of Feedback**

One of the main ways that formal feedback is provided to students is via the school's reporting system. Reporting is the traditional way to communicate outcomes of education to the people concerned, such as parents, teachers, students and potential employers, and is essential for accountability purposes. Effective reporting not only covers results from assessments in different areas of the curriculum but also includes a broader perspective on the learning and development of the student as a whole (Brookhart, 2004).

A reporting system is not necessarily represented only by report cards but may include multiple reporting tools or practices such as transcripts, testimonials, planned phone calls to parents, seasonal progress notes, guidance portfolios, constructive comments on work samples, and written notes from student-focused conferences (Guskey & Bailey, 2001). In terms of enhancing learning and whole-person development, an effective reporting system provides students with detailed feedback on their progress, and thus helps them become more responsible for monitoring, adapting, and focusing their own efforts. Under an effective

student reporting system, the interactions involved between teachers and students will mutually regulate the learning process.

As stated above, a school's reporting system is a major source of feedback to students and others. However, the overemphasis of its administrative and accountability roles has long inhibited its functions for improving learning and development. Some studies (Rust, Price, & O'Donovan, 2003) indicate that it is hard to find teachers who make learning criteria and standards explicit enough through written documentation or through verbal descriptions in class. Without clear assessment goals or criteria, the feedback that the students receive tends to remain disconnected and often irrelevant (Nicol, & Macfarlane-Dick, 2006). In order to improve this situation, teachers should keep students well informed by written documents containing statements that describe assessment criteria and the standards of achievement. In addition, feedback with more elaborated information should supply essential cues and conditions to assist students to narrow the gap between goals and performance. An effective feedback element within the reporting system could support self-regulated learning.

#### **School Climate**

The overarching influence on a learner in the school environment and one in which the various forms of feedback and guidance are embedded, is what is usually referred to as 'school climate.' According to the National School Climate Centre (NSCC, 2011), school climate refers to the quality and character of everyday life in a school as experienced by students and school personnel. This climate reflects the norms, goals, expectations, values, interpersonal relationships, teaching and learning practices, and organizational structures. A positive school climate fosters students' development and learning necessary for a productive, contributing, and satisfying life in a democratic society. The prevailing school climate is acknowledged to be one of the most important influences on students' achievement and success (Purkey, 2011).

Schools vary tremendously in the quality and nature of climate they create for learning. Some do very little to encourage students' self-regulation and self-determination while others recognize such encouragement as fundamental to high quality education. Schools that operate under the 'inviting schools' model (Purkey & Novak, 1996) are more likely to fall within the latter category. An inviting school intentionally creates and maintains a climate that values all students, encourages and rewards initiative, provides opportunities for decision making and problem solving, and strives to make all students feel welcome and successful. In

other words, schools that are operating under principles of Invitational Education are in a very sound position to enhance the development of self-regulation in their students.

### **Inviting Schools**

As well as implementing the principles of Invitational Education, an inviting school is one that deliberately adopts policies and practices that are compatible with Invitational Theory (Novak, Rocca & DiBiase, 2006; Purkey & Novak, 1996). Building on this theory, Invitational Education (IE) is rooted in humanistic psychology and promotes the creation of a welcoming school climate and ethos that intentionally values, energizes, and motivates students to realize their individual and collective potential and develop intellectually, socially, physically, psychologically, and spiritually (Stanley et al., 2004; Steyn, 2006). The underlying elements of IE emphasize optimism, trust, respect, and intentionality through recognizing, encouraging, and reinforcing the achievements of all students, placing a focus on students' strengths rather than weaknesses. Invitational Education is recognized as one of the new movements in education that takes full account of students' whole-person development in formulating educational policies, goals and practices (Ellis, 1991). Developing highly motivated, well-adjusted and autonomous (self-regulated) learners is an aim in all inviting schools.

Within the literature on Invitational Education, Maaka (1999) is one of few scholars to highlight how assessment and feedback conducted in an inviting environment can facilitate students to reach their full potential. Reflecting on her valuable experiences teaching in Hawaii and New Zealand, she emphasized that student-centered data from assessments should be reported in ways that could maximize the benefits for each student.

The five domains of Invitational Education (people, places, policies, programs, and processes) are powerful part of environmental components that provide a framework for transforming a whole school to become invitational. Stanley et al. (2004) identified several elements in each domain manifesting various forms of feedback that may encourage self-regulation. People in an invitational environment are characterized by attitudes and actions that are optimistic, respectful, and inclusive. They treasure every individual, regardless of his or her academic performance. When teachers give feedback with a positive attitude and respect, students are more willing to receive the message (Hawk & Shah, 2008). Feedback exists everywhere, not only in the form of written or verbal responses from teachers, but also such practices as publicly displaying exemplary student works or artifacts, and decorating the classroom environment in a manner that intentionally acknowledges every student's

success and makes them feel valued. Such practices tend also to enhance students' pride in their school.

Policies on grading and communicating progress to students can heavily influence the effectiveness of feedback. In an inviting school setting, programs should encourage involvement of all parties, and communications between parties must be productive and mutually beneficial. In line with the Invitational Education model that teaching is to help students achieve their potential in a holistic sense, programs are expected to recognize students' efforts as well as their achievements. Students who feel like they are being supported by teachers are likely to experience higher self-efficacy. Processes should foster self-regulation and encourage high-order thinking skills among students through evaluative opportunities.

### **Concluding Thoughts**

To strengthen the link between theory and practice in a holistic approach, the following are some recommendations for educators, researchers, and policy makers to consider.

There is a need to focus future research on examining contextual factors contributing to every successful self-regulated learning practice. Although the value of social and cultural environmental effects on the processes of self-regulation has been highlighted for more than ten years (McCaslin & Hickey, 2001; Zimmerman, 2000; Schunk and Zimmerman, 1994; Pintrich, 1995), research has not adequately addressed the integration of social and self-regulatory processes in a larger context. It would be valuable to explore how individual learning (accompanied by the acquisition of self-regulation) is affected ecologically by a larger social and cultural environment (Ho, 2004; Lee et al., 2009; Volet et al., 2009).

There is a need for all inviting schools to review the learning and development functions of their existing reporting system. The practitioners in inviting schools should consider how best to improve its function in helping students monitor their own progress and become more autonomous learners. Investigating a reporting system could help to understand how social influences and self-regulation interact in a cohesive manner with the mediation of feedback (Stanley, et al., 2004). It would be valuable to examine a reporting system by using a case study to see if an inviting school setting manifests effective feedback principles. Specifically, future researchers could explore how the school reporting system could enhance individual guidance to students and foster social and self-regulatory processes.

Schools should consider infusing favorable contextual factors by adopting the Invitational Education model to improve school climate.

Guidance provided by teachers should put more effort into strengthening the skills of self-assessment and reflection among their students (Yorke, 2003), because self-assessment

can lead to significant enhancement in learning and achievement (Nicol & Macfarlane-Dick, 2006).

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# A Classroom of One is a Community of Learners: Paradox, Artistic Pedagogical Technologies, and the Invitational Online Classroom



Citation

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## Abstract

*How can students in an online classroom of one, often sitting in solitude in front of a computer, experience community? The authors suggest that in part, the answer lies in creating invitational online educational spaces through the use of Artistic Pedagogical Technologies (ATPs), particularly Photovoice (PV) a teaching strategy. A Zen paradox (or Zen koan) discussion is undertaken utilizing Palmer's (2007) six paradoxes of pedagogical design as a framework for understanding how PV creates invitational classrooms through the presence of paradox.*

Recently, convocation ceremonies were held at a large online university in Western Canada. For most in attendance it was the first time that students met face-to-face with their instructors and classmates. In her address, the valedictorian spoke of the challenges and benefits of attending an online university.

She noted that she completed her Master's degree in a classroom of one sitting in solitude in front of a computer screen course after course. Yet in her address she noted that she had experienced a sense of connection with fellow students and teachers during her classes. She noted that enhanced connectedness was made possible because of more intimate knowledge of other students' values, life priorities, and belief. The valedictorian described her experience as being part of a community of learners.

This valedictorian's seemingly paradoxical experience of being in a classroom of one, and yet sensing she was also part of a community of learners, is not always the norm for online students (Paxton, 2003). Online learners may feel isolated and alone and find the experiences of virtuality unreal and unsatisfying (Huang, 2002; Paxton, 2003; Splitter, 2009). Further, online learners may experience feelings of disconnect and a sense of being lost in cyberspace (Andone, Dron, Boyne & Pemberton, 2006; Paxton, 2003).

Developing online curricula that encourages social presence are key to enhancing teacher and student online relationships and reducing social isolation (Garrison, 2007). One approach to reducing social isolation is creating invitational classrooms that lead to participants experiencing the social presence of other students and the teacher (Paxton, 2003). The purpose of this paper is to explore how the use of ATPs (Perry & Edwards, 2010), particularly PV a teaching strategy, assist in creating invitational online classrooms. The

underpinnings of Invitational Theory and Practice (ITP) are reviewed and the characteristics of invitational classrooms are delineated (Purkey & Novak, 2008; Shaw & Siegel, 2010). An examination of the use of paradox in understanding PV spaces as invitational places/spaces is undertaken. Further, Palmer's (2007) six paradoxes of pedagogical design are applied as a framework to explore PV and broaden the understanding of invitation within the context of APT's.

## Invitational Theory

### Foundations

ITP is based on five elements of human interaction, *trust*, *respect*, *optimism*, *care*, and *intentionality* (Purkey & Novak, 2008; Shaw & Siegel, 2010). When all five elements are present in an educative environment, these elements serve to invite, nurture, and support learners in realizing successful outcomes (Riner, 2003). By accepting invitations to develop their abilities, learners are empowered to reach their highest potential and educative environments become cooperative and collaborative in nature (Riner, 2003). According to invitational theory, respect suggests that all humans possess ability, are valuable, and demonstrate responsibility (Steyn, 2006). Trust means that all education is bound within collaborative and cooperative activities, while optimism is the belief that humans possess unlimited latent and overt potential (Steyn, 2006). This potential is "realized [when] people, places, policies, processes and programs are

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[intentionally] designed to invite [that] development” (p. 21).

### Characteristics of the Invitational Classroom

Considerable research has been done in the last two decades related to invitationalism and delineating the characteristics of invitational classrooms (Chant, Moes & Ross, 2009; Hunter & Smith, 2007; Paxton, 2003; Purkey, 1992; Steyn, 2006; Steyn, 2009; Usher & Pajares, 2006). Although invitational research has primarily focused on face-to-face classrooms, research in the context of the online classroom is beginning to emerge (Perry & Edwards, 2011; Perry, Menzies, Janzen & Edwards, in press). These studies demonstrate that invitational classrooms, both face-to-face and online, share many characteristics. While most of these characteristics are teacher-focused or teacher-generated, there are some common characteristics which are also student-generated.

The online classroom embodies invitational characteristics (see Table 1). However, there are additional constraints that are inherent in the e-classroom setting that may potentially make this environment less invitational. E-classrooms may have elements that are experienced by some learners as “dis-inviting” (Paxton, 2003, p. 26). Paxton (2003) found that some of the constraints of the e-classroom can be mediated through the application of ITP principles. Creating invitational classrooms in the online setting requires intentional and purposeful teacher-initiated strategies. Paxton (2003), as well as Hunter & Smith (2007) found that these can include giving consistent feedback developing online activities that invite creativity and being ‘real’ in online communications (Janzen, Perry & Edwards, 2011). Exclusive focus on online class content without including inviting learning strategies can result in a learning milieu students experience as unwelcoming and less engaging.

**Table 1.** Characteristics of Face to Face and On-line Invitational Classrooms.

Characteristics of Face-to-Face and On-line Invitational Classroom	Student-Focused Characteristics	Teacher-Focused Characteristics
Invitations are both student-generated and teacher-generated (Usher & Pajares, 2006).	✓	✓
Amplify confidence in academia and enhance wellbeing (Usher & Pajares, 2006)		✓
Purposeful in creating milieus that invite “students to see themselves as able, valuable, and responsible” (Usher & Pajares, 2006, p. 13).		✓
Environments are safe and foster a sense of community (Hunter & Smith, 2007; Paxton, 2003). Freedom from judgement or ridicule (Hunter & Smith, 2007). Presence of a positive classroom culture (Steyn, 2006).		✓
Presence of feedback that is both public and private (Paxton, 2003).		✓
Involvement of peers as mentors and/or collaborators either formally or informally (Paxton, 2003).		✓
Teachers communicate caring (Hunter & Smith, 2007).		✓
Freedom for personal expression of opinions, uniqueness as an individual, and ideas; experimentation with ideas and resources in novel ways (Hunter & Smith, 2007).		✓
Fosters imagination and creativity (Hunter & Smith, 2007).		✓
Participants have sense of accountability (Paxton, 2003)	✓	✓
Participants express a sense of personal ownership (Hunter & Smith, 2007).		✓
Focus on holistic development of student (Hunter & Smith 2007).		✓
Individual support is provided to student (Steyn, 2006)		✓
Create and identify a shared vision and cooperative goals (Steyn, 2006).	✓	✓
Consistently cultivate expectations of excellence (Steyn, 2006).	✓	✓
Presence of teacher as role model (Steyn, 2006).		✓

A dis-inviting online classroom may lead to student isolation, a lack of accountability due to the “faceless” nature of online classes, a belief that instructors do not delve into the student’s “thinking processes,” and a view that the e-learning environment is not “real” (Paxton, 2003, p. 26). Paxton

(2003) asserts that this leads to a sense of being disconnected which discourages an environment where students feel a connection to a community of learners. Invitational classrooms provide “solutions to [these] disinviting e-learning practices” with a focus on “fostering student

thinking skills, problem solving abilities, and social interaction” (p. 26). Invitational classrooms in this regard, help reduce student isolation, increase the sense of community and create opportunities for teachers to explore student cognitive processes in more depth (Paxton, 2003).

### **Paradoxes of Pedagogical Design**

#### **Understanding Paradox**

Etymologically, the word paradox is drawn from the Greek word *paradoxos* where *para* means “contrary to” and *doxa* means “opinion” (Skeat. 1882, p. 420)). Further, paradox is attributed to the word *dokien* which is defined as “to appear, seem or think” (Merriam-Webster Dictionary, 2011, para. 3). In Japanese, the word paradox is referred to as a Zen paradox or koan where *ko* means “public” and *an* is a “proposition” or question (Heine & Wright, 2000, 268). For centuries Zen Buddhist monks have utilized what is known as paradoxical discussions to “draw in... the intellect and [open] the way for something deeper to arise and be recognized... in a fuller context” (Rowan, 2010).

#### **Paradoxes of Pedagogical Design**

This same sense of koan or paradox can be applied to further understand invitational classrooms. Palmer (2007) identifies six paradoxes of pedagogical design which not only create fresh and engaging classrooms but also result in classrooms that are inviting to both students and teachers. A paradox, when thought of metaphorically, is like a magnet with two polarities existing on a continuum. The two ends of the magnet will never touch, yet they complement each other as the materials that make up the magnet are indivisible. The magnet could be thought of as the invitational classroom and the polarities of the magnet as the invitations that are provided to both students and teachers. Palmer (2007) speaks of this polarity or sense of paradox as being the “creative tension” (p. 77) that keeps face-to-face classrooms invitational. It is posited that this sense of paradox also applies to the online classroom.

According to Palmer (2007) face-to-face classrooms are paradoxical environments where polarity exists between the characteristics of those classrooms. In an invitational classroom or invitational space:

1. The space should be bounded and open.
2. The space should be hospitable and charged.
3. The space should invite the voice of the individual and the voice of the group.

4. The space should honour the little stories of the students and the big stories of the discipline and tradition.
5. The space should support solitude and surround it with the resources of the community.
6. The space should welcome both silence and speech (Palmer, 2007, p. 76).

#### **Artistic Pedagogical Technologies**

APT's are online arts-based teaching strategies that use visual, literary, musical or dramatically based elements (Perry & Edwards, 2010). Examples of APT's include PV, parallel poetry, conceptual quilting, wordl, online theatre, conceptual mosaics and virtual talking stick roundtables. The philosophical underpinnings of APTs are from Vygotsky's (1978) Social Development Theory (SDT). Perry et al., (2011) have explored ITP as a link to the successful application of APT teaching strategies. Through the constructs of ITP, APT's have the potential to assist educators in establishing online classrooms that are invitational. One APT teaching strategy, PV, has been particularly promising in this regard.

#### **Photovoice**

The use of photographic images as a tool for participatory action research was developed by Wang and Burris (1997) and adapted as an online teaching strategy by Perry and Edwards, (2010). When using PV as a teaching strategy, photographic images are paired with reflective questions in online courses to create invitations for students to engage creatively, socially, interactively and constructively in interactions regarding course content (Perry & Edwards, 2010). A selected digital image is purposefully posted to a dedicated online forum with an accompanying reflective question and learners are invited to respond to the image and the question. For example, a PV in a course that encourages self-assessment, a digital image of a forked pathway in a grassy mountain meadow is posted. One fork in the path is well travelled, the other side less visible. Additionally, one trail leads into the woods (the unknown), while the other leads into the light. The accompanying reflective question is, “Which path will you choose as you continue in your career?” (See Figure 1).



**Figure 1.** Example of a Photovoice Image.



*Note.* Image by Otto F. Mahler, used by permission.

PV activities are invitational in nature in part because they are neither compulsory nor graded. The images and questions are presented to students and they are invited to choose to participate (or not). Student responses are shared in an online forum reserved for this activity on the course web-space. Students can choose to respond to the reflective question and image, as well as to postings from their classmates.

In order to further evaluate invitationalism in regard to APTs, the authors speculate that the presence of paradox, which according to Pamler (2009) is inherent in the invitational classroom) may also be a defining factor in the success of APTs in facilitating the creation of invitational online classrooms. This paper utilizes a simple koan based upon the construct of paradoxes which asks of the APT educative environment and more particularly of PV, “How is a classroom of one a community of learners?” Palmer’s (2007) six paradoxes frame the answers to this Zen Koan.

### **Koans and the Paradox Discussion**

The paradox discussion, when carried out between a Zen Master and a novice, becomes a “test of the novice’s competence” which draws upon intuition rather than “analytic intellect” (Encyclopedia Britannica, 2011, para. 1). PV activities encourage students to apply what they already know to their analysis of the image. Further students are encouraged to use not only intellect (in terms of course content) but also intuition as they reflect in creative ways on relationships among the images, the questions, and what they know. In this way PV becomes personally relevant and meaningful.

“Koans [as well as PV reflective questions] are not rational questions with [defined correct answers]. [Rather, koans] are especially designed for one purpose [which] is to open the mind which has been closed by habitual responses to the

world and reality” (Demand Media, 2010, para 6). Zen koans are “about hearing the impossible” where the impossible “is only termed impossible within the framework of conventional reality” (para. 6). PV in essence takes the students into another realm of discovery where habitual responses give way to the sharing of what is possible instead of what is impossible. Through this experience students may form a sense of vision that they can take with them far beyond the confines of the virtual classroom.

Koan paradoxes “cannot be understood on a conceptual level. Koans exhaust the logical activity of the mind so that the mind will break out of its conventional view of the nature of reality” (Grenard, 2008, p. 153). Koans, when viewed in this sense, become a platform upon which students and teachers can begin to develop fundamental relationships and ideas through working together (Grenard, 2008). This working together involves a joint effort on the part of both student and teacher. As with koans, in PV activities the teacher provides the images and the questions and the students provide the answers. This reflects a cooperative stance where students are invited to not only share what they see within the image, but also are able to explore their own consciousness for a sense of personal meaning evoked by the image and question. Instructors become ‘facilitators’ and ‘guides’ as students explore PV activities.

### **A Classroom of One is a Community of Learners: Palmer’s Paradoxes Revisited**

The koan which guided this paper was posed in the question, “How is a classroom of one a community of learners?” Through Palmer’s (2007) paradoxes a solution to this koan becomes more apparent. In the PV space, there exists a classroom of one. The classroom of one is bounded, honors the stories of individual students, is positively charged,

supports solitude, welcomes silence, and reflects the voice of the individual. Within the PV space there also endures a community of learners where the learning space honors the stories and tradition of the discipline, is hospitable, surrounds students with the resources of the community, welcomes speech, reflects the voice of the group, and is open. Both of these polarities exist simultaneously in PV learning activities.

Each of Palmer's (2009) six paradoxes are described in more detail as they pertain to the invitational classroom and PV.

1. The space should be bounded and open. Invitational classrooms (just as any other classroom) out of necessity have bounds or parameters in which they operate. Otherwise the classroom would exist on the edge of chaos and be directionless (Palmer, 2007). PV spaces are seen as purposeful in nature or in other words exist as intentional spaces which have bounds and limits (Usher & Pajeres, 2006). These limits are created and identified as the result of a shared vision and cooperative goals (Steyn, 2006). PV spaces become intentional and this intentionality creates specific bounds. Part of these bounds include crafting student outcomes of reflection and providing opportunities for students to become real (Janzen et al., 2011, ). Students also experience enhanced social presence where PV spaces additionally stimulate creativity, solidify course concepts, amplify personal applicability of course concepts and encourage expressiveness through the use of PV (Janzen et al., 2011).

Palmer (2007) notes the invitational classroom is one in which teachers and students are taking a journey together, where the direction is predetermined and yet the outcomes at the onset of the journey are not prescribed. There is a balance of boundaries and openness. More specifically, "if boundaries remind [students and teachers] that [their] journey has a destination, openness reminds [them] that there are many ways to reach that end" (p. 77). The PV classroom is envisioned as experimental in nature where personal expression guides and transforms ideas and resources in novel ways (Hunter & Smith, 2007). In these ways the PV classroom experience encompasses both freedom and constraint and thus is both bounded and open.

2. The space should be hospitable and charged. The invitational classroom must cultivate a sense of safety, trust, and freedom while at the same time, provide enough challenge (charge) that learners remain engaged (Hunter & Smith, 2007). In PV classrooms this is achieved partially through creating safe environments, fostering a sense of community (Hunter & Smith, 2007), and ensuring the presence of a positive classroom culture (Steyn, 2006). While the invitational classroom also becomes hospitable in these

ways, the invitational classroom remains charged though principles of accountability (Paxton, 2003) where demand for a sense of personal ownership (Hunter & Smith, 2007) is communicated through consistent expectation of excellence (Steyn, 2006).

Parameters of the charged classroom are evident in the PV space. A sense of personal ownership is evoked as PV activities continue to be offered over the duration of the course and students increasingly risk sharing their thoughts and feelings related to the images and questions. Students often see their own experiences reflected in PV images and begin to 'own' the images by relating what they see in the picture to their own lives. For example, an image of a lighthouse used as a PV image in a leadership course may evoke not only a discussion of qualities of outstanding leaders, but it may also encourage students to share their stories of the love of the sea or vacations to the coast. Through this ownership of the images—elements of the person become revealed to classmates and teachers.

While there is not an implicit expectation of excellence regarding PV, excellence is evident from the depth of insight and level of critical thinking expressed in PV responses (Perry & Edwards, 2010). Learners hold themselves and others accountable for their PV responses by engaging in discussion and further questioning regarding what is shared. It is common for a fellow student to ask a poignant question that causes a student to further explain a PV posting.

While invitational classrooms are also believed to promote accountability (Paxton, 2003) this feature is not apparent with the PV activity given that participation is not compulsory or graded. Accountability is limited to the student's sense of being real or authentic in this environment. This may have implications in creating online classrooms where students choose to be present rather than being dictated to be present. An ongoing invitation for participation exists however which may reach the student who is undecided regarding their participation. The invitation is always open for students to join the PV activity in progress. In this way the very act of continual invitation becomes a grounding construct that is embedded in PV activities.

3. The space should invite the voice of the individual and the voice of the group. Palmer (2007) notes that learning is supported when students are invited to find not only their voices, but their "authentic voices" (p. 78). This is achieved in PV because there is freedom for personal expression of opinions and ideas which reflect the unique nature of each learner's perspective (Hunter & Smith, 2007). PV encourages authentic communication and supports authentic voice (Janzen et al., 2011). Individuals are free to express their responses to the image without evaluation as no

response is right or wrong. This openness encourages the finding of personal voice.

Usher and Pajeres (2006) note that invitations in the invitational class are both teacher-generated and student-generated. PV is an invitation that results in the sharing of individual voices—the first step in finding the collective voice of the class. Further, the finding of the collective voice is facilitated because both students (and sometimes teachers) respond to one another's PV postings with affirming comments and further questions. Such responses potentially make participants feel "valued, able, [and] responsible" (p. 8). These exchanges help create a positive climate where diversity is valued yet participants realize that there are commonalities embedded in this diversity. The shared commonalities can be a catalyst for a common vision for the course.

In courses where PV invitations are both student and teacher-generated, the voice of the group is valued equally with the voice of the individual (Usher & Pajeres, 2006). The voice of the collective group often emerges in addition to the voices of individual students as collective insights are shared. In PV activities, invitations to participate are provided with the posting of the image and reflective questions by the instructor. Invitations to respond to other students' postings in turn provide another level of invitation. These invitations come from the students themselves as they often conclude their PV posting with something like "does anyone agree" or "what do you see" or "what are other people thinking?" In the PV space the discussion is often substantial as messages are continually being sent and received.

The students accept each other for who they are and for being inherently human. If invitations are understood as "messages sent" and social persuasion is understood as "messages received," then the "invitations that [the] students [send] themselves [are ultimately] influenced by the social persuasions they received from others" in terms of "competence and capability" (p.8).

As the truths of the group and the truths of the individual emerge (Palmer, 2007) in the PV space, these truths find a space/place where these truths begin to exist simultaneously. Instructors operate in the capacity of giving voice to the group through the posting of images and reflective questions where various "thought patterns emerge" (p. 83). The result then is represented as "an emergent collective wisdom" where the group acts in various roles including affirmers, questioners, and challengers (p. 79).

4. The space should honor the "little" stories of the individual and the "big stories" of the discipline and tradition. Palmer (2007) considers inviting students to tell "the tale of their lives" as the sharing of "little stories" (p.

79). In the PV activity students are encouraged to share their little life stories without judgement or ridicule (Hunter & Smith, 2007). Beyond sharing personal stories, the telling of individual stories of the respondent's respective discipline and tradition has an impact upon the learning environment. When this occurs, the scope of the story becomes much larger and archetypes provide depth and breadth of understanding (Palmer, 2007). In a holistic sense, the stories of the discipline represent the collective wholes upon which the stories of the individual student (as parts of that whole) are both compared and contrasted. This facilitates holistic development of students (Hunter & Smith, 2007) who respect and honor traditions that have emerged from the discipline. Palmer (2007) notes that this sense of development avoids the pitfalls of narcissism. In this process caring educational communities may be created (Hunter & Smith, 2007).

5. The space should support solitude and surround it with the resources of the community. The PV space provides a milieu where learners had both time and space for solitude. Palmer (2007) identifies that this solitude allows students to discover their inner selves. Additionally, Palmer (2007) suggests that when learners are also surrounded with the resources of the community there is a "dialogical exchange" which is fundamental to self-growth (p. 79). When this sense of solitude is "nourished and protected by a teacher" (p. 80) the very presence of the teacher acts as a role model (Steyn, 2006). This is very evident even though the presence of the instructor in the PV activities is in the background as the instructor posts the image and questions. Students are very aware of the instructors' presence knowing they are reading their posts and providing an ongoing contribution through additional weekly images and questions. The students find the instructors' presence (noted by the ongoing posting of images and questions) one of the most meaningful features of PV reported by students (Perry, Menzies, Janzen & Edwards, in press). Through this modelling, "sensibilities and safeguards" (Palmer, 2007, p. 80) are created which provide individual support for learners (Steyn, 2006).

When teachers give feedback that is both private and public this sense of honouring the spaces of solitude as well as community, is nurtured (Paxton, 2003). Teachers facilitate rather than dictate in such learning environments (Palmer, 2007). Being a facilitator is one of the chief instructor roles that students identify that is important to them (Author et al., in press). The resources of the community are also found when peers involve each other as collaborators in both formal and informal ways (Paxton, 2003). This provides an atmosphere where students learn to be confident in their own truths. Further, this atmosphere fosters a sense of wellbeing

in those who mentor and those who are mentored within the PV environment (Usher & Pajeres, 2006).

6. The space should welcome both silence and speech. Optimally participants have the choice to speak or be silent. In most online courses, speaking becomes a written posting and silence is the absence of written postings. Since PV activities are optional, students have the choice of speaking or remaining silent. Being silent in an online course (evidenced by the lack of a written post) does not necessarily equate to students not being engaged. Rather invited silence can result in reflection. In this silence students may take the opportunity to reflect deeply on PV images and questions as they are provided with the necessary time in which to experiment with ideas and resources in novel ways (Hunter & Smith, 2007). This silence and opportunity for reflection may allow meanings to emerge that might not be realized in any other way.

Students engaged in PV online may choose to “speak” by sharing their perspectives in online posts. Hunter and Smith (2007) note that speech in the invitational classroom should become an expression of imagination and creativity. PV is a catalyst for this element of speech as responses draw upon students’ artistic and creative abilities. Further, when these creative responses are shared, the understandings of the collective group are enhanced and a sense of safety with the community is fostered (Usher & Pajeres, 2006).

### Conclusion

The foundations of ITP were explored with a delineation of characteristics of the invitational classroom which focuses on trust, respect, optimism, care, and intentionality. The

construct of paradox was elucidated through the use of etymology. An overarching question was posed to structure the paper in the form of a Zen Koan. Palmer’s (2007) six paradoxes of pedagogical design were applied as a framework to discuss the invitational nature of PV spaces in the context of APT’s.

In continuing with the tradition of Zen Buddhist monks, who asked paradoxical questions to elicit intuition and wisdom, a Zen paradox discussion was undertaken to further explicate the answer to the question, How is a classroom of one also a community of learners? The outcome of this discussion leads one to understand that a classroom of one, when viewed in terms of ITP and paradox, can also be a community of learners. The PV space can allow both polarities to exist simultaneously which are felt to enhance the online classroom experience for students.

As Garrison (2007) suggests, developing online curricula that encourage social presence helps to reduce the social isolation that often exists in the online classroom. Developing teaching strategies such as PV which encourage social presence, cognitive presence, and teaching presence (Perry & Edwards, 2010) also assist in making online classrooms invitational. In PV spaces, the presence of all six paradoxes of pedagogical design (Palmer, 2007) contribute to the invitational nature of the PV environment. This environment ultimately fulfills the five requirements of invitational classrooms: trust, respect, optimism, care, and, intentionality, and provides a possible solution to some constraints of the e-classroom.

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# Cross-Cultural Equivalence and Psychometric Properties of the Traditional Chinese Version of the Inviting School Survey-Revised



Citation

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## Abstract

*The Inviting School Survey-Revised (ISS-R) was adapted and translated into Traditional Chinese (ISS-RC), using a five-step process, based on international test administration guidelines, involving judgmental, logical, and empirical methods. Both versions were administered to a convenience sample of Chinese-English fluent Hong Kong school community members (administrators, teachers, students, parents, and support personnel). A series of repeated measures ANOVAs revealed equivalence between the two versions, ISS-R and ISS-RC Total Scale and Subscales (variances, subscale correlations, internal consistency) other than the Program Subscale overall mean difference. Item analyses, utilizing repeated measures ANOVAs, revealed significant differences in 11 of the 50 scale items. Suggestions for further development and refinement of the Chinese Invitational School Survey (ISS-RC) are presented. Additionally, recommendations for future research and application of the ISS-R and ISS-RC are provided*

The purpose of the present study is twofold; (1) to describe the processes and procedures used to adapt and translate the Inviting School Survey-Revised (ISS-R) into Traditional Chinese (ISS-RC) for use in Hong Kong and mainland China and (2) to assess the psychometric equivalence of the two versions.

There is rapidly growing evidence that school climate is one of the most important contributors to student achievement, success, and psychological wellbeing (Fan, Williams, & Corkin, 2011; Zullig, Koopman, Patton, & Ubbes, 2010; Cohen, McCabe, Michelli, & Pickeral, 2009). School climate also heavily influences healthy development as well as effective risk prevention, positive youth development, and increased teacher and student retention (Cohen et al., 2009; Huebner & Diener, 2008).

School climate may be defined in a number of ways. This study viewed school climate as that which reflects the perceptions of the social, emotional, and academic experiences of school life by students, administrators, teachers, parents, and the wider community. That is, school climate reflects a subjective experience in the school (Cohen, 2006; Freiberg, 1999).

In order to make informed decisions regarding school development it is important for a school administrator to be aware of how the school community perceives the school (school climate) and, to have access to a reliable and valid instrument that purports to measure school climate.

Such an instrument has existed since the early 1990s, the Inviting School Survey-ISS (Purkey & Fuller, 1995; Purkey & Schmidt, 1990). The ISS was designed to assess the total

school climate and the five environmental areas as outlined by Invitational Education theory: People, Places, Policies, Programs, and Processes (Purkey & Novak, 1996, 2008; Purkey & Schmidt, 1990). The ISS is a 100-item, Likert-type, hand-scored instrument, utilized by few schools and there are no psychometrics, such as norms, reliability and validity indices, supporting the instrument.

To address this shortcoming, Smith (2005) significantly revised the 100-item instrument to be a 50-item, on-line, computer scored instrument titled, the Inviting School Survey-Revised (ISS-R). The ISS-R provides school communities a “user-friendly”, theoretical-grounded, empirical-based instrument that assists in evaluating their schools for future development as the ISS-R identifies areas of strength and weakness in a school's climate.

Following the revision, the ISS-R has been utilized Australia, New Zealand, North America, Asia, and Africa. In 2006, 18 schools (596) participants completed the ISS-R.

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In 2010, 78 schools, over 6,000 participants have used the ISS-R (Smith, 2012).

In 2010, as a result of the huge increase in use of the ISS-R, particularly in Hong Kong and mainland China it was decided to adapt and translate the ISS-R into Traditional Chinese.

### **The Inviting School Survey-Revised (ISS-R)**

The Inviting School Survey-Revised (Smith, 2005), based upon the tenets of Invitational Education, is designed to empirically identify areas in a school that are inviting and dis-inviting. Invitational Education theory is a theory that is strongly grounded on well-established psychological paradigms such as Perceptual Psychology (Combs, Richards, & Richards, 1976; Combs, 1962), Cognitive-Behavior (Meichenbaum, 1974, 1977; Ellis, 1962, 1970), and Self-Concept (Purkey, 1970; Jourard, 1968; Rogers, 1969).

The ISS-R is a 50-item, five-point Likert-type scale based on the 100-item Inviting School Survey-ISS (Smith & Bernard, 2004; Purkey & Fuller, 1995; Purkey & Schmidt, 1990). Both the original ISS and the ISS-R are designed to be completed by students (age 8-9 and older), parents, teachers, school administrators, and others associated with the school, such as counselors, psychologists, and social workers.

The Inviting School Survey-Revised (ISS-R) is a theoretical-based instrument, designed to assess the invitational qualities of the total school climate and the five environmental domains of People, Programs, Processes, Policies, and Places, as outlined in Invitational Education theory (Purkey & Novak, 1996). For a comprehensive description of the 5P's go to Purkey and Novak, *Fundamentals of invitational education*, 2008.

The ISS-R is designed for electronic, self-administration through the IAIE website. Individuals completing the ISS-R are asked to respond to all items ranging from 1, 'Strongly Disagree' to 5, 'Strongly Agree' (0, 'Not Applicable' is treated as missing, if a question is not relevant to the participant's school context).

The ISS-R is a theoretical five-factor model, where factors pertain to 1. People (16 items), 2. Program (7 items), 3. Process (8 items), 4. Policy (7 items), 5. Place (12 items) and the Total scale comprised of the 50 items.

The validity of the ISS-R has been empirically documented and its internal consistency reliability has been reported to range from .86 to .88 for the Total scale (Smith, 2005).

For further details of the Inviting School Survey-Revised (ISS-R) refer to Smith (2012), *Manual for the Inviting*

*Survey (ISS-R): A survey for measuring the invitational qualities (I.Q.) of the total school climate.*

## **Method**

### **Procedure**

The following are the five steps used to adapt and translate the ISS-R into Traditional Chinese. As stated previously, the ISS-R is comprised of a brief instruction statement and 50 randomized, positively-worded items requiring a Likert-type response on a five point. Three additional demographic questions provided information about the respondents' position, gender, and age (students only).

The ISS-R was translated and adapted into Traditional Chinese (ISS-RC) using the guidelines set down by the International Test Commission (ITP, 2010), the American Psychological Association (1999) and contributing suggestions from Sousa and Rojjanasiriat, (2010). These guidelines address concerns about test context, test development and adaptation, administration procedures, and score interpretations. The guidelines require that test adaptation and translation procedures should use systematic judgmental evidence at every step.

**Stage 1.** Two bilingual individuals translated (forward translation) the English version, the ISS-R, into a Traditional Chinese version (ISS-RC). Certain words, such as 'everyone' were changed to be more meaningful and appropriate within the Chinese context.

**Stage 2.** Following the forward translation of the ISS-R, a blind back-translation was completed, in which an independent bilingual expert, different from the two translators used in Step 1, converted the translated instrument back into the original English language without having seen the original instrument.

**Stage 3.** A panel of two bilingual individuals, experts in the field of invitational education, examined both versions in terms of consistency, grammar, and structure. Minor discrepancies between the original and translated instruments were identified. Revisions were made in the translated Chinese measure until the two forms appeared to be equivalent. After reaching a consensus in relation to the consistency of the forward and backward translations of the ISS-R, a Traditional Chinese draft version of the ISS-R was produced.

**Stage 4.** As an additional confirmation of the equivalence of the two ISS versions an external company, Second Language Testing Inc. (SLTI), Rockville, Maryland, judged the equivalence of the two versions. SLTI reviewed the Chinese translation of the ISS-R and suggested some minor revisions. The report from this company identified no discrepancies between the 50 items. However, the



demographic questions asked at the beginning of the instrument were found to be non-equivalent and suggestions for change were submitted.

**Stage 5.** Implementing the changes as suggested by SLTI, a panel of 3 individuals, conversant in invitational education, compared the English and Chinese versions. After reaching a consensus that the two versions were equivalent, the final Chinese version of the ISS-R was produced. English and Chinese versions of the Inviting School Survey-Revised can be found in the appendix.

## Participants

A convenience sample of 67 participants from a number of Hong Kong educational institutions, fluent in English and Chinese, completed both versions of the 50-item Inviting School Survey (ISS-R and the ISS-RC) at one sitting. Of the 67 paired-instruments completed, four participants (6%) were eliminated from further analysis because of excessive missing items (greater than 10). The final sample, as depicted in Table 1, consisted of 43 females (68%) and 20 males (32%) in positions of administrators (16, 25%), teachers (25, 40%), counselors (2, 3%), students (6, 10%), parents (11, 17%), and others (3, 5%).

**Table 1.** Number of Participants by School Community Status

Participant	Females		Males		Total	
	N	%	N	%	N	%
Administrator	9	21	7	35	16	25
Teacher	15	35	10	50	25	40
Counselor	2	1	0	0	2	3
Parent	8	19	3	15	11	17
Student	6	14	0	0	6	10
Other	3	7	0	0	3	5
Total	43	100	20	100	63	100

## Data Preparation and Analysis

All data analyses were conducted using PASW Statistics Version 18 (SPSS, 2009) and significant levels for the analyses were at  $\alpha < .05$ . However, application of the Bonferroni correction statistic, which would restrict the acceptable alpha level for interpretation to alpha of .05 divided by the number of tests used in each of the Total scale and the five subscales, was employed,  $.05/6 = .008$ ; while for the 50-item-difference analyses  $.05/50 = .001$ .

Initial inspection of the data indicated some incomplete data. Of the 67 participants, four participants had more than ten missing items and were removed from further analysis. The remaining participants' missing items were replaced by the participant's subscale item mean (Tabachnick & Fidell, 2007).

To investigate subscale relationships, Pearson's correlation ISS Cronbach's alpha ( $\alpha$ ) and Fisher-Bonett test (Kim & Feldt, 2008) were utilized respectively.

A series of repeated measures ANOVAs were conducted to determine equivalence of the Total scale, the five subscales and the 50 items between the two versions (ISS-R and ISS-RC).

## Results

### Internal Consistency and Homogeneity

The Pearson's  $r$  correlation coefficients, ranged from .58 to .95 for the English version (ISS-R) scale measures and .63 to .96 for the Chinese version (ISS-RC). The ISS-R Total scale and the 5 subscales correlations are presented in Table 2. All correlations were statistically significant at  $p < .001$ .

**Table 2.** Correlations of the Inviting School Survey (ISS-R) Total Scale and Subscales by Version

Scale	People	Program	Process	Policy	Place	Total
People	-----	.76	.85	.83	.73	.95
Program	.80	-----	.78	.63	.72	.86
Process	.88	.74	-----	.81	.68	.91
Policy	.80	.67	.80	-----	.58	.86
Place	.76	.73	.75	.63	-----	.85
Total	.96	.86	.93	.85	.87	-----

*Note.* Upper diagonal is English version (ISS-R); Lower diagonal is Chinese version (ISS-RC)  
N = 63; All correlations are significant ( $p < .001$ ).

As depicted in Table 3 all of the ISS-R reliability coefficients, for both versions, were greater than .70 suggesting that these measures demonstrated acceptable levels of reliability (Nunnally & Bernstein, 1994).

Based on the Fisher-Bonett test of equivalence (Kim & Feldt, 2008), the paired-scale reliability coefficients (Cronbach's  $\alpha$ ) were statistically equivalent ( $p > .05$ ) between the ISS-R and the ISS-RC.

**Table 3.** Inviting School Survey (ISS-R) Total Scale and Subscales Coefficient Alpha by Version

Scale	Number of Items	English Version	Chinese Version
People	16	.92	.92
Program	7	.79	.76
Process	8	.80	.81
Policy	7	.77	.79
Place	12	.84	.84
Total	50	.96	.96

*Note.* N = 63; No statistical significant alpha differences, based on the Fisher-Bonett test.

Reliability of the measures was also evaluated by examining inter-item correlations. As shown in Table 4, the inter-item correlation mean for each scale ranged from .31 for the Chinese version Program subscale to .44 for both versions' People subscale. All of the inter-item correlations were statistically significant ( $p < .01$ ).

Homogeneity was examined using the Pearson's item-to-total scale correlations found in Table 4. The correlations were between the acceptable range .30 and .70, meeting the necessary criteria for internal consistency (Ferketich, 1991). All of the item-to-total correlations were found to be statistically significant ( $p < .01$ ).

### Analyses of Scales

As depicted in Table 5 the descriptive statistics for both versions, ISS-R and ISS-RC, showed that the participants scored similarly on the scales' measures. Examination of the data (skewness and kurtosis) identified that the measures were normally distributed and the variances were equivalent, thus adhering to the assumptions underlying a repeated measures ANOVA (Tabachnick & Fidell, 2007). A series of repeated measures ANOVAs were conducted to evaluate the overall mean score of the Total scale and the five subscales between the ISS versions.

**Table 4.** Scale Item Means, Inter-Item Correlations Means, and Item-to-Total Scale Correlations Means by Version (N = 63)

Scale	English Version	Chinese Version
<u>Program (16 items)</u>		
Item Mean	4.21	4.19
Inter-Item Correlation Mean	.44	.44
Item-to-Total Scale Correlation Mean	.69	.69
<u>Program (7 items)</u>		
Item Mean	4.18	4.31
Inter-Item Correlation Mean	.34	.31
Item-to-Total Scale Correlation Mean	.66	.64
<u>Process (8 items)</u>		
Item Mean	4.14	4.11
Inter-Item Correlation Mean	.34	.34
Item-to-Total Scale Correlation Mean	.64	.65
<u>Policy (7 items)</u>		
Item Mean	4.22	4.25
Inter-Item Correlation Mean	.35	.38
Item-to-Total Scale Correlation Mean	.66	.68
<u>Place (12 items)</u>		
Item Mean	4.20	4.20
Inter-Item Correlation Mean	.32	.33
Item-to-Total Scale Correlation Mean	.45	.47
<u>Total (50 items)</u>		
Item Mean	4.19	4.21
Inter-Item Correlation Mean	.34	.35
Item-to-Total Scale Correlation Mean	.59	.60

**Table 5.** Inviting School Survey (ISS-R) Total Scale and Subscales Descriptive Statistics by Version

Scale	English Version	Chinese Version
<u>People (16-80)</u>		
Mean	67.42	67.08
SD	6.96	7.14
Skewness	.09	.11
Kurtosis	-1.05	-1.06
<u>Program (7-35)</u>		
Mean	29.27	30.16
SD	3.32	2.77
Skewness	-.12	.06
Kurtosis	-.39	-.80
<u>Process (8-40)</u>		
Mean	33.11	32.88
SD	3.62	3.57
Skewness	.04	.23
Kurtosis	-.91	-.97
<u>Policy (7-35)</u>		
Mean	29.53	29.76
SD	3.29	3.17
Skewness	-.13	-.06
Kurtosis	-.77	-.79
<u>Place (12-60)</u>		
Mean	50.38	50.41
SD	5.20	4.92
Skewness	.00	.08
Kurtosis	-.88	-1.14
<u>Total (50 items)</u>		
Mean	209.71	210.29
SD	20.03	19.53
Skewness	.18	.24
Kurtosis	-1.00	-.97

Note. N = 63.

The results of the repeated measures ANOVAs, as shown in Table 6, indicated a significant overall mean difference between the two versions' subscale, Program,  $F(1, 62) = 14.25$ ,  $p < .001$ . The strength of the difference between the

two versions of the Program subscale, as assessed by partial eta-squared ( $\eta_p^2$ ), was large, with the subscale factor, version, accounting for 19% of the variance (Cohen, 1988).

**Table 6.** Inviting School Survey (ISS-R) Total and Subscales Repeated Measures Analysis of Variance Summary for the English and Chinese Versions

Scale	$F^a$	$p$	$\eta_p^2$	Power	Mean Difference	95% CI
People	1.62	.208	.03	.24	.3421	-0.196 to 0.880
Program	14.25	.000	.19	.96	-.8942	-1.368 to -0.421 <sup>b</sup>
Process	1.75	.191	.03	.25	-.2376	-0.497 to 0.022
Policy	3.36	.072	.05	.44	.2343	-0.120 to 0.589
Place	0.01	.927	.00	.04	-.0249	-0.565 to 0.515
Total	0.52	.475	.01	.12	-.5802	-2.194 to 1.034

<sup>a</sup>  $df = 1, 62$ .

<sup>b</sup> Indicates that the 95% CI does not contain zero, and therefore the difference in means is significant.

Participants reported significantly higher Program subscale scores on the Chinese version ( $M = 30.16$ ,  $SD = 7.14$ ) than the English version ( $M = 29.27$ ,  $SD = 2.77$ ). The mean difference between the versions of the Program subscale was .89 (95% CI = -1.37, -.42). All other scale measures between the versions were found to be non-significant ( $p > .05$ ).

As depicted in Table 7, when identical scores were added to scores that deviated by only one point difference, it was found that on the People subscale, 75% of the participants fell in this category; Program subscale- 67%; Process- 84%;

Policy- 84% Place- 76%; and for the Total Scale- 48%.

#### Analyses of Scale Items

Participants' responses on each of the 50 items on the English version (ISS-R) scale were compared to their responses on the same items of the Chinese version (ISS-RC). Identical responses on the 50 items ranged from 21 (42%) to 50 (100%). However, when identical responses were added to responses that deviated by only 1 Likert-scale point, it was found that for all 50 items the range was 41

**Table 7.** Number of Total Scale and Subscale Score Version Differences (N = 63)

Scale	N	%	Range
<u>People (16-80)</u>			-4 to 10
No Difference	29	46	
1-Point Difference	18	29	
More than 1-Point Difference	16	25	
<u>Program (7-35)</u>			
No Difference	32	51	
1-Point Difference	10	16	
More than 1-Point Difference	21	33	
<u>Process (8-40)</u>			-3 to 6
No Difference	37	59	
1-Point Difference	16	25	
More than 1-Point Difference	10	16	
<u>Policy (7-35)</u>			-3 to 2
No Difference	37	59	
1-Point Difference	16	25	
More than 1-Point Difference	10	16	
<u>Place (12-60)</u>			-8 to 6
No Difference	27	43	
1-Point Difference	21	33	
More than 1-Point Difference	15	24	
<u>Total (50 items)</u>			-16 to 27
No Difference	23	37	
1-Point Difference	7	11	
More than 1-Point Difference	33	52	

(82%) to 50 (100%). Of the 63 participants, 60% (N = 38) responded either identically on both versions or selected the next closest response alternative on the scale while 16 (25%) responded the same for 49 items, 2 (3%) the same for 48 items, 3 (5%) the same for 47 items, and the remaining 4 (6%) participants ranged from 41 to 46 identical responses.

Table 8 reports the summary of significant item differences extracted from the series of repeated measures ANOVAs between the original 50 ISS-R items (English) and the Chinese (ISS-RC) translation of these items.

**Table 8** Inviting School Survey Repeated Measures Analysis of Variance Summary for Significant Item Differences

Scale	$F^a$	$p$	$\eta_p^2$	Power	Mean Difference	95% CI
<u>People</u>						
Q36	11.62	.001	.15	.90	-.1474	-0.236 to -0.059 <sup>b</sup>
Q39	4.37	.041	.07	.54	.0794	0.005 to 0.204 <sup>b</sup>
<u>Program</u>						
Q10	11.05	.001	.15	.90	-.2857	-0.458 to -0.114 <sup>b</sup>
Q17	7.19	.009	.10	.75	-.1905	0.332 to -0.048 <sup>b</sup>
Q23	4.54	.037	.07	.55	.1614	0.010 to 0.313 <sup>b</sup>
Q38	6.80	.011	.10	.73	-.1429	-0.252 to -0.033 <sup>b</sup>
Q46	9.46	.003	.13	.86	-.2460	-0.406 to -0.086 <sup>b</sup>
<u>Process</u>						
Q7	5.88	.018	.09	.66	.1701	0.030 to 0.310 <sup>b</sup>
<u>Place</u>						
Q8	4.89	.031	.07	.58	-.0693	-0.132 to -0.007 <sup>b</sup>
Q16	4.20	.045	.06	.52	.1270	0.003 to 0.251 <sup>b</sup>
Q49	9.04	.004	.13	.84	-.3333	-0.555 to -0.112 <sup>b</sup>

<sup>a</sup>  $df = 1, 62$ .

<sup>b</sup> Indicates that the 95% CI does not contain zero, and therefore the difference in means is significant.

*Note.* Individual item statements:

Q7 . Grades are assigned by means of fair and comprehensive assessment of work and effort.

Q8. The air smells fresh in this school.

Q10. There is a wellness (health) program in this school.

Q16. The restrooms in this school are clean and properly maintained.

Q17. School programs involve out of school experience.

Q23. Good health practices are encouraged in this school.

Q36. People in this school try to stop vandalism when they see it happening.

Q38. The school sponsors extracurricular activities apart from sports.

Q39. Teachers appear to enjoy life.

Q46. Mini courses are available to students.

Q49. The lighting in this school is more than adequate.

A statistical significant difference ( $p < .05$ ) was found between the means of 11 (22%) of the 50 items. However, application of the Bonferroni correction statistic, which would restrict the acceptable alpha level for interpretation to  $p < .001$  (alpha of .05 divided by 50 tests = .001), suggests that these mean differences may have been due to chance for 9 of the 11 items. Only questions 10 and 36 were significant when taking into account the Bonferroni correction statistic ( $p < .001$ ).

The strength of the different versions, the independent variable, accounting for the variance between the scale items, the dependent variables, as assessed by partial eta-squared ( $\eta_p^2$ ), ranged from a medium effect of 6% (Q16) to a large effect of 15% (Q10, Q36) according to Cohen (1988). However, power estimates greater than .80 were found in

only four of the questionable items (Q10, Q36, Q46, and Q49).

### Discussion

Following the implementation of the translation procedures, a small-scale field testing of 63 Hong Kong participants was undertaken to determine the equivalence of the original Inviting School Survey (ISS-R) and the adapted/translated Chinese version (ISS-RC).

Examining reliability alphas, inter-item correlation means, and item-to-Total Scale correlation means revealed no significant differences suggesting that both instruments were equivalent in terms of construct validity, internal consistency, and homogeneity.

However, a few differences were found between the ISS-R and the ISS-RC measurement scales and individual items.

Analyses of the five subscales and the Total scale revealed that the Program subscale was significantly higher for the Chinese version than for the English version. There were no other significant scale differences. Even when taking into account the Bonferroni correction statistic the probability was significant ( $p < .001$ ). Additionally, the effect size, as assessed by partial eta-squared, showed that approximately 19% of the variance between the two versions is explained. This statistical effect is quite large according to Cohen (1988).

Examining the 50 item differences between the two measurement versions, it was found that 11 items differed significantly, with five of the items coming from the Program subscale, two items from the People subscale, one item from the Process subscale, three items from the Place subscale, and no items from the Policy subscale. However, the application of the Bonferroni correction statistic, which makes the acceptable alpha more stringent, suggests that these differences may have been due to chance for all but two of the items (Q10 and Q36). Alternatively, these differences in the items between the two versions may reflect simple semantic differences or more important underlying cultural frameworks. As such, it is recommended that further translation/adaptation meetings be undertaken with the aim of identifying if any cultural or language differences exist for the particular questionable items.

## Limitations

One limitation of the present study was the use of a small sample composed from one major China centre, Hong Kong. Additional research needs to be conducted with a larger and more diverse Chinese population, not only in Hong Kong but also mainland China, as these results may not be nationally representative or generalizable.

A second limitation of the present study, that may have had an effect on the results, is if respondents did not fully understand all of the words and concepts contained within the survey, particularly the English version.

## Further Directions

Although the results are promising, the ISS-RC should still be considered in its initial stages and requires further investigations. Future studies should conduct analyses of the scales' psychometrics with a large diverse population to ensure generalizability. In particular, confirmatory factor analyses (Bentler, 2006) should be used to determine the equivalence of the factor structures for both instruments.

## Conclusions

Healthy psychological and physical wellbeing cannot be achieved if a school environment/climate is dis-inviting. The ISS-R and the ISS-RC are able to give data-based and measurable evidence in supporting school administrators when evaluating school improvement programs. However, these instruments do not constitute a comprehensive assessment system. The ISS-R and the ISS-RC should supplement other school improvement measures such as document analyses, interviews, focus groups, etc. in order to make informed decisions regarding implementing changes within the school that will influence perceptions of the invitational qualities of the school by the relevant school community members.

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# Appendix

## English and Chinese Versions of the Inviting School Survey-Revised



Thank you for your participation in this activity. It is very much appreciated!

We are interested in your opinions on a range of issues regarding your school. Your individual responses will be kept **strictly** confidential.

Name of your school: \_\_\_\_\_

Please select the appropriate response

Are you a: ☐ Student ☐ Counselor ☐ Administrator ☐ Parent ☐ Teacher ☐ Other

Gender: ☐ Male ☐ Female

If you are a student how old are you? ☐ 8 ☐ 9 ☐ 10 ☐ 11 ☐ 12 ☐ 13 ☐ 14 ☐ 15 ☐ 16 ☐ 17 ☐ 18 ☐ 19 ☐ 20+ ☐ N/A

**Directions:** The purpose of this survey is to determine what you think about your school.

Following are a series of statements concerning your school. Please use the six-point response scale and select how much you agree or disagree for each item. Select "N/A" only if the question does not apply to your school?

Statements	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	N/A
1. Students work cooperatively with one another.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Everyone is encouraged to participate in athletic (sports) programs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. The principal involves everyone in the decision-making process.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Furniture is pleasant and comfortable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Teachers are willing to help students who have special problems.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Teachers in this school show respect for students.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Grades are assigned by means of fair and comprehensive assessment of work and effort.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. The air smells fresh in this school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Teachers are easy to talk with.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. There is a wellness (health) program in this school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. Students have the opportunity to talk to one another during class activities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. Teachers take the time to talk with students about students' out-of-class activities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. The school grounds are clean and well-maintained.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. All telephone calls to this school are answered promptly and politely.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. Teachers are generally prepared for class.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. The restrooms in this school are clean and properly maintained.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. School programs involve out of school experience.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18. Teachers exhibit a sense of humor.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19. School policy permits and encourages freedom of expression by everyone.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20. The principal's office is attractive.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
21. People in this school are polite to one another.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
22. Everyone arrives on time for school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
23. Good health practices are encouraged in this school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
24. Teachers work to encourage students' self-confidence.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
25. Bulletin boards are attractive and up-to-date.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
26. The messages and notes sent home are positive.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
27. The principle treats people as though they are responsible.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
28. Space is available for students independent study.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
29. People often feel welcome when they enter the school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
30. Students work cooperatively with each other.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Statements	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	N/A
31. Interruptions to classroom academic activities are kept to a minimum.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
32. Fire alarm instructions are well posted and seem reasonable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
33. People in this school want to be here.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
34. A high percentage of students pass in this school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
35. Many people in this school are involved in making decisions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
36. Many in this school try to stop vandalism when they see it happening.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
37. Classrooms offer a variety of furniture arrangements.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
38. The school sponsors extracurricular activities apart from sports.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
39. Teachers appear to enjoy life.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
40. Clocks and water fountains are in good repair.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
41. School buses rarely leave without waiting for students.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
42. School pride is evident among students.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
43. Daily attendance by students and staff is high.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
44. There are comfortable chairs for visitors.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
45. Teachers share out-of-class experiences with students.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
46. Mini courses are available to students.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
47. The grading practices in this school are fair.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
48. Teachers spend time after school with those who need extra help.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
49. The lighting in this school is more than adequate.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
50. Classes get started quickly.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Submit



啟發潛能教育學校問卷調查 (ISS-R)

各位親愛的問卷填寫者，  
我們期望透過以下問卷，了解你對學校現況的一些的看法。你的個人意見將予以保密。再次感謝你的參與。

請選出適當的回應

校內角色：  
☐ 學生  
☐ 家長  
☐ 輔導教師  
☐ 教師  
☐ 行政人員  
☐ 其他

性別：  
☐ 男  
☐ 女

年齡(學生適用)

☐ 8 ☐ 9 ☐ 10 ☐ 11 ☐ 12 ☐ 13 ☐ 14 ☐ 15 ☐ 16 ☐ 17 ☐ 18 ☐ 19 ☐ 20+ ☐ 不適用

指引：此調查的目的，在於判定你對學校的看法。

以下是一些有關對學校的說法，請閱讀後，在右列選出你對每項的同意程度。如果你認為其中有不適用於你校意，請選擇「不適用」。

項目	十分同意	同意	未能作決定	不同意	十分不同意	不適用
1. 同學互相合作。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. 學校鼓勵學生參與運動項目。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. 校長在決策過程中能聽各人參與。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. 校內設施舒適寧靜。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. 教師願意協助有特殊需要的學生。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. 教師對學生予以尊重。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. 各類評核多方著眼於學生表現及所付出的努力。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. 學校空氣清新。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. 教師平易近人。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. 校內有豐富學生健康發展的課程/活動。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
項目	十分同意	同意	未能作決定	不同意	十分不同意	不適用
11. 學生有機會在課堂活動中互相交流。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. 教師願意付出時間與學生討論其課堂以外的事務。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. 學校環境，保養妥善。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. 學校的電單車部運作迅速和穩妥的營運。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. 教師整體上備課充足。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. 學校洗手間清潔，保養妥善。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. 學生有機會參與在校外的體藝活動。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18. 教師有幽默感。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19. 學校政策容許及鼓勵不同成員表達意見。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20. 校長宣傳宣傳。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
項目	十分同意	同意	未能作決定	不同意	十分不同意	不適用
21. 學校成員以禮相待。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
22. 學校師生準時到校。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
23. 學校有推動學生及教職員注重健康。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
24. 教師致力增加學生的自信心。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
25. 雙程橋樑裝置吸引合時。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
26. 學校發出的訊息及資料是正面的。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
27. 校長信任校內成員是有責任感的。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
28. 校內有提供給學生個別進行學習/做功課/自修的地方。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
29. 人們進入學校時感到是受歡迎的。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
30. 學生間能合作共事。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

項目	十分同意	同意	未能作決定	不同意	十分不同意	不適用
11. 學生有機會在課堂活動中互相交流。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. 教師願意付出時間與學生談論其課堂以外的事務。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. 學校清潔，保養妥善。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. 學校的電器設備應得迅速和權限的答覆。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. 教師整體上備課充足。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. 學校洗手間清潔，保養妥善。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. 學生有機會參與在校外的體驗活動。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18. 教師有幽默感。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19. 學校政策容許及鼓勵不同成員表達意見。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20. 校長宣傳吸引。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

項目	十分同意	同意	未能作決定	不同意	十分不同意	不適用
21. 學校成員以禮相待。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
22. 學校師生準時到校。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
23. 學校有推動學生及教職員注重健康。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
24. 教師致力增加學生的自信心。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
25. 壁報板佈置吸引合時。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
26. 學校發出的訊息及資料是正面的。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
27. 校長信任校內成員是有責任感的。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
28. 校內有提供給學生個別進行學習/做功課/自修的地方。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
29. 人們進入學校時感到是受歡迎的。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
30. 學生間能合作共事。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

項目	十分同意	同意	未能作決定	不同意	十分不同意	不適用
31. 學校會盡量避免影響課堂教學活動的事情發生。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
32. 火警告示合理地張貼於當眼處。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
33. 學校成員對學校有歸屬感。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
34. 大部份學生能夠取得及格成績。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
35. 不少校內成員都會參與校內的決定。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
36. 校內成員在看到有蓄意破壞學校設施的行為時會作出制止。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
37. 教學設施包羅萬有。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
38. 學校支援學生參與運動以外的課外活動。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
39. 教師看來享受生活的樂趣。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
40. 時鐘和飲水機的維修保養得當。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

項目	十分同意	同意	未能作決定	不同意	十分不同意	不適用
41. 校巴絕少遲到學生。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
42. 學生對自己是學校的一員而感到自豪。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
43. 學生及教職員的出席率高。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
44. 學校為訪客提供舒適的座椅。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
45. 教師樂於與學生分享教學以外的經驗。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
46. 學校有向學生提供興趣班。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
47. 校內的評分制度是公平的。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
48. 教師會在課後協助有特別需要的學生。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
49. 學校的照明十分充足。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
50. 課堂迅速開展。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

提交結果

## Guidelines for Authors

The *Journal for Invitational Theory and Practice* (JITP) (ISSN-1060-6041) publishes once a year and promotes the tenets of invitational theory and practice, self-concept theory, and perceptual psychology. The JITP seeks to publish articles under two priorities. **First**, manuscripts are encouraged that examine and expand the theory of invitational learning and development, investigate the efficacy of invitational practices, and relate these beliefs and findings to other theories of human development and behavior. **Second**, manuscripts are considered without directly relating their discussion/findings to ITP if their focus is on theories which are compatible with ITP. The JITP accepts articles for submission year round; however the **submission deadline for each issue is August 1<sup>st</sup>**.

The Journal uses a blind peer review of articles and final decisions regarding publication are made by the Editor. On publication, authors will receive two copies of the Journal. Authors are asked to use the following guidelines when submitting manuscripts to be considered for publication:

1. **Prepare manuscripts in APA style. Refer to the *Publication Manual of the American Psychological Association*, 6<sup>th</sup> Edition (2010).**
2. Submit manuscripts as attachments to email sent to the editor at [danshaw@nova.edu]. All submissions will be acknowledged by return email to the originating email address.
3. Please include your home and business phone numbers should the editor wish to contact you quickly.
4. Although most document file types can be read, Microsoft Word<sup>®</sup> format is the preferred file type. Please remove embedded comments, tracked changes, and hidden personal data in your file.
5. Double space the entire document (including references and quotations) using Times New Roman 12 point font. Use one inch margins on each side, top, and bottom.
6. Place authors' names, positions, titles, mailing addresses, and email addresses on the cover page only.
7. Beginning on the second page, include the title and an abstract of 150 - 250 words. Do not include author's names on this or following pages.
8. Use tables (created with Microsoft Word<sup>®</sup> table function only) and figures sparingly per APA style. Place them on separate pages at the end of the document indicating the preferred placement in the manuscript. All artwork and diagrams should be black and white, included as separate digital graphic files, preferably TIFF (\*.tif).
9. Lengthy quotations require written permission from the copyright holder for reproduction. Authors are responsible for obtaining permissions and providing documentation to the editor.
10. Please do not submit manuscripts that are currently being considered by another journal.
11. The review of manuscripts is usually complete within six to eight weeks. However, feel free to contact the editor at any time.
12. If your document is accepted please be prepared to use the reviewing function of MS Word for revisions.
13. For further information please visit: [www.nova.edu/~danshaw/jitp](http://www.nova.edu/~danshaw/jitp)



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