Development of Taiwan Teacher's Sense of Community Scale-From Perspective of Workplace Spirituality

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Abstract This research aims to develop Taiwan Teacher's Sense of Community Scale, because there are rare(is no) sense of community scales for teacher in Taiwan. In process of developing the scale, we had three procedures: 1. Literature analysis: the relevant theoretical foundation includes sociology, sociological psychology, and etc., this research adopted workplace spirituality, since sense of community is one dimension in some workplace spirituality scales, and it can be further divided into sense of connection, sense of support, and sense of having the same purposes. Therefore, our research takes sense of community as the variable and the just mentioned three points as the dimensions. After literature analysis, 14 items were proposed. 2. Reviewed by experts: Four experts provided opinions for us to modify the initial 14 items from theoretical and practical perspectives, and the results are--8 items remained the same, and 6 were modified. 3. CFA: The items were further inspected by three models. (1) The initial model: The 14 items of the three factors were edited into a Likert five-point-scale, and first-order CFA model to confirm their fit, and the result showed that the overall model was fair ($N=235$), although one item's factor loading was only .36, yet it was deleted. (2) Modification Model: The model after deleting the item was called modification model with fair results after our confirmation. Further analysis was conducted for the basic fit of the modification model, and it is found that there were no offending estimates, and the fit of the internal structure was acceptable (including the individual reliability, the composite reliability, the average variance extraction). 3. The review model: Due to that the model was modified, another batch of the samples was investigated ($N=378$) for confirmation of the model's stability. Since the overall results were fit; up to now, the 13 items of the three factors' *Sense of Community Scale* for the teachers was established, including sense of connection (4 items), sense of support (5 items), and sense of common purposes (4 items).

Keywords CFA, Sense of Community, Workplace Spirituality

1. Introduction

This research aims to develop Taiwan Teacher's Sense of Community Scale for teacher in Taiwan. Sense of Community (SOC) has been studied in a variety of contexts such as neighborhoods, psychosocial rehabilitation programs, community organizations, workplaces, and faith institutions, as well as with youth, immigrant communities, firefighters, and an international community of interest. This breadth of application highlights the importance of the construct to a diverse array of settings and populations in community-based research and practice (Peterson, Speer, & McMillan, 2008)[1]. Primarily, sense of community is to shape a supportive culture (Cohn & kottkamp, 1993)[2], because of its emphasis on membership. That is to say, if the members in a community know one another, their sense of security, belonging, trust, and acceptance will be raised through emotional disclosure to one another and close behaviors (McMillan, 1996) [3]. Besides, SOC has positive associations with social cohesion (Wilkinson, 2007) [4], place attachment (Long & Perkins, 2007) [5] and sense of safety (Zani Cicognani, & Albanesi, 2001) [6], if employees are provided with sense of community at workplace, then they are satisfied with their life (Bodla, Afza, Ali, & Naeem, 2015) [7]. It is therefore learned the importance of SOC. However, there are no studies on teacher's sense of community currently due to a lack of teacher's sense of community scales. As a result, this research aims to develop *Teacher's Sense of Community Scale*.

Since SOC has a variety of theoretical foundations, it has diversified definitions and dimensions as well. For example, from the cutting angle of sociology, Doolittle and MacDonald (1978) [8] held that "sense of community" is a term used frequently by social scientists to describe patterns of relationships and the quality of life in urban neighborhoods. As the *Sense of Community Scale* developed by the above mentioned two scholars, this scale labeled these

factors: 1. *Supportive Climate*: a climate particularly conducive to frequent and satisfying informal interaction among residents of the neighborhoods. 2. *Family Life Cycle*: tends to affect concern about and participation in the life of the local, neighborhood area. 3. *Safety*: it reflects an assessment of safety. 4. *Informal Interaction*: provide an arena for socialization and expressive communication. 5. *Neighborhoodly Integration*: neighborhoods are settings for close ties and frequent interactions among residents. 6. *Localism*: emphasize involvement in formal neighborhood organizations and the importance of local talkspots, and tend to have diffusely geographic shopping habits.

On the other side, from the perspective of sociological psychology, McMillan and Chavis's (1986)[9] defined sense of community as: a feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members' needs will be met through their commitment to be together. There are four dimensions in their scale: 1. *Membership*: a sense of belonging and identification. 2. *Influence*: members need to feel that they have some influence in the group, and some influence by the group on its members is needed for group cohesion. 3. *Integration and fulfillment of needs*: Members feel rewarded in some way for their participation in the community. 4. *Shared emotional connection*: it includes shared history and shared participation.

To make a step further, sense of community is also probed from the point-of-view of workplace spirituality. Actually, workplace spirituality-based sense of community often appears in some scales of workplace spirituality, which involves the effort to find one's ultimate purpose in life, to develop a strong connection to coworkers and other people associated with work, and to have consistency (or alignment) between one's core beliefs and the values of their organization (Mitroff & Denton, 1999)[10]. Miller (1992) [11] is a good example. He started from workplace spirituality to point out that sense of community in respect with work is to view one's relationship with others, including his or her support the colleagues, on basis of the inner self, so that he or she can liberally express cozy feelings like care. Also, Ashmos and Duchon (2000) [12] referred to SOC as interaction of care and behaviors among the colleagues, which proves that SOC with workplace spirituality perspective involves interpersonal interaction among coworkers in workplace. Consequently, sense of community from workplace spirituality is divergent from the previously mentioned sociology and sociological psychology points-of-view. Additionally, Bodla et al(2015)[7] made a survey of the role of psychological sense of community in enhancing employee's well-being with 8 items measuring SOC taken from Ashmos and Duchon' Spirituality at Work, and SOC is but one dimension in this scale in addition to dimensions of meaningful work, community, and inner life. Similarly, it is obvious that sense of community can be regarded as a research variable.

Lastly, workplace spirituality focuses on raising the

personal inner spirituality, while wage, work duration, and the pension system are all protected by laws in Taiwan teachers. Teachers in Taiwan belong to high socio-economic status, and they enjoy high prestige from a job highly valued as "elite-cultivated work". In this sense, the profession of teacher is an extremely meaningful job that can enhance growth of one's spirituality. Besides, teachers usually stay in a big office for a long time with the same educational purpose of balance development of Five Ways of Life (the moral, cognitive, physical, social and aesthetic) corresponding to what Milliman, Czaplewski, and Ferguson's (2003)[13] view: sense of community with focus on workplace spirituality emphasizes on sense of connection with co-workers, employees' supporting each other, and linking with a common purpose, proving that the three items can serve as dimensions in sense of community. Consequently, this research adopted the teachers as the subject and the workplace spirituality viewpoint to compile SOC Scale.

2. Literature Review

Based on workplace spirituality, this research explained the content. Workplace spirituality that focuses on the employees is an important trend in business in this century (Shellenbarger, 2000)[14]. Krishnakumar and Neck (2002)[15] mentioned that the reason why workplace spirituality attracts research is that people desire for experiencing spirituality increasingly not only in daily life but also at work. In addition, at work, spirituality can enhance commitment in the workplace (Krishnakumar & Neck, 2002, Mougheli, Tayyebloo, & Jamshidi, 2014)[15][16], and organizational efficacy will be raised (Jurkiewicz & Giacalone, 2004)[17]. there is a positive significant relationship with toleration of employee expression (Jason & Sudha, 2015) [18], quality of work life (Hojjati & Hamidi, 2015)[19], job involvement (Van der Walt & Swanepoel, 2015)[20], organizational citizenship behavior (Ghorbanifar & Azma, 2014; Salimi & Hamrahi, 2015)[21][22], and interpersonal relationship (Claude & Zamor, 2003; Pielstick, 2005; Stevison, Dent, & White, 2009)[23][24][25].

SOC is the important content of workplace spirituality, as Mirvis(1997)[26] mentions that work itself is being re-discovered as a source of spiritual growth and connection to others, Pfeffer (2003)[27] notes that an important dimension that people value at work is being able to feel part of a larger community or being interconnected. Duchon and Plowman (2005) [8] also say more than simply being present in a community, however, an individual must identify him/herself as an integral part of the community in order for the community's benefits to be realized, so it is important to recognize that belonging can now be seen as part of what is required of a spirit-friendly work environment. All prove that SOC in perspective of workplace spirituality focuses on

connection with others to obtain belonging and increase spirituality.

SOC based on workplace spirituality often appears in some scales of workplace spirituality, and SOC is just one of the dimensions. After Ashmos and Duchon (2000)[12] compiled *Scale of Spirituality at Work*, many scales refer to it for adaption. What listed below (Table 1) is *Scales of Workplace Spirituality* after 2000.

To view from dimensions of scales, Milliman et al.(2003)[13] considers that workplace spirituality has three levels: 1. Individual level, or meaning of work. 2. Group Level: or SOC. 3. Organization Level: or alignment with organization values. Milliman et al. further point out that content of SOC includes sense of connection with co-workers, employees support each other, and linked with a common purpose. This research used SOC as the variable with the three levels, as described below:

1. Sense of Connection

The sense of connection is the foundation of personal relationships which develops through social interaction (Aguilar et al., 2015)[29]. Through social interaction, coworkers build up connection with each other, and due to emotional care, people obtain group's sense of belonging. As Beyer (1999) [30] says, people are social animals, so we look for group's sense of belonging by means of work. What called by this research "sense of connection" indicates freely express opinions among coworkers and connect with each other by sincere care in order to establish human relationship.

On this dimension, the items referable in Table 1 include: When I have a concern I represent it to the appropriate person; I feel part of a community in my immediate workplace (department, unit, etc.); People in my team/group feel as if they were part of a family; I experience a real sense of trust and personal connection with my coworkers; and I

feel that the members of my team/group care about each other.

2. Sense of Support

Sense of support means the supportive and cooperative relationship between coworkers at work. In accordance with social support theory, when the employees are supported, their trust in the organization will be raised, and the relationship quality will be enhanced (Eisenberger, Huntington, Hutchison, & Sowa, 1986)[31], so that communication of knowledge will be achieved (Farr & Ford, 1990)[32]. In this regard, there are many items in Table 1 that can be consulted: Working cooperatively with others is valued; Believe people support each other, I am evaluated fairly here; When I have fears, I am encouraged to discuss them.

3. Sense of Common Purpose

Sense of common purpose indicates coworkers are consistent in regard of their viewpoints of the organizational goals, and it involves dimensions like what Bishop, Chertok, & Jason (1997)[33] developed in the perception of sense of community scale, dimension of mission, where they consider that dimension of mission refers to the perception that one and his or her coworkers pursue common goals together. The referable items in Table 1 include: I share a strong sense of purpose and meaning with my coworkers; my team/group promotes the creation of a spirit of community; and I feel that the members of my team/group are linked by a common purpose.

Based on analysis above, this research classifies content of sense of community into sense of connection, sense of support, and sense of common purpose, and edits items according to the three dimensions--the more perception the teachers have on the dimension, the more they have sense of community.

Table 1. Scale of Workplace Spirituality and Items of SOC

Name	Year	Title Subject Statistic Method	Dimension and Name (α)		Item of SOC
Ashmos and Duchon	2000[12]	Spirituality at Work Hospital employees Exploratory factor analysis (EFA)	1. meaning at work($\alpha=.86$) 2. conditions for community($\alpha=.86$) 3. inner life ($\alpha=.80$)		1. My supervisor encourages my personal growth. 2. I have had numerous experiences in my job which have resulted in personal growth. 3. When I have fears I am encouraged to discuss them. 4. When I have a concern I represent it to the appropriate person. 5. At work we work together to resolve conflict in a positive way. 6. I am encouraged to take risks at work. 7. I am valued at work for who I am.
					1. Working cooperatively with others is valued 2. Feel part of a community 3. Believe people support each other. 4. Feel free to express opinions. 5. Think employees are linked with a common purpose. 6. Believe employees genuinely care about each other. 7. Feel there is a sense of being a part of a family
Milliman, et al.	2003[13]	Workplace Spirituality Scale EMBA Students Confirmatory factor analysis(CFA)	1. Meaningful work ($\alpha=.88$) 2. Sense of community ($\alpha=.91$) 3. Alignment with organizational values ($\alpha=.94$)		1. I feel part of a community in my immediate workplace (department, unit, etc.). 2. My supervisor encourages my personal growth. 3. I have had numerous experiences in my job which have resulted in personal growth. 4. When I have fears I am encouraged to discuss them. 5. At work we work together to resolve conflict in a positive way. 6. I am evaluated fairly here. 7. I am encouraged to take risks at work. 8. I am valued at work for who I am.
					1. I feel like I am part of “a community” at work. 2. I experience a real sense of trust and personal connection with my coworkers. 3. I share a strong sense of purpose and meaning with my coworkers about our work
Duchon and Plowman	2005[28]	The Meaning and Purpose at Work Hospital employees Cronbach's Coefficient Alpha	1. Meaning at work ($\alpha=.86$) 2. Community ($\alpha=.86$) 3. Inner life ($\alpha=.82$) 4. Work unit community ($\alpha=.87$) 5. Work unit and meaningful work ($\alpha=.91$)		1. People in my team/group feel as if they were part of a family. 2. My team/group promotes the creation of a spirit of community. 3. I feel that the members of my team/group support each other. 4. I feel that the members of my team/group care about each other. 5. I feel that the members of my team/group are linked by a common purpose.
					1. Working is crucially important . 2. Appreciate the cooperation with others 3. Partially related with school community. 4. Workplace peers should support each other. 5. Working colleagues are connected between each other due to the existence of shared responsibility. 6. Should be emphatic with each other.
Kinjerski and Skrypnik	2006[34]	Spirit at Work Scale employees of university EFA	1. Engaging work ($\alpha=.91$) 2. Sense of Community ($\alpha=.87$) 3. mystic experience ($\alpha=.86$) 4. spiritual connection ($\alpha=.88$) 5. (Total Scale $\alpha=.93$)		
Rego and e Cunha	2008[35]	Spirituality at Work Hospital employees EFA	1. Team's sense of community 2. Alignment between organizational and individual value 3. Sense of contribution to the community 4. Sense of enjoyment at work		
Abdullah and Ismail	2013[36]	Scale of Malay Version Workplace Spirituality Teachers EFA CFA	1. Work Meaningful 2. Community Sense 3. Coherent of Organizational Value (The alphas are ranging from .83 to a high of .93)		

3. Research Design

1. Review of Item Pool by Experts

In process of developing Sense of Community Scale, after drafting the initial items, we invited Dr. Shiao, Dr. Luo, and Dr. Chen (all professors in university with published articles or books on spirituality) to provide theoretical opinions and Mr. Liu (senior high school teacher with consultancy major and strength at life education) to provide practical viewpoints for our further modification.

2. Demographic Profile of Respondents

Two investigations were conducted for SOC Scale, participants rated how agree each item was for them along a 5-point scale ranging from “1= unagree, “2= a little bit agree”, “3= partially agree” , “4= mostly agree” to “5=completely agree”: 1. The 1st round: pre-test questionnaire were used to verify the initial model with 235 samples; 2. The 2nd round: one item was deleted in the first

CFA, so the initial model was modified in order to investigate another batch of samples for review ($N=378$). Regarding SEM sample quantity, Schumacker and Lomax (1996)[37] think that SEM studies' sample quantity is between 200 to 500 mostly, and our two batches of samples are alignment with this claim.

Background configuration is listed in Table 2.

3. Data Process

The first-order CFA model was employed to examine the three proposed dimensions of SOC: *Sense of connection*, *Sense of support*, *Sense of common purpose*. The analysis included assessing fit of the initial model, modified model, and cross-validity model. The initial measurement model consisted of three latent variables with their indicators: *Sense of connection* (four indicators), *Sense of support* (five indicators), *Sense of common purpose* (five indicators).

Table 2. Background configuration

		1st Investigation ($N=235$)		2nd Investigation ($N=378$)	
		Times	%	Times	%
Gender	1. Male	60	25.5	122	32.3
	2. Female	174	74.0	255	67.5
Also Administrative Personnel	1. No	93	39.6	166	43.9
	2. Yes	140	59.6	212	56.1
Marital Status	1. Married	179	76.2	76.2	76.8
	2. Unmarried	52	22.1	23.0	23.2
Length of service		$M=16.82$	$SD=7.64$	$M=13.54$	$SD=8.23$

Table 3. Review Results of Sense of Community Experts

Dimension	Item after Experts Review	Initial Model Code	Modified Model Code
Sense of connection	1. I feel that I am part of the school.	C1	C1
	2. We express opinions freely among coworkers.	C2	C2
	3. Affection for school coworkers is family-like.	C3	C3
	4. I am pleased to be generous to others in school.	C4	C4
Sense of support	5. I value cooperation between coworkers very much.	C5	C5
	6. Coworkers and I support each other in school.	C6	C6
	7. I am pleased to help coworkers actively.	C7	C7
	8. When I am stuck in difficulty, coworkers will help me face it and deal with it.	C8	C8
	9. Coworkers make efforts together to solve the conflict.	C9	C9
Sense of common purpos.	10. Coworkers all take meeting students' need as the first priority.	C10	C10
	11. Coworkers always bear raising the school's prestige in mind.	C11	C11
	12. Coworkers endeavor to enhance harmony in school.	C12	C12
	13. Coworkers extremely value school administrative unit's working efficiency..	C13	C13
	14. Coworkers all support what is promoted by school.	C14	(Deleted in the initial model stage)

4. Results and Discussion

1. Review of Item Pool by Experts

Four experts were invited to review the initial item draft, and we delete the item based on their opinions. There were 14 items initially, after reviewed, 8 remained the same, and 6 were further modified: "the coworkers in the school are like our family" was modified as "affection for school coworkers is family-like".

2. CFA

(1) Correlation Coefficient of Latent Variable

We added up score of each dimension of SOC and employed correlation coefficient; the results show that correlation of the three latent variables ranges between .68-.73, all achieving significantly positive correlation ($p < .001$) (see Table 4).

Table 4. Latent variables' correlation coefficient and descriptive data

Latent Variables and No.	1	2	3	<i>M</i>	<i>SD</i>
1. Sense of connection	1			15.30	2.57
2. Sense of support	.73***	1		19.59	3.08
3. Sense of common purpose	.72***	.68***	1	17.56	3.17

$N=378$.

*** $p < .001$.

(2) Initial Model

The 14 items of the three factors after reviewed by the experts are called the initial model. After investigating 378 teachers, CFA was used for verification. With correlation coefficient analysis, it is confirmed that there is significantly positive correlation between three latent variables and the total score. Then, CFA was conducted, and the results are as shown in Fig. 1: In the initial model, regarding the overall fit, $\chi^2 = 239.13$, $df = 74$, $p = .00$, $RMSEA = .08$, $GFI = .90$, $AGFI = .86$, $IFI = .92$, $TLI = .93$, and $CFI = .94$, among which χ^2 reaches the significant standard, not meeting the standard, $RMSEA$ meets the standard of less than .10, GFI , IFI , TLI , and CFI all meeting the standard of more than .90, but $AGFI = .86$, not meeting the standard of more than .90. Overall, the results show that the initial model is fit as a whole.

From the 14 indicators' factor loading, C14's (Coworkers all support what is promoted by school.) factor loading is .36. Bogozzi and Yi (1988)[38] proposed that the factor loading between the indicators should fall between .50-.95, and Tabachnicka and Fidell (2007)[39] consider that $\lambda \geq .55$ can be regarded as good. Our research balances the fit of the overall model, so we took Tabachnicka and Fidell's $\lambda \geq .55$, and deleted C14.

(3) Modified Model

Regarding the overall fit, after deleting C14, the initial model became 13 items of the three factors called modified model, and the inspection results are (see Fig. 1): $\chi^2 = 222.75$,

$df = 62$, $p = .00$, $GFI = .92$, $RMSEA = .09$, $GFI = .90$, $AGFI = .85$, $NFI = .93$, $IFI = .95$, $TLI = .94$, and $CFI = .95$. Among the fit indicators, χ^2 and $AGFI$ do not meet the standard, and the others like $RMSEA$, GFI , NFI , IFI , TLI , and CFI all meet the standard. As Anderson and Gerbing (1984)[40] claim that $AGFI \geq 0.80$ is fair, the overall modified model is fit.

In respect with the modified model's preliminary fit, the inspection results show that: 1. In Θ_e matrix entries, error variance of ε_1 to ε_{13} are both positive. 2. The t value of all error variances falls between 11.31-17.39, and all reaches the significant standard of .001. 3. The standard error of the parameters is between .03 - .04, not very big standard error. 4. The factor loading (λ_1 - λ_{13}) of the latent variable and its indicator ranges between .65-.86, meeting the standard of $>.50$ and $<.95$. Based on above, all inspection results meet the standard, showing good item quality and no offending estimates (the output data do not exceed the acceptable range) (Hair, Anderson, Tatham, & Black, 1998)[41].

(4) Analysis of Fit of Internal of Model

On individual reliability, the individual reliability refers to indicator's (item) square of factor loading. The indicator has 13 items (λ_1 - λ_{13}), and the individual reliability ranges between .42-.70. Bogozzi and Yi (1988) [38] consider the individual reliability must reach more than .50, or the indicator's factor loading must exceed .71. Our indicator include C3 does not meet this standard, but the remaining 12 items all meet the standard.

For composite reliability of the latent variables: the composite reliability of the three latent variables are *Sense of connection* .84, *Sense of support* .90, and *Sense of common purpose* .88, which all meet the standard of $>.60$, meaning that the indicator of the three latent variable can predict 84% or above. Namely, the three latent variables have basic stability in respect with reflecting the real scores.

As for the average variance extracted, the average variance extraction of the three latent variables are *Sense of connection* .57, *Sense of support* .65, and *Sense of common purpose* .65, all meeting the standard of $>.50$, and meaning the indicators can reflect the constructed latent variables.

In regard of construct discrimination, this research adopted the competing models (Anderson & Gerbing, 1988)[40] to inspect the construct discrimination of the latent variables: the chi square of between the three restrictive models and nonrestrictive models are 139.69, 144.72, and 83.90, all larger than the threshold standard 3.84 ($p < .05$) (see Table 5), which means that the chi square difference ($\Delta\chi^2$) between the three restrictive models and the nonrestrictive model reach the significant standard, .05. Meanwhile, the hypothesis that correlation between any two paired latent variable is complete correlation ($\rho=1$) fails, because the latent traits signified by the three latent variables are significant different.

Based on above, the fit of internal of model is acceptable, that is, internal quality of the modified model with 11 items of the three factors is acceptable.

Note: Data on the indicator is individual reliability.

Figure 1. Fit evaluation of the modified model

Table 5. Sense of community Scale's Construct Discrimination Analysis Summary

Paired latent variable	Restrictive model (B)			Nonrestrictive model (A)			χ^2 difference (B-A)
	ρ	df	χ^2	ρ	df	χ^2	
Sense of connection —sense of support	1	27	288.03	.89	26	148.34	139.69*
sense of support— Sense of common purpose	1	27	297.82	.77	26	153.10	144.72*
Sense of connection —Sense of common purpose	1	27	118.78	.84	19	34.88	83.90*

Note: * refers to the chi square values of the restrictive model and nonrestrictive model are larger than 3.84, reaching the significant standard of .05.

Figure 2. Cross-validity model's fit evaluation (the standard solution)

3. Cross- validity of the Model

Since the model was modified, so we investigated another batch of samples ($N=204$) to confirm whether the model with 13 items of the three factors are stable or not. The results (See Fig. 2) are: $\chi^2=156.14$, $df=62$, $p=.00$, RMSEA = .09, GFI = .88, AGFI = .83, NFI = .91, IFI = .94, TLI = .93, and CFI = .95. Among the fit indicators, χ^2 and AGFI do not meet the standard. As Anderson and Gerbing (1984)[40] indicate it is fair when $GFI \geq .85$, $AGFI \geq .80$, so the RMSEA, GFI, AGFI, IFI, TLI, and CFI all meet the standard. As a whole, the modified model is overall fit, and the *Sense of community Scale* with 13 items of the three factors model is established.

Discussion

The purpose of this research is to develop Taiwan Teacher's Sense of community Scale for relevant research. In process of developing the scale:

To start with, according to our literature analysis, the theoretical foundations on sense of community include sociology, like the *Sense of Community Scale* developed by Doolittle and MacDonald (1978)[8], the dimensions are *Supportive Climate*, *Family Life Cycle*, *Safety*, *Informal Interaction*, *Neighborly Integration*, and *Localism*; sociological psychology like *Perceived Sense of Community Scale* by Bishop, Chertok, and Jason (1997)[33] with dimensions of *Mission*(perception that the members can transcend the goal), *Connection* (perception of the accepted

members), and *Reciprocal responsibility* (perception that the members can respond to each other's need). In this research, through workplace spirituality, *Sense of connection*, *Sense of support*, and *Sense of common purpose* are concentrated. The above theories have something in common, such as focusing on interpersonal interaction, particularly identification with membership. In McMillan et al's (1996)[13] view, Membership refers to one's sense of belonging and to a sense of confidence that one has as a member as well as the aspect of acceptance from the group that facilitates belonging. However, workplace spirituality's SOC values membership between coworkers at workplace, so the interaction range is not as big as that of sociology and sociological psychology.

It is found that unlike SOC based on sociology and sociological psychology is an individual research variable, SOC in relative workplace spirituality scales is just one of the dimensions. Besides, according to Milliman et al's (2003)[13] viewpoint, workplace spirituality related SOC can be further divided into sense of connection with co-workers, employees support each other, and are linked with a common purpose. As a result, we referred to relative workplace spirituality scales, and combine teacher's work content to compile three dimensions of sense of connection, support, and common purpose with 14 items.

The item pool was reviewed by experts, and then proceed CFA, which was further tested with three models: 1. the initial model test: after review of item pool by experts, the three factors' 14 items is called the initial model, which is overall fit after testing. But, since item C14's factor loading (.36) does not meet what was proposed by Bogozzi and Yi (1988)[38] .50-.95 nor the standard of $\lambda \geq .55$ set up by Tabachnicka and Fidell (2007)[39], "C14" was deleted. The content is "Coworkers all support what is promoted by school", showing teachers hold different viewpoints about it, and the relevance is also low. 2. Modified model: After deleting C14, we further tested it and the results overall fit. Regarding the modified model's preliminary fit, we found that there was no offending estimation, the internal fit is acceptable (including individual reliability, composite reliability, average variance extraction, and construct discrimination). 3. Cross-validity model: The test results show overall fit of this model. Up to now, Models of *Teacher's Sense of Community Scale* with 13 items of the three factors are ascertained: Dimension of *Sense of connection* covers four items: "I feel that I am part of the school", "We express opinions freely among coworkers", "Affection for school coworkers is family-like", and "I am pleased to be generous to others in school". *Sense of connection* in this research means coworkers can freely express their opinions at workplace and connect with each other by sincerity and care, so that human relationship is established. Secondly, *Sense of support* is composed by "I value cooperation between coworkers very much", "I am pleased to help coworkers actively", "When I am stuck in difficulty, coworkers will help me face it and deal with it", and "Coworkers make efforts together to solve the conflict". In this research, *Sense of support* refers to coworkers have

supportive and cooperative relationship at work, and the 5 items above are consistent to such spirit. Finally, *Sense of common purpose* consists of "Coworkers all take meeting students' need as the first priority", "Coworkers always bear raising the school's prestige in mind", "Coworkers endeavor to enhance harmony in school", and "Coworkers extremely value school administrative unit's working efficiency", all meet the implication of *Sense of common purpose* in this research, meaning that coworkers have the same opinion towards the organizational goals.

There are totally 13 items in the scale developed by this research. To see from some SOC scales, like *Brief Sense of Community Scale* proposed by Peterson, Speer, and McMillan (2008)[1], they tested first-order and second-order models using CFA. Besides, an 8-item *Brief Sense of Community Scale* (BSCS) was developed to represent the SOC dimensions of *Needs fulfillment*, *Group membership*, *Influence*, and *Shared emotional connection*, and each dimension has two items. Moreover, Oh, Ozkaya, and LaRose's (2014)[42] *Sense of community* has only 3 items--"I feel sense of contact with people who care for me", "I feel connected with others who are important to me", and "I feel intimate with people I spent time with". In this research, we have three factors, and each with 4-5 items, so it meet the standard set up by Bollen (1989)[43] that each factor must have at least three items.

To sum up, *Teacher's Sense of Community Scale* developed by this research started from literature analysis, through drafting 14 items for the experts to review, CFA test for acceptable reliability and validity, to the outcome as research tool for those who make a survey on Taiwan teacher's sense of community.

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