## The Current Situation of Vocational Interest Studies in China

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People's, life, is career development life. For a person, the occupation means certain social position, the economic status and the living condition. For an organization, the occupation means the efficiency and the development. For the society, the occupation means the cultural development and improvement. Long before, the psychologists realized the importance of the interest to the vocational choice. The interest is refers to a person's psychological tendency of making all effort to know and to grasp some kind of thing and participating in this kind of active frequently. Or, the interest is refers to a person's cognitive tendency of exploring some kind of thing positively. A person is interested in some kind of occupation, will represent the affirmative attitude to this kind of occupation activity, and thinking, exploring and pursuing positively. We will call this kind of interest is the vocational interest. The vocational interest is playing the vital role in people's occupation activity.

First, the vocational interest will affect people's occupation choice. In job-hunting process, it is often as one of the reference conditions whether to work on some kind of interest. As soon as there is a strong interest in occupation, people will firmly pursue the occupation and do their best to work.

Second, in the occupation activity, the vocational interest can exert individual's positivity and creativity, and can develop individual potential, and can cause the individual to obtain the new discovery, the new achievement, and to promote individual's progress and society's development. If a person is interest in some work, can exert 80%–90% of his talent, and can maintain the high efficiency and doesn't feel weary. But if a person has deficient interest in the work, can only exert 20%–30% (Yu, 1996).

Third, the vocational interest may also cause a person

 Graduate School of Education and Human Development, Nagoya University adapting the occupation circumstances and the occupation role quickly. Under vocational interest guidance, the person will do his best to adapt to his own vocational environment with a positive and progressive attitude in order to obtain greater development. They will take up their own position as quickly as possible, and will enable them to get rid of a freshman's status as soon as possible in the occupation activity.

Thus it can be seen, vocational interest research, regardless of getting dream assignment, and the full realization of individual self-worth, or the organizational human resources' development and better productivity are of great significance. Therefore, based on this, a series of vocational interest assessments were developed.

#### Vocational Interest Studies in Overseas

The history of vocational interest test can be traced back to the early 20th century. Thorndike discussed the relation of interests and abilities in 1912 (Thorndike, 1912). During the First World War, Thurstone has established Thurstone Vocational Interest Scale. In 1915, S. Hall & J. Miner established another Carnegie Institute of Technology.

In 1927, Strong completed first official Strong Vocational Interest Blank (SVIB) (Strong, 1927). Afterward Campbell (Campbell, 1974) managed to the SVIB's revision work, and increased Basic Interest Scale (BIS) and General Occupational Themes (GOT), and two editions were published in 1966 and 1969. These two tests have been merged and revised, changed its name to "Strong-Campbell Vocational Interest Inventory" (SCII). Since then, Hansen (1999) conducted tests on the two amendments and made editions of 1981, 1985.

Kuder Preference Record has been established in the 1930s. Kuder divided ten occupational areas into clerical, computational, art, music, mechanical, outdoor, science, persuasive, literary, and social service. In 1966 this survey was changed Kuder Occupational Interest Survey (KOIS) (Kuder, 1966). In 1985 it was also revised.

Holland (1973, 1995) started the vocational interest survey research in the 1950s. In his view, the interest is another method of describing the personality traits, and is the most important broader concept of personality on the occupational choices. According to the literature, he proposed six kinds modal occupational environments and six matching modal personal orientations, such as R (Realistic), I (Investigative), A (Artistic), S (Social), E (Enterprising), and C (Conventional). Under this theory instruction, he established Vocational Preference Inventory (VPI) in 1953. Afterward Holland (1996) developed Self-Directed Search (SDS) in 1969, and proposed "Person-Environment-Correspondence Theory" in 1970. Now, VPI and SDS are revised many times and widely used in the vocational guidance, the social sciences and the trade and other fields, and itself also has been continuously improved and developed. This two inventory's impact is gradually increasing, and has formed the three-way confrontation with Strong and Kuder. Since 1965, various vocational interest tests appear to absorb each other, mutual integration, and the most important of those is the mode of experience and theoretical models of integration.

## 2. Vocational Interest Studies in China

For the vocational guidance, in particularly ponders and the research on vocational interest in the Western developed countries have gone through a long historical period. But in China, comparing with the Western developed country must fall the second half centuries vocational interest research is a relatively new field. In recent years, along with the reform and open policy unceasingly thorough, personnel system reform's dynamics further enlarges; the talented person's competition is intense day by day. How scientific to select, train, assign and drive talented person, is a new task to the human resources development. Under this kind of time background, the Western developed country's each kind of vocational interest theory and tests have aroused the Chinese scholar's universal interest. Most of the early studies were based on the introduction and revision of Western scale. Occupation choices have a lot of cultural constraints. The different cultural background of the individual vocational psychological structure and preferences are different.

Above these application widespread vocational interest tests were established by Strong, Kuder and so on according to own country sample investigation. But each national situation is not necessarily completely same, so the Chinese scholars based on the introduction of the Western developed country vocational interest theory and the revision of the related test foundation, linked to the Chinese reality closely, has done a series of localization research work.

#### (1) The Introduction of Vocational Interest Theory

Long (1991) has carried on the introduction about present situation and developing trend of 3 Western developed country famous vocational interest tests which are SCII, KOIS and SDS, Shi (1993) introduced the Self-Directed Search (SDS) and its uses in the "Psychological Consultation Textbook". But these introductions mainly concentrate on Western developed countries basic situation and the introduction of the vocational interest test mostly based on SDS. Bai (1996) has carried on the quite thorough introduction and the appraisal to the Holland vocational interest theory. Ge, Yu & Wan (1996) reported the situation of Chinese translation process of Strong Interest Survey form. This report indicated that the SII Chinese version had about 95% items to achieve in the language and the deduction equivalence originally. Afterward Wang & Shen (1997) has carried on the synthesis introduction to the Strong-Campbell Vocational Interest Inventory from its composition, developing process, the theoretical basis, subject selection and so on. Meanwhile, in paper of "Vocational Interest Survey and Application" (Liu, 2000) and "Vocational Interest Appraisal Method" (Liu & Gong. 1996) made the concise quality to introduce developments, Rating method as well as utilization in reality of vocational interest research to the Western developed country.

Afterward, the vocational interest theories and the tests have the appearance in the related vocational guidance's research paper and the work. Hence, the vocational interest theories and the tests spread gradually in the Chinese psychology educational world. So far, the vocational interest theory and the test are mention in nearly all the paper and books involving the vocational choice. This theory regarding vocational choice influence can be seen.

#### (2) The Revision of Vocational Interest Theory

Zheng (1987) organized and revised the American College Test (ACT)'s Vocational Interest, the Experience,

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Skill Assessment (ACT-VIESA), after the revision, has been called as "the career guidance rating scale of the middle school student to enter a higher school" (VIESA-R).

Go ahead in carrying out analyzing and discussing on some problem for establishing and appraising of the vocational interest test (Long, 1995), Long et al. (1996) have carried on the revision in 1996 to Holland's SDS, and administered to 73 middle school 853 students in Wuhan City. Some items in the original inventory seem to be culturally specific, and therefore had to be modified to fit Chinese. The results of item analysis and validation indicated that: the item characteristics of the inventory are acceptable; the range of the coefficients of homogeneity reliability is 0.64~0.90 and the range of the coefficients of split half reliability is 0.63~0.88; and the construct validity and criterion related validities are reasonable. Therefore, the quality of the inventory meets the requirement of psychological testing. In order to promote the use of the inventory, some of items have to be revised, and the norm of Chinese middle school students should be developed. Some further analyses of the inventory suggested that the inventory could be used to give guidance to the middle school students in their occupational choices. In addition, these analyses also indicated that the transformed standard scores rather than raw scores should be used.

#### (3) The Establishment of Vocational Interest Theory

Bai, Ling & Fang (1996) following Holland's vocational interest theory (Holland RIASEC theory)and considering the characteristic of Chinese conditions and vocational classification, has established the vocational interest scale of Chinese version. The item composition is in the form of 4 scales of the Actives, Competencies, Occupations, and Self-Estimates. Through the results of the factors analysis were examined by the college student, a total of 138 items were retained. The reliability of the scale and the various dimensions of the retest are in between 0.77 and 0.88. The results of the confirmatory factor analysis showed that the convergent and discriminate validity was good and suggested substantial support for the inventory's RIASEC construct validity. Some effects of method-bias tested the effects of traits, methods and method-bias respectively by applying the contrast of the MTMM-LISREL Models. The results suggested substantial support that the inventory's RIASEC construct validity is good; the effects of methodbias are limited.

Liu & Gong (1999, 2000) took the Holland vocational

interest theory as the frame, to construct and standardize the Vocational Interest Inventory (VII) for the use in China. The item pool of 268 items was established by following Holland's definition of RIASEC interest types and considering the Chinese vocational classification. Standardized normative sample consisted of 1270 students from 17 departments of five universities in Changsha. Through the factor analysis of the sample, 154 items were selected and six scales were constructed in four parts: vocation, occupational, activity, and self-estimation. Six factors were produced; these six factors can reasonably interpreted the relationship of Holland's hexagonal model of interest. A set of norms including mean scores and T-scores of 18 scales for male and female students was established. The reliability and validity of the VII were satisfactory. The results of researches of the VII met the demands of psychometrics.

#### (4) The Applied Research of Vocational Interest Theory

Looking from the Chinese present existing vocational interest, finding that relevant with entering the high schools, Zhang, Feng et al. have launched the research in the 80s in view of the vocational interest. Feng (1986) using KOIS, VPI as well as Cattell 16 PF, discussed the major influential factors in the vocational choice process of high school student. The result showed that the interest is an important factor, which affects the high school student to choose the occupation. Moreover between the personalities, the interest and the occupation have certain corresponding relationships.

Ke (1996) using American University entrance examination center's asexual difference interest questionnaire that revised by Zheng has carried on the vocational interest investigation to the Wuhan Partial Middle School's student. The result indicated that middle school student's vocational interest presents the multiplication trend of development; the middle school student as a result of reasons and so on physiology or psychology, the vocational interest displays certain differences of grade, gender. In the vocational choice, the middle school students have a strong sense of self-awareness and independence, many embark from own factor, family influences are smaller.

Ling, Bai & Fang (1998) constructed the big discipline department's vocational interest type chart, which relates directly the individual vocational interest type and the big discipline department with the university departments as "Environment". 16 university 31 branch department near-

ly 2,000 university students as research samples of this study used Holland's vocational interest scale of Chinese version. The analysis results of 31 branch departments may divide into 3 categories such as "natural", "social science" and "Art", with access to the Chinese present tradition branch.

Su (2000) compared the results of Holland's original "The Self-Directed Search" with the results attained from Chinese adults and those from Chinese students, to test Holland's model hypothesis. It was found that although the correlation coefficients of the latter two are higher than those of Holland's, and the distribution tendencies of the three are basically same. Therefore, it was concluded that the SDS and Holland's theory could be applied in current Chinese occupation guidance. The comparison between adults and students, as well as the comparison between male and female in China, will be helpful for Chinese occupational education and occupation guidance. At the end of the paper, the limitation of Holland's theory was discussed.

In the Long & Peng (2000) was to provide a guidance to senior middle school students who plan to choose college specialty and to undergraduate students who are going to choose the second specialty. With the Self-Directed Search, this study sampled 1227 college students in 8 universities in Wuhan, China. The results showed that SDS has necessary reliability and validity. By interviewing the students or their instructors, the specialty three-letter codes which were built up to replace the raw scores with the standard scores are of good validity and can provide suitable description of specialty. The results also showed that the consistency of the Specialty Finder and the Holland Occupations Finder are limited. The Holland Occupation Finder might be revised so that it can be applied to domestic conditions.

Liu (2000) based on the investigation sifting and statistical analysis of the Questionnaire returned by the 113 enterprise middle level administrators of Qingdao, this paper concluded that the remarkable occupational diathesis of enterprise administrators includes ideological form, leadership training and body and mind conditions. The standard of the qualified enterprise administrator was also clarified in the paper.

Liu & Gong (2002) 49 high school teachers, 65 engineers, 32 skilled workers, 69 accountants and 34 medical doctors were administered to study the characteristic

interests of occupational groups and to assess the validity of the Vocational Interest Inventory (VII). The S, VS and SS test scores of high school teachers on the VII were significantly higher than other occupational groups. The scores of R, RV and AR in engineers and skilled workers were higher. The SR and VI test scores were also higher in engineers, whereas the C, VC and AC test scores were higher in accountants. The type of interests favored by high school teachers was social in nature. While engineers and skilled workers endorsed pragmatic type of interests, accountants preferred conventional business type of interests. The validity of VII was satisfactory.

Cai etc. (2002) on referring related foreign materials this research designed a vocational interest inventory, which was applicable to Chinese middle school students. The exploring factor analysis to the test results of 309 subjects indicated that: the inventory has clear construction. The extracted six factors could be explained as Reality (R), Investigate (I), Art (A), Society (S), Enterprise (E) and Common (C). This result was consistent with Holland's Six Vocational Interests. But the relationships among six vocational interests were not completely consistent with Holland's Vocational Hexagon. Further analysis indicated that vocational interest of students above grade 9 has been differentiated. Grade and sex factors had remarkable influence on students' vocational interest. The interaction between grade and sex was not notable.

# 3. Several problems of the Vocational Interest Test

Holland's vocational interest theory after decades of theoretical interest in the development and testing is one kind of influence huge vocational interest theory to the important reference significance regarding Chinese vocational interest research. It is not only a relatively perfect system and the logical and empirical scientific standards, but also has the widespread application example. The introduction of vocational interest theory, by the Holland's six type primarily, the revised test focused on self-directed search. The vocational interest scale, which establishes voluntarily by the Chinese scholars mostly is to take the Holland's vocational interest theory as the basis, or is to take the self-directed search scale as the main source. In the scale of the structure, also tend to Holland's six types of structural model for the criterion. But, the people have the very big cultural conditionality regarding the

occupation choice under the different cultural context in the individual occupational psychology structure of the occupation. The prestigious appraisal has a difference by chance. Cai etc. (2002) and other studies indicated that although the Chinese middle-school student's vocational interest structure conforms to the Holland six type division, but in six kind of vocational interest's reciprocities, the Chinese test is a unique, which the correlation of research type and the art type is low, but the research type and the enterprise type are high. Although the reasons for such differences to be explored further, but it does tell us that the Holland's vocational interest theory and the test has the limitation.

Because the convenience of taking a sample and the researcher's preference and so on, the vocational interest scale's establishment and the applied research mainly concentrate in the university student. The university student vocational interest research's theory significance and the practice value are self-evident, but the vocational interest studies also have the necessity on the employee and the junior and senior high school students. If can develop longitudinal study or the tracing research from the junior and senior high school, the university to has gotten employed community, its achievement will have the persuasive power, the theory significance and the practice value will also be able to be more obvious.

At present, new industries are emerging and people's vocational area of interests also is unceasingly expands. The influence individual vocational choice's psychological factor are many, the vocational interest is a psychology aspect factor merely, for instance also has person's ability, the personality and so on. From now on, the vocational interest research should be coordinated with other related research field and the fundamental research of the vocational interest should be followed the modern society's development, and then the application process will also impel the vocational interest theory on the unceasing development. In addition, the factors influencing the formation of vocational interests also should be explored.

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要約

## 中国における職業興味研究の現状

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人がある職業に興味をもつということは、その仕事を遂行するための能力をある程度備えていることを意味すると考えられる。職業興味は人々の職業活動の中で重要な役割を果たすものである(Yu,1996)、今日まで、SVIB (Strong, 1927)を始め、VPI (Holland, 1953)、KOIS (Kuder, 1966)、SDS (Holland, 1969)など多くの職業興味尺度が開発され、それらに関する研究が蓄積されている。中国の職業興味研究は欧米と比べて遅れているが、経済の高度成長に伴い、社会競争がますます激しくなり、職業選択問題は次第に人々の注目を集めるようになり、ここ最近、中国の研究者は職業興味の理論と職業興味の測定に関心を持ち始めた。本研究は、まず、中国における職業興味の理論の導入、職業興味の測定の改訂、職業興味の測定の作成、及び職業興味の応用研究についてまとめた。次に、中国の研究者によって作成された職業興味尺度は異文化であるアメリカで開発されたHollandの職業興味の理論(VPI、SDS)を根拠にしたもので、中国では完全に適用し兼ねる(Cai etc. 2002)と指摘されている。このような状況においては、中国における有効な職業興味の測定測度の開発が重要であり、さらに、職業興味の研究においては、中学生から大学生及び就職者まで縦断研究・追跡研究の必要もあり、職業興味尺度において測定される個人差の規定因を明らかにしていくべきであることを論じた。

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