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Annual Review: Practice and Research in Career Counseling and Development -2006

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Abstract

This article presents professional literatures published in 2006 related to career counseling and development. The literature was organized into several sections: (a) Professional issues related to career development throughout the life span, cultural, ethnic, gender, and specific topics; (b) Research related to theoretical/career conceptual advances; and (c) Career interventions and practice, including issues related to career assessment and technology. Cohesive themes throughout this review are the concepts of social context embedded in career development, multicultural perspectives and global/international perspectives of career development. A growing number of studies have focused on cultural/global related issues. Research into career interventions based on career theories specific to certain cultures or general to global needs will be encouraged.

Annual Review: Practice and Research in Career Counseling and Development -2006

This annual review organizes the professional career literature published in 2006. The review work was a big challenge and I did not realize how overwhelmed this task was until I dove deeply and dwelled within it. However, during the process of reviewing, constant learning also occurred and made my teaching and supervision work abundant. To make the review work meaningful for career researchers and practitioners, I aimed to be succinct in the search and inclusion of articles to be reviewed. Therefore, the search was not exhaustive.

To start with the review work, I read each article published in *The Career Development Quarterly*, *Journal of Career Development*, *Journal of Career Assessment*, *Journal of Vocational Behavior*, and *Journal of Employment Counseling*. Next, we conducted a keyword search on all American Counseling Association (ACA) journals and on selected American Psychological Association (APA) journals. Career-related articles from the *Journal of Counseling & Development*, *Professional School Counseling*, *Measurement and Evaluation in Counseling and Development*, *Journal of Multicultural Counseling and Development*, *Journal of Counseling Psychology*, *The Counseling Psychologist*, *Journal of Occupational Health Psychology*, *Consulting Psychology Journal: Practice and Research*, *Journal of College Counseling*, *Journal of College Student Development*, *Journal of Applied Psychology*, *Journal of Applied Developmental Psychology*, and *Psychological Reports* were included in this review. As reminded by previous reviewers, we noticed the increased interest in career counseling in organizational settings and in career coaching. Thus, we also include some relevant career-related articles from *Human Resource Management Review*, *Journal of Organizational Behavior*, *Human Relations*, and *Organizational Dynamics*. Finally, we conducted a literature search through PsycINFO using a set of selected career development terms and identified a few

additional articles of interest from the Journal of Business and Psychology, Journal of Social Service Research, Sociology, The Policy Studies Journal, Journal of Labor Research, Counseling Psychology Quarterly, Australian Journal of Psychology, Journal of Addictions and Offender Counseling, and Journal of Aging Studies. No books, book chapters, monographs, or electronic media are included in this review. Ultimately, we chose to include in this review ??? (needs to be recounted) articles published in refereed professional journals in 2006.

The 2006 career counseling and development review is organized into three broad areas: (a) professional issues, (b) career theory and concepts, (c) and career interventions and practice, including career assessment and technology. Different from the previous reviews, we considered career assessment and technology as kinds of interventions because there were not so many new assessment instrument developed in the past year. Much more focus is on the examination of career intervention programs. Another point that needs to be mentioned is that in organizing this review, we chose to discuss each article in only one area although it was clear to us that many articles could have been presented in more than one area.

Professional Issues

Life Span Development

Youth and Adolescents. Children's career behavior might be related to the parents' expectations. Jacobs, Chhin, and Bleeker examined the relation between parents' expectations and their young adult children's gender-typed occupational choices. The results indicated that parents' gender-typed occupational expectations were significantly related to children's own expectations and to their actual career choices. In additions, job satisfaction was significantly related to having a gender-typed career. These findings suggest that parents' early gender-typed

expectations for their children's occupational achievements were highly related to the actual occupational decisions made by the adult children.

Kenny, Blustein, Haase, Jackson, and Perry using a longitudinal model assess the relationship between indices of career development (career planfulness and career expectations) and school engagement (belonging and valuing). The model was examined through structural equation modeling for a multiethnic sample of urban 9th-grade students. Higher levels of career planfulness and expectations at the beginning of the year were associated with increases in school engagement over the course of the year. The observed relationship between career planfulness and expectations and school engagement is consistent with emerging models of career development (e.g., R. T. Lapan, 2004) that seek to explicate the value of career development programming as a component of educational reform.

Career development for individuals at the junior high level has drawn more attentions in recent years. According to Super's theory, high school students span two of the life stages: growth and exploration. For these students, comprehensive career programs that included self-concept construction is important. Bardick et al. assessed the career plans of junior high school students in South Albertam in Canada. Their findings indicated that junior high students intended to combine full-time or part-time postsecondary education with part-time work. Furthermore, the students were also confident about achieving their future career goals. Their conclusion asserted that students as young as 11 could be ready to seriously consider their future career plans. Therefore, career planning programs need to begin at the junior high level.

Taga, Markey, and Friedman examined boys' pubertal timing and subsequent interpersonal success in mid adulthood. Data from 460 boys from another longitudinal study (the Terman Life-Cycle Study) were examined over a 39-year period to relate age of pubertal onset to later

marital success, career success, and adult health behaviors. The results indicated that boys who reached puberty earlier than their peers achieved greater success in their careers and experienced more satisfaction in their marriages.

Diemer and Blustein explored the role of critical consciousness as a key factor in predicting progress in career development among urban high school students. Critical consciousness was operationally defined as the capacity to recognize and overcome sociopolitical barriers through sociopolitical analysis and sociopolitical control. Canonical correlation analysis indicated a statistically significant relationship between critical consciousness and progress in career development. Participants with greater levels of critical consciousness had greater clarity regarding their vocational identity, were more committed to their future careers, and viewed work as a larger part of their future lives. These results suggest that urban adolescents may best engage the career development process by maintaining a critical awareness of sociopolitical inequity and situating their individual agency within this critical "reading" of the opportunity structure.

Osborn and Reardon applied the Self-Directed Search (SDS) to 98 high-risk middle school students, who attended one of the 14 structured career groups based on the Cognitive Information Process (CIP, Peterson, Sampson, Lenz & Reardon, 2002) career theory. The results indicated that the SDS was a psychometrically sound instrument for middle school students, especially those who were identified as being at risk for dropping out of school. For these students, it is particularly important for them to make the connections between school and the world of work, to develop interpersonal relationships, and to increase occupational knowledge.

Shapka, Domene, Keating applied growth curve modeling to trace the trajectory of the prestige dimension of career aspirations from Grade 9 through to 3 years after high school, as a

function of gender and early high school math achievement. The sample consisted of 218 university-bound adolescents (129 female, 89 male). The findings supported the notion that math achievement functions as a "critical filter" for subsequent career aspirations, with youth who performed poorly in Grade 9 math aspiring to careers that were of lower prestige.

To help increase access to educational and occupational options for a growing yet underrepresented population of low-income, culturally diverse, urban middle school students, Jackson, Potere, and Brobst investigated factors related to their career development. The results supported some applications of Krumboltz's social learning theory to at-risk urban youth. They found a significant and positive association between participants' successful learning experiences and their expressed occupational interests. A positive association between career self-efficacy beliefs and inventoried occupational interests was also significant. However, no association was found between participants' success learning experiences and their highest or most ideal occupational aspirations.

Germeijs and Verschueren investigated high school students' process of choosing a course of study in higher education by conducting a longitudinal study. A sample of 535 adolescents participated at the beginning, middle, and end of Grade 12. Latent curve modeling revealed evidence for a mean developmental increase in the career decisional tasks of orientation, exploration, decisional status, and commitment. The results indicated that the growth trajectories were in line with theoretical models in which orientation and broad exploration were important at the beginning of the career decision-making process whereas in-depth exploration and decisional status were considered important later on. Furthermore, the results showed substantial variability between adolescents in their initial levels of career decisional tasks and in the rate of change.

College students. Fouad et al. examined the needs of career services for university students

who were experiencing psychological distressed or difficulty with career decisions. Their awareness of the services offered by the campus counseling and career services were also examined. Findings indicated that students expressed difficulties with career decisions, high levels of psychological distress, and low levels of psychological well-being. Only about half of students were aware of career services but much fewer had used those services. For career-undecided students in this study, there were relationships among psychological distress and career-related variables. Career services on university campuses were definitely necessary for these students. This research suggested that campus counseling and career services were needed as appropriate mediators for distressed students. Likewise, awareness and usage of these services was recommended.

Côté, Saks, Alan, and Zikic examined the role of trait affect in job search by using a sample of 123 college students. They asked the students to complete measures of positive and negative affectivity, conscientiousness, job search self-efficacy, job search clarity, and job search intensity during their last year of school while on the job market. At the end of the school year, they were asked again to complete the measure of job search intensity. They also were asked to indicate the number of interviews and offers they had received and whether they had accepted a full-time job. Results found that positive affectivity predicted job search clarity over and above conscientiousness and job search self-efficacy. The study indicated that job search clarity mediated relationships between positive affectivity and job search intensity and between job search self-efficacy and job search intensity. Negative affectivity, on the other hand, did not predict job search clarity. Job search clarity predicted job search intensity, which led to interviews, offers, and employment. Côté et al. asserted that job seekers high in positive affectivity find a job because they achieve job search clarity and, in turn, look for a job intensely.

Reese and Miller investigated the effects of a career development course on college student career decision-making self-efficacy. A pretest-posttest nonequivalent group design compared students who completed the course (n = 30) with a quasi-control group of students who were enrolled in an introductory psychology course (n = 66). The results indicated that students who completed the career course showed increased career decision-making self-efficacy overall, specifically in the areas of obtaining occupational information, setting career goals, and career planning. The career course also appeared to lower perceived career decision difficulties.

The concept of collective efficacy was noticed by Lent, Schmidt and Schmidt. They developed a collective efficacy measure and administered it to undergraduates working in project teams in engineering courses. Findings revealed that the measure contained a single factor and was related to ratings of team cohesion and personal efficacy. Collective efficacy was also found to relate to indicators of team performance at both individual and group levels of analysis. They asserted that collective efficacy was a stronger predictor of team performance than team members' perceptions of their self-efficacy.

Rehfuss and Borges indicated that many counselors today challenge the assumption that a career choice based on others' expectations is problematic. They conducted a longitudinal study utilizing a logistic regression analysis to determine whether self-directed or other-directed status, as measured by the Thematic Apperception Test related to success with which individuals enacted career choices. The participants were 433 BS/MD students enrolled in a Bachelor of Science-Doctor of Medicine (BS/MD) degree program at a Midwestern medical college in US. The findings showed that self-directed or other-directed career choice did not predict academic success.

Adults and Aged groups. McCleese and Eby explored adult workers' reactions to job

content plateau, which means lacking of challenge in one's job. The relationship between job plateau and work attitude was reported as negative in previous existing research studies.

Therefore, McCleese and Eby examined the circumstances under which employees who have reached a job content plateau may experience fewer negative work attitudes. Two circumstances were found. The first one was that when role ambiguity was low, individuals responded less negatively to job content plateaus. Therefore, individuals experiencing job content plateau should be proactive in seeking out information from managers and coworkers to clarify job objectives, responsibilities, and expectations. The other situation resulting in fewer negative outcomes was when job content plateau employees were not also experiencing a hierarchical plateau. Hierarchical plateau means that the number of positions or opportunities for upward mobility in an organization decreased. Employees who still perceive opportunities for upward advancement might believe that their jobs would become more challenging as they advanced, therefore their work attitudes were not so negatively affected by the present lack of challenges on the job.

Klein, Fan, and Preacher conducted a field study to examine how early socialization experiences affect new employee mastery of socialization content and socialization outcomes. One hundred and ninety four new employees reported the realism of their preentry knowledge and the helpfulness of socialization agents. A follow-up survey assessed mastery of socialization content along with role clarity, job satisfaction, and affective organizational commitment. The results of structural equation modeling supported the hypothesized model. Realism of preentry knowledge and agent helpfulness, the two indicators of early socialization experiences, were associated with greater role clarity, job satisfaction, and organizational commitment. In addition, the mastery of specific socialization content dimensions, the often assumed intervening

processes, was explicitly shown to mediate those relationships.

Jansen and Vinkenburg examined management career success by using longitudinal data from an assessment center. They investigated trends over a 13-year period in the predictive validity of assessment center data for objective career advancement for a sample of 456 academic graduates. Using the year of entry and tenure as controls, findings from research into managerial effectiveness and development were confirmed with respect to the importance of interpersonal effectiveness, firmness, and ambition for long-term career success. Substantial long-term validities were obtained for ratings from the assessment center exercises. Computation of validities after three to five years of tenure of the same cohort in addition revealed some dynamic validity patterns. For instance, the OAR was important for early and late career success only for the group that was still present after 12 years, and its validity increased over time. (read more)

Career success from the viewpoint of an aged group was investigated by Robson et al. They developed an inventory to set criteria for successful aging in the workplace. The five criteria were: adaptability and health, positive relationship, occupational growth, personal security, and continued focus and achievement of personal goals. Since the aged workers continued to place strong emphasis on personal goal achievement, it was suggested that the organization should continue to provide support for those older workers. Robson et al. also suggested an integrated framework to satisfy needs of diverse goals and aspirations of the aging workers.

Special groups. Strauser, Lustig, Cogdal, and Uruk examined the relationship between trauma symptoms and the career development process of 131 college students. The findings suggested that increased levels of trauma symptoms may negatively affected the three major aspects of the career development process: career thought, work personality, and vocational

identity. Individuals who reported higher levels of recalled trauma symptoms may experience difficulty in meeting the interpersonal demands of the work environment, establishing a vocational identity, and making effective career decision.

For young adolescents with economical disadvantage, Hoffner et al. examined the role of television characters contributing to the adolescents' career aspiration. The participants included mainly high school students from an economically depressed inner city area of Chicago. They found that television was one of several key sources of work-related information in the process of career aspiration. There was a positive relationship between the income and education level of the adolescent's dream job and the attributes of the character's job. For economically disadvantaged young adolescents, especially those living in this urban area, modeling characters from the television played an important role in the development of adolescents' career aspirations.

Another study conducted with samples from economically deprived adolescents was by Ali and McWhirter . The participants were mainly from small rural towns in southern Appalachia. The authors applied social cognitive variables to explain high school students' post high school career aspirations. The results indicated that self-efficacy, outcome expectations, perceived barriers to postsecondary education, and social economic status contributed significantly to their postsecondary pathways.

Multicultural perspectives

Turnar, Trotter, Lapan, Czajka, Yang, and Brissett tested the Integrative Contextual Model of Career Development (ICM, R. T. Lapan, 2004) for Native American adolescents. They assessed six career development skills in their study were: career exploration, person-environment fit, goal setting, social/personal/work readiness, self-regulated learning, and

the utilization of social support. The six intermediate vocational outcome assessed were: academic achievement, self-efficacy expectations, positive self-attributions, vocational interests, vocational identity and proactivity. Results indicated that the variate composed of the six ICM skills could predict 79% of the variance in the variate composed of five of the six ICM outcomes. It means that the six ICM skills are important individually and collectively in developing Native American adolescents educational and vocational self-efficacy, identity, and interests, as well as their positive attributions and proactivity.

For African American college students, influential factors regarding their career development were investigated by Falconer and Hays through focused group approach. Categories of factors included continuous connections with teachers, positive influence of peer group, struggles with family and community career expectations, and strong beliefs in the efficacy of mentors and networking. It's clear that support systems are very influential in the career and academic development of African American college students. Harrison, Wubbenhorst, Waits, and Hurt examined workforce development among African-American churches in Memphis, Tennessee. Findings are presented from a survey of 166 black churches concerning awareness of and knowledge about community workforce activities and assets, as well as the church's role, interest in, and available resources relating to workforce development. A 'comparison group' of 44 other faith-based organizations (i.e., churches and other faith-based non-profit organizations) was also included for comparison purposes. The survey results demonstrate a number of facts about this particular faith community that may have applications in other communities. This study also provides researchers with a review of the history and role of the Black church as a community-service organization with specific reference to programs and services relating to workforce development.

Lim, Winter, and Chan used two cases, one Algerian and another one from India, to illustrate the importance of cultural sensitivity in successful interviewing in hiring process. They asserted that career professionals need to be aware of the potential impact of discrimination caused by cultural misunderstanding. Effective strategies would include establishing rapport with the candidates, building a relationship, and choosing appropriate interview styles.

Flores, Berkel, Nilsson, Ojeda, Jordan, Lynn, and Leal conducted a review study over 36 years (1969-2004) in racial/ethnic minority (REM) vocational behavior. Publication trends, article content and type, samples, and leading author and institutional contributors were reported in that review. Flores et al. indicated that comparing to the increasing figure of REM population, more research studies regarding REM were needed to avoid potential biased understanding of career development and the psychology of work. As far as the content analysis, within the 29 categories investigated, the most frequently addressed content areas in the REM career articles were: (1) contextual factors; (2) racial bias/discrimination; (3) gender differences; and (4) assessment. Since most of the studies relied on student sample (55% of the samples), Flores et al. reminded future researchers pay more attention to the career behaviors of the REM community at large. In additions, more studies are needed regarding career concerns and psychological factors associated with REM career development.

Global/International Perspective

Hughes and Thomas tried to validate the Australia version of the Career Development Inventory (CDI) in Thailand. Of the original four scales (CP, Career Planning; CE, Career Exploration; WW, World of Work Information; and DM, Decision Making) in the CDI, only the Career Planning scale, with Item 5 deleted was found to be suitable for the proposed cross-cultural investigation. They asserted that a more comprehensive investigation of career

maturity in Australia and Thailand would require the local development of Thai scales corresponding to WW, DM, and CE.

In Asia, Lai, Peng, and Chang explored career choice behavior of the students in Nursing College in Eastern Taiwan. The results indicated that 65.4% of the nursing students reported they won't choose nursing as their career. Factors significantly related to this decision were lack of clinical ability, degree of stress during clinical practice, and little support from the nursing staff.

The construct of the SCCT was also tested globally. Tracy, Lent, Brown, Soresi and Nota tested the interest structure of adolescents in Italy. Results indicated that there was less stability in the occupational percepts of middle school students over time. However, it showed change in the direction of greater adherence to the RIASEC circular structure. They also found that deviation from the circular model was related to subsequent career exploration, and initial levels of career exploration and parental authoritativeness were predictive of later circular structure, especially in middle school students.

Sultana and Watts reviewed the public employment career guidance across Europe in three categories: (1) career guidance elements within personalized employment services; (2) specialized career guidance provision; and (3) other relevant provisions such as labor market information and the delivery of services to students. For the process of personalized employment services, they indicated four elements: counseling skills of relationship-building; diagnostic/assessment skills; skills of making occupational/educational suggestions; and skills of supporting action planning. The four elements were necessary to provide professional services. However, its delivery was predominantly managed as an administrative rather than a counseling operation. Nevertheless, the process varied depending on the architecture of the encounter between Employment Service staff and the client. For example, whether the interview took place

over a desk (in Greece) rather than side-by-side (in Germany), or whether advisors enter data about the client into the computer while the client was talking. The staffs also provided specialized career guidance for individuals with problems such as disabilities, addiction, homelessness, child-care or debt problems. These staffs were usually graduates who had a different status within the staff hierarchy. They were all psychologists, for instance, in Finland and Switzerland. However, in some countries, the roles of guidance counselor and placement officer became blurred. Denmark was an example. Generally speaking, training provision for those in guidance roles was being enhanced in Europe. Other services in addition to the personalized employment and specialized career guidance were mainly related to information providing such as producing and analyzing the Labor Marketing Information (LMI).

Four trends were also provided: towards self-service provision; towards tiering of services, toward decentralization; and towards outsourcing. Sultana and Watts indicated that the first two trends were more directly related to service provision and the other two trends were more broadly structural in nature. Across all countries, a major shift was the trend towards self-help services. For example, Finland had introduced a “e-strategy” policy in order to facilitate the blending of self-help strategies into their portfolio of services. Web based job-search facilities such as registration for entering one’s CV and labor market information were developed. As far as the trend of tiering of services, a model with three levels of services was established in Austria, Finland, Netherlands, Portugal, and UK. The three tiers were: (1) self service, through use of resource centers and website; (2) group-based services and/or brief staff-assisted services; and (3) intensive case-managed services, including individual counseling. Decentralization was another trend for future career guidance service. At least in nine European countries, the Public Employment Services were gradually decentralizing their services to regions and provinces and

using local management for the design and implementation of employment policies. The trend of decentralization could result in stronger ownership and customization of services. However, it can also produce some difficulties in the employment and career counseling field. Nevertheless, in several countries, through the central office supports for local offices to implement nation-wide standards could enhance more coherence at a national level. Another shift related to decentralization was outsourcing. Instead of being large and self-sufficient, many organizations tended to develop and manage specific relations with other agencies in the delivery of services. Collaboration, devolution, and competition were three different types of outsourcing. This trend was unavoidable because the labor market had become so complex that no single service provider could possibly deliver the range of expertise required.

Watts discussed career education provision in UK and in other European countries. He emphasized the importance of enabling individuals to *construct* their career in addition to *choose* their career. Evidences on issues such as timing, content, models of delivery, progression and assessment based on cross-national studies was also required.

In the United Kingdom, Watts indicated that prior to the 1990s, the basic structures of career guidance services were broadly similar. However, after the devolution instigated in 1997, different directions of guidance services were followed within different areas in UK, with England seeking horizontal integration of services for young people and adults respectively, whereas Scotland, Wales and Northern Ireland have emphasized vertical integration of career guidance service on an all-age basis. Since the model adopted in England has already weakened the structures for career guidance provision, it could have ripple effects on the other home countries, particularly in professional training and professional status. He asserted that existing collaborative mechanisms need to be strengthen and the culture of mutual learning need to be

enhanced under the conditions that potential benefits of diversification could be fostered and its potential risks could be avoided.

Mulvey described the history of career guidance services in England over the last 25 years. Youth unemployment and career guidance for adults were discussed under the impact of economic slowdown and inexorable rise in the number of unemployment. *Youth Opportunities Program (YOP)*, *Youth Training Scheme (YTS)*, and the *Training and Enterprise Councils (TECs)* were several examples. *New Right* was another policy under the Conservative administration. It was intended to ensure value for money in public-sector spending, through the discipline of the market. The impact of this policy brought lots of tension between public policy and professional roles of guidance. It seems that the guidance professional needs to take the responsibility to relieve the tension. By doing so, economy, effectiveness, and efficiency are “three e’s” the guidance counselors need to keep in mind in delivering public guidance services. Uncertain funding and program quality were also concerned in Mulvey’s article. Because of the uncertain funding resources, the current structure of adult guidance was fragile. Therefore, partnership working was a feature of adult guidance service. However, the quality varies depending on their capacity and capability.

Currently in England, the Connexions service replaced the Career Services for 13-19-year-olds. The Connexions partnership featured in its wider-reaching. It intended to offer the full range of services which could be needed to support young people in transition. For example, career guidance, advising on housing and finance, and necessary health support. In addition, provisions secondary education, higher education, employer-based services, and guidance at a distance (Learndirect) were also discussed by Mulvey.

In Scotland, Howieson and Semple introduced the development of career guidance over the last 25 years. They also discussed how the pre-existing Scottish context and the new context of devolution have impacted upon career guidance services for school students and adults. In Scotland, they do have an integrated national career service system --Careers Scotland, which is a national, publicly-funded career agency related to its cultural context of devolution. Other key issues considered in that article included: the allocation of resources based on need; relationships with local authorities and schools; and training and professional identities in an increasingly diverse UK guidance context.

Clark and Talbot reviewed the career guidance services in Wales. They also discussed challenges and directions for future development. Basically the career guidance services in Wales also followed the impact of devolution happened in 1990s. Before the devolution, programs such as *Working Together for a Better Future*, *People and Prosperity*, *Providing for Choice: Career Education and Guidance in Schools*, *Education*, and *Training Action Group for Wales* were practically applied for career guidance. The program *Career Wales*, an integrated all-age and bi-lingual range of service, was established after the devolution. The Career Wales companies co-own the Careers Wales Association, which coordinated cross company activities such as the *Career Wales On-Line* and *Youth Gateway*. The Career Wales companies could also take necessary financial decision, support a pilot scheme for a special group, or tackle local problems. Furthermore, the all-age model operated by Career Wales distinguished career guidance in Wales most distinctively from that in England. Its bi-lingual comprehensive one-stop shop for career information and guidance for the whole client group (including young people, adults, employers, and career professionals) was also one of its strengths.

For French adults, Bernaud, Gaudron, and Lemoine conducted a longitudinal study to examine the effects of career counseling program focused on competence assessment. The results indicated significant effects of the program on experimental group. It means that career competence assessment enabled individuals to enhance their self-concept and self-understanding. It also provided them with a wider range of elements for reflection and decision-making. Follow-up investigation conducted 6 months after the end of the treatment also indicated significant steady acquisitions on their self-analysis and self-esteem. However, the correlations between treatment intensity and the progress made by the experimental participants were very slight. Generally speaking, the program based on career competence assessment was effective for French adults.

Bojuwoye and Mbanjwa investigated factors that influence career decisions in South Africa. The participants were 40 males and 40 females with mean age of 22 years.) Results revealed that family variables of parental high expectations of children and appropriate communications within the family, as well as factors such as prestige statuses of some occupations, school curricular subjects, academic performance, teacher influences, and peer pressure had strong positive influences on career choices. Negative influences on the other hand, included finance problems, lack of appropriate information, poor academic performance, and unsatisfactory career counseling services. They suggested the needs for a better approach to career education in schools and counseling services that are adaptive to social, economic, and cultural contexts in South Africa.

In Nigeria, Adebayo examined the relationship among nontraditional students with respect to workload, social support, and work-school conflict. The results indicated that perceived workload, supervisor, and coworker support were significant predictors of work-school conflict

after controlling for the influence of socio-demographic variables. Another study conducted by Ituma and Simpson explored how Information Technology (IT) workers enacted careers in Nigeria. Results of qualitative interviews with 30 IT workers revealed four patterns representing their career life development: (1) Slow and steady; (2) Explorer; (3) Canvasser; and (4) Haphazard. Of the four patterns, explorer and haphazard career patterns, involving considerable inter-organization mobility, could partly reflect the economic instability in Nigeria. The canvasser pattern, which shared common characteristics with self-employed career, was based on the notion of freedom, ownership, independence, and control. Ituma and Simpson indicated that the nature of the career in Nigeria could be conceptualized as dynamic and reactive partly propelled by both individual decisions and partly determined by social economic context. Therefore, they proposed the term “chameleon” as a metaphor to describe the importance of adapting to changing personal circumstance and social cultural obligations.

For practitioners to develop culturally sensitive and culturally relevant interventions, cross-cultural studies are necessary to verify the constructs developed in Western. In Lebanon, based on a questionnaire administered to graduates of private and public universities ($N = 652$), Nasser and Abouchedid linked job procurement to job satisfaction and occupational attainment. Significant differences in job procurement methods are found between male and female graduates and between graduates from private versus public universities. They found that job satisfaction is only affected by the job procurement method. The level of occupational attainment is affected by gender and job procurement method.

In Israel, Flum and Cinamon examined 338 teachers' attitudes towards career education. They believed that teachers' attitudes towards career education played a crucial role in the successful implementation of relevant career related programs in school curriculum. Results

demonstrated similarity in the general pattern of ranking of importance of career education goals for Arabic and Jewish teachers, but significant differences emerged in relation to a number of issues (e.g. self-knowledge, familiarity with range of occupation, experience with choice making). Differences are discussed as a reflection of diverse world-views, a disparity between majority and minority status and a difference in social structure.

In Southern Alberta, Canada, the Comprehensive Career Needs Survey was used to assess the career plans of senior high students in the study conducted by Wotko, Bernes, Magnusson, and Bardick. They examined senior high student perceptions regarding (1) their future plans; (2) confidence in attaining their career goals; (3) importance of remaining in their community; and (4) where they anticipate working. They found that a majority of respondents planned to combine full time education with part time work. They were confident in achieving their career plans and anticipated finding work in their country. Results indicated a need for programs addressing career decision making and combining education and work experience.

In New Zealand, Higgins and Nairn investigated young people's perspectives on transition in their last year of school. The processes by which they make choices about post-school destinations were also investigated. In particular, they examined the extent to which the transitions they negotiate are shaped by the institutional infrastructure for transition established by policy. Expecting some degree of mismatch between the complexities of participants' lives and the linear transition process implicit in policy, they found instead a combination of traditional assumptions (that transition would be a straightforward, linear process) and late-modern assumptions (about the construction of elective biographies through active choice). These combined to produce a particular perception of risk among participants.

Career concerns in specific groups

Bussacca and Wester examined career concerns of 152 counselor trainees in 7 master level programs accredited by the Council for Accreditation of Counseling and Related Educational Programs. Results indicated that near four fifths of the students reported high degree of interest for meeting Exploration and Establishment stage tasks. More specifically, they concerned with the efforts required to acquire more information about themselves and about occupations. They also concerned about how to express their self-concept in an occupational role. In conclusion, counselor trainees with high levels of concern for establishment stage tasks reported significantly higher levels of overall career concerns. Bussacca and Wester asserted that counselor educators must strive to be more aware of the career development of graduate counselor trainees.

Gender Perspective

Lambert, Eby, and Reeves compared gender difference in whiter-collar job-seekers network system. They found that age demonstrated a curvilinear relationship with network diversity. Proactive personality was positively related to network intensity. However, no effects were found for gender and race.

Schmidt and Nilsson agreed with the “bottleneck hypothesis” proposed by Hetherington (1991). It might be true that a bottleneck effect may disallow the LGB individual’s career exploration because when they are early in their sexual identity development, they might put other aspects of development on hold to cope with confusion over their sexual identity and other stress-producing changes related to recognizing oneself as LGB. This hypothesis was tested in Schmidt and Nilsson’s study by using 102 LGB youth. The results indicated that career maturity was predicted by inner sexual identity conflict and social support, with a large effect size. Both inner sexual identity conflict and social support could also predict career indecision. Since the sample pool were middle and high school students and there was no contrast group, the

relationship between inner sexual identity conflict, social support, career maturity, and career decision behavior might also be true for general middle and high school students.

Career Uncertainty

Trevor-Roberts indicated that career uncertainty was a fundamental experience that affects people's vocational behavior, attitude, and emotion. People experience uncertainty because the changed nature and structure of the world of work. He discussed three approaches to interpret uncertainties experienced by individuals: Protean career, identity theory, and social constructionist approach. People may feel uncertain about the meaning of what so called "success". People may feel uncertain about "who they are" no matter how successful they are in their career development. People may also feel uncertain about themselves once the social cultural impose certain degree of expectations on them. Therefore, career counseling for uncertainty is necessary. Positive uncertainty, planned happenstance, and complexity theory are three approaches discussed by him for career counseling practice for both individuals and organizations.

Another perspective to explain career uncertainty was the chaos theory. Pryor and Bright presented an outline for the chaos theory of careers. They then proposed a quadrant to help counseling practitioners understand the relationship between different theoretical perspectives and practical interventions. Practical techniques such as signature exercise, the sometimes magic exercise, and the Parable of the Ping Pong Ball, were also proposed as examples applied based on the concept of chaos theory applied in career services.

Boundaryless Career / Social context embedded career

Harrison used the landlines and cell phones as metaphors to describe how the changes in technology and the world of work affected the lives and identities of workers today. In the

postmodern world, changes in the social context and global perspectives implied the properties of career as mobile, self-determined, employer independent, and free of hierarchy (DeFillippi & Arthur, 1994). How an individual, as the center of meaning of career, create narrative for the career would be an important issue to make sense of his/her career. To dialogically create a meaningful self/career, we believe that the process of narrative construction is grounded in cultural, political, religious, and social values. Narrative approach of career counseling will then be more and more important.

Olson-Buchanan and Boswell investigated the interrelations among role integration-segmentation, role identification, reactions to interruptions, and work-life conflict. Results from a field survey of university staff employees suggested that as highly identified roles are integrated into other domains, high role integration was related to less negative reactions to interruptions, and employees who integrate work into nonwork set fewer boundaries for using communication technologies during nonwork time and report higher work-life conflict.

Career competence/ability

Career competence for the modern career was investigated by Kuijpers and Scheerens. They asserted that working environment nowadays is characterized by increased mobility, increased level of support from employers, and a dynamic work environment. Competences needed to cope with the modern career included six categories: career development ability, reflection on capacities, reflection on motives, work exploration, career control, and networking. They also asserted that having a mobility perspective is important for career development and networking. In addition to personal characteristics, networking and support from the dynamic work environment are important to both internal and external career success. To further investigated the relationships between career competencies and career, Kuijpers, Schyns, and Scheerens

invited 1579 employees in 16 Dutch companies to fill a competence inventory with the 6 competencies discussed in previous study ; career development ability, reflection on capacities, reflection on motives, work exploration, career control, and networking. Personal and situation-linked variables were also measured. Results indicated negative relationship between motivation and intrinsic as well as extrinsic career success. Employees who examine whether their job corresponds with their personal values experience less career success than those who do not examine their job in this way. It seems that the individuals dissatisfied with their career success could be more aware of the discrepancy between preferences and the realization of these preferences in their work. It might also be possible that they were lack of support from the organization staffs. Generally speaking, the factors career control and networking were strongly associated with career success. Kuijpers et al. indicated that in addition to personal characteristics such as motivation reflection and networking, career support from the work situation and a dynamic work environment are related to their career success.

Byars-Winston and Fouad asserted the importance of multicultural competence for effective career interventions. They expanded the Culturally Appropriate Career Counseling Model (CACCM, Fouad & Bingham, 1995) through the viewpoint of metacognition, which referred to the counselors' active incorporation of their own cultural frameworks, values, and worldview into the counseling process as an interaction. The expanded CACCM model included seven steps. In the first step, establishing a relationship, the counselors ask questions about the plan and intentions for counseling, the gap between knowledge and client context, and strength and challenges. In the second step, identification of career issues, the counselors aware his/her own reaction to the client cultural context, the conflict information within the client, and possible issues they are willing or avoid addressing. In the third step, cultural impacts on career issues are

discussed. In the fourth step, goal setting, the counselor should notice the appropriateness of the goal for the client cultural context. The counselors also need to notice their possible response if the clients goals are different from their own. In step 5, intervention, the counselors evaluate how helpful are those interventions from the client viewpoint and on what basis are those effectiveness being determined. In step 6, the consequences of the counselor behaviors and intervention strategies are evaluated. The cultural congruence between counseling outcome and client desired goals would also be evaluated. Finally, step 7 would focus on implementation of the clients plans and follow. In conclusion, they believed that metacognitive strategies have great potential to increase multicultural competence of career counselors. Continuing self-reflection in the counseling process would enhance their cultural competence in building culturally appropriate intervention strategies.

Gati, Fishman-Nadav, and Shiloh investigated the relations among self-estimated abilities, measured abilities, and preference for using career-related abilities. The highest correlations were found between the preference for using an ability and self-estimates of the ability. The gaps between measured abilities and self-estimated abilities varied, with 69% of the clients overestimating their abilities, while only 9% underestimated them. This finding implied that self-estimate might mediate the relations between one's preference for using the ability and the respective measured ability. In additions, they also found gender differences. Women significantly underestimated their general learning, verbal, spatial, and spatial abilities. It again supported Betz's (1994) suggestion that one of the problems in women's career development is the underutilization of their abilities.

Job satisfaction/Work adjustment

Variables associated with job satisfaction was examined by Allen et al. They found that

individuals who serves as a mentor to others perceived higher job satisfaction. Their salary and promotion rate were also greater. It seems clear that mentoring others is related to both subjective and objective indicators of career success. Duffy and Richard examined physician job satisfaction across six major specialties. The sample was 763 physicians. On the whole, physicians reported that they were satisfied with their careers and believed that caring for patients, sense of accomplishment, continuity of care, autonomy, and personal time were the five most important factors for their personal job satisfaction. Regression analyses revealed that the five most significant predictors were sense of accomplishment, creativity, income satisfaction, security, and autonomy. Additional regression analyses were run using the 18 critical factors to predict job satisfaction across the six major medical specialties. Significant factors varied greatly depending on specialty area. They suggested that physician job satisfaction may be better understood in terms of specialty rather than as a whole.

González-Romá, Schaufeli, Bakker, and Lloret examined the concepts of emotional exhaustion and cynicism (the core dimensions of burnout) and vigor and dedication (the core dimensions of engagement). It was asked if the two concepts were scalable on two distinct underlying bipolar dimensions (i.e., energy and identification, respectively). The results obtained by means of the non-parametric Mokken scaling method in three different samples (Ns = 477, 507, and 381) supported their proposal: the core burnout and engagement dimensions could be seen as opposites of each other along two distinct bipolar dimensions dubbed energy and identification.

Hoffman and Woehr examined the relationship between person-organization fit and behavioral outcomes. Extended from the meta-analysis of Verquer, Beehr, and Wagner, Hoffman and Woehr (2003) provided a meta-analytic review of the relationship between

person-organization fit (PO fit) and behavioral criteria (job performance, organizational citizenship behaviors, and turnover). Results indicated that PO fit is weakly to moderately related to each of these outcome variables. The way in which fit being measured was an important moderator of fit-outcome relationships; however, definition of fit did not moderate the relationship between fit and behavioral criterion. (need to read more)

Sy, Tram, and O'Hara examined the relationships among employees' emotional intelligence, their manager's emotional intelligence, employees' job satisfaction, and performance. They found that employees' emotional intelligence was positively associated with job satisfaction and performance for the sample of 187 food service employees from nine different locations of the same restaurant franchise. In addition, manager's emotional intelligence had a more positive correlation with job satisfaction for employees with low emotional intelligence than for those with high emotional intelligence. These findings remain significant after controlling for personality factors. However, the cut point score for low and high emotional intelligence needs to be discussed. Nevertheless, the study asserted that emotional intelligence was an important factor for job satisfaction and performance.

Work and Family Interface/Balance

Two types of conflict between work and family were provided by Cinamon and empirically studied. The first one was the work-interfering-with-family conflict, which included stressors from the work such as the number of weekly hours devoted to work. The second one was family-interfering-with-work conflict such as child sick and caring, housework, and spousal relationship. Cinamon's research finding indicated that women, comparing to men, anticipated higher levels of both types of conflict between work and family. They also demonstrated lower efficacy in managing these conflicts than did men. It was suggested that programs aimed at

helping young adults merge work and family roles were needed. Counseling practitioners should design programs to reduce their perceptions on both types of conflict and increase their self-efficacy in dealing with those perceived conflict.

Perrone et al. proposed a path model to describe the relationship among work and family commitment, work family conflict, coping, and satisfaction. They found that commitment to family would lead to higher satisfaction with family. Similarly, commitment to work would increase an individual's satisfaction with work. Conflict between work and family was negatively related to family satisfaction but was not significantly related to work satisfaction. It seemed that family-work conflict won't influence job satisfaction but may affect family satisfaction. Coping, in the model proposed by Perrone et al., was found to be a potential mediator between work-family conflict and satisfaction with work and family. It was significantly related to family satisfaction but not with work satisfaction.

Multiple role conflict and balance was also an important issue concerned by international colleagues. For work-school conflict, Adebayo, in Negeria, found that perceived support as demonstrated by supervisor, co-worker, and family member were found to be significantly and negatively related to work-school conflict.

Schultheiss discussed the interface of work and family life through four prominent themes in the work and family literature: (1) the meaning of work embedded in people's lives, (2) multiple life roles, (3) work and family navigation, and (4) supportive family systems. She emphasized that it's important for an individual to get a sense of embeddedness in the contemporary society. To be satisfied in both career and family lives, we need to create a subjective link with others as a social group. We need to experience embeddedness in order to avoid social isolation. This idea of embeddedness was followed by the concepts of multiple role

conflict and support system. The idea of multiple roles was originally introduced by Super (1980) and highlighted by recent studies. For most individuals, the major roles would be worker and family members. Those who actively involved in work and family domains can also experience gratification of their mastery needs.

When trying to balance multiple roles between work and family responsibilities, many workers experience conflicts. Day and Chamberlain used a sample of female nurses and police officers examined the direct and indirect relationship of role commitment with work-spouse and work-parent conflict. They found that increased work-spouse conflict was associated with decreased spouse commitment. Increased work-parent conflict was associated with increased parent commitment but with decreased spouse and job commitment. Job commitment moderated the relationships between irregular work schedules and work-spouse conflict and between job control and work-spouse conflict. Parent commitment moderated the relationship between irregular work schedules and work-parent conflict. In conclusion, it was suggested that commitment to certain roles may either alleviate or exacerbate conflict between related roles.

Spirituality/religion issue

The issues of spirituality and religion have been noticed to examine their relationship with career variables. Duffy reviewed current status and suggested future directions for research in this area. Generally speaking, these investigations have found aspects of spirituality and religion to relate positively to career decision self-efficacy, career values, and job satisfaction. He also proposed theoretical models that explore the connection between these variables. These models were (1) Witmer and Sweeney's (1992) Holistic Model of Wellness; (2) Miller-Tiedeman's (1994) Lifecareer Model; (3) Brewwe's (2001) Vocational Souljourney Model; and (4) Bloch's Model of Spirituality and Career Counseling. For the future research, Duffy indicated that career

counselors should investigate if and to what extent individual's spirituality and religiousness shape the types of careers they decide to pursue. He also asserted that a comprehensive and empirically tested model of the role of spirituality and religion play in the promotion or hindrance of healthy career development is needed. In addition, we also need to investigate how economic status and educational level fit into the relationship between spirituality, religiousness, and career development.

Constantine, Miville, Warren, Gainor, Lewis-Coles explored the interrelationships of religion, spirituality, and career development in a sample of 12 African American undergraduate students, aged from 18 to 22 years. Data obtained through semi-structured interviews were analyzed by using consensual qualitative research methodology. The results identified 6 primary themes related to these students' experiences: (1) degree of identification as religious and/or spiritual, (2) parents' influence on religious and spiritual beliefs, (3) roles of religion and spirituality in participants' career development, (4) challenges in dealing with academic and career-related issues, (5) religious and spiritual strategies to deal with academic and career-related challenges, and (6) indicators of success in future career or occupation. Generally speaking, spiritual and religious activities, such as praying, reading the Bible, and attending church, provided specific concrete activities by which African American college students might alleviate academic and career related stress. The impact of religion and spirituality on career choice behavior was just like following a "calling" and having passion for one's vocation.

Professional Issues: Summary and Conclusion

Career development through the life span drew a lot of studies. Most studies were using samples from school youth, adolescents and college students. Some studies were related to effect test of particular career programs or curriculum. Others were associated with relationships

among career variables. The purpose was mainly for practitioners and researchers understanding individual's career development characteristics. We can see that career practitioners were putting efforts on integrating career components into the school curriculum. We also found that studies were designed trying to examine effects of programs based on specific theoretical concepts. Studies regarding special group needs were also conducted. Researches on special topics such as boundaryless career, protean career, competence-based career development were related to social contextual changes. Topics related to the development trends of positive psychology and psychological well-being also concerned by career researchers, for example, issues on spirituality/religion and family-work conflict/balance/enrichment. Multicultural, cross-national, international, and global perspectives were still concerned by many studies. As we all know, the continuing emphasis on "we are the world" had reminded counselors and scholars in the United States to notice what happened elsewhere in the global community. Many international studies were collaboratively conducted by scholars from different countries. In additions, it is increasingly clear that the issue of unemployment and social exclusion cannot be considered in isolation from wider social and economic problems. Cooperations among professionals from different organizations/universities need to work together to develop integrated solutions in a holistic manner.

Career Theories and Concepts

Among the traditional theories such as Parsons trait-factor concept, Holland typology, Super's Career Development, Minnesota Theory of Work Adjustment, and Gottfredson's circumscription and compromise concepts, Lent et al.'s Social Cognitive Career Theory dominated research studies in 2006. The Journal of Career Assessment (Vol. 14, No. 1) featured

the theory of social self-efficacy. Decision-making related career variables such as decision-making difficulties, indecisiveness, role models, and career barriers also drew a lot of studies. The other psychological theories applied in career development also were of interest by researchers and practitioners. Among them were the postmodern theories of constructivism/constructionist and positive psychology. Issues related to family-work conflict/balance/enrichment were also concerned by researchers in counseling and organizational psychology. An important difference from previous years was the international scholars contributed to the body of knowledge in a greater number.

Parsons

Frank Parsons was believed as the founder of the field “career counseling.” His famous book “Choosing a Vocation” was published the next year after he died. Hershenson indicated that people know Parsons well; but it’s also important to honor the contributions of at least 3 persons who enabled and perpetuate Parson’s work. The three persons are Pauline Agassiz Shaw, Meyer Bloomfeild, and Ralph. Pauline Agassiz Shaw was the person at that time uniquely possessed the combination of wealth and foresight need to fund the realization of Parson’s ideas about vocational guidance. She was the person the book “Choosing a Vocation” was dedicated to. Meyer Bloomfield was the holder of the copyright of that book. He was the director of the Civic Service House started by Pauline Agassiz Shaw. He encouraged Parson to communicate his ideas with Shaw. The third enabler, Ralph Albertson, was the author of the introductory note to the book. He acted as Parson’s literary executor and prepared the manuscript of “Choosing a Vocation” for publication following Parson’s death. Although little empirical studies was conducted at that time regarding the steps of vocational guidance, the concept of understanding

self, understanding the world of work, and true reasoning were still three important concepts followed by career counselors and vocational psychologists.

Super's Career Development theory

Super's (1957) career development theory has long been studied in vocational psychology field. Giannantonio and Herley-Hanson applied "image norms" across Super's career development stages. They proposed three sets of image norms that associated with an individual's self-concept and may influence the individual's career behavior across the five stages of career development. The first set was "occupational stereotypes", which include a certain images that an individual believe need to possess to enter or leave the certain occupational fields. The second set was "self image" which is basically the same as what Super called "self concept." The third set of image norms was "organizational image" which was used to describe general impressions of an organization. With the three sets of image norms, people explore the world of work, obtain career awareness, and finish certain developmental tasks through the five stages of career development. When chances of transitions happened, an individual's perceptions on these images norms may influence his/her decisions to change or stay in the original organization/job.

Theory of Work Adjustment (TWA)

Withrow and Shoffner applied TWA (Dawis & Lofquist, 1984) constructs to career women, particular those with anorexia nervosa symptoms. Since these women are usually perfectionistic, obsessive compulsive, competitive, intelligent, and well-educated, they tend to be with the *work personality* of altruism, achievement, and autonomy according to the TWA. As far as the *work environment*, they proposed that physical attractiveness should be added to the typical job requirements for working women because it can offer certain reinforce. In addition to

achievement and recognition, weight control was also a kind of personal and career achievement for anorexia nervosa women. *Correspondence* between environment and personality can then be achieved when the environment can fulfill these women's personal needs of being thin and the person can fulfill the task needs required by the job. In order to obtain better adjustment to increase the fit between person and environment, Withrow and Shoffner proposed the Cognitive-Behavior Therapy (CBT) as a typical approach to help those women change their work personality within the work environment or promote change in the environment itself.

Chiocchio and Frigon tested the Theory of Work Adjustment (TWA) with a sample of mental retardation. The TWA hypothesized that Employee satisfaction (ES) and flexibility of the work environment moderate the functional relationship between satisfaction in the work environment (WS) and the correspondence between job requirements and employees' abilities. In their study, fifty-two Candidates with Mental Retardation were placed in 53 natural work settings. In total, 61 matches based on commensurate measures were made and data were collected for 16 weeks after job placement. Results showed that ES is a mediator while flexibility of the work environment was not. ES and WS together contributed to predict tenure.

Holland model

Holland hexagon model remained to be one of the premier theories in career literature. Piasentin and Chapman (2006) reviewed 46 empirical studies regarding measurement of person-organization fit. They concerned the individual differences in fit perceptions and tried to develop and adopt a uniform to validate measures of P-O fit that incorporate the multidimensional nature of fit.

Miller, Scaggs, and Wells examined the congruence-satisfaction relationship by using a nonprofessional sample, fly-fishing guide. The results supported Holland's assumption of

congruence-satisfaction relationship. Person-environment fit has been assumed to be an important concept predicting satisfaction, stability and achievement over the past twenty years. Eggerth and Andrew tried to modify the Congruence index to better apply the model to practice. Their modification allowed comparisons between Holland code profiles of unequal lengths and of less than three letters in length. After the modification, the desirable properties of the original C index such as reflection of the hexagonal structure, sensitivity to order, and simplicity of calculation can still be retained. However, Tinsley commented on their modification by proposing two problems. The first one was the underlying assumption that congruence is perfect and we know that it's impossible. The second problem was related to the "high point code" fit index originally proposed by Holland (1973). Tinsley believed that the formula modified by Eggerth and Andrew with one letter comparison is algebraically equivalent to the high point code developed earlier by Holland (1973). He criticized that this index did not provide a valid operationalization of Holland's theory. He then proposed a redirection of the research agenda for vocational psychology research. Gore and Brown

Long and Tracy conducted a structural meta-analysis to evaluate the fit of four different representatives of the RIASEC structures, Holland's (1985, 1997) circular order model, Gati's (1991) three-group partition model, Round and Tracy's (1996) alternative three-group partition model, and Liu and Rounds' (2003) modified octant model. They collected 29 RIASEC correlation matrices from Chinese participants. The results indicated that Holland's model had the worst fit and was lower than it was fit in US samples. Gati's and Rounds and Tracey's models, on the other hand, had the best fit. The fit of the Liu and Rounds' model lay between the fit of Holland's model and the other models. The findings implied that Holland's circular model

might be deficient when applied to Chinese populations. The nature of the world of work and embedded interest structure in Chinese culture might be very different from those in US.

Donohue examined the person-environment fit in relation to career change and career persistence. The results indicated that career persisters scored higher on congruence than career changers. In additions, career changers tended to move towards careers that were more congruent with their personality profiles than their current careers. This finding provided support for Holland theoretical assumption regarding congruence. It also provided evidence of the cross-cultural validity since the sample was composed of Australian workers.

In Italy, Tracey et al. used samples from middle and high school to test the structure of Holland model. It showed that interest structure of those students deviated from the normative RIASEC structure to a moderate extent. However, the fit to circular structure did improve over the span of one year for those middle school youth. In their study, an SEM model was also applied to test the relationship among variables such as congruence fit, career exploration, and parental authoritativeness. It was found that greater adherence to congruence fit led to great career exploration for middle school students. Also, the more authoritative the parents of middle school students, the more the child subsequently adhered to the normative RIASEC structure in the future. They asserted that parental authoritativeness provided kind of secure base for the youth to pursue more exploration and better fit to the normative RIASEC structure.

Holland's typology was tested and modified by Wong and Wong in Hong Kong. They developed their own interest inventory and asserted that the modified model was more applicable than the original hexagonal model in Chinese culture. The modified model indicated that the relationship between Realistic and Investigative types was stronger and they were less related to the other four types. Also, the relationship between Social and Enterprising types, which were

more people oriented, was particularly strong. I would add here, from my own practical experiences in Taiwan that an individual's interests in Artistic and Conventional types were always contrary to each other. People with highest score in Artistic interest always scored lowest in Conventional type of interest. Also in Chinese culture, Yang, Lance, and Hui examined the construct validity of the Chinese SDS by using the MTMM method and the results were supported. Result of confirmatory factor analyses indicated that males and females from Mainland China and Hong Kong interpreted the instrument in conceptually similar manner.

Social Cognitive Career Theory (SCCT)

Concepts in Social Cognitive Career Theory (SCCT, Lent et al., 1994, 2002) drew a lot of studies in the past year. Gushue, Scalan, Pantzer, and Clarke examined the relationship between career decision-making self efficacy and career exploration behaviors in a sample of 72 urban African American high school students. The findings supported the social cognition constructs in SCCT. Students with greater self-confidence in making career-related decisions were also likely to have a better defined sense of their interests, abilities, and goals. They were also much more actively engaged in activities related to career exploration. Another study examining African American high school student career behavior was conducted by Lease. The results of her study also provided support for the Lent et al (1994) SCCT model. Self-efficacy and interests were strongly predictors of the range of occupations considered by those youth.

Based on the assumptions in SCCT, Creed, Patton, and Prideaux believed that change in self-efficacy will lead to a change in career indecision. They surveyed 166 students when they were in Grade 8 and again when they were in Grade 10. The findings indicated no change in their career indecision resulting from their change in career decision-making self-efficacy. The authors believed that the "third" variable such as interest and outcome expectation might

interfere the relationship between efficacy and indecision. We agree and would suggest that samples from specific interest groups would have had better chance to support their hypothesis.

Ali and McWhirter applied concepts in Social Cognitive Career Theory to explain rural Appalachian youth's career aspirations post secondary education. The results indicated that the SCCT variables were significantly better than chance in classifying high school students in four different aspired postsecondary pathways, although the effect size was small. Students who aspired to obtain full-time job after high school had lower educational/vocational confidence and outcome expectations for college. Both self-efficacy and outcome expectations were important components considered by young adolescents. In addition, perceived barriers such as financial resources, lack of modeling, lack of information/guidance and family supports might also prevent them from pursuing college education.

Also based on the SCCT, Ali and Saunders examined the SCCT factors contributing to the college expectations of high school students (N = 87) in rural Appalachia. Hierarchical multiple regression analyses revealed support for the role of SCCT variables in predicting expectations to attend college. Specifically, the SCCT variables of perceptions of parental support and self-efficacy beliefs independently predicted Appalachian youth's expectations to attend college. For adolescents in poverty and economic hardship area, the SCCT model was also supported. It was asserted that constructs in SCCT model, such as self-efficacy and outcome expectation could be applied to facilitate the adolescent career choice behavior in Appalachia area.

The SCCT is appropriate in understanding these adolescents' career behavior. Another study supporting the SCCT was conducted by Gushue and Whitson by using a sample of 104 African American high school students. They found positive relationship between students' perceptions of teacher/parent support and career decision-making self-efficacy and/or outcome expectations.

For non-traditional African American college students, the SCCT model was verified by Waller. He found that non-traditional African American students' math self-efficacy and outcome expectations directly predicted their math interest. Math self-efficacy and interest were then significant in predicting their choice intentions for course selection and major choice. Since the math-related outcome expectations did not influence the individual's choice behavior in math-related activities, the author indicated that the expected success in math-related activities alone would not influence the math-related choice behavior. However, the SCCT model applied in nontraditional African American students was generally speaking supported.

The SCCT model was also supported by a group of students aspiring teaching as their career (Mau and Mau, 2006). Students who performed better on academic achievement, scored higher on locus of control, came from families with higher SES tended to persist in pursuing teaching career. They further asserted that school and academic factors, in general, were more important than familial and self-efficacy variables in predicting those students pursuing teaching career.

Flores, Navarro, Smith, and Ploszaj tested the SCCT model by using a sample of 302 Mexican American adolescent men. Results indicated that those adolescent men's nontraditional career self-efficacy was predicted by acculturation level and parental support. Nontraditional career self-efficacy could predict nontraditional career interests. In addition, nontraditional career choice was predicted by nontraditional career interest and father's nontraditional career choice. For the similar group, Flore, Ojeda, Huang, Gee, and Lee tested the relation of acculturation, problem solving appraisal, and career decision-making self-efficacy to Mexican American high school students' educational goals. Results indicated that Anglo-oriented acculturation and career decision-making self-efficacy were the two most important predictors for these Mexican

student educational goals.

For Latino high school students, Gushue tested the relationship of ethnic identity career decision-making self-efficacy and outcome expectations. They proposed three path models and the results supported all the three models. The first model indicated significant direct paths from ethnic identity to self-efficacy and from self-efficacy to career outcome expectations. The second model, modified from the first model also indicated direct paths between ethnic identity and self-efficacy and between self-efficacy and outcome expectations. The different point was that the indirect effect of ethnic identity on outcome expectation mediated by self-efficacy was significant. In the third model, the authors reversed the path directions among those variables and the results suggested that high level of self-efficacy would contribute to ethnic identity and a strong ethnic identity would influence career expectations. The conclusion of the study implied the potential role of ethnic identification as a kind of support for the career development of Latino Americans. For this population, ethnic identity might influence their self-efficacy and subsequently their career outcome expectations.

The test of social cognitive variables related to other variables was also conducted with college students in specific majors. Brown, Garavalia, Fritts, and Olson examined the influences of sex role orientation, academic achievement, and social cognitive factors on individuals' career decision-making self-efficacy in computer science major. Results indicated that androgynous and feminine-oriented students scored significantly higher on career decision-making self-efficacy as compared with undifferentiated students. However, no significant difference was found between sex role orientation and academic achievement and general and career locus of control.

Rottinghaus, Gaffey, Borgen, and Ralston examined the roles of interest and self-efficacy in explaining the career intentions/occupational goals of graduating psychology majors. Participants

were 254 psychological majors endorsed in 7 different career goals (e.g. psychology research, psychology practice, education, business, law, medicine, and military/law enforcement). Results indicated overall group differences in Holland themes. No clear pattern could be found between career interest and career intentions. Group differences in General Confidence Theme were also significant. Rottinghaus et al. argued that variability existed among groups organized by their intended career pathways. Training in psychology might prepare students to enter a wide variety of occupations and specialty areas within the field.

Decision making self-efficacy. The concept of career decision-making self-efficacy and related variables such as perceived barriers and coping beliefs were also examined across different ethnic groups. Lopez and Ann-Yi examined the predictors of career indecision in African, Hispanic, and White women. They found that African American women perceived greater barriers than did White and Hispanic women. However, no significant difference was found between ethnic groups regarding educational barriers, coping beliefs, and career decision-making self-efficacy. Thompson and Subich investigated the relation of social status to career decision-making self-efficacy. They incorporated a new multi-dimensional measure of social status in the examination of decision-making self-efficacy and the results indicated significant relationship. Students with greater economic resources, social power, and social prestige reported greater confidence in their abilities to complete career decision making tasks.

For Latino/a high school students, Gushue, Clarke, Pantzer, and Scanlan explored the potential relationship between self-efficacy, perceptions of barriers, vocational identity, and their exploration behavior. Results indicated that higher levels of career decision-making self-efficacy were related to both a more differentiated vocational identity and a greater engagement with career exploration tasks. As far as barriers, perceptions of career barriers were significantly

related to vocational identity but not exploration activities. In conclusion, Gushue et al. asserted that although the entire SCCT model was not tested in their study, the results still supported the model's assumption that social cognitive variables would be relevant for Latino populations. In another study, with Native North Americans as participants, Latham and Budworth designed a training program (verbal self-guidance) to increase their self-efficacy. At the end of the training program, the trainees who acquired skills in VSG had higher self-efficacy than the participants in the control group regarding their interview performance. They also performed better in the selection interview as judged by managers who were blind to the experimental conditions. It was asserted that self-efficacy could be increased by appropriate training.

Role model. Quimby and DeSantis examined self-efficacy and role model influence as predictors of career choice across Holland's 6 interest types. Participants were 368 female college students ranged in age from 18 to 25. Results of regression analysis indicated that role model influence and self-efficacy accounted for significant variance in career choice in all six RIASEC types. In additions, the direct path from role model to career choice was supported except for the Investigative type. The relationships between supports, barriers, role models, self-efficacy, and choice behavior were partially supported. I would suggested that these variables need to be studied for revising the SCCT model.

Career Barriers and coping efficacy. A positive link between barrier perceptions and barrier related coping beliefs would be crucial to promote decision-making confidence and reduce career indecision. For inner-city minority youths, Jackson, Kacanski, Rust, and Beck examined their career barrier beliefs and perceived supports for attending further education. Results indicated that higher levels of school and work barrier beliefs were associated with lower aspirations. With regard to types of perceived support, personal (psychological assets) as well as contextual

resources (family and community resources accessible in their environment) were two major types of coping resources.

Career Decision-making Difficulties

Gati, Krausz, and Osipow (1996) proposed a taxonomy for career decision-making difficulties. That taxonomy was examined in different cultures. Creed and Yin tested the applicability of the 34-item CDDQ (Gati & Saka, 2001) for use with adolescents from China. The revised Chinese version of the scale was administered to a sample of 514 Chinese adolescents. Results identified two stable factors for the CDDQ, namely Lack of Information and Inconsistent Information. The test failed to confirm the third CDDQ factor of Readiness to make a career decision. Also in China, Rui and Li-Rong developed a cross-culture revision of career decision-making difficulties questionnaire (CDDQ) for undergraduate students. They tested the structure of the CDDQ with a sample of 330 college students and the results indicated that the psychometric properties of the inventory were acceptable. It can be used as the instrument for measurement of undergraduates' career decision making difficulties.

Variables related to career decision making difficulties were also examined in varieties of studies. Amir and Gati, for example, investigated the relations among the measured and the expressed career decision-making difficulties with variables such as career self-efficacy, aptitude, and decision making style. The sample was 299 young adults who intended to apply to college or university in Israel. They found that the relationship between measured career decision-making difficulties, as measured by the Career Decision-Making Difficulties Questionnaire (CDDQ), and the expressed difficulties were generally high. Both measured and expressed difficulties correlated negatively with the students' career decision-making self-efficacy. The students' scholastic aptitude test scores were negatively correlated with both

measured and expressed difficulties. Participants with more crystallized career plans reported lower career decision-making difficulties, higher career decision-making self-efficacy, and a higher 'thinking' (as opposed to 'feeling') vocational decision-making style.

In China, Liu, Hao, and Li examined the relationship between career decision-making difficulties and self-efficacy of 185 undergraduate students. Results indicated that the level of career decision-making difficulty was not as high as expected by the authors. However, the score on career decision-making self-efficacy was relatively high. Individuals with different level of career self-efficacy had different types of difficulties during different phases of career decision-making.

Career indecisiveness

Bacanli, in Turkey, investigated personality characteristics associated with two types of career indecisiveness, exploratory and impetuous types of indecisiveness. They found that negative personality characteristics such as external locus of control, low self-esteem, and high level of irrational beliefs, were related to exploratory indecisiveness. Impetuous indecisiveness, on the other hand, was more cognitive oriented and was predictable by smaller proportion of variance in personality factors. Factors related to the two subtypes of career indecisiveness need further examination.

Gottfredson's circumscription and compromise.

Dodson and Borders examined men's career compromise behavior and related factors. One hundred mechanical engineers and 100 elementary school counselors were compared on their attitudes toward sex type versus prestige, adherence to masculinity ideology, gender role conflict, and job satisfaction. Mechanical engineering and elementary school counselor were chosen because they are similar to each other in terms of their prestige level ratings but quite

divergent in terms of sex type ratings. The results indicated that mechanical engineers reported more traditional choices, attitudes, and beliefs than did the elementary school counselors. The engineers tended to choose sex type over prestige when making career compromise choices. The male elementary school counselors, on the other hand, indicated a clear preference for prestige type occupation and were more willing to sacrifice traditional male sex type occupational choice in order to gain greater prestige. In addition, the gender role variable had little predictive value for the career compromise choices. This finding implied that it might be possible that college men would benefit from interventions designed to help them explore nontraditional occupations.

Positive psychology

Several constructs in positive psychology was applied in career counseling in recent years. Juntunen and Wettersten asserted that “Hope” is a core construct of positive psychology with potential application to work and vocational issues. Snyder (2000) indicated that hope has three primary components: (a) a goal (or *anchor points*), (b) thoughts about how to achieve those goals (or *pathways*), and (c) the motivation or willingness to achieve those goals (or *agency*). In Juntunen and Wettersten’s study, they developed the Work Hope Scale (WHS). The results, based on a diverse sample that includes welfare recipients, economically disadvantaged youth, college students, and community members, support the usefulness of the WHS for both research and interventions in vocational psychology. Work hope theory in general and the WHS as an assessment tool also may serve as a useful approach in working with disenfranchised populations. Using the WHS to understand the relation of these and other barriers to work hope, including how these barriers impact the cognitive processes underlying hope, serves as an initial step in conceptualizing intervention strategies. Lopez (2000) recommended specific hope-building and hope-maintaining strategies—drawn largely from the solution-focused,

narrative, and cognitive-behavioral literature—that we can use to remediate hope or its specific components. Although a three-factor WHS would add clarity to such decisions, even a single-factor construction of hope includes consideration of all three facets of the construct and so opens avenues for the counselor to explore.

Holt and Mitchell examined psychological aspects of the talent development experiences of adolescent youth players who were on the verge of being released by a third division professional soccer club in England. They compared the findings with Holt and Dunn's (2004) grounded theory of soccer success and other pertinent literature in order to present predictions about the psychological factors that may increase the chances of talented adolescent athletes into professional adult soccer. Nine players (M age = 18.5 yrs) and three coaches from an English professional third division club were interviewed and data were subjected to an inductive-deductive analysis procedure as part of the process of qualitative theory generation. The findings suggested that players lacked volitional behavior, delaying gratification, determination to succeed, strategic career planning, coping strategies, and tangible support. They interpreted these findings against previous research and concluded that hope theory (Snyder, Rand, & Sigmon, 2002) may be a useful framework for understanding psychological issues that enable some talented adolescent soccer players to make it to professional adult soccer.

Nontraditional/Atypical occupations

Sax and Bryant examined factors related to college environments and experiences that were associated with changes in sex-atypical career aspirations among men and women. A large-scale sample of 17,637 students across the US was surveyed upon college entry and again 4 years later. The findings revealed that aspects of the college environment, including the peer culture, faculty interaction, and curriculum, all contribute to shifts to or from nontraditional career

choices.

Boundaryless and Protean Careers

The boundaryless and protean careers are new concepts discussed in a special issue in the *Journal of Vocational Behavior*. In the special issue, several authors in different articles discussed the two similar constructs. Inkson thought the two terms were essentially metaphors and proposed five characteristics of metaphors to evaluate them. The five characteristics were: (1) literal and figurative meaning; (2) elaboration in meaning; (3) external understanding; (4) relationship to other metaphor; and (5) accuracy and constructiveness. The protean and boundaryless career metaphors were then examined in relation to each characteristic. Inkson indicated that in elaborating the meaning of the metaphors of protean career, Briscoe and Hall (2002) defined the protean career as a career in which the person is value driven in the sense that the individual's personal values provide the guidance and measure of success for the individual's career. Also, the person is self-directed in personal management, having the ability to be adaptive in performance and learning demands. In the contemporary society with wider organizational and social changes, the metaphors protean and boundaryless gained power in the managerial world. However, empirical studies of the dynamics of the two career forms are needed to help people to pursue better life in the contemporary world.

Although the two concepts "protean" and "boundaryless" careers were always discussed together interchangeably, they are differentiated as independent constructs. A boundaryless career is typically associated with careers that transcend organizational boundaries. Protean careers, on the other hand, are defined as more independent and self-directed career behavior. Briscoe and Hall compared boundaryless career and protean career and then delineated to produce eight profiles based on the combination of the two concepts. The eight profiles were

created based on the combination of four dimensions: self-directed management, value-driven, physical mobility, and psychological mobility. The eight profiles were: Lost/Trapped, Fortressed, Wanderer, Idealist, Organizational man/woman, Solid citizen, Hired gun/hand, and Protean Career Architect. The eight profiles were discussed one by one according to their degree on self-directed management, value-driven, physical mobility, and psychological mobility. For example, the profile with high degree on all the four dimensions, which is the Protean Career Architect, Mahatma Gandhi is an example. His conviction, self-regulation, open-mindedness, and travels made him a leader for the whole world to be served by. With the templates created by Briscoe and Hall, an individual could consider his/her own preferences and/or characteristics on the four dimensions and shape their own career style. However, empirical studies would be needed to verify the profile classification.

To provide operational definition for protean career and boundaryless career, Briscoe, Hall, and Frautschy DeMuth developed Protean Career Attitude Scale and Boundaryless Career Attitude Scale. Results of series of studies indicated that the two scales measured distinct yet related constructs. Reliability and validity evidences indicated that the developed inventories are applicable but further research were needed to investigate whether these concepts of self-directed management, value-driven, and mobility, like other attitude, could be effectively taught and developed through counseling program or career course. To make these concepts visible to career counseling practitioners, I believe the authors have tried their best to carry on series of studies to make those inventories useful for counseling practice.

The concept of boundaryless career is actually not new. It was first introduced by Arhtur and Rousseau (1996) with six different meanings for boundaryless careers. The common factor for the different meanings was that the boundaryless career is "... one of independence from,

rather than dependence on, traditional organizational career arrangement (p.6).” Sullivan and Arthur discussed evolution of the concept and proposed five propositions for future research. Two propositions were related to competencies in nontraditional or modern/postmodern world. They believed that individuals with greater career competencies are more likely to have experienced more psychological and physical mobility and also more opportunities. Individuals through enhancing career competencies are more likely to increase their opportunities for either psychological or physical mobility. One proposition related to gender issue was that men are more likely to have greater opportunities for physical mobility whereas women are more likely to have greater opportunities for psychological mobility. Cultural issue was also concerned by them and one proposition was proposed: people in individualistic cultures are more likely to change work groups or organizations; people in collectivist cultures, in contrast, are more likely to stay in their work groups or organization. The last proposition is related to individual differences. People with individual orientation are more likely to recognize opportunities for and exhibit physical mobility comparing to individuals with collectivist orientation. In conclusion, the concept of mobility both physically and psychologically is important in understanding modern complex careers.

Career Theory and Concepts: Summary and Conclusion

The constructs in Social Cognitive Career Theory drew the most attentions in the past year. Many studies were conducted based on this model. Generally speaking, Lent et al.’s SCCT model was supported by variety of groups with career or education related choice behavior. In addition to the social-cognitive variables such as career barriers and coping efficacy, we believe that interest and value, which is highly related to outcome expectations, will be an important

variable mediate the relationship between self-efficacy, career choice behavior and performance. Studies based on this model by using samples from specific type of interest will have the most chances to support the SCCT model. However, its appropriateness across different ethnic or national groups needs further examination. Research agenda based on the whole SCCT model will be encouraged. In addition to the traditional theories, research studies on the new developed concepts associated with positive psychology, narrative approach of career counseling, and positive perspectives of family-work roles interactions.

Career Interventions and Practice

Most research studies related to career interventions were mainly outcome oriented rather than process oriented. Some studies were testing effectiveness of career programs based on certain traditional theories or concepts (e.g. career self-efficacy and value clarification). Others were programs not closely related to certain theories/concepts but contained important components associated with career intervention (e.g. resume writing and career information exploration). No matter whether these research studies were theoretical based or not, we believed that outstanding articles contribute to intervention and practice. Conceptual intervention articles can also inform practice. The review of intervention and practice articles is organized into the general categories of (a) ideology for career counseling practice; (b) career counseling techniques and strategies for adolescents, college students, and special populations; (c) career information; (d) computerized career programs/network; and (e) career assessment.

Ideology for career counseling practice

Social context embedded career practice. Norman discussed challenges faced by counselors

in the current society. Within this social and economic changed context, counselors are being asked to view their role from different perspectives. The importance of lifelong guidance was recognized and we need to view guidance from a broader social context with greater emphasis on social responsibility and ethics. Norman indicated that new forms of delivery were also emerging. These include an emphasis on client centered and holistic counseling, an affirmation of narrative methods, and a more dynamic counseling approach. Recently, a number of new methods of service delivery were also developed. Some examples include one stop counseling centers, virtual counseling services, mentoring, career coaching, and the inclusion of social enterprises as part of the counseling process. In training career counselors, we need to notice the implementation of these changes.

Application of metaphor. Metaphor was applied as an instrument for individuals to career exploration. Amundson used the story “The Wonderful Wizard of Oz” (L. F. Baum, 1900) as a metaphor for exploration career counseling issues related to self-deception, loss, and the search for the “all-knowing” expert. Through the discussion, adolescents can have some discussion about their own myths in the process of career exploration. This metaphor could also be applied in counselor training and cross-cultural discussion.

Multicultural interventions. A workshop for multicultural student success was developed and assessed by Ulloa and Herrera. The workshop was mainly to facilitate the mentoring relationship between minority undergraduate and graduate students. Components of the workshop included: motivational poem written by a graduate students; panel discussion; and presentation about locating resources for graduate study and application fees. The topics for the panel discussion included “The Role of Mentoring toward Academic Success”, “The Role of Active Involvement”, and “The Application Process”. The feedback from students was

overwhelmingly positive. They learned from the workshop about different strategies for application process, numerous resources for application; and also valued the opportunities to interact with graduate students on a more personal basis.

Huteau (2001) examined the conditions in which group methods in career intervention had emerged by reviewing their general traits and the criteria which evaluation research must meet. He reviewed the results of 11 evaluation studies carried out mainly on children at school in France, Belgium and Switzerland. These results form the basis for some general conclusions and a number of problems are identified, concerning the heterogeneity and the power of effects, their presentations of self and jobs, the concept of vocational guidance for pupils, the boosting of their activity and level of their goals.

P-word in career guidance services. The p-word, which means “productivity” in career guidance services, was defined as the output of a unit of production in a given period (Grant, 2000). “Cost-effectiveness” is a closely related concept to productivity. Watts and Dent indicated that more attention to productivity in career guidance delivery was related to the pressures both for greater public accountability and for increasing access to services without massive increases in resources. They also examined possible strategies for enhancing productivity: (1) embedding career education in the curriculum; (2) through group guidance activities; (3) through self-help techniques, including web-based services; (4) encouraging community members to deliver parts of programs; and (5) making use of support staff to work alone with more qualified staff in delivering services. A further potential strategy for enhancing productivity was through the use of information and communication technologies (ICT). A case-study is presented to indicate how services might collect and utilize productivity data to enhance their service provision. Although individual counseling is the most effective intervention to provide the greatest gain in the

shortest amount of time for the client, other interventions are needed to provide higher levels of productivity if the aim is to provide the greatest gain for the greatest number of clients.

E-working. Counseling services for e-workers was thought to be important in the boundaryless career society. Kirk and Belovics defined what so called e-worker, summarized the growth of e-worker programs, outlined benefits and drawbacks to e-working, and discussed critical elements of a successful e-worker programs. There will be more and more telecommuters working in global society. Therefore, it's important for counselors-in-training to get familiar with this trend and provide necessary services for them.

Kossek, Lautsch, and Eaton examined professionals' use of telecommuting, perceptions of psychological job control, and boundary management strategies. Survey and interview data were collected from 245 professionals in two Fortune 500 firms with telework policies. Employees who perceived greater psychological job control had significantly lower turnover intentions, family-work conflict, and depression. Boundary management strategies higher on integration were positively related to family-work conflict. Although we found a main effect for formal policy use and higher depression, an interaction existed where women users with children had lower depression. Formal use positively related to supervisor performance ratings. They asserted that work-family research should distinguish between descriptions of flexibility use (formal telecommuting policy user, amount of telecommuting practiced) and how the individual psychologically experiences flexibility (perceived control over where, when, and how one works, boundary management strategies regarding separation between work and family roles).

Career services for individuals in different stages

Adolescents. Young, Marshall, Domene, Arato-Bolivar, Hayoun, Marshall, Zaidman-Zait, and Valach examined 19 parent-adolescent dyads for their joint actions related to the

adolescents' future. Each dyad's project was followed for a six-month period. Data collected were analyzed by using the action-project method. The results indicated that three groups of projects emerged from the data: projects that were wholly concerned with the parent-adolescent relationship, projects that shifted from career development goals and actions to explicit relationship goals and actions, and projects in which parent-adolescent communication was used as a means to facilitate career and other developmental goals. Their study demonstrated a shift from a traditional understanding of parent-adolescent relationship variables as influencing career development to an understanding in which intentions and agency are constructed through relationships.

Jackson, Kacanski, Rust, and Beck designed a workshop for inner-city minority youths based on the SCCT construct. The results revealed that more contextual supports were endorsed by participants than personal resources of supports after the workshop. This finding implied that it is important to expand young adolescents learning experiences regarding accessible sources of support for attaining their career goals.

Career Fair is another format for career services. However, the effectiveness of career fair has not been empirically assessed widely. Kolodinsky, Schroder, Montopoli, McLean, Mangan, and Pederson designed a one-day career fair for high school-aged female adolescents. The career fair showcased a variety of presenters who discussed and demonstrated their experiences with careers consider nontraditional for their gender. For example, the female presenters were employed in occupations such as border patrol officer, emergency medical technician, firefighter, military officer, and so on. The males were employed in hair stylist, nurse, and receptionist. Results indicated that the career fair produced a significant increase in occupational self-efficacy. They also verified the notion that career self-efficacy can be influenced by exposure to career

models.

College students. Reese and Miller indicated that demands for college student career services increased because of the increasing popularity on campus. They developed a career course entitled “Discovery: Career and Life Planning” for students who are undecided or wanting to change their major. The content of the course was based on the cognitive-oriented Cognitive Information Processing model (CIP; Sampson, Peterson, Lenz, & Reardon, 1992). It also relied on a “theory-to-practice” component that helped shape how the CIP was implemented in the context of the course. For example the five ingredients for making good career decision making: accurate self-appraisal, gathering occupational information, goal selection, making future plans, and problem solving (Crites, 1978). The results indicated that students who completed the career course showed increased career decision-making self-efficacy overall, specifically in the areas of obtaining occupational information, setting career goals, and career planning. The career course also decreased the students’ perceived career decision making difficulties. Macera and Cohen examined the effects of a career course for undergraduates with psychology majors. The content of the course included lectures on topics of choosing a major, applying for graduate school, job opportunities with a bachelor’s degree, and professional development in psychology-related careers. The students completed a plan of study, a resume, and career exploration paper as assignment. Macera and Cohen indicated that almost all students (93%) either changed their career plans or felt more confident about their plans after taking the courses.

Saks examined the combined and differential effects of five job search behaviors (informal sources, formal sources, preparatory search intensity, active search intensity, job search effort) on five criteria of job search success (job interviews, job offers, employment status, person-job

fit, and person-organization fit) as well as the direct and moderating effects of job search self-efficacy. They found that active job search intensity was positively related to job interviews and offers. Informal job source was negatively related to job offers and employment status. The results also supported an unfolding process of job search success in which active job search intensity predicts job interviews; job interviews predict job offers; and job offers predict employment status.

Lairio and Penttinen examined higher education career guidance at the University of Jyväskylä in Finland. In a survey ($N = 880$), students were asked to describe how much thinking they had done about their future career and forthcoming transition from university to working life. The use of different sources of guidance and counseling service providers was examined from the perspective of a student-centered holistic model of guidance. On the basis of the empirical findings, challenges facing career guidance in higher education are discussed. In Australia, Watson and McMahon explored major challenges facing career psychology, specifically within the field of career education. Several issues are identified including the need for more effective links between theory and practice, the movement towards constructivist theories and the related challenges of applying such theories. These issues are explored within the context of the reformulation of career education and through the lens of the constructivist Systems Theory Framework of career development and its applied activity, the My Systems of Career Influences.

Special populations. Kochhar-Bryant and Izzo indicated that the IDEA 2004 has included a new requirement for youth transition--a Summary of Functional Performance (SOP)--documentation to assist in seeking eligibility for disability-related services after high school. However, minimal implementation guidance has been provided to states. The articles in this

special series explain how the SOP can reduce longstanding barriers to transition and explore its implementation from perspectives of secondary, postsecondary, rehabilitation, employment, students, and families. In this article, the authors describe the work of the National Transition Documentation Summit in prompting a national dialog, responding to thorny questions from the field, and developing guidelines for field consideration. Finally, it presents a charge to the field to collaborate and continue conversation about bridging the documentation gap to strengthen the likelihood of successful transition for youth.

Punch, Creed, and Hyde incorporated both quantitative and qualitative methods to examine the perception of career barriers by hard-of-hearing high school students being educated in regular classes with itinerant teacher support. Sixty-five students in Years 10, 11, and 12 completed a questionnaire about potential general and hearing-related barriers, and 12 of these respondents were subsequently interviewed. Findings indicated that other people's lack of understanding of their hearing loss constituted the greatest potential barrier to adolescents' educational and career goals. Students anticipated several other barriers in the form of functional hearing-related difficulties. Most students showed little awareness of helpful strategies or job accommodations and some had prematurely foreclosed on career choices.

Leconte indicated that the content and processes of career, vocational, and transition assessment have necessarily changed as transition planning and programming have become more definitive and sophisticated. These assessment processes are intended to contribute meaningful information to the newly required Summary of Performance for transitioning youth with disabilities. In this article, Leconte explored promising methods for using assessment results to develop and implement transition plans and services. She traces the historical origins of transition assessment and presents two theoretical orientations.

Chronister described a community intervention conducted with women domestic violence survivors. The research dilemma related to the complex interrelationships between women's social class, race and ethnicity, and career development needs and experiences were also discussed. The author presents diversity and research dilemmas related to facilitating women's critical consciousness of power dynamics at work in their lives. The influences of community context, career intervention curricula, and research team members' values on research decisions were described. This story highlights the importance of researchers examining their values and how those values impact the communities that they serve.

Daniel, Clifton, Perry, Mandzuk, and Hall examined factors influencing student teachers' perceptions of career competence and certainty. They found that anxiety had large and negative effects on competence and certainty. High-practicum ratings were also associated with greater competence and certainty; however, these effects were mediated by anxiety and perceived control. These findings help us understand the transition that student teachers make from studentship to becoming professional teachers.

Career services in Organizational/Industrial Psychology. Coyle-Shapiro and Morrow examined affective commitment to employing and client organizations among long-term contracted employees, a new and growing employment classification. Drawing on organizational commitment and social exchange literatures, they proposed two categories of antecedents of employee commitment to client organizations. The sample was from employees in four UK contracting organizations delivering a service on behalf of a government entity. The results suggested that perceived client organizational supported and attractiveness of the client organization relate positively to employees' affective commitment to the client organization. Furthermore, it was clear that employees' commitment to their own contracting organization is

important to explaining employees' commitment to the client organization.

Ng., Butts, Vandenberg, DeJoy, and Wilson examined the effects of management communication, opportunity for learning, and work schedule flexibility on organizational commitment. Since reinforcing perceptions of organizational membership and demonstrating organizational care and support for employees were two ways to elicit loyalty from employees (Rousseau, 1998). Data from 1770 full-time and 273 part-time workers of a large national retailer indicated that all three variables (management communication, opportunity for learning, and work schedule flexibility) had positive main effects on organizational commitment. In addition, the three-way interaction of the three variables also affected part-time workers' organizational commitment.

Spector, Fox, Penney, Bruursema, Goh, and Kessler examined the dimensionality of counterproductivity, which was measured by the Counterproductive Work Behavior Checklist (CWB). The CWB was a 45-item inventory with five subscales: abuse toward others, production deviance, sabotage, theft, and withdrawal. They conducted three studies and found that abuse and sabotage subscales were most strongly related to anger and stress, theft was unrelated to emotion, and withdrawal was associated with boredom and being upset. They asserted that counterproductive behaviors created unequal results. Career practitioners should pay attention to results emerged from specific subscales and help the employees to overcome those negative behaviors.

Retirement planning. For people with retirement planning, Lavalley surveyed the career awareness, career planning, and transition needs of 56 retired sports coaches in UK. The results indicated that these recently retired full-time coaches had relatively low levels of career awareness, had done little post-sport career planning during their coaching careers, and

moderately appreciated their career transition needs. We agree that career awareness among coaches is related to their personal characteristics when they perceive career transition needs. If their personal traits help them appreciate their needs in facing career transition, they would be able to accept those needs and try to establish social support for their retirement plan.

Bidewell, Griffin, and Hesketh examined the influence of delay and anticipated health and enjoyment on the amount of retirement savings sacrificed for early retirement. They found that oldest preferred retirement age related to personal characteristics, current work factors, future retirement factors, and individual differences in delay discounting, with greater delay discounting being associated with a younger preferred retirement age. Delay discounting is an important consideration in retirement planning. Retirement expectations and being tired of work were so important in affecting one's preferred retirement age.

Unemployed/reemployed individuals. Song, Wanberg, Niu, and Xie explored the effect of planned behavior in modeling job-search intention and job-search intensity in China with a sample of 328 unemployed job seekers. They found that the theory of planned behavior was effective in modeling job-search intention and job-search intensity. Action-state orientation moderated the relationship between attitude and intention, as well as the relationship between intention and intensity. Motivation and self-regulation were important factors for Chinese unemployed job seekers in the process of job search and reemployment.

Roncaglia discusses ballet dancers' retirement, looking at the reasons for ending a performing career and their retirement to an alternative role(s). The findings, explore different dimensions of the reasons for retirement. It attempts to investigate and nurture alternative thoughts on chronological age, in the context of ballet dancers' retirement. Semi-structured interviews were conducted with 14 international ballet dancers. A qualitative approach was

adopted through Interpretative Phenomenological Analysis (IPA), and tenets of Grounded Theory. Practical implications for career guidance practitioners are addressed in the final section.

Mentoring. Eby, Lockwood, and Butts examined how perceptions of support for mentoring relate to mentoring attitudes and outcomes for both protégés and mentors. In study 1, protégés provided information on their perceptions of support for mentoring and mentoring received. As expected, perceived management support for mentoring was positively related to career-related and psychosocial support; and perceived mentor accountability for mentoring was negatively related to mentoring problems. In study 2, the purpose was to examine mentors' perceptions of support for mentoring in relation to their willingness to mentor others in the future and the extent to which they viewed their current relationship as complementary. Mentors' perceptions of management support for mentoring were positively related to their belief that mentoring relationships were mutually beneficial. However, consistent with theories of self-determination, as mentors' perceptions of their own accountability in the relationship increased their willingness to mentor others in the future decreased.

Underhill reviewed mentoring studies over the last 20-25 years to examine the benefits of mentoring for the protégé and the organization. This quantitative meta-analytic review provides a critical analysis of the effectiveness of mentoring, with an emphasis on research designs that compared career outcomes of mentored individuals to non-mentored individuals. The overall mean effect size of mentoring was significant, indicating that mentoring does improve career outcomes for individuals. In additions, informal mentoring produced a larger and more significant effect on career outcomes than formal mentoring. There is a need for more research comparing protégés and non-protégés to determine if it is the receipt of mentoring or individual characteristics that leads to career success.

Lankau, Carlson, and Nielson investigated the mediating influence of role stressors in the relationship between mentoring and job attitudes. Two types of role stressors were role ambiguity and role conflict. Mentoring activities were vocational support, psychosocial support, and role modeling. Full and partial mediation models were tested with a sample of 355 protégés. Results showed that both role conflict and role ambiguity completely mediated the relationships between psychosocial support and role modeling with job attitudes. There was also support for role conflict as a partial mediator of the relationship between vocational support and job attitudes. Also with protégés as the sample, Hirschfeld, Thomas, and Lankau examined the extent of mentoring functions provided by mentors as a hypothesized partial mediator. Regression analyses of 8-month data from 61 dyads revealed that mentors' personal learning was predicted by protégés' achievement (positive) and avoidance (negative) orientations. However, protégés' personal learning was predicted by their own achievement orientation (positive). They indicated that although the extent of mentoring functions facilitated personal learning equally among mentors and protégés, it did not function as a mediator.

Career Information

The structure of O*NET occupational values was investigated by Smith and Campbell. In their study, data from the US Department of Labor's Occupational Information Network were examined by three analytical techniques: exploratory factor analysis (EFA), cluster analysis (CA), and multidimensional scaling (MDS). Results of the EFA indicated that a three-factor model was best in describing the value structure of the O*NET. The three factors were: (1) "self-determination," including values such as ability utilization, autonomy, creativity, recognition, responsibility, achievement, and social status; (2) "social relations," which reflecting social relationships with co-workers in the workplace); and (3) "workplace structure," showing

needs related to company policies, supervision, and advancement.

In the same study, results of hierarchical cluster analysis revealed two primary clusters of need reinforcers: “occupational identity” and “workplace structure.” For occupational identity, it is actually how the individual see herself/himself as a worker in a particular field. This is related to part of the answer to the question “Who am I?” Workplace structure, on the other hand, indicated an individual’s perception regarding the work environment s/he involved in. It showed the individual’s relationship with the workplace and was subdivided into internal structure and external structure. Internal structure means how an individual maintains personal boundaries in the workplace. External structure, on the other hand, indicated the organizational structure of the workplace and how the individual relates to this structure. Results of the last analysis, MDS, indicated two dimensions in understanding the value structure of the world of work: “autonomy versus guidance” and “independence versus social relations.” The results of the three analytic techniques drew our attention that values regarding “sense of self” and “workplace structure” two important components in understanding the values implied in the world of work.

Joassart-Marcelli and Giordano used Geographic Information System to investigate (1) the location of One-Stop Career Centers in Southern California, (2) their level of accessibility to unemployed workers of various demographic groups, (3) their proximity to employment opportunities, and (4) the effect of these spatial relations on Census tract unemployment. They tried to build on the non-profit literature on accessibility to social service providers and on spatial mismatch research that emphasizes the gap between places of work and residence. Results argued that One-Stops played an important role in bridging this gap. They found that One-Stops were well positioned to serve the unemployed, although accessibility varied by race/ethnicity, age, and location. Access to One-Stops reduced local unemployment, particularly in

neighborhoods with limited employment opportunities. This effect is larger for groups who experience limited mobility due to gender or race, such as black and female job seekers.

Computerized program

Gati, Gadassi, and Shemesh developed a computer-assisted program “Making Better Career Decisions (MBCD).” To test the validity of the computerized system, they divided all participants into two groups: one consisted of clients whose chosen occupation was on the list of occupations recommended by MBCD, whereas the other consisted of clients whose chosen occupation was not on the recommended list. In the first group, 84% were highly satisfied with their occupational choice and 16% were satisfied to a moderate extent. Among those whose chosen occupation was not on the recommended list, only 38% were highly satisfied with their chosen occupation, 44% were satisfied to a moderate extent, and 18% were dissatisfied with their choice. These findings support the predictive validity of MBCD.

Šverko, Akik, Babarović, Bčina and Šverko provided data on the evaluation of an Internet-based system for self-directed career planning that has been developed in Croatia. Rich in occupational information and career-management advice, this application also contains an interactive questionnaire tapping the client's personal skills and interests. Based on the client's answers, the computer proposes an e-advice— a limited set of occupations that match the users' individual characteristics. The evaluation utilized data gathered from a self-selected sample of users ($N = 2,064$) and two smaller student samples. Apart from the users' satisfaction, the analyses explored various aspects of e-advice validity: factor structure of users' self-assessments and expert occupational ratings, differences in e-advice given to different groups of users, congruence with the classifications based on Holland's Self-Directed Search, and congruence with the advice given by expert human counsellors. The analyses supported the validity of

e-advice.

Career Assessment

Instrument Development and validation. Carlson, Kacmar, Wayne and Grzywacz developed a work-family enrichment scale. This scale was developed based on the concept of enrichment, a positive side of the work-family interface. The final 18 item measure consists of three dimensions from the work to family direction (development, affect, and capital) and three dimensions from the family to work direction (development, affect, and efficiency). The validity of the scale was established by assessing the content adequacy, dimensionality, reliability, factor structure invariance, convergent validity, divergent validity, and its relationship to work and family correlates. The development of this inventory would be valuable for researchers interested in issues related to family-work balanced and psychological well-being.

The application of *Career Decision making Difficulties* (CDDQ, Gati and Saka, 2001) was tested in China by Creed and Yin. The sample included 514 Chinese adolescents. The results verified two stable factors for the CDDQ, Lack of Information and Inconsistent Information. For the third factor, Readiness to make a career decision was not confirmed by the sample. It seems that external type of factors such as information is more salient than internal psychological factors for the Chinese students when encountering career decision.

Career Planning Inventory was developed by Westbrook (1977). Its validity was tested by using a sample of 188 high school students in south US (Westbrook and Sloan, 2006). The CPI consists of seven scales: Career Decidedness, Career Exploration, Self-knowledge, Career Concerns, Career Planfulness, Career Salience, and Career Knowledge. Generally speaking, the results indicated that most of the scales are homogeneous and therefore measure single constructs. Six of the seven CPI scale score increased across grade level during the period of one

year. Career knowledge score could predict the high student GPA. Career knowledge was also a significant predictor of counselor ratings of student career choices. It seems that career knowledge, which tends to be external factor rather than internal, was more important factor explaining high school student career planning behavior.

Gainor reviewed the inventories assessing *self-efficacy* in the past 25 years. Its influence on career assessment and practice were also discussed. Since the variable career self-efficacy was discussed in many facets of career behavior, the instrument assessing self-efficacy related to specific behaviors in counseling practice and research was also important. For example, Career Decision-Making Self-Efficacy (CDMSE), Skill Confidence Inventory (SCI), Career Search Efficacy Scale (CSES) were developed emphasizing different components of career self-efficacy. The CDMSE put more emphasis on efficacy on decision making behavior itself. The SCI measuring an individual's efficacy in particular interest area. Practitioner counselors need to pay attention to the client needs and select appropriate inventory for them to increase their understanding regarding self-efficacy.

Reliability of the Career Decision Self-efficacy Scale was cross-national validated by Hampton by using a high students sample from China. The convergent validity and construct validity were supported by the samples form China. The four factors for career decision making self-efficacy included Self appraisal, Goal selection, Planning, and Problem solving.

Work Hope Scale was developed by Juntunen and Wettersten. The constructs was verified based on a diverse sample and it was useful for both research and interventions in vocational psychology.

Watts examined the evolution of ICT, and the ways in which it was currently used in the delivery of career information and guidance services. The ICT systems have the potential both to

expand and to restrict access to career information and guidance. Therefore it is worthwhile to explore ways in which ICT can complement and/or be integrated with other ways of providing career services. In this article, Watts also identified a number of key policy issues relating to the role of ICT in national and regional career information and guidance system, including issues relating to funding and quality assurance.

Gysbers describes qualitative career assessments by offering a definition and discussion concerning their theoretical base. He emphasized on the application of these assessments with adult clients by describing three examples including the LCA, Career Genogram, and Life Role Analysis. Criteria for developing qualitative career assessments as well as for judging the adequacy of existing assessments were also provided.

Savard, Fingras and Turcotte found that most clients walking into resources centers were experiencing difficulty locating relevant information and using it effectively in the decision-making process. Many affective, cognitive or technical constraints are influencing clients when interacting with the information and new technologies. Client's perceptions about the relationships between information and decision-making process should be concerned by the career practitioners. More specifically, human resources should be used in an optimal manner to meet information needs associated with the different stages of people's lives.

Intervention/practice/technology/assessment Summary

As we mentioned at the beginning, career research based on theories and/or the needs from the practice could provide implications for career practitioners. One of the characteristics of research studies regarding career practice/interventions in 2006 was the emergence of ideologies for career counseling related to the rapid worldwide change. To provide career service for large population with little resources, more research would be needed to examine the effects of newly

developed computer/web based interventions. As far as specific strategies for specific population, individual or small group based counseling activities would be continued, especially for the youths with deprived advantages and women from domestic violence families. Career program is important for them to expand their learning experiences to strengthen their efficacy for learning, increase their knowledge about supporting resources for attaining accessible career goals.

Annual Review: Summary and Conclusion

Theory, practice, and research were three important components in counseling discipline. We can see how the career theory changed over the past decade. Research studies based on specific concepts within theories and/or phenomenon in career practice could be integrated to be part of existing theory or a newly developed theory. In the past few years, we can sense the trends of modernism and postmodernism in career counseling. Considering a selection of last year's research, more emphasis is given to social context change in global society. The concept of chaos continues to influence the practice of career counseling although few research studies were conducted last year. Another important issue related to the diversity of the multicultural society is the idea of social justice and this issue is worth further attentive efforts in the next few years.

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