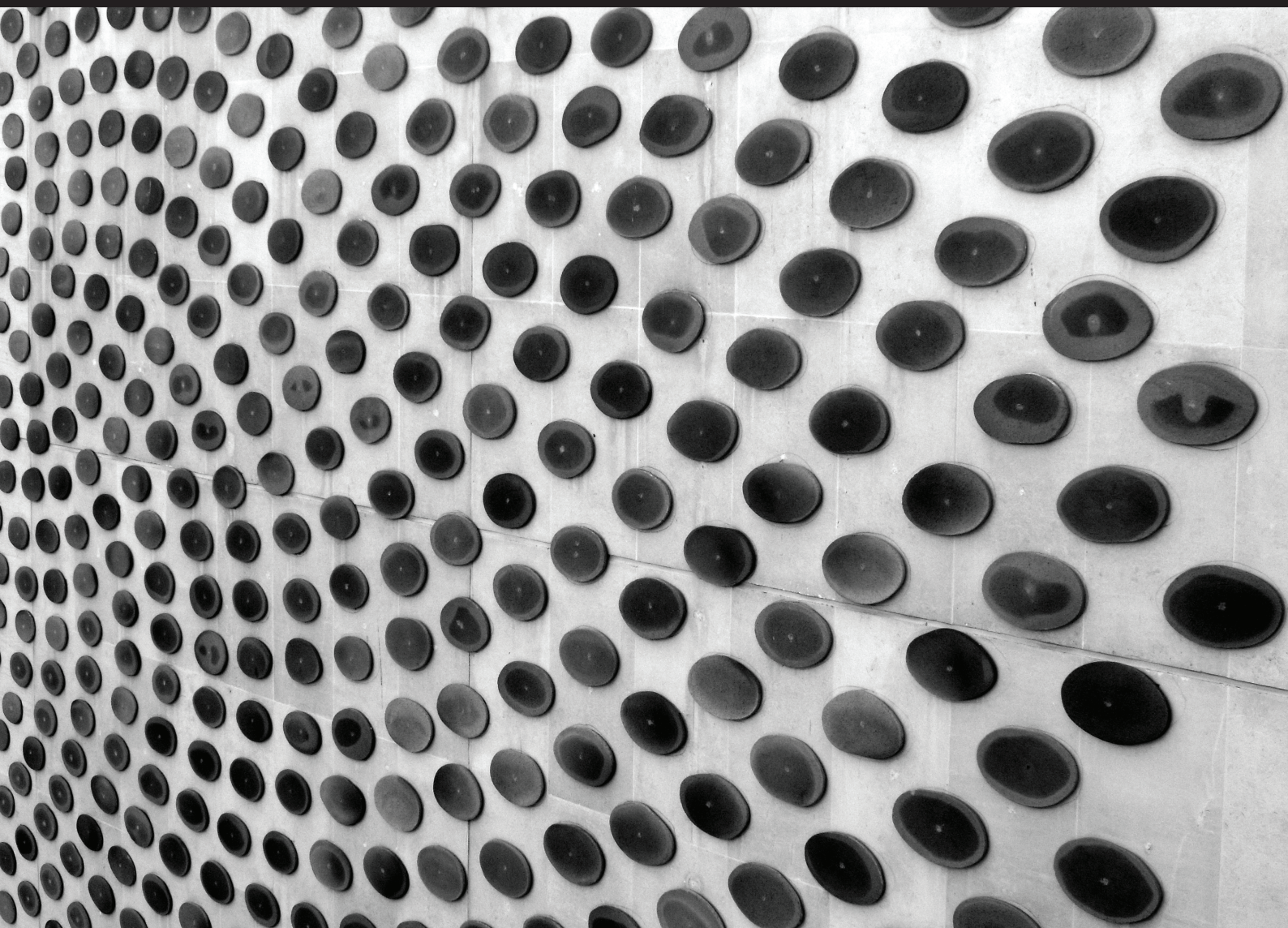


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Editors: Sharo Shafaie & Deborah G. Wooldridge



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Edited by Dr. Sharo Shafaie and Dr. Deborah G. Wooldridge

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Introduction

We are pleased to introduce you to 2016's first issue. The *IAFOR Journal of Psychology & the Behavioral Sciences* covers a variety of topics about applications of psychological theories and principles in educational settings, improvement of mental health conditions, human development, psychological outreach services and community development, family studies and professional practice, as well as articles addressing the needs of at-risk children, youth and families, and vulnerable populations.

This issue is devoted to several interdisciplinary studies which represent a variety of topics, cultures, and disciplines in the fields of psychology and the behavioral sciences. The journal is an internationally peer reviewed and editorially independent interdisciplinary journal associated with IAFOR (The International Academic Forum) conferences on Psychology and the Behavioral Sciences. All papers published in the journal have been subjected to the rigorous and accepted processes of academic peer review. Some of the articles are original and some are significantly revised versions of previously presented papers or published reports in IAFOR's conference proceedings.

We would like to express our profound gratitude to all reviewers for taking time from their busy schedules to review each assigned manuscript and offer their professional expertise, recommendations, and suggestions for improvement of these published manuscripts. Also, we appreciate the hard work of our support staff at IAFOR who were involved with the publication of this journal.

Please note that we are seeking manuscripts for our upcoming issues. Below are the submission deadlines for new manuscripts and the link to the journal's webpage for your attention; please review this webpage to become familiar with the journal's objectives and the submission guidelines for authors:

jopbs.iafor.org

Submission Deadlines for Volume 2 – Issue 2 Open Call

Theme: Psychology & Mental Health; Psychology & Parenting, Family, At risk children & youth

- Full paper submission to Editor by March 30, 2016.
- Review and selection process April 1 - May 30, 2016.
- Revision of papers for the final submission June 30, 2016.
- Editorial Board final review of articles July 30, 2016.
- Publication planned for August 2016.

If you have any questions, please do not hesitate to contact us, otherwise please send your manuscripts to the journal editors, contact details below. Thank you for considering this invitation and we look forward to hearing from you soon.

Best Regards,

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A Perspective of Taiwanese Interns on Professional Skills and Psychological Preparation for Fieldwork in Criminal Justice Settings

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Abstract

Waiting for field placement is a process full of anxiety and uncertainty. However, relatively little research attention has been paid to this topic. The current study examined the unexplored area of psychological and intellectual preparation for upcoming fieldwork in criminal justice settings. The Delphi method was adopted to gather information regarding needed preparation before fieldwork from a panel of 40 Taiwanese interns in three rounds of questionnaires. The results identified more than 20 capacities needed for fieldwork in four groups of criminal justice agencies, and both Active Learning and Taking Responsibility were rated as the top priority capacities for the four groups of criminal justice agencies. The three most important forms of psychological preparation for the four groups of agencies included Understanding Types of Clients, Understanding Job Descriptions, and Being Active. Suggestions for future studies, theory building, and course design were addressed.

Keywords: capacities for fieldwork, psychological preparation for fieldwork, criminal justice

Introduction

The educational purpose of fieldwork in criminal justice is to develop awareness of students' values and attitudes towards the criminal justice system and the community, to learn to work with the agency's clients, and to provide experience that is beneficial for obtaining employment in the future (Taylor, 2012). The ways in which academic training programs assist students in applying for an internship are still largely unknown (Madson, Aten, & Leach, 2007). Few studies have addressed the important elements of professional skills and psychological preparation for fieldwork in criminal justice settings.

The intensive internship provides a context for career clarification as well as employment opportunities (Breci & Martin, 2000; Ross & Elechi, 2002; Sgroi & Ryniker, 2002), and also reflects the realities of professional experience at criminal justice agencies (Ross & Elechi, 2002). For years, internship programs have needed to resolve student challenges such as lack of previous experience with self-directed learning, lack of a concept of theory in practice, little knowledge of working in a complex organization, and uncertainty about career plans (Sgroi & Ryniker, 2002).

As studies have suggested (Madson, Aten, & Leach, 2007), students find the application process to be stressful and anxiety provoking. Moreover, waiting for decisions regarding field placement is a process filled with anxiety and uncertainty. There is a need for greater understanding of students' preparation for internship; however, the process by which undergraduate students prepare themselves is an unexplored area in criminal justice education.

The criminal justice internship bears similarities to the structured intensive field placement in social work, which is designed to promote experiential learning (Reed & Carawan, 1999). Internships have been regarded as experiential learning because of the nature of interns' subjective experiences and reflections on everyday experiences (Neill, 2005). The intensive internship provides a crucial transitional experience in the learning process, falling between academic education and entry into the professional world (Breci & Martin, 2000; Reed & Carawan, 1999; Sgroi & Ryniker, 2002).

In Taiwan, the fieldwork program is intended to prepare junior students for beginning criminal justice practice. Taiwan's students in the criminal justice program must take a minimum of 200 hours of agency practice, earning one credit, in the junior year. Students are required to take 11 prerequisite courses, including a preparation course known as Practicum (I). The students are then placed in the field over the summer after the junior year to complete Practicum (II).

Kelley's (2004) study of criminal justice training in the United States indicated that internship was one of the more interesting electives for undergraduate students. Another study indicated that, although most training programs in criminal justice (87.8%) have an internship element, 81.4% use it as an elective course (Stichman & Farkas, 2005). For example, at the State University of New York, students are required to complete fieldwork experiences for three credits (120 hours of fieldwork) or six credits (240 hours of fieldwork; Sgroi & Ryniker, 2002). It seems that internship programs in Taiwan and in the United States differ significantly in the emphasis they place on internship. (Explain more about in what ways internship

experiences are different in both countries and the implications of these differences for this study.

There are also some similarities between the approaches in Taiwan and the United States. For instance, in both countries the placement process includes choosing an appropriate site, writing a resume, completing the internship interview, and obtaining insurance (Baird, 2008; Gordon & McBride, 2011). Stichman and Farkas (2005) indicated that few internship programs had written policies or handbooks for interns on how to deal with difficulties. This phenomenon may also be seen in Taiwan. Stichman and Farkas found that most programs perceive the need for prerequisites to filter out the less motivated students. This further highlights the idea that students need to be aware of their professional skills and psychological preparation before beginning intensive fieldwork.

In addition, in both Taiwan and in the United States, most preparation-for-internship courses include visits to fieldwork sites; development of a professional portfolio; and study of a number of topics, including criminal justice and treatment theories, public perceptions of criminal justice agencies, the concept of confidentiality and responsibilities regarding confidentiality, organizational management, decision-making processes of organization, and the process of moving from theory to practice (Sgroi & Ryniker, 2002). Nonetheless, studies (e.g., Madson, Aten, & Leach, 2007) have suggested that most programs do not adequately prepare students for the more specific tasks related to the application process. Students may need more training about professional skills and psychological preparation before they are ready for fieldwork.

Nelson and Friedlander (2001) found that many interns underwent extreme stress and self-doubt regarding practice without proper supervision. Ax and Morgan (2002) defined correctional internships programs as those based in prison/jail settings, and distinguished them from more traditional forensic internship programs, such as those operating from federal medical centers that had missions to serve federal inmates. They found that correctional internships tended to operate with fewer staff and a lower staff-to-intern ratio than forensic internships. Their study also indicated that both correctional internships and forensic internships programs rarely included experiences in public policy or administration. The studies by Nelson and Friedlander (2001) and Ax and Morgan (2002) suggest a need for specific skills, knowledge, and even psychological preparation for internships in criminal justice agencies.

Having professional skills and psychological preparation before fieldwork will help students feel more confident and adaptable. Ax and Morgan's (add year) study reminds us that professional skills and psychological preparation are necessary, but it also shows the differences in requirements that occur even in different criminal justice agencies. Students need to be aware before they choose field sites.

In the field of social work, role modeling is a crucial component of students' socialization to the profession, and students regard teachers and field instructors as role models (Barretti, 2007). Considering the similar features of internships between social work and criminal justice, we suggest that studying how students in criminal justice fieldwork perceive role modeling is an area that should also be addressed.

An attachment theory framework (specify the theory) may help both supervisors and interns understand the complex dynamics in the relationships between the intern and the supervisor (Bennett, 2008). Is attachment theory application to an adult mentor and mentee relationship?

Is there a more appropriate theory that can be applied as a framework?) At the outset of intensive internships, the relationships among the student, the supervisor, the faculty, and the agency all need to be acknowledged and identified. These relationships may then help or hinder the learning experience of fieldwork students.

The mission of field education may be understood by linking self-efficacy theory and the strengths perspective (Wilson, 2006). Fieldwork provides students with opportunities to experience learning as a social practice and to experience the actual practice of criminal justice before they graduate (Side & Mrvica, 2008). The strengths perspective helps students to be aware of their strengths and capacities that apply to fieldwork. The viewpoint of self-efficacy can be enhanced through enactive mastery experiences, vicarious experiences, verbal persuasion, and awareness of physical and affective states (Bandura, 1997). Having positive (self-efficacious) viewpoints helps Taiwanese students to endure the process of fieldwork, which begins with Practicum (I) and continues through the whole academic year until the end of fieldwork. (Although, these statements appear to be true, how do you integrate the concepts of self-efficacy and strengths perspective in this study?)

Students have the responsibility to prepare for internship, which involves taking the needed professional courses; preparing oneself emotionally for a challenging career; finding potential sites; finding ways to meet the financial demands that an unpaid, full-time internship places on students; fully participating in the preparation course; and developing the maturity to function in a fieldwork setting (Side & Mrvica, 2008). However, little is known about the students' needs in the process of anticipating fieldwork, especially regarding their professional skills and psychological preparation. Thus, the current study examined preparation needs for fieldwork from the perspective of Taiwanese interns. Why is this study particularly important for Taiwanese students?

The research design should be clear at this point and is not. State how you planned to examine student preparation for internship. Say more about Delphi method and any other data collection methods and theoretical approach being used to guide this study.

Method

The Delphi method was adopted to gather information regarding preparation needs for anticipating fieldwork from a panel of interns in a series of rounds. The Delphi method is a meaningful method of collecting important opinions in a limited time (Linstone & Throff, 2002). The significance of cost, convenience, and time made the Delphi method appropriate for the current study. Two research questions were proposed:

1. What kinds of professional skills should be developed in preparation for fieldwork?
2. What psychological preparation is needed for fieldwork?

A purposive sampling method was used to recruit interns from a Taiwan university which is famous for its criminal justice major. The two inclusion criteria were (a) having a fieldwork experience in a criminal justice, and (b) being willing to participate in three rounds of questionnaires. Forty interns were recruited and classified into four groups based on the type of agency in which they had completed field placement: court, adult probation, corrections, and protection.

To fully understand the preparation needs for fieldwork, every intern was asked to answer questions for all four groups of agencies. Forty interns were invited for Round 1, and the return rate was 90% ($n = 36$). The return rate was also high for Rounds 2 ($n = 34$) and 3 ($n = 33$).

Round 1 included 36 interns (29 females and 7 males). Nineteen of the 36 interns indicated that they expected to remain in the professional discipline after fieldwork. Eleven of 36 interns were senior students, 10 were graduate students, and five were suspending their schooling for employment. Eight of the remaining 10 interns were currently working at criminal justice settings.

The process of data collection for Rounds 1, 2, and 3 lasted more than 2 weeks. The Round 1 questionnaire asked open-ended questions regarding the needed professional skill preparation for field placement and the needed psychological preparation. A content analysis approach was used to categorize all statements gained from Round 1. All items were then used to construct the Round 2 questionnaire.

Every item on the Round 2 questionnaire was graded using a five-point Likert scale (*very unimportant* = 1, *unimportant* = 2, *neither unimportant nor important* = 3, *important* = 4, and *very important* = 5). All participants were asked to rate the degree of importance of each item for each of the four groups of agencies. Any comments that were given by the participants in Round 2 were added to the Round 3 questionnaire for rating.

On the Round 3 questionnaire, all interns rerated the degree of importance for each statement using the same five-point Likert scale. To aid in their reconsideration of each item, interns were shown the mean, medium, and mode for each item that had resulted in Round 2.

Results

The results for Rounds 1 through 3 are presented in Tables 1 to 4. Table 1 shows the professional skills that were listed by the participants in Round 1 for each of the four types of agencies, as well as the number of interns endorsing each item. Table 2 shows the importance ratings from Rounds 2 and 3 for these items. Table 3 shows the psychological preparations listed by the participants in Round 1 for each of the four types of agencies, and Table 4 shows the importance ratings from Rounds 2 and 3 for these items. For Round 3, the mean scores for all items were above 3.15, and the majority of items were rated above 4.00.

Professional Skills Needed to Adapt to Field Placement

For court agencies, 16 skills emerged in Round 1 (see Table 1). The results of Round 3 (see Table 2) indicated that 19 of 22 capacities were rated with average scores greater than 4. The top five capacities were Taking Responsibility ($M = 4.79$; $SD = 0.42$), Active Learning ($M = 4.76$; $SD = 0.44$), Observing ($M = 4.70$; $SD = 0.47$), Controlling Emotion ($M = 4.70$; $SD = 0.47$), and Interpersonal Communication ($M = 4.64$; $SD = 0.55$). These five capacities also earned the five highest ratings in Round 2, although the rating scores were different.

For correction agencies, 17 skills emerged in Round 1. Results of Rounds 2 and 3 indicated the same top five capacities, but each skill was rated somewhat differently across the two rounds. The top five skills were Crisis Intervention ($M = 4.76$; $SD = 0.44$), Observing ($M = 4.76$; $SD = 0.50$), Active Learning ($M = 4.70$; $SD = 0.53$), Taking Responsibility ($M = 4.70$; $SD = 0.86$), and Personal Safety Protection ($M = 4.70$; $SD = 0.64$). Interestingly, Controlling Emotion was rated as sixth most important, and this was a new choice that was added based on the results of Round 2.

For adult probation agencies, 19 skills emerged in Round 1. Results of Rounds 2 and 3 indicated the same top five capacities, but each skill was rated somewhat differently across the two rounds. The top five capacities were Active Learning ($M = 4.73$; $SD = 0.45$), Interpersonal Communication ($M = 4.73$; $SD = 0.45$), Using Resources ($M = 4.73$; $SD = 0.45$), Taking Responsibility ($M = 4.70$; $SD = 0.53$), and Integrating Social Resources ($M = 4.58$; $SD = 0.56$). These results showed the importance of social resources and spontaneous learning. Similar to findings for correction agencies, Controlling Emotion was a new capacity, which was ranked as seventh most important.

For protection agencies, 22 capacities emerged in Round 1. In Round 3, the top five skills were Active Learning ($M = 4.85$; $SD = 0.36$), Observing ($M = 4.85$; $SD = 0.36$), Interpersonal Communication ($M = 4.85$; $SD = 0.36$), Taking Responsibility ($M = 4.79$; $SD = 0.42$), and Controlling Emotion ($M = 4.79$; $SD = 0.42$). Controlling Emotion was rated significantly higher for Round 3 than in Round 2. The other four capacities were also the top rated items in Round 2. Active Learning was also rated as the most crucial capacity in Round 2. These top five capacities emphasize the skills that students felt they needed to work on.

Comparison of the skills needed for the four groups of agencies indicates that most of the skills were given average ratings greater than 4 for each group. It appears that students felt they needed to build and enhance these capacities before doing fieldwork. No matter what agencies students choose, the current study highlights at least 20 skills that are seen as necessary. For all four groups of agencies, two of the top five capacities include Active Learning and Taking Responsibility. The results highlighted the importance of maturity and spontaneity.

Looking into the most important skills cited for the four groups of agencies, we note five skills that were mentioned for all four types of agencies: Taking Responsibility, Active Learning, Observing, Controlling Emotion, and Interpersonal Communication. Again, the emphasis on these common capacities indicated that maturity was seen as an essential capacity for adjusting to fieldwork.

Special attention should be given to four capacities that received ratings that varied considerably across the four agencies: Controlling Emotion, Crisis Intervention, Thorough Thinking, and Frustration Tolerance. Controlling Emotion was not identified in Round 1 for either correction or adult probation agencies. Crisis Intervention was rated as the most significant for correction agencies, but not for other agencies. Thorough Thinking achieved the sixth highest ratings for court agencies; however, it was only 14th for protection agencies. Frustration Tolerance was rated seventh highest for both protection and court agencies, while it was rated 15th highest for adult probation agencies and ninth highest for corrections agencies.

Psychological Preparation for Field Placement

For court agencies, 14 skills emerged in Round 1 (see Table 3). Findings from Round 3 (see Table 4) indicated that the top aspects of psychological preparation included Understanding Types of Clients ($M = 4.82$; $SD = 0.47$), Understanding Job Descriptions ($M = 4.79$; $SD = 0.42$), Being Active ($M = 4.79$; $SD = 0.42$), Clarify One's Own Expectation of Fieldwork ($M = 4.67$; $SD = 0.48$), and Learning Problem-Solving Skills ($M = 4.67$; $SD = 0.48$). Results of Rounds 2 and 3 differed significantly, especially for Understanding Types of Clients, which was rated the highest in Round 2. Clarify One's Own Expectation of Fieldwork was also recognized as important for Round 3.

For correction agencies, 14 items were identified in Round 1. In Round 3, the five most important areas were Understanding Job Descriptions ($M = 4.76$; $SD = 0.44$), Being Active ($M = 4.73$; $SD = 0.52$), Understanding Types of Clients ($M = 4.70$; $SD = 0.53$), Learning to Protect Personal Safety ($M = 4.70$; $SD = 0.59$), and Learn to Cope with Stress ($M = 4.67$; $SD = 0.48$). Findings of Rounds 2 and 3 showed dramatic variation; however, Understanding Job Descriptions remained the highest rated.

For adult probation agencies, 16 items were identified in Round 1. In Round 3, the five highest rated aspects were Understanding Job Descriptions ($M = 4.85$; $SD = 0.36$), Being Active ($M = 4.76$; $SD = 0.50$), Understanding Types of Clients ($M = 4.73$; $SD = 0.52$), Clarify One's Own Expectation of Fieldwork ($M = 4.70$; $SD = 0.47$), and Learning to Use Social Resources ($M = 4.70$; $SD = 0.47$). The results of Rounds 2 and 3 did not vary much. Both Understanding Job Descriptions and Being Active were rated as very significant in both Rounds 2 and 3. Learning Problem-Solving Skills and Clarify One's Own Roles as Intern earned increased ratings from Round 2 to Round 3.

For protection agencies, 21 items emerged in Round 1. In Round 3, the five highest rated aspects included Being Active ($M = 4.85$; $SD = 0.36$), Understanding Job Descriptions ($M = 4.85$; $SD = 0.36$), Understanding Types of Clients ($M = 4.82$; $SD = 0.39$), Clarify One's Own Expectation of Fieldwork ($M = 4.79$; $SD = 0.42$), and Learning Problem-Solving Skills ($M = 4.79$; $SD = 0.42$). The top four preferences in Rounds 2 and 3 were the same, but Learning Problem-Solving Skills earned a higher rating, moving from 13th to 5th.

Comparison of the aspects of psychological preparation needed for the four different types of social agencies identified three common priorities: Understanding Types of Clients, Understanding Job Descriptions, and Being Active. Six items were rated in the top 10 for all four groups: Understanding Types of Clients, Understanding Job Descriptions, Being Active, Clarify One's Own Expectation of Fieldwork, Learning Problem-Solving Skills, and Clarify One's Own Roles as Intern. These skills were seen as important for all four groups. Interns felt that they needed more knowledge related to fieldwork to reduce their uncertainty and do a good job of psychologically preparing for fieldwork. These items highlight the idea that students need to prepare themselves psychologically for fieldwork and to be more active in the fieldwork setting.

Variations in the importance ratings for different aspects of psychological preparation also indicated different features of the four types of agencies included in this study. For example, Awareness and Coping in Practical Setting was rated in the top seven or eight for three of the four types of agency, but was not rated high for adult probation agencies. Awareness and Coping in Practical Setting was not even mentioned as important for adult probation agencies from Rounds 1 to 3. It appears that interns do not see Awareness and Coping in Practical Setting as influential for work in adult probation agencies. Learning to Use Social Resources was rated as the fifth and sixth priorities in adult probation and protection agencies; however, it was not identified as important for internships in correction agencies. This may reflect the features of internship placements in correction agencies, where emphasis is placed on mandated treatment and there is less need for social resources. On the other hand, Learning to Protect Personal Safety earned the fourth highest rating for correction agencies, but earned the lowest rating for other agencies. This finding indicates that personal safety was a major concern for interns working in this specific type of criminal justice placement.

Discussion

The current study identified more than 20 capacities needed for fieldwork in criminal justice. For all four groups of agencies, two of the top five capacities were Active Learning and Taking Responsibility. Fieldwork is an experiential learning process (Sgroi & Ryniker, 2002). These ratings indicate that interns understand the significant role of active learning and taking responsibility in preparing for participation in this experiential learning process.

Five skills were rated among the 10 top capacities for all four groups of agencies: Taking Responsibility, Active Learning, Observing, Controlling Emotion, and Interpersonal Communication. These shared capacities underscore the importance of mature personality and good interpersonal relationships for students entering fieldwork. For the first fieldwork experience, most of the focus will be on observation, and the students will then learn to accept responsibility in practical activities (Baird, 2008). The results of this study may help future interns to be aware of the need to prepare themselves in terms of communication skills and self-awareness. Students must be spontaneous and active and participate fully in the fieldwork activities in order to get their work done.

Variations in the top 10 skills for the four groups of agencies also remind students that different agencies may demand different capacities. For instance, Crisis Intervention was seen as the most essential skill for interns to build upon for correction agencies. In fact, crisis intervention has been a crucial treatment model in criminal justice (Greenstone, 2011; Roberts & Yeager, 2009), and should be part of the students' specialty. Similarly, Thorough Thinking was viewed as necessary for court agencies, and Using Resources, as well as Frustration Tolerance were seen as crucial for interns in adult protection agencies.

This study also classified the top three aspects of psychological preparation needed for the four groups of agencies, which included Understanding Types of Clients, Understanding Job Descriptions, and Being Active. No matter which type of agency the student chooses, it is crucial to acknowledge that willingness to fully participate in fieldwork is an important starting point. When students make efforts to understand the mission and the mandated characteristics of criminal justice settings, they will be able to reduce some of their anxieties as they are anticipating fieldwork.

Another significant finding was that five out of the top 10 priorities for psychological preparation were consistent across the different types of fieldwork agency. In addition to Understanding Job Descriptions and Being Active, three items including Clarify One's Own Expectation of Fieldwork, Learn Problem-Solving Skills, and Clarify One's Own Roles as Intern were also seen as vital for the four types of agency. Interns recognized the importance of independence and showed awareness of specific features of different criminal justice settings. Students needed to acknowledge their own roles as interns in mandated agencies and their function of providing services for involuntary clients.

An interesting finding was that Being Flexible was rated as the least important for each of the four types of criminal justice agency. For helping professionals, flexibility is always necessary for survival in professional work. However, the participants in this study did not emphasize the importance of this capacity. For these students, there were so many things needed to be prepared for fieldwork, that perhaps they overlooked the importance of flexibility. Without a specific experience to highlight its importance, flexibility may not have

been seen as a top priority, and did not easily show its urgency.

On the other hand, the current results may remind us that students need more concrete help to develop their skills and to make psychological preparation before entering the field. As academic institutions ask students to be active and energetic, at the same time, we must not forget the needs of students who are just students.

One limitation that the current study faced in examining the skills and psychological preparation needed for field placement was the difficulty of putting psychological needs into words. In Chinese culture, people often do not show emotions directly, instead describing their needs indirectly. The current findings suggest that this cultural characteristic may have played a role in the students' perceptions. It appeared that these students needed to rely on answers from others, such as the lists of items from Round 1 or the results of Round 2 in this Delphi study. Thus the terminology that surfaced in the study may not necessarily represent the interns' own perspectives. Additionally, the experience of internship in only one site may have narrowed the interns' viewpoints regarding needs for other groups of agencies. It may not have been easy for them to refer their personal experiences of fieldwork to different agencies.

The present study found that students need more help in building their capacities and enhancing their psychological awareness. The results of the study also identify important elements of course design for fieldwork, including crisis intervention, using resources, frustration tolerance, and thorough thinking. In terms of psychological preparation needed, this study suggests a need for more concrete help from faculty instructors and administrators, such as providing information regarding types of clients and services and roles of interns, so that students will face less uncertainty. If provided more information that allows them to prepare, students may feel more comfortable becoming interns.

From the perspective of stress and coping theory, an intern needs coping skills and abilities to adjust to a new environment or to be more mature in order to do well in an internship. The current findings showing the students' priorities for adjustment to fieldwork among four types of agencies may provide base knowledge for the development of stress and coping strategies for students undertaking internship. Thus, prior to undertaking fieldwork, students benefit from academic courses or training in the skills of active learning, taking responsibility, observing, controlling emotions, and interpersonal communications. Evaluation of these abilities may serve as a basic tool to assess whether students would adjust well to fieldwork.

The present study identified needed psychological preparation using a cross-sectional approach. A longitudinal study may further explore which types of psychological preparation help to minimize the anxieties of uncertainty and even maximize the achievement of field learning in the long run. The findings of the current study focused on the students' perceptions regarding necessary psychological preparation. Future studies might examine the perspectives of instructors and administrators regarding the needed psychological preparation for interns in criminal justice settings. The focus may also be put on professional identity development as it is affected by fieldwork. With greater awareness of professional identity, more undergraduate students may be willing to devote themselves to the profession of criminal justice.

Table 1. *Results of Round 1 for Professional Skills Needed*

Court agencies			Correction agencies		
Order	Skill	n (%)	Order	Skill	n (%)
1	Interpersonal communication	12 (33.33)	1	Interpersonal communication	10 (27.78)
2	Active learning	7 (19.44)	2	Computer/office processing	6 (16.67)
3	Empathy	5 (13.89)	3	Active learning	5 (13.89)
4	Computer/office processing	5 (13.89)	4	Judgement	4 (11.11)
5	Program designing	4 (11.11)	5	Observing	4 (11.11)
6	Frustration tolerance	4 (11.11)	6	Language and speaking	3 (8.33)
7	Judgement	3 (8.33)	7	Frustration tolerance	3 (8.33)
8	Observing	3 (8.33)	8	Crisis intervention	2 (5.56)
9	Crisis intervention	2 (5.56)	9	Empathy	1 (2.78)
10	Controlling emotion	2 (5.56)	10	Managing commuting distance	1 (2.78)
11	Language and speaking	2 (5.56)	11	Personal safety protection	1 (2.78)
12	Managing commuting distance	2 (5.56)	12	Taking responsibility	1 (2.78)
13	Accepting challenge	2 (5.56)	13	Time management	1 (2.78)
14	Taking responsibility	1 (2.78)	14	Accepting challenge	1 (2.78)
15	Using resources	1 (2.78)	15	Using resources	1 (2.78)
16	Thorough thinking	1 (2.78)	16	Independence and autonomy	1 (2.78)
			17	Thorough thinking	1 (2.78)

Table 1. *Results of Round 1 for Professional Skills Needed (continued)*

Adult probation agencies			Protection agencies		
Order	Skill	n (%)	Order	Skill	n (%)
1	Interpersonal communication	12 (33.33)	1	Interpersonal communication	11 (30.56)
2	Active learning	6 (16.67)	2	Empathy	8 (22.22)
3	Judgement	4 (11.11)	3	Computer/office processing	4 (11.11)
4	Using resources	4 (11.11)	4	Active learning	3 (8.33)
5	Computer/office processing	4 (11.11)	5	Frustration tolerance	3 (8.33)
6	Crisis intervention	3 (8.33)	6	Crisis intervention	2 (5.56)
7	Integrating social resources	3 (8.33)	7	Accepting challenge	2 (5.56)
8	Program designing	2 (5.56)	8	Observing	2 (5.56)
9	Empathy	2 (5.56)	9	Using resources	2 (5.56)
10	Language and speaking	2 (5.56)	10	Program designing	1 (2.78)
11	Frustration tolerance	2 (5.56)	11	Controlling emotion	1 (2.78)
12	Accepting challenge	2 (5.56)	12	Judgement	1 (2.78)
13	Observing	2 (5.56)	13	Language and speaking	1 (2.78)
14	Managing commuting distance	1 (2.78)	14	Managing commuting distance	1 (2.78)
15	Personal safety protection	1 (2.78)	15	Personal safety protection	1 (2.78)
16	Art designing	1 (2.78)	16	Art designing	1 (2.78)
17	Taking responsibility	1 (2.78)	17	Taking responsibility	1 (2.78)
18	Time management	1 (2.78)	18	Time management	1 (2.78)
19	Independence and autonomy	1 (2.78)	19	Problem solving	1 (2.78)
			20	Creativity	1 (2.78)
			21	Integrating social resources	1 (2.78)
			22	Independence and autonomy	1 (2.78)

Table 2. *Results of Rounds 2 and 3 for Professional Skills Needed*

Court agencies				
Skill	Round 3		Round 2	
	Order	<i>M (SD)</i>	Order	<i>M (SD)</i>
Taking responsibility	1	4.79 (0.42)	2	4.85 (0.36)
Active learning	2	4.76 (0.44)	1	4.88 (0.41)
Observing	3	4.70 (0.47)	3	4.82 (0.39)
Controlling emotion	4	4.70 (0.47)	5	4.76 (0.50)
Interpersonal communication	5	4.64 (0.55)	4	4.79 (0.48)
Thorough thinking	6	4.61 (0.50)	10	4.59 (0.56)
Frustration tolerance	7	4.61 (0.56)	6	4.68 (0.59)
Empathy	8	4.61 (0.61)	12	4.53 (0.71)
Accepting challenge	9	4.58 (0.50)	11	4.56 (0.56)
Crisis intervention	10	4.58 (0.61)	9	4.65 (0.54)
Problem solving	11	4.55 (0.56)	--	--
Judgement	12	4.50 (0.67)	8	4.65 (0.54)
Using resources	13	4.39 (0.75)	7	4.65 (0.49)
Independence and autonomy	14	4.30 (0.53)	--	--
Personal safety protection	15	4.27 (0.76)	--	--
Time management	16	4.24 (0.71)	--	--
Managing commuting distance	17	4.24 (0.87)	14	4.15 (0.86)
Integrating social resources	18	4.18(0.64)	--	--
Program designing	19	4.06 (0.90)	13	4.24 (0.78)
Computer/office processing	20	3.97 (0.68)	15	4.03 (0.80)
Language and speaking	21	3.73 (0.80)	16	3.74 (0.83)
Creativity	22	3.45 (0.91)	--	--

Table 2. *Results of Rounds 2 and 3 for Professional Skills Needed (continued)*

Correction agencies				
	Round 3		Round 2	
Skill	Order	<i>M (SD)</i>	Order	<i>M (SD)</i>
Crisis intervention	1	4.76 (0.44)	2	4.76 (0.50)
Observing	2	4.76 (0.50)	4	4.62 (0.65)
Active learning	3	4.70 (0.53)	3	4.74 (0.57)
Taking responsibility	4	4.70 (0.59)	1	4.79 (0.48)
Personal safety protection	5	4.70 (0.64)	5	4.59 (0.82)
Controlling emotion	6	4.67 (0.60)	—	--
Interpersonal communication	7	4.52 (0.57)	9	4.24 (0.82)
Problem solving	8	4.48 (0.57)	—	--
Frustration tolerance	9	4.45 (0.75)	6	4.56 (0.93)
Judgement	10	4.42 (0.75)	7	4.53 (0.66)
Problem solving	11	4.27 (0.72)	11	4.24 (0.89)
Accepting challenge	12	4.27 (0.76)	12	4.21 (0.98)
Independence and autonomy	13	4.15 (0.80)	8	4.32 (0.84)
Managing commuting distance	14	4.15 (0.91)	13	4.06 (0.81)
Time management	15	3.94 (0.79)	10	4.24 (0.82)
Using resources	16	3.91 (0.77)	14	3.82 (0.90)
Empathy	17	3.88 (0.86)	15	3.79 (0.98)
Computer/office processing	18	3.64 (0.70)	17	3.62 (0.85)
Language and speaking	19	3.58 (0.71)	16	3.71 (0.97)
Creativity	20	3.15 (0.80)	—	--

Table 2. *Results of Rounds 2 and 3 for Professional Skills Needed (continued)*

Adult probation agencies				
Skill	Round 3		Round 2	
	Order	<i>M (SD)</i>	Order	<i>M (SD)</i>
Active learning	1	4.73 (0.45)	1	4.85 (0.36)
Interpersonal communication	2	4.73 (0.45)	4	4.71 (0.58)
Using resources	3	4.73 (0.45)	3	4.76 (0.43)
Taking responsibility	4	4.70 (0.53)	2	4.79 (0.48)
Integrating social resources	5	4.58 (0.56)	5	4.68 (0.48)
Observing	6	4.58 (0.61)	7	4.50 (0.66)
Controlling emotion	7	4.52 (0.67)	—	--
Crisis intervention	8	4.48 (0.62)	8	4.50 (0.71)
Empathy	9	4.48 (0.67)	11	4.26 (0.75)
Judgement	10	4.45 (0.56)	6	4.56 (0.61)
Thorough thinking	11	4.45 (0.62)	—	--
Problem solving	12	4.42 (0.56)	—	--
Accepting challenge	13	4.36 (0.70)	12	4.26 (0.83)
Personal safety protection	14	4.36 (0.70)	15	4.15 (0.93)
Frustration tolerance	15	4.30 (0.64)	9	4.50 (0.90)
Time management	16	4.27 (0.52)	14	4.15 (0.74)
Independence and autonomy	17	4.24 (0.61)	10	4.29 (0.80)
Managing commuting distance	18	4.18 (0.77)	13	4.18 (0.80)
Computer/office processing	19	4.00 (0.61)	16	4.03 (0.67)
Program designing	20	3.94 (0.79)	17	3.85 (0.89)
Language and speaking	21	3.85 (0.80)	18	3.74 (0.83)
Art designing	22	3.48 (0.80)	19	3.15 (0.93)

Table 2. *Results of Rounds 2 and 3 for Professional Skills Needed (continued)*

Protection agencies				
Skill	Round 3		Round 2	
	Order	<i>M (SD)</i>	Order	<i>M (SD)</i>
Active learning	1	4.85 (0.36)	1	4.88 (0.41)
Observing	2	4.85 (0.36)	5	4.79 (0.41)
Interpersonal communication	3	4.85 (0.36)	3	4.82 (0.39)
Taking responsibility	4	4.79 (0.42)	2	4.85 (0.44)
Controlling emotion	5	4.79 (0.42)	13	4.65 (0.60)
Using resources	6	4.73 (0.52)	7	4.74 (0.45)
Frustration tolerance	7	4.70 (0.47)	4	4.82 (0.39)
Empathy	8	4.70 (0.47)	6	4.76 (0.43)
Problem solving	9	4.70 (0.47)	12	4.65 (0.49)
Accepting challenge	10	4.70 (0.53)	11	4.68 (0.48)
Crisis intervention	11	4.70 (0.59)	8	4.74 (0.45)
Integrating social resources	12	4.67 (0.48)	10	4.71 (0.52)
Judgement	13	4.64 (0.55)	9	4.71 (0.46)
Thorough thinking	14	4.58 (0.56)	—	--
Time management	15	4.45 (0.62)	17	4.26 (0.71)
Program designing	16	4.42 (0.66)	15	4.35 (0.88)
Managing commuting distance	17	4.42 (0.75)	18	4.26 (0.75)
Personal safety protection	18	4.42 (0.75)	14	4.44 (0.66)
Independence and autonomy	19	4.36 (0.65)	16	4.35 (0.88)
Computer/office processing	20	3.94 (0.66)	19	4.09 (0.71)
Language and speaking	21	3.82 (0.77)	21	3.79 (1.00)
Creativity	22	3.61 (0.79)	20	3.79 (0.85)
Art designing	23	3.36 (0.70)	22	3.09 (0.93)

Table 3. *Results of Round 1 for Psychological Preparations*

Court agencies			Correction agencies		
Order	Skill	n (%)	Order	Skill	n (%)
1	Being active	9 (25.00)	1	Being active	8 (22.22)
2	Seeking help from experienced schoolmates	6 (16.67)	2	Understanding job descriptions	7 (19.44)
3	Enhancing professional confidence	5 (13.89)	3	Understanding types of clients	4 (11.11)
4	Understanding types of clients	5 (13.89)	4	Seeking help from experienced schoolmates	3 (8.33)
5	Understanding job descriptions	4 (11.11)	5	Enhancing professional confidence	2 (5.56)
6	Seeking help from experienced practitioner	3 (8.33)	6	Seeking help from experienced practitioner	2 (5.56)
7	Clarify one's own expectation of fieldwork	3 (8.33)	7	Clarify one's own expectation of fieldwork	2 (5.56)
8	Be flexible	2 (5.56)	8	Learning to protect personal safety	2 (5.56)
9	Discuss with agency supervisor	2 (5.56)	9	Be flexible	1 (2.78)
10	Learn to cope with stress	1 (2.78)	10	Discuss with agency supervisor	1 (2.78)
11	Learning to protect personal safety	1 (2.78)	11	Learn to cope with stress	1 (2.78)
12	Refine professional attitude	1 (2.78)	12	Clarify what the placement expects from the intern	1 (2.78)
13	Refine skills of interpersonal interaction	1 (2.78)	13	Managing commuting and boarding	1 (2.78)
14	Enhancing self-understanding	1 (2.78)	14	Learning problem-solving skills	1 (2.78)

Table 3. *Results of Round 1 for Psychological Preparations (continued)*

Adult probation agencies			Protection agencies		
Order	Skill	n (%)	Order	Skill	n (%)
1	Understanding job descriptions	8 (22.22)	1	Understanding job descriptions	7 (19.44)
2	Understanding types of clients	7 (19.44)	2	Being active	6 (16.67)
3	Being active	6 (16.67)	3	Seeking help from experienced schoolmates	4 (11.11)
4	Seeking help from experienced schoolmates	6 (16.67)	4	Understanding types of clients	4 (11.11)
5	Clarify one's own expectation of fieldwork	3 (8.33)	5	Be flexible	2 (5.56)
6	Seeking help from experienced practitioner	2 (5.56)	6	Enhancing professional confidence	2 (5.56)
7	Discuss with agency supervisor	2 (5.56)	7	Seeking help from experienced practitioner	2 (5.56)
8	Be flexible	1 (2.78)	8	Learn to cope with stress	2 (5.56)
9	Enhancing professional confidence	1 (2.78)	9	Clarify one's own expectation of fieldwork	2 (5.56)
10	Learn to cope with stress	1 (2.78)	10	Awareness and coping in practical setting	2 (5.56)
11	Clarify what the placement expects from the intern	1 (2.78)	11	Discuss with agency supervisor	1 (2.78)
12	Managing commuting and boarding	1 (2.78)	12	Refine skills of interpersonal interaction	1 (2.78)
13	Learning problem-solving skills	1 (2.78)	13	Enhancing self-understanding	1 (2.78)
14	Learn to use social resources	1 (2.78)	14	Clarify what the placement expects from the intern	1 (2.78)
15	Collecting information regarding policies and regulations for fieldwork	1 (2.78)	15	Managing commuting and boarding	1 (2.78)
16	Clarify one's own roles as intern	1 (2.78)	16	Learning problem-solving skills	1 (2.78)
			17	Learn to use social resources	1 (2.78)
			18	Collecting information regarding policies and regulations for fieldwork	1 (2.78)
			19	Clarify one's own roles as intern	1 (2.78)
			20	Enhancing professional knowledge	1 (2.78)
			21	Discuss with faculty supervisor	1 (2.78)

Table 4. *Results of Rounds 2 and 3 for Psychological Preparations*

Court agencies				
	Round 3		Round 2	
Skill	Order	<i>M (SD)</i>	Order	<i>M (SD)</i>
Understanding types of clients	1	4.82 (0.47)	7	4.68 (0.59)
Understanding job descriptions	2	4.79 (0.42)	1	4.85 (0.36)
Being active	3	4.79 (0.42)	2	4.82 (0.39)
Clarify one's own expectation of fieldwork	4	4.67 (0.48)	9	4.65 (0.54)
Learning problem-solving skills	5	4.67 (0.48)	—	--
Enhancing professional knowledge	6	4.64 (0.49)	—	--
Awareness and coping in practical setting	7	4.61 (0.50)	—	--
Learn to cope with stress	8	4.61 (0.56)	8	4.65 (0.49)
Refine skills of interpersonal interaction	9	4.58 (0.56)	6	4.68 (0.54)
Clarify one's own roles as intern	10	4.58 (0.56)	—	--
Seeking help from experienced practitioner	11	4.52 (0.57)	3	4.76 (0.43)
Enhancing self-understanding	12	4.45 (0.62)	13	4.41 (0.78)
Refine professional attitude	13	4.45 (0.67)	4	4.74 (0.45)
Seeking help from experienced schoolmates	14	4.42 (0.66)	10	4.62 (0.55)
Clarify what the placement expects from the intern	15	4.39 (0.56)	—	--
Learn to use social resources	16	4.39 (0.66)	—	--
Enhancing professional confidence	17	4.36 (0.74)	5	4.71 (0.46)
Be flexible	18	4.27 (0.67)	12	4.53 (0.62)
Discuss with agency supervisor	19	4.27 (0.88)	11	4.56 (0.56)
Learning to protect personal safety	20	4.18 (0.77)	14	4.12 (0.88)
Managing commuting and boarding	21	4.15 (0.91)	—	--

Table 4. *Results of Rounds 2 and 3 for Psychological Preparations (continued)*

Correction agencies				
Skill	Round 3		Round 2	
	Order	<i>M (SD)</i>	Order	<i>M (SD)</i>
Understanding job descriptions	1	4.76 (0.44)	1	4.79 (0.48)
Being active	2	4.73 (0.52)	8	4.47 (0.75)
Understanding types of clients	3	4.70 (0.53)	11	4.35 (0.95)
Learning to protect personal safety	4	4.70 (0.59)	3	4.59 (0.66)
Learn to cope with stress	5	4.67 (0.48)	9	4.41 (0.70)
Clarify one's own expectation of fieldwork	6	4.67 (0.54)	2	4.76 (0.43)
Awareness and coping in practical setting	7	4.61 (0.50)	—	--
Learning problem-solving skills	8	4.61 (0.56)	7	4.47 (0.66)
Clarify one's own roles as intern	9	4.61 (0.56)		--
Enhancing professional knowledge	10	4.55 (0.62)		--
Seeking help from experienced practitioner	11	4.45 (0.62)	4	4.56 (0.56)
Seeking help from experienced schoolmates	12	4.45 (0.62)	5	4.53 (0.56)
Clarify what the placement expects from the intern	13	4.42 (0.62)	14	4.06 (0.95)
Refine skills of interpersonal interaction	14	4.36 (0.65)	—	--
Managing commuting and boarding	15	4.33 (0.74)	10	4.38 (0.82)
Enhancing professional confidence	16	4.30 (0.77)	6	4.53 (0.66)
Discuss with agency supervisor	17	4.24 (0.90)	12	4.15 (0.89)
Be flexible	18	4.21 (0.70)	13	4.06 (0.85)

Table 4. *Results of Rounds 2 and 3 for Psychological Preparations (continued)*

Adult probation agencies				
Skill	Round 3		Round 2	
	Order	<i>M (SD)</i>	Order	<i>M (SD)</i>
Understanding job descriptions	1	4.85 (0.36)	1	4.76 (0.55)
Being active	2	4.76 (0.50)	2	4.65 (0.54)
Understanding types of clients	3	4.73 (0.52)	4	4.59 (0.74)
Clarify one's own expectation of fieldwork	4	4.70 (0.47)	3	4.65 (0.54)
Learn to use social resources	5	4.70 (0.47)	5	4.53 (0.75)
Learning problem-solving skills	6	4.67 (0.54)	10	4.32 (0.73)
Clarify one's own roles as intern	7	4.58 (0.61)	12	4.24 (0.74)
Enhancing professional knowledge	8	4.48 (0.62)	—	--
Refine skills of interpersonal interaction	9	4.45 (0.56)	—	--
Seeking Help from Experienced Practitioner	10	4.45 (0.67)	7	4.44 (0.75)
Seeking help from experienced schoolmates	11	4.42 (0.66)	6	4.50 (0.71)
Learn to cope with stress	12	4.36 (0.65)	9	4.32 (0.68)
Enhancing professional confidence	13	4.36 (0.70)	8	4.41 (0.70)
Clarify what the placement expects from the intern	14	4.33 (0.65)	15	3.94 (0.89)
Discuss with agency supervisor	15	4.33 (0.85)	13	4.21 (0.73)
Collecting information regarding policies and regulations for fieldwork	16	4.27 (0.63)	16	3.91 (0.90)
Be flexible	17	4.27 (0.67)	11	4.26 (0.71)
Learning to protect personal safety	18	4.27 (0.67)	—	--
Managing commuting and boarding	19	4.21 (0.78)	14	4.03 (1.00)

Table 4. *Results of Rounds 2 and 3 for Psychological Preparations (continued)*

Protection agencies				
	Round 3		Round 2	
Skill	Order	<i>M (SD)</i>	Order	<i>M (SD)</i>
Being active	1	4.85 (0.36)	1	4.88 (0.33)
Understanding job descriptions	2	4.85 (0.36)	2	4.85 (0.44)
Understanding types of clients	3	4.82 (0.39)	3	4.76 (0.43)
Clarify one's own expectation of fieldwork	4	4.79 (0.42)	4	4.76 (0.43)
Learning problem-solving skills	5	4.79 (0.42)	13	4.56 (0.62)
Learn to use social resources	6	4.70 (0.47)	14	4.56 (0.75)
Refine skills of interpersonal interaction	7	4.67 (0.48)	7	4.71 (0.52)
Awareness and coping in practical setting	8	4.67 (0.48)	10	4.65 (0.49)
Learn to cope with stress	9	4.64 (0.49)	8	4.68 (0.54)
Clarify one's own roles as intern	10	4.64 (0.56)	18	4.26 (0.75)
Enhancing professional knowledge	11	4.61 (0.50)	9	4.65 (0.49)
Seeking help from experienced practitioner	12	4.58 (0.56)	6	4.74 (0.45)
Clarify what the placement expects from the intern	13	4.55 (0.56)	19	4.21 (0.77)
Seeking help from experienced schoolmates	14	4.52 (0.62)	11	4.62 (0.60)
Enhancing professional confidence	15	4.48 (0.62)	5	4.74 (0.45)
Enhancing self-understanding	16	4.45 (0.62)	16	4.44 (0.66)
Be flexible	17	4.39 (0.66)	15	4.50 (0.71)
Collecting information regarding policies and regulations for fieldwork	18	4.36 (0.60)	21	3.97 (0.76)
Learning to protect personal safety	19	4.36 (0.74)	—	--
Discuss with agency supervisor	20	4.33 (0.85)	12	4.53 (0.56)
Discuss with faculty supervisor	21	4.30 (0.64)	17	4.41 (0.74)
Managing commuting and boarding	22	4.30 (0.77)	20	4.18 (1.00)

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Health Anxiety in Young Indonesian Adults: A Preliminary Study

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Abstract

In young adulthood most people begin to realize the meaning of health. The amount of costs to be incurred for the treatment of a person when they are suffering from a disease also affects a person's health concern. According to Taylor and Asmundson (2004), most people feel anxious about their health. Anxiety about health can differ from one person to another. Through this study a general overview of health anxiety for young adults in Indonesia, especially in Jakarta, can be seen,.

Participants in this study consisted of 263 people, aged 20-40 years ($M = 27.23$, $SD = 5.50$). Sociodemographic variables include ages, gender, and marital status, level of education, employment status, and ethnicity. Researcher used Short Health Anxiety Inventory (SHAI; Salkovskis, Rimes, & Warwick, 2002), Patient Health Questionnaire Somatic Symptom Severity Scale (PHQ-15; Kroenke, Spitzer, & William, 2002). For data analysis, researcher used The Pearson Product Moment Correlation. The results showed significant correlation between health anxiety and somatic symptoms.

Keywords: young adulthood, health anxiety, somatic symptom

Introduction

There are various methods for people to keep good health. For example, by taking vitamins. There are a variety of multi-vitamins sold in the Indonesian market. The advertisements on television show the importance of vitamins in human life. Through these ads, one is given information that the body's resistance to disease can be prevented by consuming vitamins offered. Daily life activity, like work and spend more time on Jakarta congestion, and others seem to cause some people to feel the need for the presence of daily intake other than food in consumption of vitamins. By taking vitamins most people expect that a healthy body is well preserved. This is certainly to avoid diseases that can lead to disruption of daily activities such as those mentioned above. Another way to improve health was by avoiding smoking and alcohol use, healthy diet, and exercise. In Indonesia, many gyms can be found malls that are close to office complexes. Many young adults join the gym and exercise before or after work hours as well as eating a healthy diet. Eating a healthy diet and exercising are health behaviors aimed to preventing disease (Kasl & Cobb, see Ogden, 2007).

In young adulthood (aged 20 to 40), a person begins to realize the meaning of their health when they get health problems. Health issues especially pertinent to young adults are addressed, with emphasis on factors that influence the health and fitness of people in this age category. Behavior patterns such as diet, exercise, smoking, and drinking alcohol can affect health. Other health factors include socioeconomic status, level of education, gender and ethnic status (Papalia, Olds, & Feldman, 2001). After completing formal education level of high school, college or university, mostly young adults entering the work live. It explained that young adulthood is a time to reach peak performance. With so many activities undertaken during this period, it is possible for people in young adulthood health impaired. According to Santrock (2008) accidents, suicide, and homicide are the leading causes of death among adults aged 20 to 34. Between 35 and 44 accidents, cancer, and heart disease are the top 3 causes of death. AIDS is the seventh leading cause of death between ages 20 and 24, sixth for adults between 25 and 34, and fifth for adults between 35 and 44. The amount of costs to be incurred for the treatment of a person when he is suffering from a disease also affects a person's health anxiety.

Anxiety, as an emotional factor can predicted health behavior. Many people feel anxious about their health (Taylor & Asmundson, 2004). Worrying health condition is a form of anxiety for the health or better known as health anxiety (Furer, Walker & Stein, 2007). It explained that this anxiety varies, there are appropriate and some are excessive or maladaptive. With a sense of anxiety for his health, a person can be motivated to seek proper medical treatment. For example, someone who is experiencing shortness of breath with a history of asthma, of course, will prepare him for the use of drugs associated with the illness he suffered. Maladaptive anxiety occurs when anxiety is not in proportion to the perceived medical risks faced. Low anxiety when facing a high risk and high anxiety when faced with a low risk can be called maladaptive anxiety (Taylor & Asmundson, 2004). For example, excessive anxiety about something that seems minor, like spots or itching.

Health anxiety is fear and belief, based on interpretation, or perhaps more often misinterpretation of bodily sign and symptoms as being indicative of a seious illness (Luckcock & Morley, 1996; Warwick, 1989 see Asmundson, Taylor, & Cox, 2001). The sign or symptoms may extend from the vague and generalized to specific. Most often include pain, gastrointestinal, and cardiorespiratory (Barsky & Klerman, 1983). Somatic symptoms are a frequent presentation of distress in general practice, and up to 30% of common somatic symptoms go undiagnosed (Kroenke, Spitzer, & Williams, 2002; Clarke, Piterman, & Austin, 2008).

Anxiety about health consists of three major aspects. There are health worries, sensitivity to something or unusual changes in the body, and fear of the consequences of a disease (Salkovskis, Rimes, & Warwick, 2002). Health anxiety can be influenced by several factors, including genetics, family background, life events that cause stress, socio-cultural aspects, the belief about the illness, cultural differences, as well as the media information about some illnesses (Taylor & Asmundson, 2002). Hypochondriasis is often associated with high level of anxiety about health or symptoms. However, hypochondriasis occurs in someone who has a fear that he was suffering from a serious disease based only mild symptoms in the body. In *Diagnosis and Statistical Manual of Mental Disorders* (American Psychiatric Association, 2013), this disorder can be diagnosed as somatic symptom disorder or illness anxiety disorder. These disorders can be classified in maladaptive anxiety on health. Anxiety about health can differ from one person to another. Through this study it can be seen the description of health anxiety in young Indonesian adults, especially in Jakarta and the correlation of health anxiety with their subjective somatic symptoms.

Method

The participants were young Indonesian adults, with aged between 20-40 years located in Jakarta, Indonesia (N = 263; M = 27.23, SD = 5.50). The participants filled out the questionnaires anonymously. The whole procedures took approximately 15-20 minutes. The technique sampling was convenience sampling.

The researcher used two questionnaires. First, Short Health Anxiety Inventory (SHAI; Salkovskis, Rimes, & Warwick, 2002). The inventory contains 18 items that assess health anxiety on 4 point scale. A higher score means higher levels of health related anxiety. Only the total scores was used in the present study. Cronbach alpha coefficients was 0.84.

Second, Patient Health Questionnaire Somatic Symptom Severity Scale (PHQ-15; Kroenke, Spitzer, & William, 2002). There are 15 item to measure the prevalence of the most common body symptoms that participants experienced in the last 4 weeks on a 3 point scale. Score 1 for not bothered at all to 3 for bothered a lot. Cronbach alpha coefficients was 0.90.

Additionally, the participants filled the demographic includes ages, gender, marital status, level of education, employment status, and ethnicity. The participants completed the questionnaire individually. Participants were given the questionnaire and asked to read the instruction of questionnaire. Then they were told that the answers were only used for this research and were confidential. So, they were assured that he/she can freely give responses as they felt in the questionnaire. Approximately they took 15-20 minutes to complete.

Data Analysis

The data were analyzed using SPSS 17.0. Questionnaire total scores were calculated as sums of item scores. Participants gender and other group were coded into binary variables (1 = male, 2 = female; 1 = age 20-30, 2 = age 30-40; 1 = healthy. Not having illness, 2 = having illness, 1 = having family without serious illness, 2 = having family with serious illness). The data was collected and analyzed by Pearson Product Moment Correlation and Mann-Whitney U.

Results

The 263 participants aged between 20 – 40 years old ($M=27, 23, SD= 5, 5$). There are 123 men and 140 women. The participants last education were varies from junior high school to master degree. SHAI obtained 12.63 for the mean 7.327 for the SD. The lowest score was 0 and the highest score was 35. The PHQ-15 obtained 10.18 for the mean and $SD=6.783$. The lowest score was 0 and the highest score was 30. The frequencies and percentages from each somatic symptoms found that headaches was the common symptoms in young Indonesian adults, expecially in Jakarta.

Table 1. The frequencies and percentages of the somatic symptoms

Somatic Symptoms	Frequencies	Percentages
Stomach pain	161	61%
Back pain	176	67%
Pain in your arms, legs, or joints (knees, hips, etc.)	152	58%
Menstrual cramps or other problems with your periods*	103	74%
Headaches	185	70%
Chest pain	122	46%
Dizziness	168	64%
Fainting spells	87	33%
Feeling your heart pound or race	111	42%
Shortness of breath	99	38%
Pain or problems during sexual intercourse	56	21%
Constipation, loose bowels, or diarrhea	131	50%
Nausea, gas, or indigestion	161	61%
Feeling tired or having low energy	187	71%
Trouble sleeping	149	57%

*women only

Correlations

Table 2. Correlation between health anxiety and somatic symptoms

	SHAI	PHQ-15
SHAI	1	.286**

** . Correlation is significant at the 0.01 level (2-tailed).

The result showed significant correlation between health anxiety and somatic symptoms.

Additional Data Analysis

Table 3. One-Sample Kolmogorov-Smirnov Test

		SHAI	PHQ
N		263	263
Normal Parameters ^{a,b}	Mean	12.6274	10.1787
	Std. Deviation	7.32701	6.78306
Most Extreme Differences	Absolute	.114	.154
	Positive	.114	.154
	Negative	-.066	-.077
Kolmogorov-Smirnov Z		1.847	2.505
Asymp. Sig. (2-tailed)		.002	.000

a. Test distribution is Normal.

b. Calculated from data.

Mann-Whitney test is a nonparametric test that allows two groups or conditions or treatments to be compared without making the assumption that values are normally distributed. In the table 4 showed that assymp. Sig. (2-tailed) SHAI $0.002 < 0.05$ and PHQ $0.000 < 0.05$.

Table 4. Mean Rank and Sum of Ranks

Measure	Variable	Mean Rank	Sum of Ranks
Gender			
SHAI	Male	133.68	16443.00
	Female	130.52	18273.00
PHQ	Male	128.41	15794.50
	Female	135.15	18921.50
Age			
SHAI	20-29 years	52.40	2987.00
	30-40 years	62.60	3568.00
PHQ	20-29 years	54.24	3091.50
	30-40 years	60.76	3463.50
Illness status			
SHAI	Healthy	23.30	536.00
	Having illness	23.70	545.00
PHQ	Healthy	19.78	455.00
	Having illness	27.22	626.00
Family Serious Illness Status			
SHAI	Family without serious illness	62.65	4260.50
	Family with serious illness	74.35	5055.50
PHQ	Family without serious illness	68.68	4670.50
	Family with serious illness	68.32	4645.50

Table 5. Mann-Whitney U Grouping Variable: Gender, Age, Illness, and Family with Serious Illness

Variable	SHAI	PHQ
Gender		
Mann-Whitney U	8403.000	8168.500
Wilcoxon W	18273.000	15794.500
Z	-.337	-.719
Asymp. Sig. (2-tailed)	.736	.472
Age		
Mann-Whitney U	1334.000	1438.500
Wilcoxon W	2987.000	3091.500
Z	-1.649	-1.056
Asymp. Sig. (2-tailed)	.099	.291
Illness Status		
Mann-Whitney U	260.000	179.000
Wilcoxon W	536.000	455.000
Z	-.099	-1.884
Asymp. Sig. (2-tailed)	.921	.060
Family Serious Illness Status		
Mann-Whitney U	1914,500	2299,500
Wilcoxon W	4260,500	4645,500
Z	-1,732	-,055
Asymp. Sig. (2-tailed)	.083	.957

In additional analysis there is no significant differences between men and women in health anxiety ($0.736 > 0.05$) and somatic symptoms ($0.472 > 0.05$). Also there is no significant differences between age 20-29 years and age 30-40 years in health anxiety ($0.099 > 0.05$) and somatic symptoms ($0.291 > 0.05$). There is no significant differences between healthy status (not having illness) and having illness in health anxiety ($0.921 > 0.05$) and somatic symptoms ($0.060 > 0.05$). Similar with family illness status, between having family without serious illness and having family with serious illness, there is no significant differences in health anxiety ($0.083 > 0.05$) and somatic symptoms ($0.957 > 0.05$).

Conclusion and Discussion

This research showed that the higher level of health anxiety, the higher level of subjective somatic symptoms. Symptoms of minor ailments can lead to disproportionate health anxiety if the person overestimates the seriousness of the sensations. It is quite common for health-anxious people to misinterpret these sensations or symptoms as indicators of a disease (Taylor & Asmundson, 2004).

Some studies showed women more feel anxious about their health than men (Faravelli, et al., 1997; Gumbiner & Flowers, 1997; Hernandez & Kellner, 1992; see Asmundson, et al., 2001). This research find different result. There is no significant differences between men and women in health anxiety and also somatic symptoms. The fact that women are more responsive to most potential health threats than men may provide a basis for the stereotype (Shumaker & Smith, 1994; Wingard, Cohn, Cirillo, Cohen, & Kaplan, 1992 in Asmundson, et al., 2001).

Additional analysis from this research found that headaches (70%), feeling tired/having low energy (71%), back pain (67%), and dizziness (64%) were common subjective somatic symptoms in young adulthood. In addition, menstrual problem (74%) was the common somatic symptoms in women. However, young adulthood is the healthiest time of life with fewer colds and respiratory problems than in childhood and few chronic health problems. According to

Santrock (2008) it is a good time to promote good health like eating habits, regular exercise, and diet.

The differences in health anxiety between age 20-30 and age 30-40 did not showed that when getting older, young adults can worry and anxious more about their health. Also the somatic symptoms did not showed any differences.

Another result showed that when young adulthood having an illness during completed the questionnaire (like headaches, inflammation of nasal sinus, tumor, diabetes, stomach pain, and diarrhea), more somatic complaints appeared. During illness people would showed many somatic complaints because of the illness, but the differences were not significant. The health anxiety also did not showed any differences.

The study about health anxiety and somatic symptoms were found to be connected to modern health worries (Freyler, Kohegyi, Koteles, Kokonyei, & Bardos, 2013). Typical representatives of modern health worries are concerns about negative effects of chemical and biological agents, of various kinds of environmental pollution, of tainted food, or of electromagnetic radiation. These worries exaggerated and maintained by stories published in mass media (Petrie et al., 2001). The modern health worries should be considered in the further research.

The participants in this research were not from medical or clinical setting. To draw the conclusion about hypochondriasis tendencies should be considered carefully. Further research should considered by doing deep interview toward the person who had high level of health anxiety and somatic symptoms.

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Religiosity and Spirituality as Predictors of Subjectively Perceived Happiness in University Students in Slovakia

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Abstract

Several research projects discuss the existence of weak to moderately strong positive relation between religiosity/spirituality on the one hand and subjective well-being, life satisfaction or quality of life on the other hand (see Kelley & Miller, 2007). Variables related to religiosity and spirituality of a person may be perceived in two ways: as protective factors of attaining subjective well-being or as barriers limiting its attainment. The objective of this study is verification of mutual relationship between the indicators of religiosity and spirituality with regard to subjectively perceived happiness and verification of predictive strength of these indicators with regard to subjective happiness. The sample of research participants consisted of 194 university students aged 18 to 26. The research used 4 tools: The Expressions of Spirituality Inventory-Revised (MacDonald, 2000), The Salience in Religious Commitment Scale (Roof & Perkins, 1975), Subjective Happiness Scale (Lyubomirsky & Lepper, 1999) and The Oxford Happiness Questionnaire (Hills & Argyle, 2002). Using multiple hierarchical linear regression (stepwise), we obtained 2 dimensions of spirituality as significant predictors of subjective happiness – Existential Well-Being and Experiential/Phenomenological Dimension. Demographic data and confession types were not proved as predictors of happiness.

Keywords: religiosity, spirituality, subjective happiness, quality of life

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Introduction

The relationship between spirituality or religiosity and various dimensions of quality of life has been extensively examined during the recent decades (Sawatzky, Ratner & Chiu, 2005). Several researchers discuss the existence of a weak to moderately strong positive relationship between various indicators of religiosity or spirituality on the one hand and subjective well-being, life satisfaction or quality of life on the other hand (see Kelley & Miller, 2007). Several research findings may be quoted to support the above mentioned relationship. Abdel-Khalek (2010) found that religiosity may be considered as a salient component of, and a contributing factor to, quality of life of Muslim college students. Rule (2007) states a significant but not very strong statistical relationship between religiosity and quality of life. Diener and Clifton (2002) verified a mutual relationship between religiosity and happiness and also between religiosity and life satisfaction in two large samples (1,034 and 52,624 respondents). In both cases and in both samples a statistically significant but weak positive relationship was observed: $r = .07$ or $.08$ in the case of correlation between religiosity and life satisfaction and $r = .06$ in the case of religiosity and happiness.

Thomas and Washington (2012) verified the relationship between "health-related quality of life" and religiosity in patients with hemodialysis and they found a weak but inverse relationship between them ($\beta = -.15$). Kačmárová (2012) verified the relationship between quality of life and the concept of God which consisted of feelings towards God and ideas of God and she found weak to moderately strong relationships (correlation coefficients from $-.08$ to $.416$). This was a case of age-specific sample of seniors. McIntosh, Poulin, Silver and Holman (2011) focused their attention on the affective component of subjective well-being in relation to religiosity and spirituality, in which religiosity and spirituality independently predicted higher positive affect ($\beta = .09$ for spirituality and $\beta = .12$ for religiosity). Sawatzky, Ratner and Chiu (2005) in their extensive meta-analytical study verified the relationship between quality of life and spirituality. They found a moderate effect size in assessing simple bivariate correlations, which is a result that supports findings of the weak to moderately strong relationship between monitored variables. The result of regression analyses was interesting. On the basis of these analyses, variability of the relationships between monitored variables was influenced by different operational definitions of spirituality and quality of life. At the same time other potential mediators, such as age, gender, ethnicity or religious affiliation, were not proved in regression analyses.

Therefore generally the existence of predominantly weak relationships between the indicators of religiosity and spirituality with regard to various indicators falling under the widely defined construct of quality of life may be predicted. However, it is necessary to pay special attention to the method of measuring (operational defining) spirituality and religiosity, since an identically named construct has different characteristics with a different way of measuring. It is not the intention of this study to dwell in detail on theoretical specification of the notions of spirituality and religiosity, or on the notions covered under the concept of quality of life. In the area of quality of life there is relative consensus regarding fundamental notions (Babinčák, 2013).

In defining spirituality and religiosity several approaches may be found: a) those that perceive these notions as mutually exchangeable synonyms; b) approaches defining these notions as independent distinguishable constructs; and c) those that try to classify these notions into a hierarchical structure, most frequently in the sense of spirituality as a notion superior to religiosity which is a component of spirituality. In our study we will adhere to the pragmatic

approach – and we will use these notions as they were defined by the authors of the methodologies used in our research (it is closest to the third approach).

Out of the great number of studies dealing with spirituality and religiosity in relation to quality of life (as an illustration, Sawatzky, Ratner and Chiu (2005) in their meta-analysis identified 3,040 such studies), only some assess subjective happiness (Abdel-Khalek, 2014; Aghababaei, 2014; Francis, Katz, Yablon & Robbins, 2004; Golparvar & Abedini, 2014; Gundlach, 2013; Holder, Coleman & Wallace, 2010; Pessi, 2011; Princy & Kang, 2013; Sahraian, Gholami, Javadpour & Omidvar, 2013; Singh & Malik, 2012). In our research we decided to focus in particular on this construct, which is primarily psychological, in contrast to the rather interdisciplinary notion of quality of life.

Happiness, together with subjective well-being and satisfaction with life, is considered as "psychological" concept of quality of life. Some of the researchers even consider happiness as a synonym to concept of quality of life respectively to concept of well-being (Veenhoven, 2006). Veenhoven differentiates between the general happiness and its components. General happiness refers to a degree to which individual rates its quality of life as a pleasant. Concept of happiness defined like this represents a stable attitude towards one's life and includes associated feelings and beliefs. These feelings and beliefs are considered to be aspects of the happiness. Haller and Hadler (2006) described 5 different approaches of how to define the happiness: 1) Happiness as a stable trait of person. 2) Happiness as a consequence of objective life event. 3) Happiness as a function of one's usefulness. 4) Happiness as a result of comparison with other groups of individuals (relative satisfaction). 5)

Happiness as a persisting national or cultural trait. It is not convenient to completely identify happiness, together with subjective well-being (to clarify differences/resemblances of these constructs see Džuka, 1996), with the concept of quality of life. They can be defined as components of broadly defined construct of quality of life, output variables representing a subjective reflection of the quality of life, or constructs in its nature different from the quality of life. In case that happiness and quality of life are considered as two dissimilar constructs, the essential aspect of their diversity is, that constructs of happiness more likely refers to characteristics of person who assess (degree of one's satisfaction with life or degree of one's happiness) than to object of assessment. This is well documented by strong correlations between forementioned constructs and personality traits as extraversion, neuroticism (DeNeve & Cooper, 1998; Diener & Seligman, 2002; Holder & Klassen, 2010; Hřebíčková, Blatný & Jelínek, 2010; Meliksah & Weitekamp, 2007) or self-esteem (Joshani & Afshari, 2009), which indicates that these constructs are relatively stable personality traits.

The theoretical review presented above illustrates the relation between religiosity/spirituality and different components of quality of life, subjective well-being and happiness. This research is focused on subjectively assessed happiness as a psychological indicator of quality of life. The research is aimed to clarify the impact of different aspects of religiosity/spirituality on experiencing happiness. There have been no similar research performed in local linguistic and cultural context (from some perspectives Slovakia might be considered as a specific country – it inclines to traditional christian values and orientation, but is member of EU which declares its orientation to liberal system of values). Within the researches that have been done at the multinational level, there can be found lack of uniformity in terms of conceptualisation of happiness, spirituality and religiosity. Our aim was to enrich and elaborate previous findings in this area of research. The objectives were:

1) Verification of the mutual relationship between selected indicators of spirituality/religiosity and subjectively assessed happiness (as an independent construct).

2) Comparison of predictive strength of the indicators of spirituality/religiosity in relation to subjective happiness measured in two different ways.

Methods

Participants

Research sample consisted of 194 university students majoring in Psychology, Social Work, Political Science and Philosophy (none of them have been studying religiously based specialisation; neither have been studying at the faculty founded on religious background). Students studying at the university in Eastern Slovakia were chosen using the accidental sampling method. The average age of the students was 22.8 (from 18 to 26 years old). The division based on gender and faith is shown in table 1.

Table 1
Description of research sample

Religious affiliation	Male	Female	Total	%
Catholic	54	73	127	65.5
Protestant	8	9	17	8.8
Atheist	34	16	50	14.4
Other	0	0	0	11.3
Total	96	98	194	100.0
Age	Frequency	%		
18	2	1.0		
19	7	3.6		
20	10	5.2		
21	32	16.5		
22	21	10.8		
23	47	24.2		
24	47	24.2		
25	16	8.2		
26	12	6.2		
Total	194	100.0		

Instruments

We used 2 measures to assess religiosity and spirituality independently from religious affiliation and 2 measures to examine subjective happiness (global assessment versus multidimensional assessment).

1) The Expressions of Spirituality Inventory-Revised (ESI; MacDonald, 2000) – methodology for determining experiences, attitudes, convictions and lifestyle concerning spirituality. Religiosity and spirituality are perceived as a multi-dimensional construct consisting of five areas: a) Cognitive Orientation towards Spirituality (COS), b) Experiential/Phenomenological Dimension (EPD), c) Existential Well-Being (EWB), d) Paranormal Beliefs (PAR) and e) Religiousness (REL). The ESI-R's α coefficients range from .788 for PAR to .933 for COS. Detailed description of the scales used is specified in the appendix.

2) The Salience in Religious Commitment Scale (SRC; Roof & Perkins, 1975) – three-item scale measures "the importance an individual attaches to being religious" (p.111). It is used to

determine the extent to which adults consider their religious beliefs to be important. Measured construct is very similar to Allport's concept of internalized religiosity (Halama et al., 2006). The SRC's α coefficient is .913.

3) Subjective Happiness Scale (SHS; Lyubomirsky & Lepper, 1999; translation into Slovak language - Babinčák, 2008) – it is a 4-item measure of global subjective happiness which represents a global, subjective assessment of whether one is a happy or an unhappy person (p.139). The SHS's α coefficient is .791.

4) The Oxford Happiness Questionnaire (OHQ; Hills & Argyle, 2002). OHQ is a tool for measuring happiness as a multidimensional construct which includes frequent experiencing of positive affect or joy, high average level of satisfaction and absence of negative feelings, such as depression and anxiety. It has 29 items and the OHQ's α coefficient is .898. While SHS represents a one-dimensional measure, OHQ includes several dimensions and resembles the concept of subjective well-being (Diener, 1984). Other monitored variables were gender, age, domicile and self-classification into the categories of believer/unbeliever.

Results

Table 2

Descriptive statistics of scales used (N=194)

Variable/Scale	Minimum	Maximum	Mean	Std.deviation	Skewness
Age	18	26	22.80	1.78	-.356
ESI – COS	.00	4.00	2.15	1.05	-.303
ESI – EPD	.00	4.00	1.47	.93	.128
ESI – EWB	.83	4.00	2.63	.76	-.006
ESI – PAR	.00	4.00	1.75	1.14	.008
ESI – REL	.00	4.00	2.09	1.05	-.338
SRC	.00	7.00	3.46	1.89	.218
SHS (average items)	.75	7.00	4.95	1.05	-.216
OHQ (average items)	.79	5.66	4.22	.59	.341

Note: COS - Cognitive Orientation towards Spirituality; EPD - Experiential/Phenomenological Dimension; EWB - Existential Well-Being; REL – Religiousness; SRC - Salience in Religious Commitment Scale; SHS – Subjective Happiness Scale; OHQ - Oxford Happiness Questionnaire

Simple matrix of bivariate correlations between the indicators of spirituality and two methodologies measuring happiness is shown in Table 3. Only Existential Well-Being significantly correlates with happiness ($r = .694$ or $.650$).

Table 3

Correlations (Pearsons r) between monitored variables and happiness (SHS, OHQ)

Variable/Scale	SHS	OHQ
Age	.017	.008
Domicile	-.002	.036
Gender	.132	.100
Type of confession	-.056	-.038
ESI		
Cognitive Orientation towards Spirituality	-.043	-.035

Experiential/ Phenomenological Dimension	.062	.051
Existential Well-Being	.694**	.650**
Paranormal Beliefs	-.055	-.128
Religiousness	.096	.114
The Saliency in Religious Commitment Scale	.053	.040

Note: ** means $p < .01$; SHS – Subjective Happiness Scale; OHQ - Oxford Happiness Questionnaire; ESI - The Expressions of Spirituality Inventory-Revised

We used multiple hierarchical linear regression analysis (stepwise method) to verify how the variables of gender, domicile, type of believer, religiosity and spirituality as predictors influence subjectively perceived happiness as a criterion. In both regression models Existential Well-Being and Experiential/Phenomenological Dimension of Spirituality were identified as the predictors of happiness. EWB explains 42% or 48% variability of happiness values and EPD around 3% (Table 4).

Table 4

Regression models for indicators of spirituality (ESI), religiosity (SRC), age, gender, domicile and type of faith as predictors and subjectively assessed happiness (SHS, or OHQ) as a criterion (accepted models $p < .05$)

Predictor	R	R ² change	b	T	p
Subjective Happiness Scale ($F_{\text{total}}(2,191) = 101.499$; $p < .001$)					
ESI – Existential Well-Being	.694	.482**	1.001	14.194	.000
ESI – Experiential/Phenomenolog.					
Dimension of Spirituality	.718	.033**	.208	3.622	.000
(Constant)			2.010		
Oxford Happiness Questionnaire ($F_{\text{total}}(2,191) = 77.836$; $p < .001$)					
ESI – Existential Well-Being	.650	.422**	.531	12.440	.000
ESI – Experiential/Phenomenolog.					
Dimension of Spirituality	.670	.027**	.106	3.045	.003
(Constant)			2.670		

Note: * means $p < .05$; ** $p < .01$; gender, domicile and type of faith were dichotomic variables (man/woman, city/village, believer/non-believer)

Besides the main findings we report also several additional results. When comparing respondents by classification into the category of believer/non-believer, we found differences in correlations of spirituality/religiosity with happiness. In believers besides EWB also REL ($r = .170$) significantly correlated with happiness. In non-believers ($N=54$) besides EWB also COS ($r = -.286$) correlated with happiness.

When we added interactions of indicators of spirituality/religiosity and classifications into the category of believer/non-believer (model with a dependent variable SHS) into regression models, another predictor was added into the resulting model – the interaction of EPD and classifications into the category of believer/non-believer ($R^2\text{change} = .017$). High EPD values are more frequently associated with high levels of happiness in believers than in non-believers.

Discussion

Research findings repeatedly confirm a connection between religiosity, spirituality and various aspects of quality of life (as an umbrella construct for several psychological variables). Usually these are positive relationships, while obtained correlation coefficients are most frequently low or moderate (Kelley & Miller, 2007). Despite that, observed relationships are relatively stable.

The idea of a connection between spirituality and quality of life is demonstrated also in the effort of authors of different conceptions of quality of life to include the spiritual dimension among the areas of multidimensional construct of quality of life (see e.g. the concept of quality of life by World Health Organization, WHOQOL Group, 1998).

In our research we focused on happiness as a variable of global subjective assessment of quality of life and we analysed its relationship towards indicators of religiosity and spirituality. We used two different operational definitions of happiness. The first one treats happiness as overall subjective assessment, to what extent a person considers themselves happy, and it may be asked about by one or a small number of similar questions. The second operational definition is broader; it does not consider happiness unidimensionally but the overall assessment of a person's happiness consists of several aspects, such as frequent experiencing of positive affects or joy, high average level of satisfaction, absence of negative feelings, such as depression and anxiety etc.

Besides main objectives we were also interested in finding whether with different conceptualizations of the same construct we acquired comparable results.

On the level of correlations we have not obtained tight relations between religiosity/spirituality and happiness (except EWB). In regression models, Existential Well-Being and Experiential /Phenomenological Dimension of Spirituality were demonstrated as significant predictors of happiness values among demographic variables and subscales of ESI and SLC methodologies. Detailed description of said aspects of religiosity and spirituality is given in the appendix. For both tools for measuring happiness we obtained the effect of experiential and existential dimension of spirituality while the cognitive, behavioural and paranormal elements of religiosity, or the aspect of internalised religiosity, were not confirmed. We did not find any major differences in the results based on different conceptualizations of subjective happiness. Simultaneously, a different impact of the existential dimension of spirituality on the values of happiness in believers and non-believers was indicated. This result, however, requires more detailed examination.

On the basis of obtained results we can agree with the assertions of those authors who found only a weak relation between the indicators of religiosity/spirituality with regard to happiness. A possible explanation may be sought in the mediator effect of other variables, based on which religiosity and spirituality do not affect happiness directly. For example according to Zullig, Ward and Horn (2006), perceived spirituality and life satisfaction was fully mediated by self-perceived health, and the perceived religiosity and life satisfaction was partially mediated by self-perceived health. "Students who describe themselves as spiritual or religious are likely to report greater self-perceived health and that greater self-perceived health likely influences life satisfaction" (p.267). Another mediator effect is presented by Cowlishaw et al. (2013); their results showed that the meaningfulness dimension of SOC (Sense of Coherence) mediated the influence of spirituality on life satisfaction over time, suggesting that spirituality may influence older adults' experience and perception of life events, leading to a more positive appraisal of these events as meaningful.

Sawatzky, Ratner and Chiu (2005) give the type of religiosity/spirituality, or quality of life, definition as a moderator of the relationship of the variables that we monitored. That means the way how the variables are defined and operationalised influences the relation between the variables more than age, gender, or other similar indicators. This moderator is important especially due to the absence of generally accepted definition of spirituality, religiosity and happiness.

Conclusion

In our research those dimensions of spirituality and religiosity which inform about positive functioning and deep spiritual experiences or spiritual existence were demonstrated as predictors of subjective happiness. For better understanding of connections between religiosity/spirituality and happiness it is necessary to focus on the mediators mediating this relationship.

The results of our research confirmed predictive power of selected indicators of spirituality and religiosity and their relation with happiness. These results support findings of other authors that already delved into this topic. With regard to fact that there is no global consensus about definition and conceptualisation of analysed constructs (religiosity, spirituality, happiness), benefit of this study (and similar ones) is a fact that even through there is no unified terminology and there are several possibilities of measurement of these constructs, the results are comparable to previous ones and allow us to think about and to discuss how important are the roles of religiosity and spirituality for experiencing happiness. One of the limitations (besides methodological issues – choosing the tools that measure only some of the aspects of religiosity and spirituality; and accidental sampling method) is focusing on the population of university students. We suggest that further research in this area might be focused on comparison of data gathered from different population samples, for example comparison between different age or education categories of respondents.

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Appendix

Description of scales used to measure spirituality (The Expressions of Spirituality Inventory-Revised; McDonald, 2000, p.187)

Cognitive Orientation Towards Spirituality. This dimension appears to pertain to the expressions of spirituality that are cognitive-perceptual in nature. By cognitive-perceptual is meant beliefs, attitudes and perceptions regarding the nature and significance of spirituality, as well as the perception of spirituality as having relevance and import for personal functioning. This dimension does not overtly involve religiousness or the expression of beliefs through religious means, though it does appear to be highly related to them.

Example item - Discovering the meaning and purpose of life has to include an examination of one's spirituality (0 - Strongly Disagree ... 4 - Strongly Agree)

Experiential/Phenomenological Dimension of Spirituality. This dimension concerns the experiential expressions of spirituality. Included within the rubric of "experiential" are experiences that are described as spiritual, religious, mystical, peak, transcendental, and transpersonal. Though this dimension appears to have some relation to broader altered states of consciousness and nonordinary experiences, empirical evidence suggests that it is a unique and identifiable construct.

Example item - I have had an experience which revealed a transcendent aspect to reality

Existential Well-Being. This dimension involves the expressions of spirituality that may be seen to be associated with a sense of positive existentiality. That is, it pertains to spirituality as expressed through a sense of meaning and purpose for existence, and a perception of self as being competent and able to cope with the difficulties of life and limitations of human existence.

Example item - I seldom feel tense about things

Paranormal Beliefs. This dimension of the expressions of spirituality concerns belief in the paranormal. Based upon the analyses completed, it appears to be mostly related to beliefs of paranormal phenomena of a psychological nature (e.g., ESP, precognition, psychokinesis), though it is also composed of beliefs in witchcraft and spiritualism (e.g., ghosts or apparitions).

Example item - I believe in reincarnation

Religiousness. This dimension relates to the expression of spirituality through religious means. Based upon the empirical findings, it appears to better reflect religiousness that is Western oriented (i.e., it is related to Judeo-Christian forms of religious belief and practice). Moreover, it seems to focus on intrinsic as opposed to extrinsic religiousness. This dimension includes not only beliefs and attitudes of a religious nature, but also behavior and religious practice. Factor analytic work suggests that this dimension is highly related to the Cognitive Orientation Towards Spirituality dimension but is nonetheless conceptually unique.

Example item - I believe that God or a Higher Power is responsible for my existence

Social Art Activities in a Nursing Home: A Pilot Study in Indonesia

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Abstract

This pilot study investigates the feasibility, acceptability and the effectiveness of social art activities for reducing symptoms of depression of Indonesian elderly people who live in a nursing home. Sixteen depressed elderly people with ages ranging from 65 to 85 years old were selected randomly in a nursing home to join 12 sessions of a-90 minute of activities twice a week. There were two groups, one was a social art group (AG, N=12) and another was a daily regular activities/control group (CG, N=4). The sessions were held from October 1st, 2013 to January 29th, 2014. First, the participants completed pre and post measures of symptoms of depression (Geriatric Depression Scale 15-item), well-being (The Satisfaction with Life Scale), and cognitive functioning (the Mini-Mental State Examination). To explore the feasibility and acceptability, we conducted observations during the activities and interviews afterwards. Repeated measures revealed no significant between-group differences regarding depressive symptoms, well-being and cognitive function. The AG tended to have a decrease in the depressive scores and an increase in well-being scores from pre- to posttest, whereas CG scores remained the same. There were no changes in the scores of cognitive function in both groups. The observations and interviews showed that the participants were interested in the activities and there were positive changes in their emotional expression, liveliness, cooperation, and communication with the group members. They were willing to be involved in the next social art activities. We conclude that these activities can be considered to be feasible and acceptable for depressed elderly people who live in a nursing home in Indonesia.

Keywords: elderly people, depression, social art activity, nursing home

Introduction

Depression is one of the most common mental disorders among elderly people (Cloosterman, Laan, & Van Alphen, 2013; Neufeld, Freeman, Joling & Hirdes, 2014). Approximately 54% elderly people suffer from depression especially those who live in a nursing home (Arifianto, 2006; Borza, et.al., 2015; Lampert & Rosso, 2015), because living in a nursing home substantiates the feeling of being neglected by the family (Natan, 2008). It can decrease their health status, daily living ability, quality of life, and lead to a reduction in cognitive abilities and an increase in mortality (Mansbach, Mace & Clark, 2015; Meeks, Van Haitsma, Schoenbachler & Looney, 2015). In this case, women are more affected than men (Tsang, Cheung, & Lak, 2002).

Research findings describe that the risk factors for depression in nursing home residents are older age, poor physical health, cognitive impairment, lower income, lack of care from the nursing home staff, lack of social support and loneliness (Barca, Engedal, Laks & Selbaek, 2010; Jongenelis et al., 2004). Depression in the nursing home is often under diagnosed and undertreated (Mansbach et al., 2015). The symptoms that are usually observed are sleeping and eating disturbances, less or too much talking, difficulties in concentrating and decision-making (Lampert & Rosso, 2015; Niu & Arian, 2015). In order to improve the physical, psychosocial and well-being of elderly residents, it is important to implement productive activities such as art therapy.

Art therapy is a clinical intervention that is suitable for elderly people who have difficulties in expressing their thoughts and feelings. Art therapy is used as a non-verbal communication that helps elderly people to express their emotions in a safe way (Johnson & Sullivan-Marx, 2006). Involvement in art activities during old age contributes to well-being through the act of developing and maintaining problem-solving skills that are significant to reduce depression (Stephenson, 2013). Joining art activities in a social context gives advantages to elderly people to preserve social interaction in the nursing home and to increase their social and communication skills (Schrade, Tronsky, & Kaiser, 2011). Social relationships have proven to have profound effects on health (Hoyer & Roodin, 2009). Through participation in social activities, elderly people may remain engaged with peers and their communities and then become motivated to stay active in their daily lives (Stephenson, 2013).

The use of art activities in a social context has been found to have a positive impact on the well-being of elderly people in a nursing home (Maujean, Pepping & Kendall, 2014; Wang, et al., 2013). Social art activities are defined as activities that introduce art to stimulate social interaction between group members (Kim, Kim & Ki, 2014). The stages of social art activities consist of a beginning (the initial step is striving to explore personal feelings, often experienced as futile), artistic immersion (unearthing of previously hidden feelings and facing up to reality), interpersonal sharing, closure and termination (Moon, 2010). Social interactions during art activities provide opportunities for a depressed elderly person to form meaningful relationships with others, reduce feelings of isolation, share experiences, and resolve distressing emotional conflicts (Kim, et al., 2014; Rankanen, 2014). Social art activities with duration of 60-75 minutes are effective to reduce negative feelings about one self and others, to construct a positive self-image, and serve as a distraction from negative feelings about living in the nursing home (Im & Lee, 2014; Kim, 2013).

Since most of art therapy studies were conducted in Western countries, it is not clear whether art therapy is effective in Asian countries (Ando, Imamura, Kira, & Nagasaka, 2013), especially in Indonesia. We want to test the hypotheses whether depressed elderly people in a

nursing home can engage in social art activities (feasible) and accept social art activities as one of the activities in the nursing home (acceptable). Moreover, we hypothesize that the elderly people in the social art group improve their well-being more than elderly people in the control group. Thus, this study addresses the following research questions: Are social art activities feasible and acceptable for elderly people with depressive symptoms who live in a nursing home in Indonesia? Do the social art activities have an effect on depression symptoms?

Theoretical background

One aspect of successful aging is to maintain adequate levels of subjective well-being (SWB), which is defined as positive evaluation of one's life associated with good feelings (Pinquart & Sörensen, 2000). SWB of elderly people is threatened when they experience health problems and depressive symptoms (Strawbridge, Wallhagen, & Cohen, 2002).

Depressive symptoms in later life have had low priority in clinical research of psychotherapeutic treatment (Munk, 2007), yet they contribute to a deterioration of physical and functional health (Choi, Ransom & Wyllie, 2008), and are prevalent in nursing homes (Meeks, et.al, 2015). Depression in nursing home residents has been found to be related to decrease in cognitive functions and to result in an increased burden for both residents and staff attempting to provide care (Cody & Drysdale, 2013; Pike, 2013).

The essential care for achieving healthy aging and promoting physical and SWB are through social interaction and productive activity (Friedman, 2012; Zunzunegui, Alvarado, Del Ser, & Otero, 2003). The benefit of social interaction is to slow the functional decline, increase the quality of life, which resulting in fewer depressive symptoms and a risk of cognitive impairment (Park, 2009). Productive activity such as art activities with geriatric depressed people should be on portraying past and current strengths, as well as integrating life experiences. Recalling past experiences through art media can improve cognitive and perceptual skills by the body sense stimulation in the art activity process (Buchalter, 2004).

Some studies have reported that joining art therapy in a group can engage depressed elderly people in social activities (Papalia, Sterns, Feldman, & Camp, 2007). Doric-Henry (1997) conducted research on pottery as an art therapy with elderly nursing home residents. This study showed that an art therapy intervention with 40 elderly people (art therapy group= 20; control group= 20) significantly improved self-esteem and reduced depression. Pike (2013) also conducted research on the effect of art therapy on cognitive performance among ethnically diverse older adults. At 10-week art therapy intervention with a total sample size of 91 (experimental group = 54; control group = 37) significantly improved cognitive performance of older adults. Im and Lee (2014) examined the effect of art and music therapy on depression and cognitive functioning. At the end of 12 weeks with a weekly 60-minute session, the results confirmed that the art and music therapy were effective in reducing depression but showed no effect on cognitive abilities. Jones, Waren & McElroy (2006) displayed that art activity was effective in reducing the degree of depression, relieving the sense of despair, improving happiness, peacefulness, satisfaction, and calmness. Gleibs, et.al, (2011) also found that social engagement in a nursing home increased the sense of social identification with others, and that higher levels of life satisfaction and reduced symptoms of depression and anxiety were reported. Therefore, the social art activities are useful to reduce depression, and to increase well-being and cognitive functions of elderly people.

Methods

Participants and setting

Sixteen elderly people from a nursing home in Jakarta, Indonesia participated in this study. Inclusion criteria were that the participants had to be 65 years old or older, with a Geriatric Depression Scale score of more than 5 (see below: outcome measures), and cognitively capable of participating in an interview. The participants must have stayed in the nursing home for at least three months; had a healthy physical condition; and had no severe hearing or speech impairment that might interfere in the interview. Participants gave consent to randomization and follow-up. The exclusion criteria were severe cognitive impairment or dementia, experiencing psychotic disorders, severe physical disorder and alcohol/drug misuse, and communication problems.

The setting for the social art activities was in an auditorium in the nursing home that was designed like an art studio. It had worktables, art materials such as white paper, origami paper, crepe paper, crayons, markers, pastels, pencils, scissors, glue sticks, and picture cutouts from magazines. While in the control group, the setting was in a room in the nursing home with chairs and sofas, a dining table with newspapers, books and a television. The studies were performed for four months (October 1st, 2013 until January 29th, 2014), and were guided by the first author and assisted by qualified graduate clinical psychology students who were in an internship program. They were in the last semester of the program, have passed the case study exams, and considered as clinical psychology candidates, with GPA of A.

Measurements

The primary outcome measure

Outcome measurements were conducted before starting the activities and after the 12 sessions of the activities, using the same measurements. The measurements included the *Geriatric Depression Scale* 15-item (GDS) developed by Sheikh and Yesavage (1986). It consists of 15 questions with a YES or NO answer, for example “Have you dropped many of your activities and interests? “. Ten questions indicate the presence of depression when answered positively (YES), while the rest of the questions (question numbers 1, 5, 7, 11, 13) indicate a depression when answered negatively (NO). Scores of 0-4 are considered normal; scores of 5-8 indicate mild depression; scores of 9-11 indicate moderate depression; and scores of 12-15 indicate severe depression. Sheikh and Yesavage (1986) reported a reliability of the GDS-15 of $r = .84$, $p < .001$.

The secondary outcome measures

Well-being was measured by *The Satisfaction with Life Scale* (SWLS) developed by Diener, Emmons, Larsen and Griffin (1985). The SWLS consists of five statements that the participants can either agree or disagree with a scale of 1 – 7, where 1 represents strongly disagree and 7 represents strongly agree with the statement. A score of 31-35 indicates extremely satisfied; a score between 26 and 30 indicates satisfied; a score between 21 and 25 indicates slightly satisfied; a score of 20 is neutral; a score between 15 and 19 indicates slightly dissatisfied, a score between 10 and 14 indicates dissatisfied, and a score between 5 and 9 indicates extremely dissatisfied. The SWLS has a strong internal reliability and a moderate temporal stability. Diener, et al., (1985) reported a Cronbach’s alpha of 0.87 for the scale and a test–retest stability coefficient of 0.82.

Cognitive functioning was assessed by *the Mini-Mental State Examination (MMSE)* (Folstein, Folstein, & McHugh, 1975), a brief indicator of cognitive status with 11 questions measuring five areas of cognitive function: orientation, registration, attention and calculation, recall, and

language. An example of a question for orientation is “What is the (year) (season) (date) (day) (month)?” The maximum score is 30. A score of 23 or lower indicates cognitive impairment. Test retest reliability for MMSE is .98. (Folstein, et.al., 1975).

Furthermore, the first author conducted observations during the activities, to assess feasibility of the activities. The observations were carried out in each session using an observation form that contained eight points of evaluation, they were comprehension, co-operation, communication and involvement in the activities, facial expressions toward the activities (before, during and after the activities), emotional state, liveliness and their impression of the activities. It is important to observe their facial expressions thoroughly because they can give further clues, additional information and meaning over the points of observation.

The first author also performed follow-up interviews to assess acceptability. The researcher asked an open-ended question about how the participants felt after they followed the social art activities.

Procedures

The participants were randomly assigned either to the social art group (AG), or the control group (CG), using sealed-envelopes which contained a card labeled with information about the intervention group, the number of sessions, the time period of the intervention, and a space for their signature to indicate that they were willing to follow the intervention. When the participants knew their group, they were interviewed to obtain demographic information and data regarding the reason for staying in the nursing home. Recruitment and enrollment of the participants are described in the participants' flow diagram in Figure 1.

Participants who met the inclusion criteria were evaluated before the intervention (pretest) using the outcome measurements (GDS, SWLS, and MMSE). Then, we started the social art activities for the intervention group, and participants in the control condition went to the control room. During the art activities, we conducted observations in each session using the observation form. Participants discussed their art project with each other at the end of each session. After the 12 sessions of social art group and the same number of meetings in the control group, we evaluated participants in both groups using the same outcome measurements as in the pretest (posttest). The first author also performed follow-up interviews with an open-ended question after the completion of all activities.

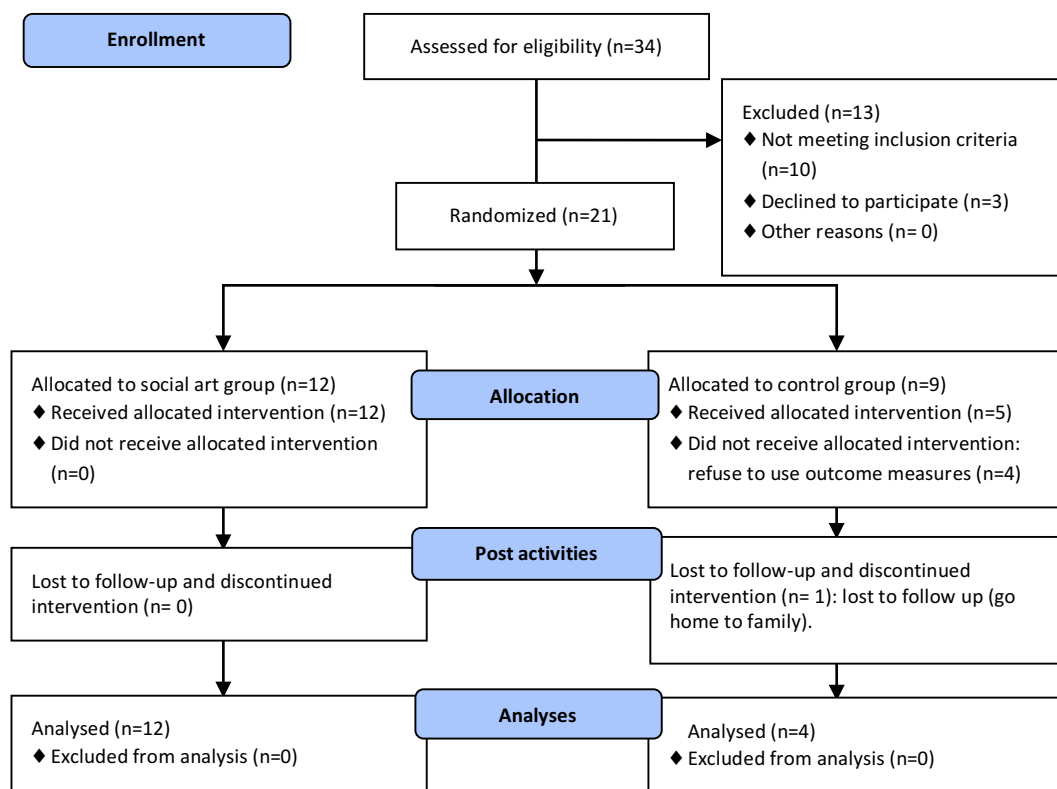


Figure 1. Participants flow diagram.

Activities Protocol

The social art group (AG) was performed in 12 sessions, each session lasts for 90 minutes, twice a week. The first 60 minutes of the session were devoted to drawing or collage activity and the last 30 minutes was intended for a discussion. The sessions were conducted in a group with 4 people each. The participants were directed to work on their own art and to discuss their drawings or collages with their group members. After completing their art activities, participants discussed their art projects with their group members. If the participants did not have any idea what to discuss, then a research assistant would encourage them to say what they thought of the art project they had made. In such a small group, every participant could easily interact and relate with their peers. Information about the content of each session is presented in Table 1.

Participants in the control group (CG) engaged in daily regular activities such as praying, watching television, or reading for 90 minutes. These were regular and ongoing activities in nursing homes; participants did not receive any therapeutic interventions as above.

Table 1. Social Art Activities Protocol

Session	Theme	Activities	Intervention goals
1	Pretest Hand contour	Each group member creates a contour drawing, writes their names on it, and decorates the words and uses only a black marker or a crayon.	Self-expression and the exploration of feelings.
2	Flowers	Drawing: draw flowers and color them. Collage: Arrange picture cutouts of flowers and then color them.	Self-expression and the exploration of feelings.
3	In pairs	The participants look at their partner. Drawing: Draw their partner's portrait. Collage: choose suitable clothes for their partner from a magazine and picture cutouts of clothes.	Learning to realize how self perceives others
4	Own clothes	Drawing: draw their own clothes without looking. Collage: choose their own clothes from picture cutouts from magazine and arrange them on a white paper with a glue stick.	Self-realization and self-perception
5	Family	Drawing: draw their own family and color it. Collage: arrange in white paper of own family from picture cutouts from magazine.	Recall childhood memories
6	Pleasant experience	Drawing: draw pleasant experience in life. Collage: Choose some design/shape/anything that reflects pleasant experience in life.	Recall past memories
7	Emotions	Drawing: draw present emotions and color them. Collage: Arrange some design/shape/ anything that reflects present emotion.	Expression of emotions
8	What is in the box	Drawing: draw a box together; add color, design/ object. Collage: make a box together and decorate it using color and other found objects.	Building self-empathy
9	Who are you	Regarding a box. Drawing: draw objects that represents values, family or friends that are important for them. Collage: Arrange objects that represent values, family/friends that are important for them.	Concretizing changing role and identity
10	A picnic scene	Discuss a theme for wonderful picnic with group members. Drawing: draw alternately the object for a wonderful picnic and color. Collage: Choose picture cutouts from magazines to arrange a wonderful picnic on a sheet of paper.	Problem solving
11	Mural	Drawing: draw what older people all over the world have in common and use colors. Collage: Choose picture cutouts from magazines to arrange together what older people all over the world have in common.	Identifying universal problems
12	Termination Posttest	Each group member looks at their drawing and shares their experience. Discussion.	Self-Evaluation

The first session started with an ice breaking, in which participants were directed to draw a hand contour drawing, write their name on it and decorate the words using a black marker or a crayon. Afterwards, the participants were allowed to talk about their emotion related to their first art projects. In the second session, the participants drew or arranged cutout pictures of flowers. They could color it with crayons and added other objects as they liked. After participants completed their art project, they discussed their impressions of the art project within their group. The goal of the second session was to explore and express themselves.

The third session was focused on self-expression by drawing and completing a picture in pairs. Participants looked at their partners and drew their partners' portraits. They could also draw their pair's cloth. In collage making, they could dress up their pairs' (pay attention to the color, design, details such as buttons, colors, belts, etc.). In this session, they learned to realize how

other people perceived themselves. After the activity, they were encouraged to give comments about their drawing/collage of their peers.

The fourth session was focused on self-realization and self-perception. The participants were directed to draw their own clothes without looking it over. They were allowed to use colors. They could also choose suitable clothes for themselves using picture cutouts that were available on their table, and arranged them on a piece of white paper, and sticking them using a glue stick. The research assistant guided participants to discuss how they saw themselves, and what they thought about their drawing/collage.

The fifth session emphasized on recalling childhood memories. This session helped participants to put their childhood memories into a concrete form and it gave opportunity to remember the experiences they had gone through in their lives. It would strengthen self-identification and self-esteem. The participants were directed to draw their own family and coloring it with crayons. In collage making, they could arrange their own family in a piece of white paper, using available picture cutouts, magazines and a glue stick. The research assistant led the group members into discussions that stimulated further recall.

The sixth session concentrated on recalling pleasant memories from the past. Helping participants to retrieve pleasant memories would make them realize and revalue the positive aspects of their lives. Participants drew their pleasant experiences or they could arrange designs/shapes or anything that reflects a pleasant experience. Discussion was held after they finished their artwork, focusing on how they felt about their artwork.

The seventh session focused on expression of emotions. This session gave a chance to develop the ability to express and feel the feeling of here and present time, in order to help them realizing their current emotional condition. The participants were directed to draw their present emotions using color and pencil on a piece of white paper. In the discussion, they explained their impressions and feelings toward the process of art making.

The theme of the eighth and ninth sessions was about a box. The box is symbolic to one self in which the outside of the box reflects how you or other see yourself from the outside; and the inside of the box is the feelings or emotions that they tend to hold/hide inside. In the eighth session participants drew or made a box and decorated the outside of the box using colors or designs. This activity is intended to build self-empathy. Participants were encouraged to discuss their impressions and feelings about the art project.

In the ninth session, the theme was “the inside of the box”, the participants were directed to draw objects that represent their value, family or friends that were important to them. They were allowed to use colors. The purpose was to concretize the changing roles and identities. It helped participants to understand their roles might change by age but their identity would exist even without work.

The tenth session was focused on problem solving. The participants in the group were directed to alternately draw an object of a wonderful picnic theme on a sheet of white paper. At first, they discussed the theme. They could use colors as they liked. In collage making, they arranged a wonderful picnic together on a sheet of white paper. They could choose picture cutouts from magazines. The eleventh session was focused on identifying universal problems of elderly people. Participants were directed to draw what older people all over the world had in common

on one piece of white paper. The last session was self-evaluation. Participants looked at their drawing and shared their experiences during social art activities.

Statistical Analysis

For this pilot study, no power analysis and sample size calculation were performed. Data from the GDS, SWLS, and MMSE were analyzed with 2x2 repeated-measures ANOVA to see the interaction between groups and *t*-test to look for the differences between the groups. Data from the interview and the observation were analyzed using content analysis.

Results

Demographics

We initially recruited 34 participants, 21 people met the inclusion and exclusion criteria, but only 17 participants completed the pre-test measures. During the activities, one further participant left and submitted incomplete data. In the end, 16 participants remained (N=12 in AG; N=4 in CG), and only data of these 16 participants were analyzed and reported. The participants' ages ranged from 65 to 85 with a mean age of 77 (SD=6, 94); 87,5% females and 12,5% male. Table 2 shows data frequencies of gender, ethnicity, marital status, the length of stay and the reason for living in the nursing home.

Table 2

Descriptive statistic of the participants

Demographic		Social Art Activities Group (n=12)		Control Group (n=4)		Total (n=16)	
		Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Gender	Male	1	8,3	1	25	2	12,5
	Female	11	91,7	3	75	14	87,5
Ethnicity	Chinese	5	41,7	1	25	6	37,5
	Javanese	7	58,3	1	25	8	50
	Other	0	0	2	50	2	12,5
Marital status	Married	4	33,3	3	75	7	43,8
	Single	8	66,7	1	25	9	56,3
Length of stay in NH	3-6 m	2	16,7	0	0	2	12,5
	7-12 m	1	8,3	0	0	1	6,3
	1-5 y	6	50	2	50	8	50
	6-10 y	2	16,7	2	50	4	25
	>10 y	1	8,3	0	0	1	6,3
Reason for living in NH	Lonely	8	66,7	3	75	11	68,8
	Less family care	1	8,3	0	0	1	6,3
	No support income	2	16,7	1	25	3	18,8
	Other	1	8,3	0	0	1	6,3

Depression symptoms

The results on GDS pre and post measurements based on 2x2 repeated-measures ANOVA showed that there was no significant interaction between time of measurement (pre and post) and group (AG vs. CG) with $F(1, 14) = 1.76, p > .05, \eta_p^2 = .122$. The results indicated no significant between-group differences in scores pre and post measure of GDS with $t(14) = 1.32, p = .205$. Seven out of 12 participants experienced that their depression symptoms decreased after AG, as well as 2 out of 4 in CG.

Well-being and Cognitive Functioning

Repeated measures on well-being using SWLS revealed that there was no significant interaction between time of measurement (pre and post) and group (AG vs. CG) with $F(1, 14)$

= .093, $p > .05$, $\eta_p^2 = .007$. The scores differences between group in pre and post measure showed that the well-being more increased in AG compared to CG with $t(14) = .305$, $p = .765$.

The same analyses on cognitive functioning (pre and post) reported that there was no statistically significant result on the interactions between time and group (AG vs. CG) with $F(1, 13) = .02$, $p > .05$, $\eta_p^2 = .002$. The t -test presented that the score of cognitive status in both groups remained the same with $t(13) = .147$, $p = .088$.

Interviews

The interview results on 12 participants of AG indicate that they considered the social art activities as useful instruments to express their feelings. When they were questioned about the activities, they said they realized they were able to perform the activities and increase their social interactions. These activities influenced their emotional state. Some illustrative answers from the interviews are mentioned below:

- *I'm happy because I can draw something that is on my mind, I am satisfied with the results of my drawing and I want to do it again. (Participant # 5).*
- *I don't want to draw because I can't draw and my drawing is poor...but after I tried to draw, I feel happy and satisfied that my drawing turned out fine. (Participants #2)*
- *I think the activity is useful for me and other people; it's beneficial to train us to cooperate. I can collaborate with other residents and do the activities..... I'm happy that I can draw a beautiful flower. (Participant #6).*
- *At first I didn't know what to do, but I'm happy and satisfied to see my art project.I like to do this activity because it's easy and fun.I'm blessed that I'm still able to create something.....I feel relaxed that I can express something that burdens me. (Participants #10)*

Observations

Observations in each session used eight points of evaluation. The responses of each participant were recorded on the observation form, and then content analysis was conducted to determine the occurrence of certain responses that related to the points of observation. Their responses were analyzed and similar responses were in every session. Consequently, the responses were divided into 3 phases of therapeutic change (see table 3).

The analysis revealed that participants' conditions changed into a positive direction. In the first phase (1-5 sessions), participants displayed their understanding toward the activities. They could follow the instruction of the art activity. The participants showed their cooperation by focusing on the process of art making. In contrast, they tend to be more passive, submissive and feel unsatisfied with the results. Even though they could finish the project, they had an impression that the activity was useless. In the second phase (6-8 sessions), the participants were interested in the activity and they started to initiate communication. They began to support their group members to start the activity. In the third phase (9-12 sessions) of the activity, the participants became more enthusiastic in doing the art activities and they shared their experiences during the process. They actively talked and discussed their art project between one another.

Table 3
Phases of therapeutic change

No	Variable	Phase		
		1 (Session 1-5)	2 (Session 6-8)	3 (Session 9-12)
1	Comprehension	Good, able to understand the instructions		
2	Cooperation	Passive and submissive, self-focused, impatient	Support other group members	Share experience and give help
3	Communication	Passive, limited and or refused to communicate, introvert	Initiate to communicate, tell the experiences	Ask and give opinions, make an interaction, make humor
4	Involvement	Passive and need support to participate: refused and was not interested in the activities	Display interest in participating and initiating activities	Active participation: responsive, enthusiastic in the activities
5	Expression	Before Flat, disoriented, not confident, unmotivated, was unable to do the activities	Show interest, initiative seriousness, concentration and passion in doing the activities	Show enthusiasm and happiness through their smiles
		During Focused, serious and looked enjoyable	show interest and happiness	Enthusiastic to finish the activities
		After Unsatisfied with the result, unhappy	show happiness and satisfaction that can be seen from their smiles	Happy, look satisfied, relieved with smiles on the face
6	Emotional state	Unhappy, unsatisfied and flat	Satisfied, happy, and proud of the results	Competent, and grateful
7	Liveliness	Passive, feel enforced to do the activities	Focused and active in completing the activities and less talking	Active in talking and discussing the activities with others
8	Impression	Useless activities	Feel the benefit of the activities	Competent and energetic

Discussion

The purpose of this pilot study was to explore the feasibility, acceptability and the effectiveness of social art activities for Indonesian elderly people living in a nursing home. The results showed that the social art activities are feasible and acceptable. The activities are feasible, which means that the elderly people were interested in the activities and they showed positive changes in their emotional expression, liveliness, cooperation and communication with others. The social art activities are acceptable which means that the elderly were willing to be involved in the next social art activities. Statistical analysis revealed that there were no significant differences in depressive symptoms and wellbeing after the art activities. Nevertheless in 7 out of 12 participants in AG had decreased their depressive symptoms compared to CG (2 out of 4); and all participants in AG had a greater increase in well-being than CG. The cognitive functions remained the same in both groups.

Our findings on depressive symptoms were in contrast with previous studies that used similar methods (see Doric-Henry, 1997; Im & Li, 2014; Jones, et al., 2006). A number of factors could explain the differences of the results. The increase of the depressive symptoms experienced by some of the participants could be associated with the increased age, lower income, poor physical health, physical disability, cognitive impairment, lack of care from the nursing home staff, lack social support and loneliness (Barca, et.al., 2010; Jongenelis, et al., 2004). Our finding about well-being is similar to the previous research that social interaction during the art activities improved happiness and satisfaction; and reduced emotional stress (Jones, et al., 2006; Kim, et al., 2014). The result on cognitive measure indicated that 12 sessions of social art activities is not enough to improve cognitive functioning. This result is different from earlier research (see Pike, 2013).

The small size of our study sample might offer another explanation for the ineffectiveness of social art activities. Only one out of seven private nursing homes in Jakarta-Indonesia agreed to participate in this pilot study. They refused to participate because they already had different activities. Moreover, we found only 16 out of 34 eligible people who met the criteria for our studies. Despite, the small number of participants had advantages for therapists during

therapeutic session on establishing rapport, and conducting interviews and observations (Himawan, Risnawati & Wirawan, 2014). The randomization of 16 people to the two groups was not equal, with 12 people in AG and 4 people in CG. The small sample size might have prevented us to detect any significant differences between the groups (Schulz & Grimes, 2002). We should have taken into account that participants might drop out from the study and engaged more participants for the study. In future, the use of the measurement of depression (GDS) might not be sensitive to detect small changes in depressive symptoms. The suggestion for a future study is to consider using the Beck Depression Inventory (BDI) as one of the measurements to assess depressive symptoms in elderly people.

Instead, we did find a therapeutic change in AG that is consistent with the theory (Moon, 2010). The social art activity created changes on participants. Based on observation their responses were similar in every session. They tended to understand more about themselves and the emotional distress that they experienced. The positive change displayed at each session occurs gradually from the first session to the end of the activity.

The 12-session program was not conducted continuously even though it was planned to be completed within three months. During the implementation of the program, a number of sessions were missed when the participants returned to their families (December 18th, 2013 until January 16th, 2014) for holiday. Therefore, they had to postpone the activity for a month. This temporary termination in the middle of the program could have prevented the participants to gain benefit from the activities. In line with the theory proposed by Csikszentmihalyi (2014), if the participant could not engage in an activity as planned, the motivation would decrease. When they have low motivation to engage in the activities, they do not perform optimally as evaluated at the end of the program. This situation was considered as a form of inconsistency. Continuous process is necessary for the participants to remain in the activities in order to obtain the benefit of the program.

Conclusion

Social art activities can be considered feasible, acceptable and (possibly) effective for elderly people with depressive symptoms in nursing homes in Indonesia. Some of the elderly people experienced a decrease in their depressive symptoms while their well-being increased after participating in AG compared to CG, even though their cognitive functions remained the same. The differences in scores of the pre and post measurements were not significant, yet the qualitative evidence supports the notion that participants' conditions changed into a positive direction and they start to share experiences during the activities in a social context. Therefore, we suggest that these activities have a positive impact on reducing feelings of depression and improving well-being. We hope that this research is a launching point for future research to increase the well-being of elderly people, since there is little information on the effects of social art activities on depressed elderly people in nursing homes in Indonesia.

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Theorizing One Learner's Perceived Affective Experiences and Performances from a Dynamic Perspective

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Abstract

This paper examines the perceptions of one Chinese learner of English at a university. From a Dynamic System Theory (DST) perspective, the student's perceptions, affective experiences and classroom learning will be explored by identifying the non-linear relationships between them. This paper aims to investigate the relationship between the student's perceived affective experiences and her self-reported performances in a foreign language classroom. The participant was a second-year university student from a foreign language university in China. Diary, questionnaire, semi-structured interview, and class observation were applied to investigate this 6-month longitudinal study. Emotional ambivalence including several different affective patterns and five attractor states, namely, *Integrative Disposition*, *Amotivation*, *Autonomy*, *Actual Learning Process* and *Language Awareness* were identified.

Keywords: Foreign Language Acquisition (FLA), Dynamic System Theory (DST), affective experiences, non-linear relationship

Introduction

In terms of the motivational and affective aspects in Foreign Language Acquisition (FLA) studies, currently, most studies tended to provide evidence to support the potential linear relationship between the target emotion, such as anxiety and one aspect of language learning, such as L2 speaking (Chen & Lee, 2011). However, it is possible that similar speaking performances amongst the students may result from different patterns of affective change other than only one emotion. This assumption can be linked to Dörnyei's (2010) reconceptualization of Individual Differences. "... even people with outwardly similar ID patterns can travel very different paths as a result of some difference in a personality constituent that is seemingly irrelevant or of secondary importance" (Dörnyei, 2010, p.262). Therefore, it can be more fruitful if the combinations of different emotions were studied as a whole and from a more open non-linear relationship mapping angle to identify their potential changes over time and their impact on the learner's self-reported performance.

Here, the self-reported performance differs from real exam scores, which are normally used in a linear test study. Instead, I investigated the learner's self-reported performances after she received feedback from the teacher when certain tasks or exams were finished. One reason to explain why to analyse the learner's self-reported performance is because the same test score could be perceived differently by different individuals, which may affect their further motivation to learn in different ways (Orsmond and Merry, 2013).

The purpose of this case study is to investigate the nonlinear dynamic relationship between the learner's perceived affective experiences and self-reported performances. It is important to obtain a fuller understanding of the dynamism of the learner's emotional and motivational change through learning. The traditional '*Variable*' identification, which implied a causal link in the first instance, may not be adequate enough to theorize such dynamism (Dörnyei, 2009; Larsen-Freeman, 2006). Therefore, Dynamic System Theory (DST) was applied as a new paradigm to study the nonlinear relationship between motivation, emotions and performances.

Literature Review

Larsen-Freeman (1997) first introduced DST to FLA studies. She provided a clear link between the limitation of the traditional methods and the possibility to alter the current research paradigm by applying DST. In her paper, she started from Newton's alternative thinking to the linear, reductionist thinking, aiming to call attention to the system application in which DST occurring in nature of language acquisition. Moreover, she argued five aspects of FLA from a DST perspective: mechanisms of acquisition; redefinition of learning; instability of interlanguages; individual differences; and effect of instruction. She provided some fresh images for FLA phenomena from a DST perspective.

As a consequence, she concluded that the traditional methods which were based on the analysis of isolation and collection of complete data of phenomena were not capable to deal with interdependencies under DST paradigm. Therefore, transition of concept and methodology was required (Dörnyei & Ushioda, 2011; de Bot, 2008; Larsen-Freeman, 2007).

Evaluation of Current FLA Affective Studies

As Scherer (2005) argued, “The concept of ‘emotion’ presents a particularly thorny problem...the question ‘What is an emotion?’ rarely generates the same answer from different individuals, scientists or laymen alike” (p. 696). Current affective theories differ greatly in terms of the numbers of emotions and the principles that are evoked to differentiate one emotion from another. The measurement of FLA affective experiences depends on how researchers define the emotions being studied.

In general psychological context, four major theories of emotions were widely studied by researchers. They are dimensional theory of emotion, discrete theory of emotion, meaning oriented theory of emotion and componential theory of emotion. Under foreign language acquisition context, the definitions of emotions or affective experiences vary according to different research aims. In this study, the definition and measurement of affective experiences are in accordance with componential theory from a dynamic perspective. The reason to define and measure the learner's perceived affective experiences with Component Process Model (CPM) is that an emotion was conceptualized “as an emergent, dynamic process based on an individual's subjective appraisal of significant events” (Scherer 2009, p. 1307), which concept is significantly compatible with the research aim and research questions in this study.

The three examples below provided above presented three different ways to study FLA affective experiences. They have both strength and weakness, with respect to methodological issues and results.

The first example related to the most popular studied emotion, foreign language anxiety. Anxiety was defined by Horwitz, Horwitz and Cope (1986) as “a distinct complex of self-perceptions, beliefs, feelings, and behaviours related to classroom language learning arising from the uniqueness of the language learning processes” (p. 128). Also, they acknowledged the uniqueness of foreign language anxiety and introduced the Foreign Language Classroom Anxiety Scale (FLCAS) as an instrument to measure anxiety levels.

Another example was the study designed by Garrett and Young (2009) who theorized affects in foreign language learning by analysing one learner's responses to a communicative Portuguese course. Interviews were employed by the researchers and grounded theory was applied to analyse the participant's affective responses. Rather than identifying what the emotions were, four main topics, namely, language awareness, teacher voice, social relations and culture learning were identified emerging “from the transcripts as eliciting the most affective responses” (Garrett & Young, 2009, p. 212).

A third example was the study designed by López (2011) who argued although “the process of learning a foreign language is replete with emotions, these have not been sufficiently studied in the field of English Language Teaching” (p. 43). López (2011) tried to bridge this gap and argued that five emotions including fear, happiness, worry, calm, sadness and excitement were most experienced by learners through foreign language learning. The findings were based on a

weekly electronic journal written by 20 students over 12 weeks.

To sum up, firstly, the FLCAS is a 33-item individual self-report Likert scale questionnaire and largely applied in different language context by researchers worldwide (Zhao et al., 2013; Darmi & Albion, 2012; Nagahashi, 2007; Gregersen, 2005). The strength is that the data collected by researcher are quantifiable and subjective to computation of some mathematical analysis. However, one significant weakness of FLCAS is that the Likert scale questionnaire only provides five to seven options and the space between each option can hardly be equidistant. Therefore, Liu (2012) pointed out that further data collection methods, for example, semi-structured interviews, classroom observations, and diaries could be applied to supplement FLCAS, in order to obtain a more comprehensive picture of foreign language anxiety.

Secondly, Garrett and Young's (2009) research was inspiring because they applied an inductive method, ground theory, to theorize one learner's affective response in a foreign language learning context. As they argued, the learner's affective responses was unique and "no claim should be made that other learners respond in similar ways to similar experiences" (p. 224). However, Garrett and Young's (2009) research did not identify the specific. On the other hand, López (2011) tried to identify specific emotions and reported that fear, happiness, worry, calm, sadness and excitement were most experienced by learners through foreign language learning. López's (2011) study not only reported negative emotions, it revealed that positive emotions, namely calm, happiness and excitement were possibly experienced by foreign language learners. Similarly, a growing number of researchers started to focus on positive affective experiences through foreign language learning process (Gabrys'-Baker, 2013; Gregersen, 2013; MacIntyre & Gregersen, 2012).

Evaluation of Current FLA Performance Studies

Regarding FLA learner's performances, a large number of publications studied the learner's real test scores (Zhang & Rahimi, 2014; Imai, 2010; Du, 2009). On the other hand, other researchers, for example, Marian, Blumenfeld and Kaushanskaya (2007) studied learner's self-reported performances and found out that "self-reported speaking proficiency was a more accurate predictor of second-language performance" (p. 940). In addition, Huang (2015) examined university learners' self-assessment and self-feedback on performance from one English speaking test.

Self-assessment focused on "the facilitation and development of learners' learning through engaging in self-assessment", rather than 'on assessment itself, nor on correctness or power' (Huang, 2015, p. 2). Similarly, Matsuno (2009) compared Self-, Peer-, and Teacher-assessments in an English writing class at a Japanese University. Furthermore, Orsmond and Merry (2013) elaborated the importance of self-assessment in biological sciences students' use of teachers' feedback. As a result, Orsmond and Merry (2013) identified that the same real test score can be considered differently by different students. Two archetypes of students were identified: high achieving student and non-high achieving student.

Link between Existing Gap and DST Research

There are several gaps from the previous studies in terms of FLA affective changes over time and their nonlinear relationship to other components through learning based on individual studies. First, one gap is that a fuller understanding of the constant changing of emotions in the language learning process needs to study both positive and negative emotions. Current FLA affective studies focus more on discrete affective variables rather than affective patterns. However, most studies in terms of FLA affective experiences focus much more on negative emotions, particularly language anxiety; whereas other emotions such as enjoyment or relief have been understudied. One possible reason may be connected to the preconceived knowledge of the researchers. The anxiety research in FLA is relatively well-established compared to other emotions. Howe and Lewis (2005) provided an explanation of why researchers stick to well-established theories and framework and may explain why other emotions are understudied.

Howe and Lewis (2005) argued:

We think this is because the trajectory of developmental psychology, like other dynamic systems, tends toward stability much of the time. Researchers stick to well-established habits of thinking and working, and their students acquire the same habits, often because that is the easiest road to publication and career advancement. (p. 250)

Second, another gap is the traditional linear relationship mapping. Bates and Carnevale (1992) made the following statement:

A relationship between two variables is linear if it can be fit by a formula of the type ' $y = ax + b$ ', where y and x are variables, and a and b are constants. Any relationship that cannot be fit by a formula of the kind is, by definition, non-linear (p. 9).

Also, Herdina and Jessner (2002) provided the following two figures to compare traditional linear and non-linear relationship mapping in FLA.

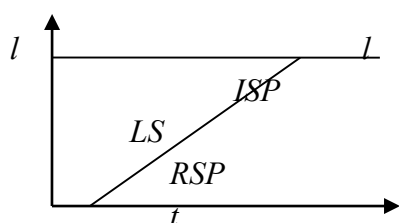


Figure 1. Linear Relationship

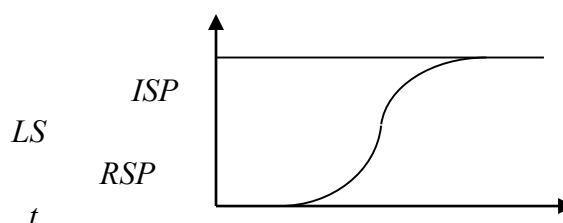


Figure 2. Non-linear Relationship

To be specific, LS refers to Language System, t refers to time, l refers to language level, ISP refers to ideal native speaker proficiency, and RSP refers to rudimentary speaker proficiency. In *Figure 1*, most traditional FLA studies presupposed that the process when a learner tried to achieve the ideal native speaker competence over time was linear (Herdina and Jessner, 2002). However, they argued that the language growth or loss was not at the same speed increase or decline. As a result, they developed a non-linear relationship mapping, which had been termed Dynamic Model of Multilingualism (DMM) and *Figure 2* was a part of this model.

By the acknowledgement of the dynamism of FLA affects, researchers increasingly attempted to study FLA affects from a DST paradigm (Larsen-Freeman, 2014; Verspoor, 2014; Ushioda, 2014; de Bot, 2014; Dörnyei, 2014; Waninge, 2014). The most recent theoretical framework,

Directed Motivational Currents (DMC), was proposed by Dörnyei, Ibrahim and Muir (2014). A DMC was defined as “a potent motivational pathway, which emerges when a specific set of initial conditions fall into place to allow for directed motivational energy to be channeled into a behavioral sequence that is aimed towards a predefined, explicit goal” (Muir and Dörnyei, 2013, p. 359). In addition, Dörnyei, Ibrahim and Muir (2014) identified four components as central to this construct, namely, Generating Parameters, Goal/vision-orientedness, Salient Facilitative Structure, and Positive Emotionality.

From existing literature on examining FLA affective experiences, the main research methods were retrospective interviews, questionnaires and diary entries. A question may be concerned in terms of methodological issues with the data. How accurate are participant’s retrospective reports of affective experiences? Oatley and Duncan (1992) argued that retrospective diaries were more accurate than questionnaires. Also, Nagurney *et. al.* (2005) argued that retrospective interviews helped to minimize recall bias.

Another issue relating to the accuracy is the participant’s awareness of reality and their expression of reality. This issue concerns the relationship between reality, awareness and theory. Similarly, as MacIntyre and Gregersen (2012) pointed out, “much of the existing qualitative research has tended to take a long view, with retrospective narratives emerging from interviews that may be influenced by a number of factors, such as self-serving bias, hindsight bias, and autobiographical memory biases” (p. 108).

Dynamic System Theory (DST)

Meiss (2007) defined DST as “a trajectory as a function of a single parameter (time) on a set of states (the phase space) is a dynamical system” (p. 105). DST was originally a branch of theoretical mechanics, which was originally designed to mimic the dynamic system. Subsequently, DST developed as a mathematical tool for the analysis of a number of issues, for example, the trajectory of the moon under the influence of the sun, the earth and other planets. In the realistic world, there was a system for each level (de Bot, 1996). Therefore, DST has been adapted and used in different disciplines, from economics to infectious diseases; from meteorology to the solution of practical problems, such as heart rate control, and oil drilling. Although DST was a relatively new theory (van Geert & Steenbeek, 2005), it remained attractive and made more researchers to begin working from a dynamic perspective.

Application of DST in FLA

More scholars tended to apply DST into FLA researches, because of DST’s unique characteristics, for example, self-organization and non-linear, which might fulfill the isolation gaps being revealed from the traditional research. Several examples can support this trend. For example, Larsen-Freeman (2012) argued that DST was a new transdisciplinary theme for FLA. The most important researchers applying DST to FLA included ‘Five Graces Group’¹, Larsen-Freeman, de Bot, Herdina and Jessner, van Geert and Dörnyei. These researchers have shifted

¹ Authors of the “Five Graces Group” : Clay Beckner, *University of New Mexico*; Nick C. Ellis, *University of Michigan*; Richard Blythe, *University of Edinburgh*; John Holland, *Santa Fe Institute*; Joan Bybee, *University of New Mexico*; Jinyun Ke, *University of Michigan*; Morten H. Christiansen, *Cornell University*; Diane Larsen-Freeman, *University of Michigan*; William Croft, *University of New Mexico*; Tom Schoenemann, *Indiana University*

from studying discrete factors to studying the whole from moment to moment. Traditional linear studies have revealed the inadequacy of studying the change and individual complexity. For example, Dörnyei (2010) argued that sometimes a seemingly irrelevant tiny difference between learners can lead to a huge difference in their path selection, though they may have very similar ID patterns. Therefore, researchers start to study the combination of traits instead of isolating discrete factors.

Research Questions

From a dynamic perspective, what is the relationship between the learner's perceived affective experiences and her self-reported performances in a foreign language classroom?

Sub-1: What affective experiences do the learner report as she engaged in learning?

Sub-2: How do these perceived affective experiences differ in various contexts?

Sub-3: What attractor states do the learner report as she engaged in learning?

Sub-4: How do these perceived affective experiences relate to her self-reported performance?

Methodology

Dörnyei (2014) argued that “we face serious problems when we want to conduct empirical research within a dynamic systems framework”, because “dynamic systems research is such a new and uncharted territory that there are simply no tried and tested research methodological templates available” (p. 83-84).

Phenomenographic Approach to This Case Study

The aim of the current study is to investigate the relationship between the learner's perceived affective experiences and her self-reported performances in a foreign language classroom from a DST perspective. For this purpose, phenomenography, developed by Ference Marton (1981) was employed as a qualitative research theoretical framework for this study. Phenomenography is “the empirical study of the qualitatively different ways in which a phenomenon can be experienced, perceived, apprehended, understood, conceptualized” (Marton, 1994). The relationship between the reality, awareness and theory in phenomenography can be illustrated by *Figure 3* below.

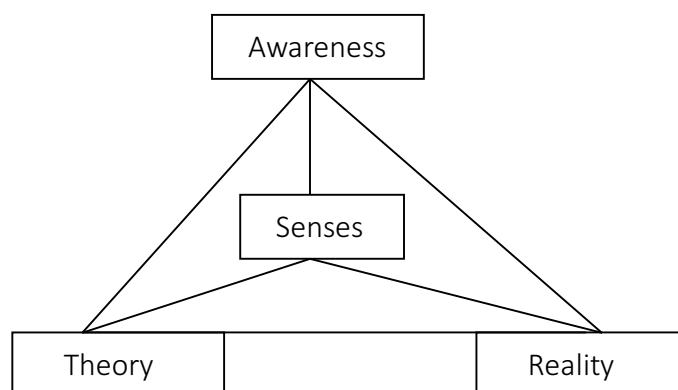


Figure 3. The Relationship between the Reality, Awareness and Theory,
(Uljens, 1996, p. 115)

The rationale to choose phenomenography as research methodology is that the ultimate goal of phenomenography is to explore the perceptions individuals hold regarding a given phenomenon through different timescales (Marton, 1981). This study requires a holistic understanding of the dynamic interplay between individual affective experiences, learning context and performance. Regarding ontological assumptions, phenomenography has a non-dualist view of nature. The separation

between the internal thinking and external context is abandoned (Uljens, 1996). There is no universal principle of reality existing because the reality to one individual is different from that of another and is not fixed from one moment to the next (Pherali, 2011). This argument can best adapt to the study of dynamism in individual knowledge, awareness and affective changes overtime.

Phenomenographers investigated the individual's awareness of reality and their expressions of reality from a second-order perspective (Bowden, 1995). To be specific, Marton (1981) argued that in a second-order perspective, researchers "orient themselves towards people's ideas about the world and make statements about people's ideas about the world" whereas in first-order perspective, researchers "orient themselves towards the world and make statements about it" (p. 178). That is, a second-order perspective in phenomenographic research is to study the experiences as individuals describe them.

In addition, the current phenomenographic study adopts a second-order perspective to identify how the learners conceive their world rather than a first-order perspective. The definition and measurement of affective experiences are in accordance with componential theory from a DST perspective. The reason to define and measure the learner's perceived affective experiences with Component Process Model (CPM) is that emotion is conceptualized "as an emergent, dynamic process based on an individual's subjective appraisal of significant events" (Scherer 2009, p. 1307), which concept is significantly compatible with the research aim and research questions in this study. A deductive approach was employed for measuring affective patterns by applying Geneva Affect Label Coder (GALC) and Scherer *et. al.* (2013) GRID paradigm.

In the current study, instead of identifying the learner's real test score, I investigated her self-reported performances after she received feedback from her teacher when certain tasks or exams were finished. As Boud (1995) claimed the importance of self-reported procedure was because self-reported performance included the process of making standards of performance expected and making judgments on the quality of the performance accordingly. This argument can be linked to Andrade and Du's (2007).

Andrade and Du (2007) argued that:

Self-assessment is a process of formative assessment during which students reflect on and evaluate the quality of their work and their learning, judge the degree to which they reflect explicitly stated goals or criteria, identify strengths and weaknesses in their work, and revise accordingly. (p. 160)

Validity Issues of Self-reporting Data

Different self-report approaches including diary, questionnaire and semi-structured interview will be used to gather data. The biggest advantage is that the research is able to obtain the learner's perceptions about herself and the world directly, which cannot be obtained in any other way. However, the main disadvantage of self-reported data is potential validity problems. The data are personal and may have little relationship with reality. Marton (1994) argued that there were two main reasons for this validity problem: first, the learners' reports may limit to their self-knowledge because some of the feelings may be unconscious; second, learners' social self-images will affect their responses. In other words, researchers may face the risk of to obtain misleading data because either the learners do not know the reality or do not want the research to know.

There are debates about how to obtain good quality self-reported data. As Bowden (1995) argued, each method had both advantages and disadvantages. Regarding self-reported data, four procedures will help minimize bias: triangulation, audit trial, consider negative cases and constant comparison (Taylor et al., 2005). This study will follow the above four procedures to validate the data obtained from the learner.

Data Coding Procedure

There are three phases in my data coding process. In the first phase, I have transcribed all diary entries, questionnaires and audio-recorded interviews in the original language Chinese Mandarin. Then I checked all transcripts against the original documents and recordings for accuracy. Furthermore, I read the transcripts several times to familiarize myself with the data collected from the participants. CAQDAS (Computer Assisted Qualitative Data Analysis Software) NVivo was used to assist data analysis, and in the meantime, I inserted memos during my readings of the transcripts. In the second phase, I conducted the first cycle coding by using magnitude coding method, emotion coding method and In Vivo coding method. In the third phase, I conducted the second cycle coding by using pattern coding method and longitudinal coding method for measuring affective patterns and self-reported performance trajectories, respectively. Also, in the third phase, I integrated scholarly literature into the analysis to define themes.

Research Design

Methods. Four tools were employed for data collection: Diary, Questionnaire, Semi-structured Interview, and Class Observation. This applied to the first procedure of triangulation to validate phenomenographic data. To be specific, 6 months with an interval of 2 months was covered for this longitudinal study. The data collection was in learner's first language, Chinese Mandarin in order "not to let the lack of L2 proficiency affect the participants' expressiveness" (Zheng 2012, p. 87). The data was then transcribed and translated into English.

First three tools had different emphasis points. To be specific, diary entries were designed for keeping records of her affective experiences. The learner was asked to keep diaries every week. She could write almost anything relating to her affective experiences. These notes could be irrelevant to FLA teaching and learning activities. Questionnaires were designed to obtain the learner's learning and performances. Interviews were designed according to Mercer's (2012) interpersonal and intrapersonal concept, aiming to integrate her perceived affective experiences

and self-reported performances.

In this study, the learner was studied over 18 weeks (equals to 6 months with an interval of 2 months) from 28 April to 27 June (9 weeks) and from 1 September to 31 October (9 weeks). The reason for the selection of the above two periods of time is that, in the selected university, this period covers 7 regular tests (twice a month), 2 big exams (one final and one mid-term exam) and one English Oral Competition, which may significantly affect learner's emotions, motivations and English performances.

The learner was observed once a week as she attended the Comprehensive English class. This module has been selected for classroom observation because it included all kinds of English activities, namely, speaking, writing, listening, reading and grammar. Also, the learner was asked to write the diary entry once a week after her attendance at the observed class and provided copies of her diary entries once a week to me for constant comparison. She was interviewed twice a month after she has received feedbacks after her regular tests, big exams and the competition. The interviews were audio-recorded. Each interview lasted around half an hour's time. She was asked to complete a questionnaire consisting largely of open-ended questions to supplement the written information gathered from the diary entries. The questionnaire was distributed twice per month and the learner was given several days in which to complete them. The diary entries and questionnaires may garner similar information from the learner but this was done over different time scales, with the diary entries gathering short term responses and the questionnaires medium term. Class observation was applied for the purpose of being involved in the same context with the learner. Therefore, the researcher was able to obtain the knowledge of the context about the classroom activities.

Data gathered from diary entries, interviews and class observation were used to answer the 1st and 2nd sub research questions, whereas that gathered from questionnaires, interviews and class observation were used to answer the 3rd sub research question. Interviews were used to answer the 4th sub research question and integrated all sub research questions in order to answer the main one.

Sampling. The learner was from a Foreign Language University in China. She was a second-year Chinese student of English who was selected at random from one class and asked to volunteer to take part in the study. The learner was studying a degree in English. The first reason for choosing a second-year university student instead of year one, three or four is because if the learner may be a very confident English speaker (like year four), she may not have strong negative emotions about learning English as a learner in other years may have. Secondly, another reason is according to the possible access of the learner. Since this study is an in-depth investigation across six months including two semesters and one summer vacation in the middle, year one students are new to university and busy with the military training while year three students are in their intern period. Therefore, the year two students are the most suitable participants for this research.

Data Analysis. Nine individual interviews took place at two-week intervals. The

interviews were audio-recorded and the transcript of interviews was interpreted and analyzed using NVivo software for qualitative data analysis. Also, the data from the diary entries was analyzed using NVivo as well as those gathered from open-ended questionnaire responses.

Thematic analysis was the system of analysis because it ensured both accessibility and flexibility (Braun & Clarke, 2012). The categories for analysis were not predetermined, and the analysis was carried out inductively. To be specific, the coding framework was based on “recurrent issues in the text” rather than ‘established criteria’ or ‘a set of theoretical constructs’ (Attride-Stirling, 2001, p. 390-391). Theme generalization was according to *Basic Themes* which referred to “lowest-order premises evident in the text”; *Organizing Themes* which refers to “categories of basic themes grouped together to summarize more abstract principles”; and *Global Themes* which refers to “super-ordinate themes encapsulating the principal metaphors in the text as a whole” (Attride-Stirling, 2001, p. 388).

Ethical Consideration. Regarding ethical issues, please refer to my ethical approval form which was submitted and approved by the University of Warwick.

Results and Discussions

Mary was a self-perceived highly motivated student with great confidence in study and was self-perceived to have very good exam skills. Also, she reported that she was a self-perceived autonomous student who designed detailed study plans and organized her time schedule for the purpose of studying English more effectively. However, her interest focused on how to produce good scores in exams instead of participating in extracurricular activities. She had clear goals for her future. She claimed that she would like to study abroad for a master degree. Therefore, she reported Grade Point Average (GPA) was the most important thing to her.

Mary’s Affective Experiences

Throughout the whole period of this study, eight emotions of different intensities were identified from Mary’s responses including: *Anxiety*, *Apathy*, *Confidence*, *Contempt*, *Contentment*, *Gratitude*, *Relaxation* and *Resignation*. These emotions interacted with each other at different intensities and appeared to coalesce into 21 combinations. Within each combination, the emotions interacted with each other at different levels, and each finally reached a stable state for the duration. According to this stability, these combinations were categorized into four salient affective patterns. These patterns were: Higher Level Positive Affective Pattern, Mixed Lower Level Negative and Higher Level Positive Affective Pattern, Mixed Higher Level Negative and Higher Level Positive Affective Pattern, Higher Level Negative Affective Pattern.

Perceived Facilitative Affective Experiences. Four patterns of affective experiences (outlined below) could be identified as more facilitative for Mary’s performance. From her responses, these patterns of affective experiences related to better performance than her perceived English proficiency would have suggested. The affective experiences appeared to have positively affected her performance as she perceived it.

Higher Level Positive Affective Pattern. Mary commented that three higher level positive emotions, namely, *Relaxation*, *Confidence* and *Contentment* related to her good vocabulary performance in regular exams in week six.

[Extract 1: Interview]

L: How do you think you performed regarding your vocabulary performance during the exam? (week six)

Mary: “Very good, I think. I have successfully answered all questions during the exam, and I am pretty much sure that I answered them all correctly. And the feedback from the teacher proved that I was right. I am satisfied with the score and I know I have much time left during the exam. No rush at all!”

Mixed Lower Level Negative and Higher Level Positive Affective Pattern. Mary reported four higher level positive emotions, namely, *Contentment*, *Relaxation*, *Gratitude* and *Confidence*. Also, she reported four lower level negative emotions, namely, *Anxiety*, *Apathy*, *Contempt* and *Resignation*. From Mary’s responses, these combinations of affective experiences related to better performance than her perceived English proficiency would have suggested. The affective experiences appeared to have positively affected her vocabulary performance in week two and week 12, grammar performance in week two and week six, speaking performance in week 10 and listening and reading performance in week 14.

[Extract 2: Interview]

L: Regarding your speaking performance (week 10), how did you feel after you received the feedback from your teacher?

Mary: “I believed that in terms of the English speaking ability, I was the middle-of-the-road student. Many of my classmates had better English accent than me. But I think my advantage is to speak at a normal speed and make very clear of my points. I felt really thankful to the judges who gave me that high score and I was really satisfied with my performance, though at the beginning of the speech, I guess I felt a bit anxious, when recalling my feelings during the competition after I received the feedback from the judges.”

Mixed Higher Level Negative and Higher Level Positive Affective Pattern. Mary reported three higher level positive emotions, namely, *Confidence*, *Contentment* and *Relaxation* and one higher level negative emotion, *Apathy*. The affective experiences appeared to have positively affected her writing performance in week eight.

[Extract 3: Questionnaire]

Question: Please give comments on the writing topic and specify how did you feel after you received the feedback from your teacher?

Mary: “To be honest, I think if the topic was in Chinese, the topic itself was too childish. The feedback was good! I know arguments in my writing were not important at all. So, I do not care about, well, if my writing meant something. All I need to do was to finish the section. I felt confident in writing, it was a familiar topic, and I know what kind of writing teachers like most. No doubt, I could get the marks I should get.”

Higher Level Negative Affective Pattern. Mary reported two higher level negative emotions, namely, *Contempt* and *Resignation* related to her optimal grammar performance in

regular exams in week 12.

[Extract 4: Diary]

Mary: “The feedback was fair. I think I am in good conditions for exams. In terms of grammar, my classmates, although they devoted their time to studying, in the wrong way, I guess. They were hard-working, but maybe not good at studying, or suitable to study. I think questions in the exam were not difficult at all, and I would like to prove my better English ability than others. But I strongly felt that I had no choice!”

Mary’s Self-reported Performance Trajectory

Identified Attractor States. From Mary's responses regarding her self-reported performance, altogether five attractor states were identified which contained in all five components. These five attractor states were *Integrative Disposition* which contained one component of *Personal Goals*; *Amotivation* which contained one component of *Nonrelevance*; *Autonomy* which contained one component of *Identified Regulation*; *Actual Learning Process* which contained one component of *Personal Satisfaction*; *Language Awareness* which contained one component of *Language Use*.

Integrative Disposition: Personal Goals. Integrative disposition was termed by Dörnyei (2009) according to Ushioda's (2001) classification of motivation dimensions. Dörnyei (2009) argued that from Ushioda's (2001) eight motivation dimensions, integrative disposition represents a broad cluster which consisted of “Personal goals; Desired levels of L2 competence; Academic interest; Feelings about French-speaking countries or people” (p. 30). For example, from Mary's responses, she had clear goals for her future to study abroad for a master degree in best universities in the world. With such career goals in mind, she searched information on different universities.

Amotivation: Nonrelevance. Amotivation is defined by Deci and Ryan (2000) as “the state of lacking an intention to act” (p. 61). For example, Mary did not care about other people's opinions or performances. She believed that she was a student who had very good learning strategies and the test scores met her expectation. This attractor positively interacted with her self-reported performance. These could be found from her responses “other people's performance or judgments are not relevant” and her constant decrease of “conversations with peers”.

Autonomy: Identified Regulation. In Self-determination Theory (SDT), three features including competence, relatedness and autonomy were introduced by Deci and Ryan (1985). Identified regulation was claimed to be a more autonomy driven form of extrinsic motivation. This argument can be linked to Dörnyei's (2009) illustration that identified regulation “occurs when people engage in an activity because they highly value and identify with the behaviours, and see its usefulness” (p. 14). For example, Mary was a highly motivated student with clear future goals. Identified regulation could be discovered from her daily exercises, for example, “listen to BBC one hour daily”, and “use Economist to practice reading”.

Actual Learning Process: Personal Satisfaction. Actual learning process is termed by

Dörnyei (2009) according to Ushioda's (2001) classification of motivation dimensions. Dörnyei (2009) argues that from Ushioda's (2001) eight motivation dimensions, actual learning process represents a broad cluster which consists of “Language-related enjoyment; Positive learning history; Personal satisfaction” (p. 30). In this study, Mary argued that her “interest in reading newspaper’ made her to ‘use Economist to practice reading”. And during the time of reading, she was satisfied with the content in the newspaper and reading performance in the exams in the meantime.

Language Awareness: Language Use. The Association for Language Awareness (ALA) defines Language Awareness (LA) as “explicit knowledge about language, and conscious perception and sensitivity in language learning, language teaching and language use” (1996 publicity sheet of the Association). For example, Mary particularly focused on how to use English language in her daily life. She tried “to use English in her daily life’ and ‘to talk to foreigners in English”.

Regarding Mary's self-reported performance trajectories, all six trajectories are presented changes in her self-perceived performance over the six-month time window in four figures below for clarity. The interactions between her self-reported performance, different system components and affective patterns were also presented.

Figure 4 displays Mary's self-reported vocabulary performance (green dashed line) trajectory; *Figure 5* displays her self-reported grammar (blue dashed line) performance trajectory; *Figure 6* displays her self-reported reading (red dashed line) and listening (yellow dashed line) performance trajectories; and *Figure 7* displays her self-reported speaking (orange dashed line) and writing performance (purple dashed line) trajectories.

Mary's Self-reported Vocabulary Performance Trajectory.

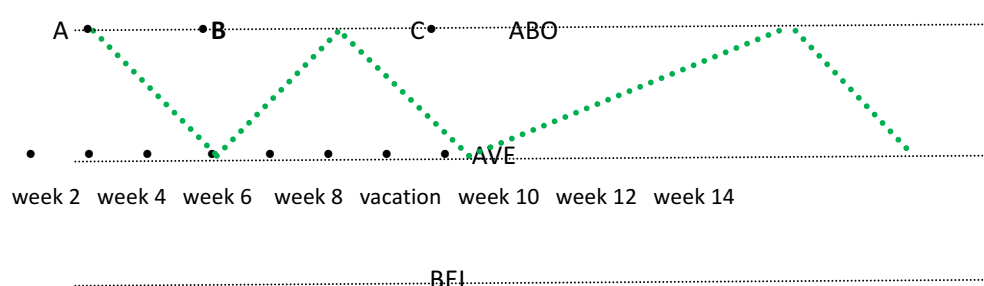


Figure 4. Mary's Self-reported Vocabulary Performance

Figure 4 shows how Mary's self-reported vocabulary performance changed over time. Three crucial points A, B and C were identified from her responses. From Mary's responses, the initial condition was identified as “to study a master degree abroad” “the master degree should come from best universities in the world” which can be categorized as the system component “Personal Goals” from the attractor state of “Integrative Disposition”.

Over the time window of the study, three attractors, namely, “Autonomy”, “Integrative Disposition” and “Amotivation” were identified. The movement between the system components within each attractor as well as their interactions with the affective combinations

significantly related to the change of her self-reported performance trajectory.

To be specific, from Mary's responses, her self-reported vocabulary performance before vacation was wave-like. It started at the optimal Point A in week two, then went downward to the average point in week four, then went upward to the optimal Point B in week six, and finally reached the average point again in week eight. After vacation, her self-reported performance was very good in week 12 at Point C, and then went downward to the average state in week 14. The attractors 'Autonomy' and 'Integrative Disposition' moved together before vacation, with the facilitative affective experiences of Mixed Lower Level Negative and Higher Level Positive Affective Pattern and Higher Level Positive Affective Pattern correlating with her self-reported excellent performance at Point A and Point B, respectively. After vacation, the attractor "Amotivation" and the facilitative affective experience of Mixed Lower Level Negative and Higher Level Positive Affective Pattern correlated with her self-reported excellent performance at Point C.

Mary's Self-reported Grammar Performance Trajectory.

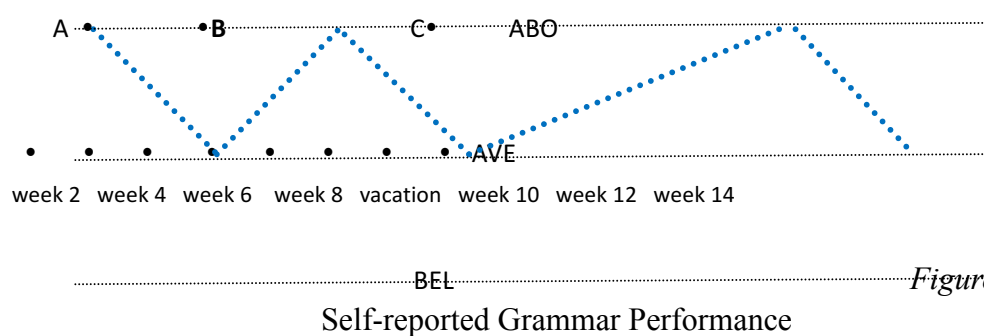


Figure 5. Mary's

Self-reported Grammar Performance

Figure 5 shows how Mary's self-reported grammar performance changed over time. Three crucial points A, B and C were identified from her responses. From Mary's responses, three attractors, namely, "Autonomy", "Integrative Disposition" and "Amotivation" were identified.

Mary self-reported grammar performance before vacation was wave-like. It started at the optimal Point A in week two, then went downward to the average point in week four, then went upward to the optimal Point B in week six, and finally reached the average point again in week eight. After vacation, her self-reported performance was very good in week 12 at Point C, and then went downward to the average state in week 14. The attractors "Autonomy" and "Integrative Disposition" moved together before vacation, with the facilitative affective experiences of Mixed Lower Level Negative and Higher Level Positive Affective Pattern correlating with her self-reported excellent performance at Point A and Point B. After vacation, the attractor "Amotivation" and the facilitative affective experience of Higher Level Negative Affective Pattern correlated with her self-reported excellent performance at Point C.

Mary's Self-reported Listening and Reading Performance Trajectory.

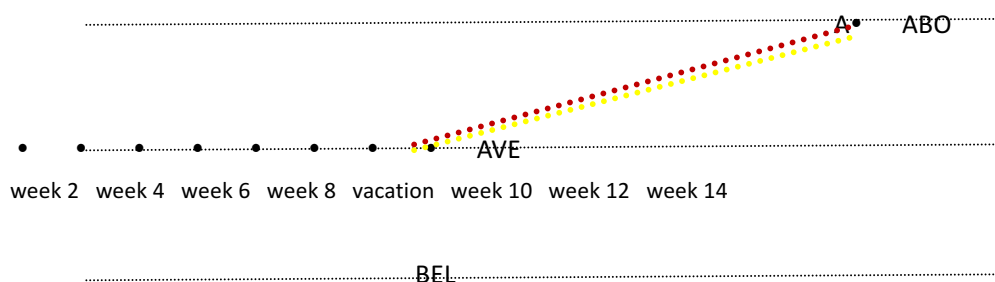


Figure 6. Mary's Self-reported Listening and Reading Performance

The yellow dashed line referred to Mary's self-reported listening performance whereas the red one referred to her reading aspect. *Figure 6* shows how Mary's self-reported listening and reading performance changed over time. One crucial point A was identified from her responses. Mary's English listening and reading ability only tested twice during the whole studied time window. The aspects of listening and reading were tested in the final exam in week eight of the first semester and the mid-term exam in week 14 of the second semester. One attractor "Actual Learning Process" and the facilitative affective experience of Mixed Lower Level Negative and Higher Level Positive Affective Pattern correlated with her self-reported excellent performance at Point A.

Mary's Self-reported Speaking and Writing Performance Trajectory.

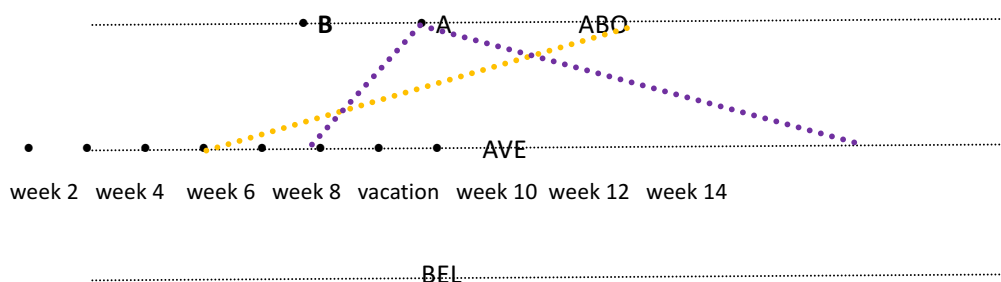


Figure 7. Mary's Self-reported Speaking and Writing Performance

The orange dashed line referred to Mary's self-reported speaking performance whereas the purple one referred to her writing aspect. Regarding Mary's self-reported speaking performance, she reported that she particularly focused on how to use English language in her daily life. She tried "to use English in her daily life" and "to talk to foreigners in English", which can be categorized as the attractor "Language Awareness". This attractor and the facilitative affective experience of Mixed Lower Level Negative and Higher Level Positive Affective Pattern correlated with her self-reported excellent performance at Point A.

Regarding Mary's self-reported writing performance, she reported that she did not take exercises to develop her English writing ability. Her writing performance largely depended on her own familiarization and understanding of the tested topics, which were presented in each exam. She reported that she performed normally in week six. The performance went upward to the optimal Point B in week eight, then downward to the average state in week 14. Also, she reported that "other people's performances or judgments are not relevant", which can be categorized as the attractor "Amotivation". This attractor and the facilitative affective experience of Mixed Higher Level Negative and Higher Level Positive Affective Pattern correlated with her self-reported optimal writing performance at Point B in week eight.

Signature Dynamics

From a DST perspective, typical dynamic outcome patterns refer to "the system's self-organizing capacity that aims to increase the orderly nature of the initially transient, fluid and nonlinear system behaviours...complex systems display a few well-recognizable outcomes or behavioral patterns rather than the unlimited variation that we could, in theory, anticipate in an erratic system" (Dörnyei, 2014, p. 84-85).

Dörnyei (2014) proposed a three-step template to study different learner types. As he argued, learner types were predictable and although in principle, from a class of 30 learners could be identified 30 very different learner types, actually the number was usually rarely exceeding four to six. This template was validated by two other PhD researchers, conducted by Hamish Gillies and Letty Chan, respectively. In the following section, I will compare the findings from my current research with from most recent researches under DST paradigm.

Regarding my current case study, it is not a validation study of Dörnyei's three-step template which "Retrodictive Qualitative Modelling" (RQM) was taken into account. Foreign language learners' archetypes were not pre-identified by the teacher focus group. Instead of initially identifying learner types from a list of learner archetypes generated by the teacher focus group (Chan, 2014), this research identified learner's signature dynamics of the interplay between affective patterns, attractor states and self-reported performances inductively.

First, regarding all six subsystems, namely vocabulary, grammar, listening, reading, speaking and writing of this study, no below average performance was reported from Mary's self-reported performances.

Second, initial conditions which were defined by Verspoor (2014) as "the conditions subsystems are in when the researcher starts measuring" (p. 45) were reported significantly relating to the student's group recognition and career goals. As Mary reported, in her class, two groups existed relating to three career goals. To be specific, *Civil Service Exam Group* related to career goals of *Studying for a Master Degree in China* and *Going for a Job Directly after Graduation*; whereas *GRE Group* related to the career goal of *Studying a Master Degree Abroad*. Mary was reported that she would like to study abroad after graduation and she reported that she belonged to GRE group at the beginning of this research.

Third, same self-reported performance trajectory and same attractor states were reported in terms of vocabulary subsystem and grammar subsystem. These attractor states were identified to interact with different affective patterns at different optimal points of their self-reported performances. According to the same timescale, before vacation, it was reported by Mary that the attractor states, namely, “Autonomy” and “Integrative Disposition” strongly governed her self-reported vocabulary and grammar performances. This finding can be related to Dörnyei’s (2014) attractor-governed phenomena. From a DST perspective, strong attractor-governed phenomena refer to “stable and predictable phases when the system is governed by strong attractors, resulting in settled, non-dynamic attractor states” (Dörnyei, 2014, p. 84). However, with respect to the same timescale, other subsystems, for example, the writing subsystem, was not reported as the same attractor-governed phenomenon before vacation. As a result, within the same dynamic system, different subsystems may be governed by different attractor states in the range of the same timescale.

Fourth, the learner’s perceived affective patterns are more complicated than a dualistic view of not being positive, then should go for negative. As responses from Mary, four affective patterns were reported including simultaneous affects at different intensities. This finding left a question relating to the predictability issue from Dörnyei’s three-step template which “Retrodictive Qualitative Modelling” (RQM). How to predict the learner’s affective experiences from a non-dualistic view? It was clear that even belonged to the same affective pattern, different affects were identified at different timescales and different research contexts. These affects were reported as simultaneous affective groups rather than discrete affects. The learner’s affective state was more complex from a DST perspective.

Conclusion

To conclude, this study reports the perceived affective experiences and self-reported performances of one Chinese learner’s of English from a foreign language classroom. Four salient affective patterns and five attractor states were identified interacting with six different self-reported performance trajectories. The learner’s specific affective patterns, attractor states and self-reported performance trajectories over time are unique. No claim should be made that other foreign language learners respond similarly to similar contexts.

The application of Dynamic System Theory (DST) into the study of Foreign Language Acquisition (FLA) affective experiences reveals both its strengths and its limitations. On the positive side, DST enables researchers to identify salient patterns, attractor states and the performance trajectories from the learners, which it is seen as a powerful framework for future FLA affective research. On the other hand, researchers still face the methodological challenges in researching DST under FLA context, because “dynamic systems research is such a new and uncharted territory that there are simply no tried and tested research methodological templates available” (Dörnyei, 2014, p. 84). However, an increasing number of researchers see DST’s strength and design empirical studies to examine different aspects within FLA settings (Nitta & Baba, 2014; Yashima & Arano, 2014; Henry, 2014; Hiver, 2014; Waninge, 2014; Mercer, 2014). As MacIntyre and Serroul (2014) said, “The nitty-gritty detail of this complex process,

observed as it unfolds in idiodynamic studies of the L2 learning and communication process, provides an *embarrasse de riches* that hopefully will motivate future research” (p. 133).

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