Profiling nursing students for information skills training

ABSTRACT

This study explored the information seeking behaviour of a group of nursing students at a single university in the United Kingdom to determine whether any of personality, learning style, or information literacy self efficacy (ILSE) impacted on this behaviour.

A concurrent embedded quantitative dominant mixed-methods approach was used comprising of a questionnaire and interviews, and took place during the academic year 2008-9. Phase 1 of the research (see: Stokes and Urquhart 2011 for initial findings) used a questionnaire (sample n=194) consisting of three validated scales (for personality, learning styles, and self-efficacy respectively), plus a section on information seeking preferences based on Foster's (2004, 2005) non-linear model, and some demographic questions. For Phase 2 a smaller sample (n=11) of students took part in semi-structured interviews using the Critical Incident Technique, the resulting data analysed using a new method of analysis – Qualitative Interpretative Categorisation (QIC). (See: Stokes and Urquhart 2013 for description of this method.)

Results from the questionnaire data (through Chi-square, Odds ratios, and Binomial regression) showed clear links between differing personality traits, learning style preferences, and levels of ILSE and with particular elements of Foster's model. This enabled seven specific information seeking profiles and a 'level of understanding' continuum to be formulated. The interview data enabled an information search process model to be produced indicating the 'route' students' use during their information seeking and emphasised the role of situation. Finally incorporating the student's personal profile into the model allowed a complete information seeking process model (loosely based on Bystrom and Jarvelin's (1995) task-based model) to be produced.
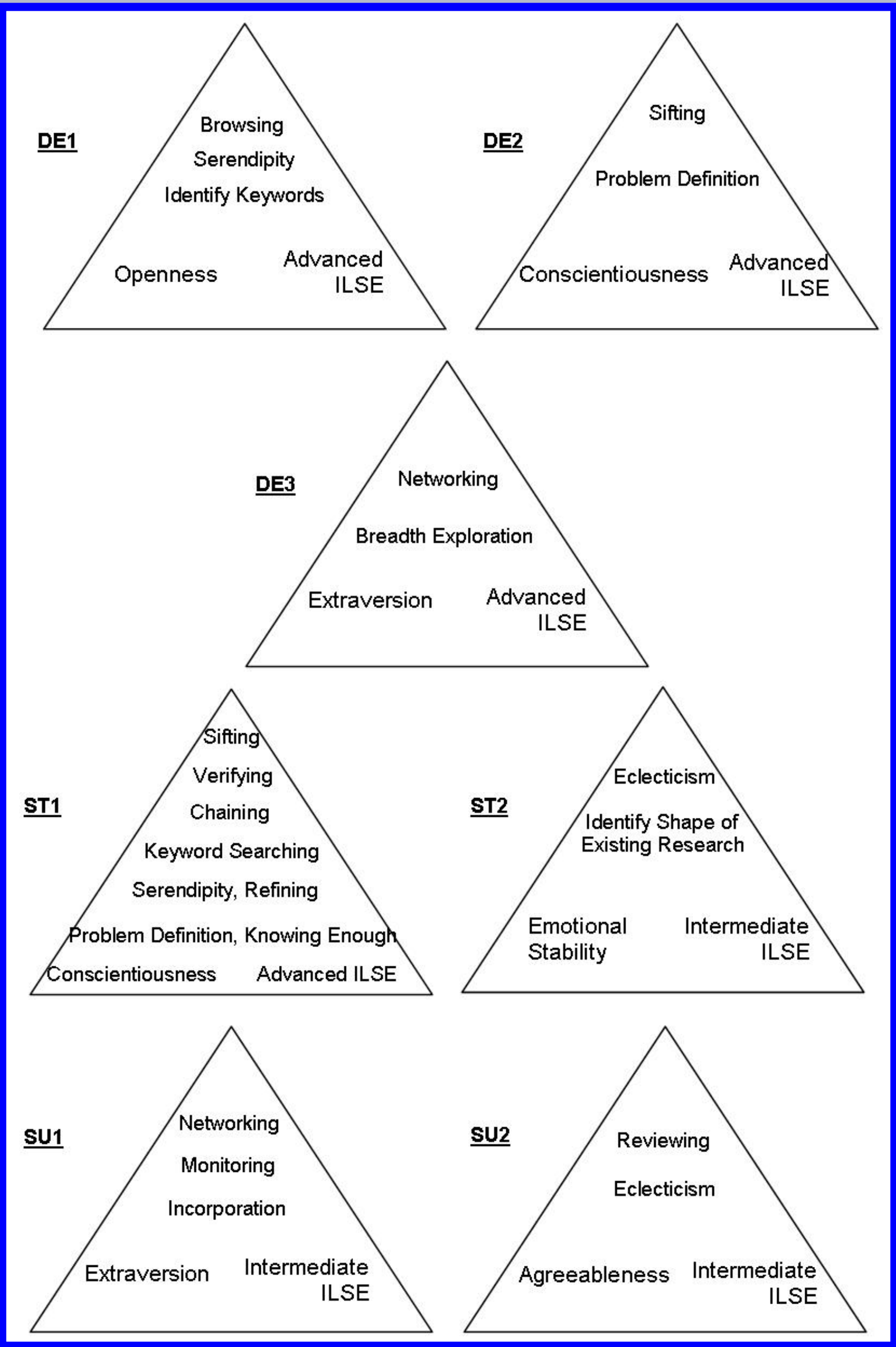
Key recommendations from the study are that students should wherever possible have their information seeking profile determined via questionnaire and that a 'long and thin' information skills training programme be embedded into the curriculum. This programme should contain a range of types of session that can be moulded to the situation the students are in.

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Research questions

Quantitative

- What is the relationship between personality, self-efficacy, learning styles, and information seeking behaviour?
- What is the impact of differing personalities, self-efficacy levels, and/or learning styles on information seeking behaviour?

Qualitative

- Why do users search the way they do?
- What are the preferred methods of information seeking?

Mixed-method

- How do the qualitative findings enhance the understanding of the quantitative results?

Description of profiles

DE1 = Deep learner, Advanced ILSE, Openness, Browsing, Serendipity, Identify Keywords

DE2 = Deep learner, Advanced ILSE, Conscientiousness, Sifting, Problem Definition

DE3 = Deep learner, Advanced ILSE, Extraversion, Networking, Breadth Exploration

ST1 = Strategic learner, Advanced ILSE, Conscientiousness, Sifting, Verifying, Chaining, Keyword Searching, Serendipity, Refining, Problem Definition, Knowing Enough

ST2 = Strategic learner, Intermediate ILSE, Emotional Stability, Eclecticism, Identify Shape of Existing Research

SU1 = Surface learner, Intermediate ILSE, Extraversion, Networking, Monitoring, Incorporation

SU2 = Surface learner, Intermediate ILSE, Agreeableness, Eclecticism, Reviewing

The seven distinct profiles
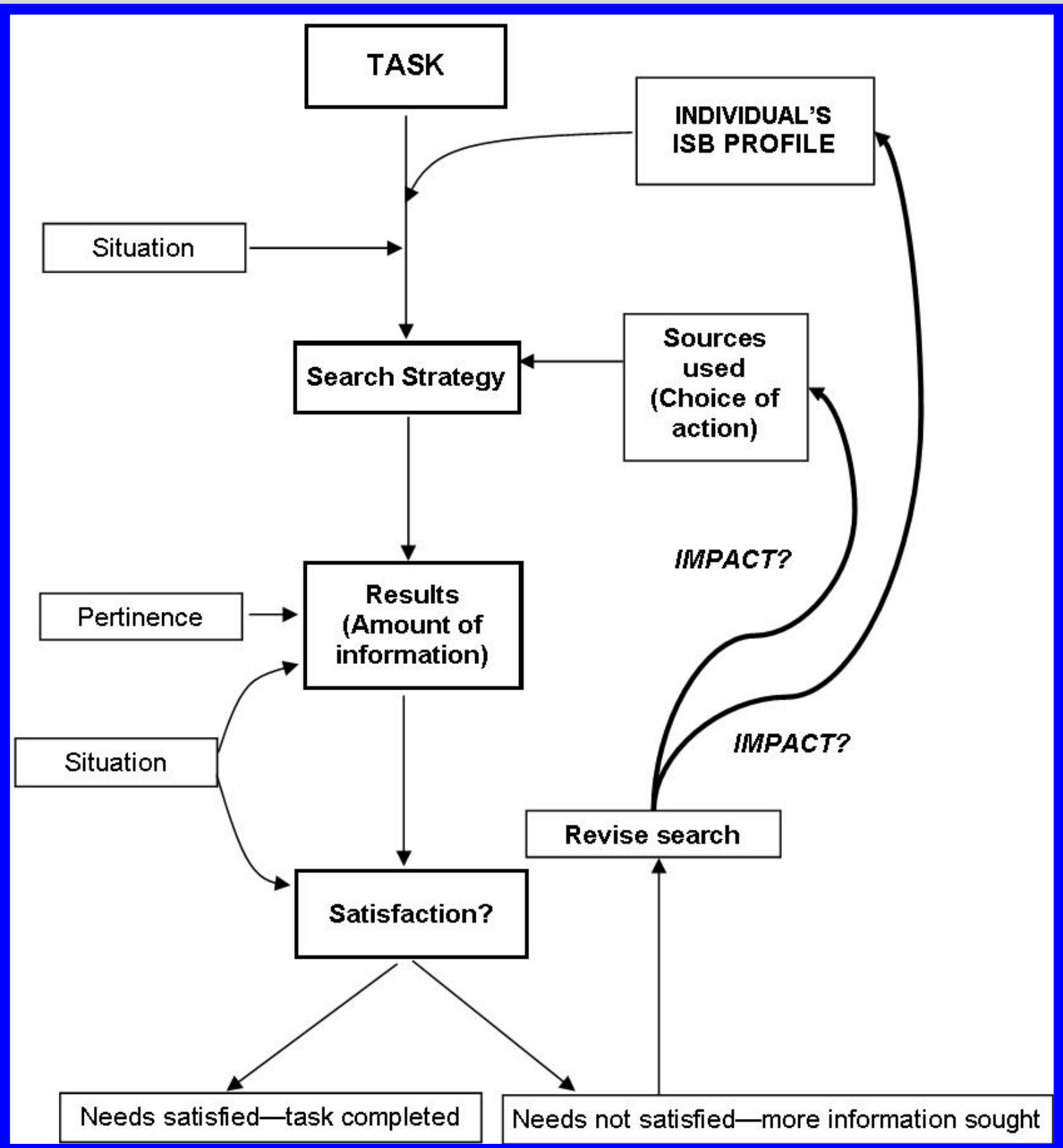

The search process model

Recommendations

These following general recommendations have been established:

- Information skills training programmes need to be tailored to the students attending.
- When feasible determine the personality, learning style, and ILSE level of individual students to identify their information seeking profile enabling them to concentrate on their strengths and preferences when searching for information
- If it is not possible to determine individual information seeking profiles, then group profiles can be deployed to cater for the majority. Once known the skills programme can be developed in accordance with the profiles and include a range of learning modes (face to face instruction, hands-on work, online modules)
- Remedial sessions for individuals or smaller groups should be in place to cater for those students not in the majority.
- A 'long and thin' structured information skills training programme would benefit students on three year courses and help maintain confidence levels.
- This training programme must take account of the situation the students are in as well as their ISB profile.

It is recommended that a 'long and thin' information skills training programme be embedded into the curriculum for students doing long courses. This programme should include large group sessions, small group sessions and individual sessions (including voluntary remedial sessions). Before embarking on these programmes the personality, learning style, and ILSE of the students should be investigated to determine the majority profiles of the students in the groups. The training programme should be moulded to the situation the students are in (stage of course). Students on shorter courses should also where possible have their personality, learning style, and ILSE determined in order that any group skills session be adapted to the majority profiles.

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