

The Influence of University Students' Emotional Intelligence on Information Seeking Behavior Competence: Postprint

Authors: Wang Haocheng, Wang Shuyun, Che Juntie

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Abstract

[Purpose/Significance] Enhancing information search capability constitutes a key focus of information literacy education for university students. This study investigates the influence of emotional intelligence on information search behavior capability. [Method/Process] Data were collected through a survey of 250 university students, and statistical analysis was conducted using IBM SPSS Statistics 19.0. [Results/Conclusion] Emotional intelligence demonstrates a significant positive correlation with information search behavior capability. Information search behavior capability is primarily influenced by two dimensions: emotional monitoring and emotional utilization. Emotional utilization affects information strategy adjustment, information evaluation, behavior adjustment, and the total behavior capability score; emotional monitoring primarily influences information reference behavior capability.

Full Text

An Exploration of the Influence of College Students' Emotional Intelligence on Information Search Behavior Capability

Wang Haocheng, Wang Shuyun, Che Juntie

Library, Beijing Institute of Petrochemical Technology, Beijing 102617

Abstract

[Purpose/Significance] Enhancing information search capability is a key focus of information literacy education for college students. This study investigates the influence of emotional intelligence on information search behavior capability. [Method/Process] Data were collected through a survey of 250 college

students and analyzed using IBM SPSS Statistics 19.0. **[Result/Conclusion]** The results show a significant positive correlation between emotional intelligence and information search behavior capability. Information search behavior capability is primarily influenced by two dimensions of emotional intelligence: emotion regulation and emotion utilization. Emotion utilization affects information strategy adjustment, information evaluation, behavior adjustment, and the overall capability score, while emotion regulation mainly influences information reference behavior.

Keywords: emotional intelligence; emotion utilization; emotion regulation; information search capability

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1 Introduction

In today's internet environment characterized by rapid information growth, information searching has become one of people's primary daily activities. College students, in particular, rely on information searching for both academic learning and expanding their social knowledge. Despite extensive research on factors influencing information search behavior, emotion has long been overlooked. However, emotion plays a crucial regulatory and adaptive role in human physiology and cognition. Studies on decision-making behavior have revealed that emotion has become a component equally important as cognition, sometimes even surpassing it, with the relative influence of emotion and rationality on behavior shifting according to their respective proportions.

T.D. Wilson was among the first to incorporate psychological and affective factors into information search behavior models, proposing that information needs are not the most fundamental needs but rather derive from more basic needs—psychological, cognitive, and affective—and that emotions influence individual information search behavior. C.C. Kuhlthau's information search process model established the important role of emotion in information seeking, arguing that each step of the information search process is accompanied by and influenced by emotions. While “uncertainty emotion” is associated with information needs, users' emotions change as the search progresses and relevant information is obtained. The concept that best captures an individual's ability to control and utilize emotions is emotional intelligence. Researchers of emotional intelligence define it as an individual's capacity to monitor one's own and others' emotions and feelings and to use this information to guide one's thinking and behavior.

On January 18, 2000, at the American Library Association (ALA) Midwinter Meeting in San Antonio, Texas, the Association of College and Research Libraries (ACRL) Standards Committee reviewed and approved the *Information*

Literacy Competency Standards for Higher Education. Based on these standards, C.F. Timmers and C.A.W. Glas proposed a framework for information search behavior capability, with a comparison between information literacy standards and information search behavior components shown in Table 1 . They also developed an information search behavior capability scale, arguing that measuring college students' general information search behavior is independent of specific target tasks, thus excluding Standard 4 ("The ability to effectively use information to accomplish a specific purpose"). Since behavior adjustment is a key factor in information search behavior, they added it as an additional component.

In 1990, P. Salovey and J.D. Mayer first coined the term "emotional intelligence," defining it as the ability to monitor one' s own and others' emotions and to use this information to guide one' s thinking and behavior. They identified three categories of adaptive abilities comprising emotional intelligence: (1) appraisal and expression of emotion, including self-emotion and others' emotion appraisal, with self-emotion further divided into verbal and nonverbal, and others' emotion further divided into nonverbal perception and empathy; (2) regulation of emotion, including self-emotion regulation and influencing others' emotion regulation; and (3) utilization of emotion in problem solving, including flexible planning, creative thinking, and redirecting attention and motivation. In 1997, J.D. Mayer and colleagues proposed a revised emotional intelligence model emphasizing the cognitive components of emotional intelligence and conceptualizing it as a potential development of the terms intelligence and emotion. The revised model includes four branches: (1) perception, appraisal, and expression of emotion; (2) emotional facilitation of imagination; (3) understanding, analysis, and use of emotional knowledge; and (4) reflective regulation of emotions to further facilitate emotions and intelligence. The perception, appraisal, and expression of emotion represent the most basic processes, while reflective regulation of emotion requires the most complex processes.

Many researchers have explored the influence of emotion on information search behavior. Domestic scholar Liu Lihua proposed a research framework based on appraisal theory, suggesting that individuals' appraisals of significant work or entertainment events generate emotions that influence information search behavior intentions, including initiating, expanding, limiting, terminating, and avoiding information searches. She further noted that negative emotions have greater influence, affecting the initiation, expansion, termination, and avoidance of information searching, while positive emotions primarily affect the initiation and expansion of information searching. K.S. Kim investigated the effects of emotion control and search tasks on internet information search behavior, finding that emotion control and tasks significantly affected search behavior but not search performance, with the influence of emotion control varying across different search tasks. These studies primarily examined the impact of emotion on information search behavior, leaving a research gap regarding the influence of emotional intelligence, which is closely related to emotion. Can emotional intelligence affect information search capability? Do individuals with high emotional intelligence demonstrate stronger information search capability? This

study aims to explore the relationship between emotional intelligence and information search capability.

3 Research Design

For measuring information search capability, this study adopted the Information Search Behavior Scale developed by C.F. Timmers and C.A.W. Glas in 2010. Based on the ACRL's Information Literacy Competency Standards for Higher Education, this scale comprises 30 items across four subscales: information search strategy utilization, information evaluation, information reference, and behavior adjustment. The scale uses a four-point Likert scoring system (3 = always, 2 = often, 1 = sometimes, 0 = rarely or never). Liu Yan and colleagues tested the scale's applicability to Chinese college students, reporting a Cronbach's alpha coefficient of 0.872, split-half reliability of 0.835, and test-retest reliability of 0.876. All subscales demonstrated acceptable reliability, and each item showed significant correlation with the total score. The subscales and total scale were significantly correlated, indicating good content and construct validity, leading to the conclusion that the scale has strong psychometric properties and can serve as an effective tool for studying Chinese college students' information search capability.

For emotional intelligence measurement, American psychologists N.S. Schutte, J.M. Malouff, L.E. Hall, and colleagues developed a self-report questionnaire based on P. Salovey and J.D. Mayer's theory. The questionnaire includes 33 items (3 reverse-scored) using a five-point scoring format, with a Cronbach's alpha coefficient of 0.90. Huang Yunhui and colleagues at Peking University validated and revised the Chinese version of this scale. Item analysis showed that all 33 items met psychometric requirements for item-total correlation and discriminability. However, confirmatory factor analysis of both single-factor and four-factor structures yielded unsatisfactory fit indices. Therefore, they conducted exploratory factor analysis, obtaining a four-dimensional structure that demonstrated optimal fit in confirmatory factor analysis (CMIN/DF = 2.19, CFI = 0.90, GFI = 0.93, AGFI = 0.90, RMSEA = 0.05). The scale's internal consistency reliability (alpha coefficient) reached 0.85, and its correlations with concurrently administered scales supported theoretical expectations, demonstrating good convergent and criterion-related validity. The revised Chinese version of the Emotional Intelligence Scale (EIS) has a four-factor structure: (1) emotion regulation, emphasizing effective control of one's own emotions according to one's will; (2) emotion utilization, describing the ability to use emotions for problem solving; (3) social competence, describing the use of emotions in social activities; and (4) others' emotion appraisal, describing the ability to perceive others' emotions through verbal and nonverbal cues. This study used Huang Yunhui et al.'s revised Chinese version for emotional intelligence measurement.

The survey was conducted in June 2016 in Beijing, covering four universities: Beijing Institute of Petrochemical Technology, Beijing Printing Institute, University of Science and Technology Beijing, and China University of Geosciences

(Beijing). A total of 250 questionnaires were distributed, yielding 230 valid responses from college students (49% male, 51% female). The sample included both undergraduate and graduate students across all years: 26% freshmen, 22% sophomores, 24% juniors, 23% seniors, and 5% graduate students.

4 Data Analysis

Descriptive statistics and correlations for all research variables are presented in Table 2. The correlation coefficient between total information search behavior capability and total emotional intelligence is 0.347 ($p < 0.01$), indicating a statistically significant positive correlation. Examining the relationships between emotional intelligence dimensions and the total score, emotional intelligence correlates significantly and positively with emotion regulation ($r = 0.291$, $p < 0.05$) and emotion utilization ($r = 0.453$, $p < 0.01$), but not with social competence or others' emotion appraisal. From the perspective of information search behavior dimensions, emotion regulation shows significant positive correlations with information retrieval strategy use ($r = 0.286$, $p < 0.05$), information evaluation ($r = 0.308$, $p < 0.05$), and information reference ($r = 0.468$, $p < 0.01$), but not with behavior adjustment. Emotion utilization demonstrates significant positive correlations with retrieval strategy use ($r = 0.428$, $p < 0.01$), information evaluation ($r = 0.447$, $p < 0.01$), information reference ($r = 0.253$, $p < 0.05$), and behavior adjustment ($r = 0.462$, $p < 0.01$). Social competence and others' emotion appraisal show no significant correlations with any of the four dimensions.

To predict the influence of emotional intelligence dimensions on information behavior capabilities, we conducted regression analyses with each dimension of information behavior as dependent variables and the four emotional intelligence dimensions (emotion regulation, emotion utilization, social competence, and others' emotion appraisal) simultaneously entered as independent variables, yielding five regression models: $y_i = a_i + b_i x_1 + c_i x_2 + d_i x_3 + e_i x_4 + \xi_i$, where $i = 1, 2, \dots, 5$. In these models, y_1 through y_5 represent retrieval strategies, information evaluation, information reference, behavior adjustment, and total score, respectively, while x_1 through x_4 represent the four emotional intelligence dimensions. The results are shown in Table 3.

As indicated in Table 3, all five regression models achieve statistically significant overall fit (F values significant). The regression models reveal that when all four emotional intelligence dimensions are entered simultaneously, information reference behavior is primarily influenced by emotion regulation ($\beta = 0.457$, $p < 0.01$). In contrast, retrieval strategy use, information evaluation, behavior adjustment, and total behavior score are mainly influenced by emotion utilization, with regression coefficients of 0.416 ($p < 0.01$), 0.405 ($p < 0.01$), 0.497 ($p < 0.01$), and 0.441 ($p < 0.01$), respectively.

5 Discussion

This study found through data analysis that emotional intelligence is significantly positively correlated with information search behavior capability, indicating that individuals with higher emotional intelligence demonstrate stronger information search capability. Regarding specific dimensions of emotional intelligence, emotion regulation and emotion utilization primarily influence individual information search capability. When all four emotional intelligence dimensions are entered simultaneously into the regression equation, emotion utilization affects retrieval strategy use, information evaluation, behavior adjustment, and total information search behavior capability, while emotion regulation primarily influences information reference behavior.

Emotion utilization refers to an individual's ability to use relevant emotional information to solve problems. Individuals scoring high on emotion utilization possess stronger problem-solving abilities using emotional information. During information searching, individuals encounter various problems (e.g., selecting retrieval strategies, assessing information accuracy, deciding whether to adjust current search behavior), which generate diverse emotions. For instance, dissatisfaction with search results may produce anxiety. Individuals with high anxiety utilization may be prompted to adjust their behavior, reselect strategies, and continue searching until satisfactory results are achieved, thereby improving search effectiveness. Conversely, individuals who poorly utilize anxiety may give up searching, which is detrimental to information seeking. Therefore, emotion utilization significantly influences information search behavior (retrieval strategy use, information evaluation, behavior adjustment, and total capability score).

Emotion regulation refers to an individual's ability to effectively control their own emotions. Individuals with high emotion regulation scores are less susceptible to emotional influences and exhibit greater rationality. Consequently, those with strong emotion regulation demonstrate higher levels of information reference and utilization, processing searched information more rationally, which affects information reference behavior.

This study has several limitations. First, the sample size is relatively small and homogeneous; more data should be collected to verify the results. Second, both emotional intelligence and search behavior data were obtained through self-report questionnaires, which may introduce bias. Future research should employ multiple methods, such as experimental approaches, to further validate the findings. Third, other factors such as personality traits may influence the relationship and should be incorporated to explore the connection between emotional intelligence and information search behavior more comprehensively.

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Author Contributions:

Wang Haocheng: Conceptualization and writing;
Wang Shuyun: Data collection and compilation;
Che Juntie: Design and revision.

Note: Figure translations are in progress. See original paper for figures.

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