Influencing organisational behaviour through the application of learning theories

Kwasi Dartey-Baah (Corresponding Author)
Department of Organisation & Human Resource Management, University of Ghana Business School
P.O. Box LG78, Legon, Accra-Ghana, West Africa
Telephone: 00233209621292   Email: kdartey-baah@ug.edu.gh

Kwesi Amponsah-Tawiah
Department of Organisation & Human Resource Management, University of Ghana Business School
P.O. Box LG78, Legon, Accra-Ghana, West Africa
Telephone: 00233546238672   Email: kamponsah-tawiah@ug.edu.gh

Abstract
Over the years, learning has been seen as an active and rewarding aspect of peoples’ personal and collective experiences. Learning is a feature of all human activities and defines humanity. As the business environment continually changes, organisations increasingly need innovative ideas to stay ahead of competition. Learning therefore is viewed as the key factor that underpins organisational competitiveness. It enables organisations to achieve a better balance between long-term effectiveness and short-term efficiency; hence, a focus on capturing and sharing learning produces a wider range of solutions to organisational issues. Renowned psychologists have identified learning theories that thoroughly analyse the effect of learning on behaviours. Learning theories have therefore influenced a range of people management best practices. This paper seeks to analyse how organisational behaviour can be influenced through the application of these learning theories.

Keywords: Learning, organisational behaviour, organisational learning, learning theories.

1. Introduction
The complexity of current business environments has imposed constantly changing settings in which organisations compete for survival. As a result, special emphasis is placed on acquiring, motivating and retaining quality human resources, since these initiatives are essential for the success of organisations. Moreover, as organisational success is tied to human resource innovations, it is increasingly obvious that all organisations whatever their size and business orientation, depend on the knowledge and expertise of their employees to create sustainable agility and competitive advantage.

To achieve this, organisations not only create enabling environment but also ensure that employees have the appropriate expertise to do the job. Learning clearly underpins this and as such to remain competitive in a business environment characterised with uncertainty and constant change, organisations’ ability to learn from the past and with a better understanding of what is required for the future is essential for their survival. Learning therefore influences organisational behaviour and vital for their relevance and success. Mullins (2010)

Most organisations often fail to capitalise on the collective learning ability of their people. Organisations that value the knowledge and experience of their staff and see that as central to their progress will value the role of learning in the work they do. Applying a range of learning concepts is the foundation for building and managing effective organisational learning. It must however be noted that organisational learning and learning organisations are similar learning concepts which are related to organisational setting but are very distinct in nature. This paper concentrates on the organisational learning concept and provides the analysis of how organisational behaviour can be influence through the application of learning theories.

1.1. Organisation
An organisation is a managed system designed and operated to achieve a specific set of objectives. Organisations can mean different things for those who use them and work in them, because for some, they are significant personal and social sources of money, physical resources; meaning, relevance, purpose and identity; order and stability and for others it offers security, support and protection; status, prestige, self esteem and self-
confidence; power, authority and control (Huczynski and Buchanan, 2007).

According to Laudon and Laudon (2006), an organisation can be defined technically as a stable, formal social structure with internal rules and procedures that must abide by laws. They further defined an organisation from a behavioural perspective as a collection of rights, privileges, obligations and responsibilities that is delicately balanced over a period of time through conflict and conflict resolution. In this behavioural view, people in organisations develop customary ways of working and they gain attachment to existing relationships. Organisations are thus social arrangements for the controlled performance of collective goals according to Huczynski and Buchanan (2007).

Mullins (2010) asserted that organisations are complex social systems that can be defined and studied in a number of ways. A significant approach to this perspective on the nature of organisations is provided by Morgan (1989). Through the use of metaphors, Morgan identified eight different ways of viewing organisations as machines, organisms, brains, cultures, political systems, psychic prisons, flux and transformation, and instruments of domination. According to Morgan, these contrasting metaphors help in the understanding of the complex nature of organisational life and the critical evaluation of organisational phenomena.

1.2 Organisational Behaviour

Organisational behaviour is the study of the structure, functioning and performance of organisations, and the behaviour of groups and individual within them Huczynski and Buchanan (2007). It is further defined by Griffin (1999) as a pattern of actions by the members of an organisation that directly or indirectly influences organisational effectiveness. He continued to outline the workplace behaviours to include performance behaviours, withdrawal behaviours and organisational citizenship. He further defined performance behaviours as the total set of work-related behaviours that the organisation expects the individual to display. On the other hand, absenteeism and high turnover rates constitute withdrawal behaviours in organisations. Additionally, Griffin (1999) referred to organisational citizenship as the behaviours of individuals that make a positive overall contribution to the organisation.

The purpose of organisational behaviour is to gain a greater understanding of those factors that influence individual and group dynamics in an organisational setting so that individuals and the groups and organisations to which they belong may become more efficient and effective. The study of organisational behaviour therefore seeks to integrate the insights of diversity, discipline and applying them to real-life problems and opportunities.

2. Factors that influence organisational behaviour

According to Mullin (2010), the main factors that influence the way individuals and groups in organisations behave can be listed as follows:

- Individual differences
- Organisational culture
- Information technology
- Organisational structure
- Organisational mission statement
- Learning

2.1 Individual Differences

According to Griffin (1999), as a starting point of understanding human behaviour in organisations, it is important to consider the basic nature of the relationship between individuals and organisations. This is essential in gaining the appreciation of the nature of individual differences which significantly influence organisational behaviour. This is emphasised by Mullins (2010) who advanced that the individual is a central feature of organisational behaviour whether they act in isolation or as part of a group.

Griffin (1999) further identified personality, attitudes, perception, diversity, multiculturalism and stress as the fundamental elements of individual behaviours in organisations. Where the needs of the individual and the organisational demands are incompatible, it can result in frustration and conflicts. It is therefore the task of management to integrate the individual and the organisations needs to provide a working environment that promotes the satisfaction of individual needs as well as the attainment of organisational goals (Mullins 2010).
2.2 Organisational Culture

Organisational culture plays a major role in shaping the behaviours in an organisation. It is a system of shared meaning within the internal environment of a business atmosphere. Griffin (1999) defined organisational culture as the set of values, beliefs, behaviours, customs, and attitudes that help members of organisation to understand what it stands for, how it does things, and what it considers important. Furthermore Griffin also noted that organisational culture determines the feel of the organisation. It is a powerful force that shapes the overall effectiveness and long-term success of the organisation (Popper and Lipshitz, 1998). It can also impact unfavourably on organisational behaviour creating barriers to change, diversity, mergers and acquisitions.

2.3 Information Technology

Information technology affects the behaviours of people in organisations. This impact can be positive or negative. According to Laudon and Laudon (2006), information technology improves individual efficiency and organisational excellence as a whole. However on the negative side, Griffin (1999) argued that information technology can lead to isolation as people do their job without physically interacting with others; and redundancy as a number of peoples work are taken over by computers. Thus information systems change the organisational balance of rights, privileges, obligations, responsibilities and feelings that have been established over a long period of time.

2.4 Organisational Structure

The structure and design of organisations have implications for individual and group behaviours. As it has been rightly stated by Mullins (2010), behaviour is affected by patterns of organisational structure through which organisational processes are planned, directed and controlled. This means how job tasks are divided, grouped, and coordinated in an organisation can shape the behaviours and therefore very important cause of individual and group behaviours (Popper and Lipshitz, 1998). Hence, the decisions about structure are key to implementing strategy and may affect individual and group motivation and commitment in organisations.

2.5 Organisational Mission Statement

This refers to the core purpose of the organisation. According to Reeves (2006), the mission of the organisation can influence individual and group behaviours; performance; and self-initiative. The clarity and sincerity of this statement does not only motivate staff but also sets the service expectations for the customer (Perrin and Tavakoli, 1997). The culture created by the mission plays a key role in the effectiveness of employees and therefore, management must strive to embrace the core values of the statement so that others will inherently exhibit these values (Griffin, 1999).

2.6 Learning

Learning frequently occurs when an individual has to deal with a new situation. It is about developing new skills, competencies and attitude to meet new situations. It is a change in behaviour that occurs as a result of one’s interaction with the environment. Torrington, et al (2005) defined learning as the changed or new behaviour resulting from new or reinterpreted knowledge that has been derived from an external or internal experience. Learning is a powerful incentive for many employees to stick to certain organisations and has significant impact on individual behaviour as it influences abilities, role perceptions and motivation. Organisations can therefore influence these factors in their bid to promote and encourage learning initiatives. As the Chartered Institute of Personnel Development (CIPD), UK put it, learning is a self-directed, work-based process leading to increased adaptive capacity. (www.trainingjournal.com/content/cipd-sad-report). Accessed 10-11-2011. Torrington et al (2005) stated that there are a number of ways people learn and outlined the following as some of the effective means of work-related learning techniques:

- Action learning
- Coaching
- Mentoring
- Peer relationships
- Learning logs.

Honey and Mumford (1992) believed that there are different learning styles which suit different individuals and have drawn up a classification of four learning styles:
Organisational learning is therefore the process through which individuals and groups in an organisation develop shared values and knowledge based on past experiences. Organisations vary greatly in all aspects and therefore establishing an understanding of what influences organisational learning is extremely valuable. Lohman (2005) outlined initiative, positive personality traits, commitment to professional development, self-efficacy and love of learning as factors that influence the motivation for organisational learning. Conversely, an unsupportive organisational culture, unwillingness to participate, and lack of proximity with colleagues, negatively impacted organisational learning. Albert (2005) also found out that top management support and involvement of consultants also facilitate organisational learning.

An European study showed that lack of motivation; unclear roles; lack of confidence; insufficient learning culture; lack of innovation and lack of resources negatively impacted organisational learning Sambrook and Stewart (2000). From the positive perspective, motivation, enthusiasm, involvement, clarity and understanding of role, increased responsibility, a developed learning culture, senior management support, and investment in human resources make a significant difference in organisational learning.

Garvin (1993) cited three critical factors that are essential for organisational learning in practice: meaning, management, and measurement. He advanced that for learning to be a meaningful organisational goal, it must be widely understood, have application to the work being performed, and be supported by the organisational leadership. Furthermore, Garvin reiterated that for an organisation to learn, a change must take place and newly gained knowledge must be intentional and managed. Learning practices and policies must therefore be the foundation of managed organisational learning. Garvin further suggested five basic practices that organisations can manage to enable organisational learning: systematic problem solving, experimentation, the use of demonstration projects, experiential learning, and learning from others on the outside (benchmarking). He added that measurements must effectively gauge the stages of organisational learning: cognitive, where members are exposed to new ideas or knowledge; behavioural changes, where members actually alter their behaviour based on new learning; and finally, performance improvement, where behavioural changes lead to positive business results in safety, quality, market share, and profitability.

It can be seen that a learning culture play a significant role in the organisational learning process. Amabile (1998) pointed out the following management practices in creating an effective learning culture within an organisation: providing employees with challenges; freedom to innovate; providing the resources needed to create new ideas; diversity of perspectives and backgrounds within groups; supervisor encouragement; and
organisational support. Barriers to learning according to Torrington, et al (2005) are identified as the culture of an organisation, risk of admitting failure, lack of incentive to change, internal competition, resistance to ideas and learning from other context. Clearly it is imperative for organisations competing in a rapidly changing world to have a continuous learning approach. The ability of individuals and groups to learn is therefore crucial to organisational success especially those organisations that are preoccupied with controlled performance.

3. Learning Theories

There are broadly four theoretical approaches to understanding the nature of learning. The subsequent discussions focuses on these theories and whilst there are no right or wrong theory, organisational behaviours often reflect the explicit or implicit acceptance of one or more of such theoretical perspectives.

3.1 Classical Conditioning theory

Classical conditioning theory discovered by Pavlov (1927) shows how a behaviour or response that is already established can become associated with a new stimulus. It is based on the premise that a physical event termed a stimulus that initially does not elicit a particular response gradually acquires the capacity to elicit that response as a result of repeated pairing with a stimulus that elicits a reaction. Despite the theoretical possibility of the widespread applicability of classical conditioning, most theorists agree that it represents only a very small part of total human learning. Skinner (1953), in particular, argued that classical conditioning explains only reflexive behaviours. These are the involuntary responses that are elicited by a stimulus. Skinner felt that the more complex human behaviours cannot be explained by classical conditioning alone and asserted that most human behaviour affects or operates on the environment. According to Skinner, the latter type of behaviour is learnt through operant conditioning.

3.2 Operant Conditioning theory

This learning theory states that people learn by continually looking for ways to achieve more positive reinforcement in terms of rewards and avoid negative reinforcement in terms of punishment (Skinner, 1953). Reinforcement is defined as a stimulus or event that affects the likelihood that an immediately preceding behaviour will be repeated. Besides reinforcement, punishment produces avoidance behaviour, which appears to weaken learning but not curtail it. It operates under the assumption that if behaviour can be learned, it can also be unlearned. Skinner (1953) has been associated with operant conditioning. He believes that our behaviours are influenced by our history of rewards and punishments. According to Skinner once actions have pleasant effects, then there is the likelihood that such actions will be repeated in the future. This suggests that any behaviour, in a particular context that is reinforced (rewarded) in some way will tend to be repeated in that context. However, if one’s actions have unpleasant effects (punishment), then one is less likely to repeat them in the future. According to this theory, behaviour is the function of its consequences. Skinner (1974) introduced the concept of shaping behaviour by selectively reinforcing desired pieces of behaviour. His experiment revealed that human behaviour is shaped by the environment, by past experiences in that environment and by the selective rewards and punishments that are received. He further argued that thinking, problem solving and acquisition of language are dependent on these simple conditioning processes (Skinner, 1954). Hence, operant conditioning has a great impact on human learning and it also explains much of organisational behaviour.

The classical and operant conditioning theories constitute the behavioural theories concentrating on changes in observable behaviours. The behaviourist psychologist like Pavlov and Skinner associated reward with certain behaviours in order to increase the display of such behaviours. The relevance of this for organisations may be seen for example in telesales training where employees are taught to follow a script and calls are listened to, to ensure that the script is followed. Reward or punishment follows depending on behaviour. The main problems of these behavioural theories are that they are manipulative and limited in nature.

3.3 Social learning theory

A lot of psychologists have been associated with this theory; notable among them are Albert Bandura, N. E. Miller and J. C. Dollard. Social learning theory, also known as observational learning, state that people learn through observing others’ behaviour, attitudes, and outcomes of those behaviours Bandura, (1977). Furthermore, Bandura (1977) explained human behaviour in terms of continuous reciprocal interaction between cognitive, behavioural, and environmental influences. He believed that direct reinforcement could not account for all types of learning. The social learning theory added a social element, arguing that people can learn new information and behaviours by watching other people. He noted that external environmental reinforcement was not the only
factor to influence learning and behaviour but also intrinsic reinforcement such as pride, satisfaction, and a sense of accomplishment. In other words, this theory assumes learning to be a social activity that is based on one’s needs as a human being to fit in with others. In organisational setting, this happens naturally as workers learn to fit into the perceived organisational culture. Fitting here means that one can be accepted successfully into the organisation but does not necessarily mean the individual internalise and believe the way things are done in the organisation. Social learning theory therefore has a considerable relevance to organisational behaviour (Miller and Dollard, 1950) but its main limitation is that it ignores the role of choice for the individual.

3.4 Cognitive theory

Cognitive theory is based on an information processing approach and is basically concerned with what goes on in the learner’s mind. The cognitive theorist argued that the rewards and punishment that behavioural theorists call reinforcement, work in more complex ways than the conditioning theories suggested (Huczynski and Buchanan 2007). These authors claimed that in reinforcement, people are always aware about the results of the past behaviour; thus a feedback on how successful a behaviour has been. Huczynski and Buchanan further stressed that knowledge is information which can be used to modify or maintain previous behaviour. Cognitive theory of learning is therefore not concerned with the relationship between stimuli and responses, but rather with the plans that people choose and the way they adopt to pursue and how these plans are modified by experience (Torrington et al 2005). Cognitive process assumes that people are conscious and active participants in how they learn. This theory is relevant in the contemporary managerial practices as many motivation theories such as Equity theory, Goal-Setting theory, and Expectancy theory which centre on the concept of cognition. Expectations, attributions and locus of control are all cognitive concepts requiring attention while motivating employees.

The strengths of the cognitive theory are:

• It stresses the importance of learner motivation and individual needs;
• It recognises the fact that the individual has control over what is learnt; and
• It identifies feedback as a vital aspect of learning.

The drawbacks of this theory on the other hand are that it assumes learning is neutral and unproblematic; and it is a purely rational approach that ignores emotions.

4. Influencing organisational behaviour through the application of learning theories

The behavioural approach (classical conditioning and operant conditioning theories) to learning has led to the development of a range of techniques generally describe as behaviour modifications which have effectively been applied to organisational settings. Behaviour modification is a general label for approaches to changing behaviour through the use of appropriate and timely reinforcement. This approach is based on the premise that people learn to repeat behaviours that have favourable consequences. It uses the principles of reinforcement (motivational strategies) to eliminate undesirable workplace behaviours and to increase the frequency of such desirable behaviours.

Effective motivational strategies can either be transactional or relational rewards. The transactional rewards are mostly in the form of pay increase and attractive benefits whereas the relational rewards are in the form of employee recognition, flexible work/life balance, positive working conditions, sense of achievement, employee empowerment and involvement in decision making, opportunities for personal growth and career advancement. All these motivational strategies drive employee satisfaction and commitment toward the achievement of organisational goals.

Suppose a manager want more assignment completed on time, and less submitted beyond the required deadline; the manager may use positive reinforcement like compliment to reinforce this behaviour or use negative reinforcement (punishment/sanctions) like warning letter to deter undesirable behaviours. Smither (1988) cited a typical example of how this was applied in a factory in Mexico which suffered serious timekeeping problem; 15% of their workforce arrived late for work on regular basis. Management decided to reward good timekeeping by paying workers two pesos a day extra if they started work early. Lateness fell from 15% to 2%, at minimal additional cost to the company. In customer oriented organisations, a positive reinforcement can be used to create superior customer value; motivational strategy like recognition can greatly influence behaviours positively as far as delighting customers is concerned.
Moreover, inappropriate behaviours in organisational setting can be punished directly by withholding rewards or by initiating disciplinary procedures. Punishment, be it perceived or real, is likely to cause feeling of resentment in the mind of the affected employee leading to apathy or psychological revenge. It is therefore not surprising that most organisations prefer to use reward management as means of positively controlling organisational behaviours.

It is however important that behaviour modification techniques are carefully planned to identify specific behavioural goals and particular procedures for reinforcing the behaviours that will achieve those goals. Where behaviour and appropriate reinforcement can be clearly identified and linked (example, if you wear your seat belt we will give you a prize) the techniques can be effective. Where this relationship is less clear (example, if you demonstrate commitment to the organisation we will consider you for promotion) the applicability of the technique is less certain. Behaviour modification techniques also involve clear communication of goals and expectations to employees in unambiguous terms.

Social learning theory can also be applied in organisational setting to influence organisational behaviour. A great deal of what is learnt about how to behave in organisations can be explained through the process of observational learning. For instance, a new staff acquires job skills by observing what an experienced employee does.

Organisations tend to have different standards concerning, for example, what counts for good work performance; familiarity in everyday social interactions at work; the appropriate amount of deference to show to superiors, dress and appearance; and attitudes to work, colleagues, managers and customers. The newcomer has to learn these standards to be a successful and accepted member of the organisation. It is not enough just to learn the knowledge and skills required to perform work duties and responsibilities but to also acclimatise towards the accepted corporate culture. Individuals arrive in a new organisation with values, attitudes, beliefs and expectation that they have acquired elsewhere. The old way of doing things from previous organisations may have to be unlearned sometimes in order to learn the new ways of doing things in a new organization so the concept of learning is unavoidable in organisations.

Observational learning occurs in a very informal and unarticulated manner. For example, people who experience the norms and traditions of their organisations and who subsequently incorporate these into their own behaviour may be recognized as having learnt through observation. The new recruit often learns about the organisation by just being there. This is achieved by giving rewards such as encouragement, privilege and promotion for accepted behaviour; and on the other hand by punishments such as being sanctioned for undesirable behaviours.

Social learning on the other hand enhances the self-efficacy of the learner, where self-efficiency refers to a person’s belief that she has the ability and motivation to complete a task successfully. Social learning increases self-efficacy because people gain greater self-confidence after observing others perform task. Managers can shape employee behaviour by systematically reinforcing each successive step that moves the individual closer to the desired response. If an employee, for example, who has often been an hour late for work comes in only twenty minutes late, the boss can reinforce that improvement.

The main problem of organisational application of the social learning theory is that, because it is a natural social process and most often there is no clear financial or material benefit from investing in its operation, it may be difficult gaining management support and commitment.

Cognitive learning theory, which emphasised the informative and motivational function of feedback, can also be applied in an organisational setting to positively influence organisational behaviour as follows:

- Motivating organisational members to learn and with management establishing what the motives of organisational learning are, and clearly outlining the benefits. The motivational strategies may include a prestigious job title, career opportunities or the acquisition of a valued skill.
- Tasks to be learned should be divided into meaningful segments for which performance standards can be established. The more meaningful the task, the stronger the motivation to learn.
- Giving employees clear, frequent and appropriate feedback on their performance and progress. It is worth noting that intrinsic feedback is usually inadequate in organisational learning and therefore it is essential that management provide the relevant extrinsic feedback as well.
- Focus on rewarding appropriate behaviours since punishment does not tell employees what they are doing wrong or what they have to do to improve but rather punishment for poor work done is likely to instil dislike, distrust and hostility in affected employees and reduce their motivation for learning. The
effects of punishment are likely to be less predictable than those of reward. However, encouragement and recognition create feeling of confidence and competence that enhance motivation to learn.

- Concurrent feedback is more effective than delay feedback. Research into employee performance appraisal systems shows that delayed feedback is usually done casually and annually; in order words, too little is done too late to be of any use in developing job knowledge, skills and performance. Supervisors therefore need to give frequent feedback in a helpful and considerate manner. It is not unreasonably to think that most workers would potentially respond positively to helpful, encouraging and motivating criticism than to no feedback at all.

5. Conclusion

From the above discussions, it can be deduced that learning theories can be applied in various ways to influence organisational behaviours positively. The role of management in organisational learning has been to encourage continuous and collective learning and subsequently transform them into desirable behaviours and processes to create a sustainable competitive advantage. Managers must therefore recognise the central role motivation plays in influencing the behaviour of individuals and groups in organisational settings and be familiar with the content and the cognitive motivational factors that drive employee satisfaction and commitment.

Key motivators such as employee recognition, work/life balance, empowerment and participation, advancement and growth, and sense of achievement can be used to reinforce desirable employee behaviours towards the attainment of organisational goals. However, managers need to be sure that the motivational strategies fulfil needs; otherwise they will have little value. Content theories of motivation suggest that different people have different needs at different times. These theories also warn against relying too heavily on financial rewards as a source of employee motivation.

To enable positive learning environment in organisations, the following approaches should be adopted:

- Organisations must foster conducive climate where workers are encouraged to learn and share knowledge acquired with others;
- The process of strategy formulation should be designed with learning in mind, and incorporate experimentation and feedback;
- Members of organisations should be encouraged and given the opportunity to contribute to policy making as part of the learning process. This way they own the policy outcome as this drives their motivation and commitment towards the achievement of the organisational goals;
- The implications for effective learning are that people react to problem situations in different ways and so there should be harmonisation between the learning methods and the learning styles;
- Managers should understand the psychological contract they establish with their employees and be fair and equitable. Furthermore, managers need to also realise that people may not be precisely matched with their jobs but still attempt to do as good a job as possible in optimising this relationship and recognise and appreciate the fact that every individual is unique. In addition in attempting to assess behaviour in organisations, the context/situation within which the behaviour occur must be considered because an individual who is satisfied and productive in one context may become dissatisfied and unproductive in another context.

References


www.cipd.co.uk (Accessed 10-10-2011)
www.trainingjournal.com/content/cipd-sad-report/ (Accessed 10-11-2011)
This academic article was published by The International Institute for Science, Technology and Education (IISTE). The IISTE is a pioneer in the Open Access Publishing service based in the U.S. and Europe. The aim of the institute is Accelerating Global Knowledge Sharing.

More information about the publisher can be found in the IISTE’s homepage: http://www.iiste.org

The IISTE is currently hosting more than 30 peer-reviewed academic journals and collaborating with academic institutions around the world. Prospective authors of IISTE journals can find the submission instruction on the following page: http://www.iiste.org/Journals/

The IISTE editorial team promises to the review and publish all the qualified submissions in a fast manner. All the journals articles are available online to the readers all over the world without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. Printed version of the journals is also available upon request of readers and authors.

IISTE Knowledge Sharing Partners

EBSCO, Index Copernicus, Ulrich's Periodicals Directory, JournalTOCS, PKP Open Archives Harvester, Bielefeld Academic Search Engine, Elektronische Zeitschriftenbibliothek EZB, Open J-Gate, OCLC WorldCat, Universe Digital Library, NewJour, Google Scholar