Review of open and distance education research in Asia

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ABSTRACT. This Paper introduces the Asian Journal of Distance Education (AJDE) and gives a critique and overview of open and distance education research in Asia. The Journal is the only registered accredited journal covering all Asia. We have published research papers from many of the approximately 50 or so countries in Asia them – not all, but far more diversely than other journals in the world that are for example serving the Americas. We also continue to publish some papers from leading researchers in Europe and North America which have a clear bearing on Asia. One or two have been from Africa because they demonstrate a similar context to some regions within Asia. In this paper we review research in open and distance learning in Asia and the world. The aim was to identify what research is now telling us, and what we in Asia – particularly rural Asia – should be researching now. Time, money and effort should be put into designing and developing better quality learning materials: of all the possible interactions involved in the student learning, it is the student interaction with materials that is the leading factor.

RÉSUMÉ. Cet article présente l’Asian Journal of Distance Education (AJDE), et offre un panorama et une analyse critique de la recherche sur l’enseignement à distance en Asie. L’AJDE est la seule revue scientifique accréditée pour toute l’Asie – dans une large acception géographique – et a publié des travaux émanant pratiquement de la cinquantaine de pays concernée. L’objectif de cette analyse est d’identifier ce que la recherche exprime aujourd’hui, et ce qui devrait faire l’objet de nouvelles recherches, notamment dans l’Asie rurale. La conception et la qualité des supports d’enseignement devraient à présent bénéficier de temps et de financancements : de toutes les interactions impliquées ce sont celles entre l’étudiant et les supports d’enseignement qui priment.

KEYWORDS: Asia, AJDE, framework of research topics, student-content interaction, content is priority.

MOTS-CLÉS : Asie, AJDE, cadre des thèmes de recherche, interaction étudiant-contenus, priorité des contenus.

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Introduction

At the outset we are happy to be busy and are keen to help ODL researchers all around the world (please see a summary report, Kawachi, 2008a). We all need research into open and distance education. Teachers, prospective students and current students, administrators, funding agencies and governments each and all need findings from research. The overarching reason why we need research is to improve course design through better understand the factors affecting the achieved learning outcomes. We need to understand the students’ characteristics, the study environment, the media delivery system variables and the teaching methods. With better understanding of these factors we can test out the various teaching and learning theories, and use data through grounded theory to develop and improve theories and inform design.

We have been publishing ODL research now for about 8 years. Our publishing status is confirmed by our registration on 18th October 2002 as the Asian Journal of Distance Education, Asian JDE, and as AJDE. From this date we operate all our trademarks and copyrights. Our front cover of the Journal is similar to the Journal homepage with green squares drawn in perspective going into the distance, each square symbolizing the fertile rice field representing each Asian country. Then the JCSat4 satellite which is used in this region is drawn transmitting signals to and from the fields. This symbolizes our wish for countries in Asia to share what they have with others in the same country and others in neighbouring countries through our Journal. The same symbolism is used in drawing the letter ‘A’ for Asia (shown in Figure 1) which we use on each Paper.

Figure 1. The ‘A’ Symbol of the Journal

The concept of the Journal originated through our association with the Asian Association of Open Universities. We hear that they have now followed our advice

and launched an AAOU Journal under the direct control of their Executive Committee. We exercise far more latitude, opportunities, and freedom in expression to researchers throughout Asia. It has been clear to us since 2001 that there was a need and want for such a journal, and we are pleased to have realized the Journal as a direct response to these with the great support of many key figures. Our philosophy remains to help prospective Authors get published, unlike most other Journals that charge fees or reject manuscripts due to poor English. It is true nonetheless that many Western journals have a readership with little interest in the corners of Asia - in Papua New Guinea, Bangladesh and other places quite remote in culture and educational levels. We offer freely all possible assistance with use of English. We feel one role of publishers is to assist in the positive development and use of language.

Stated Aims of the Journal

The main aim of the Asian Journal of Distance Education is to disseminate scholarly works and information useful to researchers and practitioners in the growing field of distance education in Asia. The Journal also aims to provide a forum for discussions within and directly relating to Asia, and so elicits Asian local theoretical and practical solutions to local concerns. Contributions are invited from around the world which meet these criteria of relevance to the Asian context. Author Guidelines for contributions are given on the final pages.

Box 1. The Aims of the Journal

The aims of the Journal (Box 1) have the key point of being relevant to Asia. Some few Papers have come from Africa. In those cases our reviewers saw some relevance and this then can improve the rating of the manuscript to become published.

Our legal status is firm. The Journal was registered with the Japan Ministry of Justice for legalization as a judicial entity as Non-Profit organisation, and Ministry of Finance because even NPO must declare their books for tax! although we have been zero-rated always, and have an all volunteer crew (no publishing fees from Authors and so no expensive executive cars). Due to our international status we are reported as a Non-Government Organisation NGO.

We have global support from highly respected leading researchers in ODE, and this is evident in both the quality of Papers we receive and in the support we have from our distinguished Editorial Board. It is not easy to attract leading Western researchers - perhaps we are successful because Asia still holds some Victorian exotic image. It is true that many regions of Asia haven’t changed much in the past one hundred or two hundred years, yet a few regions have become the most-highly developed in the world. The task facing us is somehow to equalize access between these two regions - thousands of times over throughout Asia.
Copyright is an interesting area. We have had surreptitious enquiries from aliens requesting a complete original set of templates - which we rather suspect to be the work of a pirate printer producing knockoffs. We do invite and grant re-printing rights (to date) to everyone, subject to their including a copyright ownership declaration - that copyright stays with us. We do offer a blog with Creative Commons Licence for Authors and Readers to discuss issues as they wish.

We offer clear Guidelines and Templates to prospective Authors. For example we give examples of the citation style of the American Psychological Society (APA, 2009) for ways to accurately cite resources, and we extend these to include electronic books thus: “Additionally references to electronic books and similar resources should indicate the version such as ‘Kindle edition’ after the publishers’ name. There is a lack of consistent page numbering among electronic book publishers, and within a single user’s copy if the user varies the font size for ease in reading. For accurate citation of quotations from electronic books, the Author should use: section ‘title’, paragraph ‘number’ (adding these ad hoc to assist finding the citation).” So we continuously monitor ways to improve our Guidelines for researchers to help other researchers. While we follow their citation style, we do not adopt their writing style for the text. For example we do not agree on using two spaces (APA, 2009) in the text at the end of a sentence. There are several reasons for our not following APA text style. One, it would be relatively burdensome for new Authors in rural Asia - in terms of dollars cost and time and effort. Another, we treasure the colourful tapestry of Authors’ own styles - preferring this to vanilla machination. That said, we would like Authors to use clear, concise and coherent Standard British English.

Methods

In each Issue we try to include about seven full Papers. We generally have two Issues per year. Not always but usually we have about 15 or so accepted and ready for publishing - so we finalise each Issue on several criteria. One, is to provide a balance in quality: if all are from the best researchers then younger prospective Authors might be disheartened to send in their manuscripts. Two, is to fit some theme which we can elaborate upon in the Editorial to sew the Papers together and draw out the similarities and interesting points in each. This juxtapositioning can be useful for the Authors too. Three, we try to keep a geographic balance: since we are the only accredited Journal covering all of Asia, we try hard to maintain harmony - this means for example in one Issue (v6.2) we had Papers from Pakistan, India, and Bangladesh. These were on similar themes fortunately, and we published at a time of political instability with some turmoil on the borders in Kashmir, while India was constructing a fence along the Bangladesh border. So while we do not accept or publish any politically biased report, we are sensitive to the role of harmony and sharing for regional stability. Moreover we try extremely hard not to offend any one: given the colourful tapestry that is Asia, this is quite a task.
In our Editorials we generally follow a pattern to include major academic conference news, the current State of the Journal and the current State of ODE in Asia as we see it, the theme of the Issue, a brief insight into each Paper in the Issue, and then any news of future event of interest. The leading conference news we carry is that for the Asian Association of Open Universities AAOU. This naturally leads into the current State of the Journal, because on the sidelines of this annual AAOU conference we usually hold our annual ASODE conference when we announce any changes or evolution in the Editorial Board or awards achieved by our Authors. Many members throughout Asia are thwarted by high costs for travel and hotel, as well as conference attendance fees. Accordingly we have free open access to our Meetings with zero fees. To offer every help to those who wish to participate, we use all available media and technology. Generally we invite members to participate through email and voice-over-Internet-provider VoIP. The Editorial then moves on to any significant development in Asian ODE, and then the theme of the Issue. We practice-what-we-preach by including as far as possible direct URL weblinks to everything we mention in the Editorial – so interested Readers can access easily the primary sources. Finally we add mention of any future conference.

We generally have about twenty manuscripts inside the review process at any time. Most of those we receive undergo review in three stages: first by all the Editors, secondly by any others, and then thirdly by the Editors again. In some cases more questions arise during or after typesetting. What this signifies is difficult to understand or explain. Nevertheless speaking personally, a second reading naturally affects my mind and when I come to read it a third time I am a different person with different knowledge and views, so it seems unavoidable that we develop our sense of value as we read and re-read. Reading is an aesthetic questioning process - not an efferent stand-away and superficially mechanic scan.

Our rejection rate is about 30%. This is largely not due to us or our efforts! We sometimes send soft guidance, suggestions, weblinks to additional reading that could be referenced - indeed we do our best always with each manuscript. But sometimes it just happens that the Author disappears. After no return correspondence for several months, we feel we should move on, putting our efforts into more promising pursuits, and reluctantly send off a rejection letter.

Our reviewers want and need to check the primary sources, so we urge Authors to not only use accurate APA style for literature references but also to choose references with URL weblinks to assist readers finding the sources. We have a large repository now of about 4 000 literature references in e-format. If a reader wants help to find a reference, we can often send an electronic copy back by return email for personal study not-for-profit use. Mostly we use this repository to offer help to prospective Authors suggesting they read this or that.
Results

In this Results Section, we briefly cover the range of research that we have published to date. After working in various small states for seven years, Confucius returned to his home and said “Now I know it for the first time”. Travel and foreign experience does indeed open our eyes and minds to our own home situation. Several of our leading Authors writing on China are actually resident in the United States. From their vantage point they gain an overview and can see how the history fits in and shapes the current conditions, how policies have brought various fruits some sweet some bitter to their old homeland. Perhaps writing in China they would have taken a blander and less insightful approach with their heads bowed and eyes down. Our Journal seeks critique, not mere criticism, and critique depends on an intelligent blend of good and bad points. Sometimes we get a manuscript listing the shortcomings of a specific institution. The shape and feel is that of an internal document seeking more funding, or whatever, but hardly in any sense an academic Paper. A review of fifteen regions across Asia found that most research in Asia reported case studies in a non-interactive cooperative style, rather than the interactive collaborative critique associated with research in the west. This review was initially on use of computers and is available freely from the Commonwealth of Learning (Kawachi, 2005a), and was used as a basis for investigating what kinds of research were actually being done and reported across Asia (Kawachi, 2003a) to the AAOU conference. The fifteen regions included Bangladesh, (mainland) China, Hong Kong (China), India, Indonesia, Iran, Japan, Korea, Malaysia, Pakistan, the Philippines, Singapore, Sri Lanka, Thailand, and Vietnam. The conclusion there is worthwhile citing in full: “From the above review, most e-learning in Asia that is taking place occurs through access to content on the internet, and there is increasing availability of lower cost access to the internet and cheaper software even in the local native language. However, increasing the learning effectiveness requires a switch in emphasis from student-to-content interaction to student-to-teacher and student-to-student interactions, and this will be more expensive. In Australia, Curtain (2002) reports that e-learning with high levels of interactivity costs about twice that of low-interaction print-based correspondence course provision per student. How this translates to Asia will depend on whether students move from individual and cooperative mode towards more critical-thinking and collaborative learning mode. Where this is indeed occurring in the centres of excellence in Hong Kong, Japan, Korea and Singapore, the digital divide in education is widening between these centres and the rest of Asia.”

Discussion

We as Editors (and as Author-Researchers in our own right) need to have some kind of comprehensive scaffold or framework on which to fit any research paper, to see how well and where it fits in with others. In open and distance education a key
theory is the Transactional Distance Theory of Moore (see Keegan 1996 for a clear interpretation) and the practical model derived from that theory of the Transactional Distance Model by (Kawachi, 2003b; 2005b; 2007). Also there is the Conversation Theory of Pask (1975) (see Mitchell and Grogono 1993 for a clear interpretation) and the corresponding Conversational Model of Laurillard in 1995 (see the second edition, Laurillard, 2002). In adult learning theory there is the Outcome-based Teaching Theory of Biggs which looks at how to achieve quality learning (Biggs, 2003). All these in theory and in practice indicate that teaching and learning operate only along lines of potential interaction.

There are ten lines of academic interaction for learning now recognized - not including those of non-academic support such as counselling. These can be considered as distinct dimensions. Usually only one or two of these dimensions are explored by any given research Paper. Initially there was only Teacher-to-Student, Student-to-Content, and Student-to-another-one-Student. These have been revised to become student-centred, two-way, and with multiple students involved, thus S-T, S-C, and S-Ss. A fourth was added for the technology barrier S-tech (Hillman, Willis, and Gunawardena, 1989), but a fifth of vicarious interaction (Sutton, 2001) has been discounted by Kawachi (2003c). These ten lines of interaction are underpinned by Papert’s Constructionism which is unitary and holds that learning occurs only within the mind of the student (Harel and Papert, 1991). These are summarised in table 1 below. The aim here is to have a comprehensive framework on which we can position research findings and compare ODL research published in Asia with research in other parts of the world.

Table 1. The Lines of Interaction for Learning explored by ODL Research

<table>
<thead>
<tr>
<th>Line</th>
<th>Research topics We have Seen</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>S-T Books, DVD, Online Interactive Lectures</td>
</tr>
<tr>
<td>2</td>
<td>S-C Elicitation, Feedback, Call-Centres</td>
</tr>
<tr>
<td>3</td>
<td>S-Ss Face-to-face lessons, online chatrooms</td>
</tr>
<tr>
<td>4</td>
<td>C-C Semi-Open Book Examination System</td>
</tr>
<tr>
<td>5</td>
<td>T-C Teachers share their supplementary resources</td>
</tr>
<tr>
<td>6</td>
<td>S-tech Call-Centres</td>
</tr>
<tr>
<td>7</td>
<td>T-tech Human-Resources Centre, Tech, Teaching Teams</td>
</tr>
<tr>
<td>8</td>
<td>C-tech ? intelligent tutoring</td>
</tr>
<tr>
<td>9</td>
<td>T-Ts Teaching Teams for teaching methodologies</td>
</tr>
<tr>
<td>10</td>
<td>O-S O=Others: eg role guidance from parent</td>
</tr>
</tbody>
</table>
The above lines as distinct dimensions are briefly explained as follows, with each dimension essentially acting along one of the available lines of potential interactivity: there being no other way for support to be given except along a line of interactivity.

1 (S-T): The Student from the Teacher. It is interesting that this is still not considered to be a two-way interaction. Where the student does initiate the communication this is seen as alerting the teacher to a need for teaching interaction.

2 (S-C): The Student to and from Content. This should be a two-way conversation involving questioning, in an aesthetic stance, rather than in an efférent non-questioning stance. The use of online frequently-asked-questions FAQs and human-staffed call-centres with answers to FAQs are included here.

3 (S-Ss): The Student to and from other Students. This is over-rated and discussed in detail below. It can serve initially to overcome anxiety. However where learning is occurring then we had better interpret for a sense of clarity one of the interlocutors as a teacher rather than student.

4 (C-C): How Content leads to other Content on Demand

5 (T-C): Teachers interpret the Content and share Teaching Resources

6 (S-tech): Technical Support to the Student.

7 (T-tech): Technical Support to the Teacher.

8 (C-tech): Technical Support to the Content. This can be done at the course writing stage where multimedia are used to make the content clearer, deeper, wider, more interesting or more vivid.

9 (T-Ts): Teacher to-and-from other Teachers. This involves teaching teams in which teachers guide each other in understanding teaching methodologies and academic content experts share expertise.

10 (O-S): Student from the Parent(s). This dimension is worthwhile exploring, in which care-givers create an academic learning environment around the student learning. Parents could read or study themselves, or where the student is a grandparent the caregiver or younger members in the family could ask kind inquisitive questions to demonstrate real interest and respect and thus support the student’s self-esteem.

There are two additional lines of interaction along which act Expressive Motivation as in learning to paint denoted as S->P student acting to the process of learning, and Aesthetic Motivation from lifelong learning denoted as S<-P where the process of doing motivates to the student as fishing, reading for enjoyment, and studying in old age (see for example Kawachi, 2008b).

Concerning the interactions among students S-Ss, these may be cooperative in nature or collaborative. The cooperative interactions occur only initially in the educative learning cycle. Online social networking is particularly prominent these days as the platform for this initial social introduction. Where these interactions are collaborative then real learning can take place. Scaffolds have been suggested for the
cooperative or collaborative interactivity – notably by Feng, Zhang and Chen (2008) between urban schoolchildren and rural schoolchildren. The distinction between cooperative and collaborative is important and covered at length elsewhere (Kawachi, 2004). In China, Feng, Zhang and Chen (2008) reported that rural teachers achieved improved rural S-T interactivity. The rural teachers welcomed the urban teachers support, but afterwards withdrew to their own rural S-T and rural S-C interactions. The limited S-Ss was confounded by serious novelty effect, halo effect, and Hawthorne effect, and no improvements in achieved learning were found. They interestingly reported a low ranking for the collaborative interactions than for the more popular (possibly easier) cooperative interactions. Their findings also support the use of scaffolds continuously throughout a course – not early on and with gradual removal as is the commonly anticipated use of scaffolding.

In a Paper here from Japan, Aoki reports that technology is not a significant factor. There is still considerable use there of postal mail for correspondence education (Aoki, 2008). This might be related to the aging population there, since many of the older adults participate in distance education. Younger students do opt out from conventional schooling to attend open high schools, and some indeed register for courses at the national Open University of Japan while simultaneously studying at some conventional university. It may be that older adults are less computer literate, but it remains true that technology in Japan is not driving open and distance education (Kawachi, 2008a; 2005c). The key factors instead appear to be the quality of the teaching and of the materials – similar in fact to the situation in the British Open University.

In India, Gaba reports the need to prepare and deliver educational materials to the rural women – in order to achieve better learning. Gaba focuses on women empowerment (Gaba, 2007) at a time when many researchers were calling publically for evidence that ODL was achieving exactly this. India still has intermittent electricity so the reliability of online communications is not assured. Postal correspondence is still the key media, and for most the face-to-face element is crucial. He concludes in particular the need for improved learning resources. His findings are clear evidence that in rural Asia the quality of learning materials remains the main factor underpinning good quality achieved learning. Reports continue from India - particularly from Indira Gandhi National Open University - that the key to learning success is through developing high quality materials. Sharma (2001) indicates that this has been a mainstay philosophy in IGNOU for the past decade. Their use of technology is essentially a delivery system, rather than a learning space - other reports substantiate this for example their use of one-way radio (Chandar and Sharma, 2003). These reports support the conclusion that S-C interaction is the most important for learning.
Implications

Many studies have investigated which interactions are best for learning. Daniel, Kanwar and Uvalič-Trumbić (2008) discussed the conclusions of examining more than 600 published research papers on which interaction was best. We are also pleased to report that their paper was published by us.

Bernard, Abrami, Borokhovski, Wade, Tamin, Surkes, and Bethel (2009) looked at hundreds of research reports and statistically analysed them to discover which interaction as variable factor was most responsible for improvement in achieved learning outcomes. Of the three major interactions S-T, S-C and S-Ss, they find that S-C was most significantly important. Bernard and his group are also interested in improving the quality of published research (Bernard, Abrami, Lou and Borokhovski, 2004; Lou, Bernard and Abrami, 2006). Tamin, Bernard, Borokhovski, Abrami and Schmid (2011) this month published their review covering the past forty years of published research. They investigated more than 1,000 primary studies to discover which factors best correlated with achieved learning. They concluded no clear benefit to the student from using technology.

One of our Editors – Sanjaya Mishra – who has just left to take up a position with UNESCO has reviewed the published research in four leading journals at that time (Mishra, 1997) – Distance Education (in Australia), American Journal of Distance Education limited to the States, Open Learning (in Britain) and the Indian Journal of Open Learning (in India). At that time, our Asian Journal of Distance Education had not yet begun publication. His conclusions were that the research methodology was commonly survey, and that most were concerning learner-centredness. Putting the student at the centre is indeed a philosophical characteristic that distinguishes open learning from distance education. Open learning honours and values the student diversity, and aims to enrich that diversity through preserving the individuality of the students prior knowledge, current context and needs. On the other hand, distance education controls standardisation, demands conformity and ensures uniformity, and so aims to produce a clone of the campus student. The two philosophies are barely compatible. This philosophical distinction or incompatibility extends to the difference between ‘learning’ that puts the student as subject at the centre, and ‘education’ that treats the student as the object of instruction. This is clearly reflected in the Russian terminology for distance education which is (in Russian) ‘zoachne’ literally ‘education without eyes’. One must wonder how open we are to the learner if we are blind to the student’s circumstances. An earlier study by Tamin found that students did not rate the technology as the leading factor, but rather the quality of the materials and the teaching (Tamin, Lowerison, Schmid, Bernard, Abrami and Dehler, 2008). The overall conclusion to be drawn is that the technology or the interactivity afforded by the technology is not the crucial factor.

We could identify this too from say an explorative study on learning achieved in North Korea. In North Korea they have achieved world-leading learning using S-C and S-T (Kawachi, 2010a; 2010b), with zero S-Ss or S-Tech, and all this with pretty
limited electricity. They are well beyond Web2.0, use Web3.0 and are developing WebX.0, not only face recognition virtual reality but with user voice recognition. They have domestically designed and produce an advanced Personal Digital Assistant PDA. They design software for iPhone, Nintendo, Japan’s national broadcaster NHK, Facebook, and projects for the UN, Int Red Cross, and many governments. Their e-learning content is available in Chinese, English, French, German, Japanese, Korean, and Russian. South Korean experts consider the software engineers of North Korea to be among the best in the world.

Several reports now all support the practice that Student-to-and-from-the-Content is best for student learning. This is especially true in rural Asia – although perhaps less so in the highly developed westernised centres of excellence in Hong Kong, Tokyo, Seoul, Shanghai, and Singapore. In other words we in Asia had better put our scarce time, efforts and money into designing and producing good quality materials. We need more research into materials design and development.

The aim of this Journal is to disseminate and share what research findings we have and stimulate further development of learning resources in Asia. Such an open university consortium in Asia must be promoted at every opportunity in Asia - especially in East Asia where sharing hardly yet occurs. We welcome and invite therefore readers around the world who share these aims to collaborate to reduce costs, increase resources, widen access, and treasure harmony.

References


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