

Is Online Learning an Effective Way to Undertake an MBA?

Tracy Stanley
U21 Global Graduate School, Singapore. tjstanley64@yahoo.com

Abstract

Background: Online education has been subjected to praise as well as criticism with one of the most common criticisms relating to the quality of educational outcomes from e-learning. These criticisms typically relate to the perceived inferior knowledge transfer and therefore learning experience that results from the lack of face-to-face interaction opportunities.

The purpose of this research project was to assess whether it was effective to undertake a quality MBA in a 100% online format, with consideration for the commonly stated objectives of an MBA program. The determination of quality was assessed by the students' feedback as to how well they felt the program they undertook, met the typical learning objectives of an MBA.

Approach: The population explored included past and present MBA students and faculty at 21 learning institutions around the world across different delivery modes, i.e. face-to-face, hybrid or 100% online programs. The principal data-gathering tools included two surveys, one for students and the other for faculty, in addition to structured interviews conducted through a mixture of telephone and face-to-face interviews with both populations.

In addition to the main purpose of the study stated above, there were a number of related research questions addressed and several hypotheses related to the research questions were also tested.

Results: Overall there was not a statistically significant difference between the perceived effectiveness of Online and Face to Face MBA programs. Additionally older students were more satisfied with online learning than younger students.

The outcomes of the research provide valuable insights into the design of learning processes for MBA programs generally and online programs specifically which can be applied across all programs. One of the clear findings from this study is that the participants greatly influence the results of the educational process. The student responses to the surveys support the notion that a 100% online delivery mode is an effective way of achieving most of the learning objectives of a typical MBA, with only exception being "development of verbal communication skills."

Many indicators of knowledge transfer were reported during the interviews resulting directly from the MBA program, which were categorized broadly into three categories viz. self, the assessment process, and the workplace. Factors that either limit or promote the effectiveness of the learning process include the behavior of other students, the behavior of faculty, the learning design itself, assessment process, and technology.

Conclusions: While the online learning channel has been shown to be an effective way to undertake an MBA there is a clear recognition of the value of face-to-face contact for tacit knowledge sharing and therefore knowledge transfer.

1. Introduction

1.1 Background to the research

As Bedi & Lange (2007) have revealed, e-learning has created a paradigm shift in education and in the way that knowledge is created. However, online education has been subject to praise as well as criticism with one of the most common criticisms relating to the quality of educational outcomes from e-learning. Traditionalist and e-learning sceptics suggest that face-to-face education is the only way to produce high quality educational outcomes as classroom interaction takes learning to a higher level.

The purpose of this research project was to assess whether it was effective to undertake a quality MBA in a 100% online format, with consideration for the commonly stated objectives of an MBA program. These learning objectives include:

1. Acquiring broad business knowledge and tools
2. Acquiring strategic thinking and analysis skills
3. Applying learning to complex problems and scenarios
4. Working and collaborating in teams across cultures
5. Thinking creatively using an entrepreneurial mindset
6. Developing written presentation skills
7. Developing verbal presentation skills
8. Using technology to support business decisions
9. Understanding the role of ethics, values and guiding behaviours; and
10. Acquiring self-awareness

Two distinct communities were surveyed to obtain their different perspectives on the research questions. These communities included current and former MBA students and teaching faculty on MBA programs. The research provided deeper insight into those factors impacting on the effectiveness of MBA programs delivered via different modes, i.e. campus based education, hybrid and 100% online. (Hybrid or blended learning typically combine face-to-face classroom instruction with computer mediated activities).

1.2 Research problems

We know that adult learning is a complex process with many factors impacting on the effectiveness of the learning process. These factors could relate to the structure/design of the learning process, the motivation and behaviours of the student, their capacity to put in the required time to benefit from the learning opportunity, the level of support and encouragement provided from teaching faculty and the efficiency of technology to name a few (Harmon & Labrinous 2007; Benbunan-Fich & Arbaugh, 2006).

This topic is of increasing relevance as more universities move their MBA programs to either hybrid or indeed 100% virtual learning environments. In addition to the main question posed above, there were a number of related questions that were also of research interest. These questions included:

- What are the indicators of effective knowledge transfer via online learning channels?
- To what extent do students believe that the study mode they undertook was effective?
- Does student motivation to undertake an MBA impact on learner effectiveness?
- Does student capacity to undertake an MBA impact on learning outcomes?

- To what extent do factors related to the learning design impact on the effectiveness of any MBA program and specifically on online learning?
- To what extent do factors related to the behaviour of faculty impact on the effectiveness of any MBA and specifically online learning outcomes?
- What are the main or greatest factors supporting the effectiveness of online learning?
- What are the main factors inhibiting the effectiveness of online learning?
- What are the characteristics of the students who most effectively absorb and apply the knowledge and skills that they have acquired?

A number of formulated hypotheses were also tested in the study including:

- H1: There is significant relationship between mode of MBA study undertaken and the perceived effectiveness of MBA Program;
- H2: There is a significant relationship between nationality and the effectiveness of e-learning;
- H3: There is a significant relationship between gender and the effectiveness of e-learning;
- H4: There is significant relationship between first language of English and the effectiveness of e-learning;
- H5: There is significant relationship between age and the effectiveness of e-learning.

1.3 Methodology

The population explored included past and present MBA students and faculty at a number of learning institutions around the world across different delivery modes, i.e. face-to-face, hybrid or 100% online programs. The principal data-gathering tools included two surveys, one for students and the other for faculty, in addition to structured interviews conducted through a mixture of telephone and face-to-face interviews with both populations.

The Student Survey

The Student survey collected **demographic information** about all contributors including

1. The University at which they studied for their MBA
2. Age Band
3. Gender
4. Is their first language English?
5. Ethnic grouping
6. Mode of MBA study undertaken, i.e. on-line, hybrid or face-to-face
7. Time period within which MBA was completed
8. Experience level on commencing MBA studies

From this information, it was possible to undertake an analysis of the relationship between each factor and the students' perceptions about the overall effectiveness of the MBA program, and to test a number of hypotheses.

2. Results & Discussion

In total, 58 students contributed to the online survey, with 41 of these coming from the U21 Global Graduate School which delivers a 100% online MBA program, 13 from a range of Face-to-Face/Campus based MBA programs and 4 from universities delivering MBA programs in a hybrid format. Nine faculty with MBA program experience from ten

universities also participated in the online survey. Twenty two student interviews and four faculty interviews were also undertaken.

The study revealed that there were many factors motivating students to undertake an MBA. Factors that rated highly included ‘Learning more about business in a global context’, ‘Undertaking intellectually stimulating studies’ and ‘Supporting career advancement’.

‘Flexibility of learning delivery’ rated very highly in program selection for online students. The flexibility factor not only included choice and timing of when a student could undertake a subject and how long they took to complete the MBA program overall, but also when they could invest time in reading the online materials and participating in the different discussion boards. They were not tied to the demands of fixed classroom schedules for the delivery of content.

2.1 What factors inhibit or promote the effectiveness of the online learning channels?

There were differences reported in terms of the top rated learning channels between Face-to-Face programs and those that are delivered in a 100% online manner, with many of the face to face channels rating very highly, for students studying in the face to face mode. .

Face-to-Face: Effectiveness of learning channel (Q6)

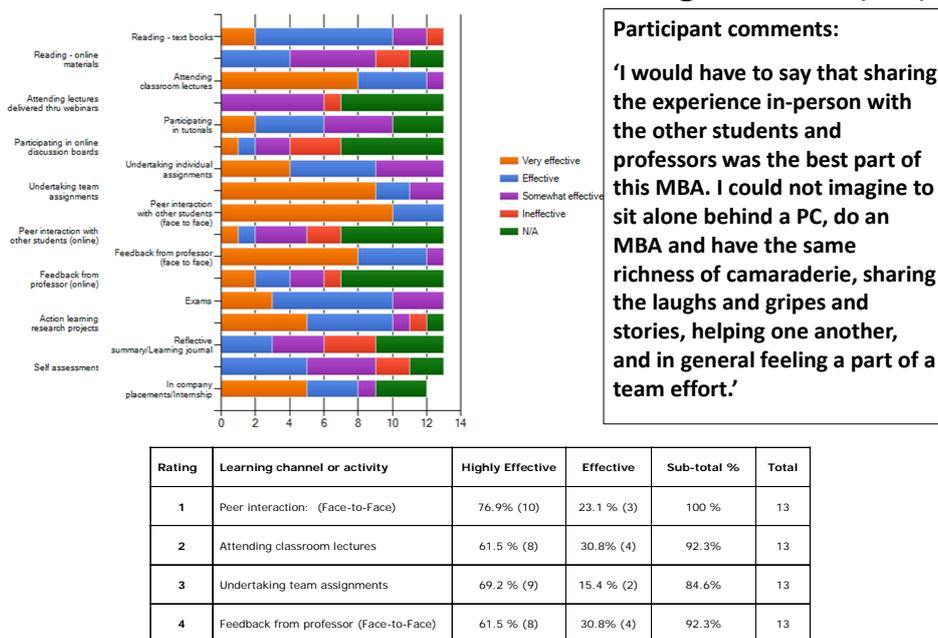


Figure 1: Face-to-face students rating of effectiveness of learning channel

Undertaking team assignments was a common top rated factor among the two groups of students. However, from the interviews and comments section in the online questionnaire, it was clear that the quality of this process was very much dependent on the level of work and life experience, extent of contribution and overall engagement of the other students in the group.

For Face-to-face students, the internships and for Hybrid students residential weeks were also considered to be a very effective part of the overall learning process.

Another key part of the learning process which emerged as important across all learning modes was the use of case studies. They clearly provided a good opportunity to apply theory learnt, to a real world situation. Many online students also praised the effectiveness of the use of case studies for the final exam.

Online: Effectiveness of learning channel (Q6)

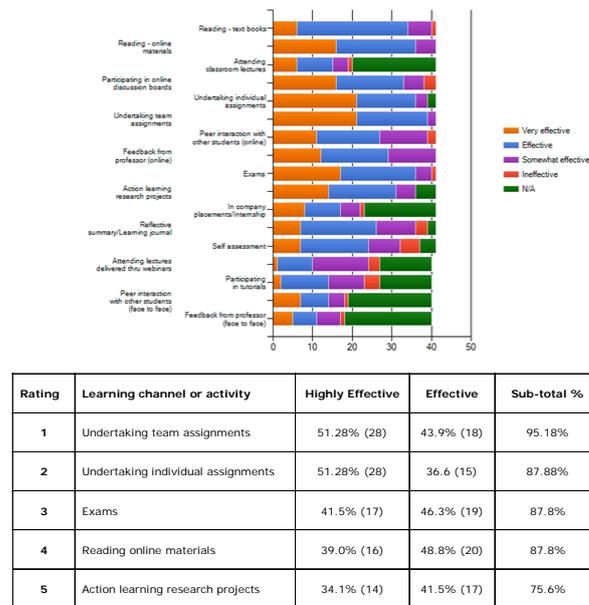


Figure 2: Online Students rating of effectiveness of learning channel

2.2 Are some subjects more difficult than others within an online mode?

Most subjects identified as being more difficult to study online had a quantitative orientation with Finance and Data analysis being identified as the top two most difficult subjects. It was interesting that in the follow up interviews with the online students, that several students commented that for the more difficult subjects, they had to seek support from other persons with expertise in the subject area in order to fully understand the content. This finding highlights the importance of a one-on-one knowledge transfer processes when the subject matter is difficult.

2.3 Factors that most contributed to the effectiveness of the learning process

There were similarities between the two main populations of students as illustrated in Tables 1 and 2 with the quality of learning content rating very highly for both populations.

Rating	Factors most positively contributing	Contributed significantly	Well supported	Sub-total %	Total
1	My time available to invest in the program	84.6% (11)	15.4% (2)	100%	13
2	Diversity of other students in my class	76.9% (10)	23.1% (3)	100%	13
3	Quality of learning content	69.2% (9)	23.1% (3)	92.3%	13

Table 1: Top 3 factors contributing most to the effectiveness of the learning process – Face-to-Face

Rating	Factors most positively contributing	Contributed significantly	Well supported	Sub-total %	Total
1	Relevance of case studies	65.0% (26)	30.0% (12)	85%	40
2	Quality of learning content	51.2% (26)	30% (12)	81.2%	41

Table 2: Top 2 factors contributing most to the effectiveness of the learning process – Online Students

The same question was also asked within the faculty survey. Most professors considered ‘a well-designed learning process’, ‘the supportiveness of faculty themselves in providing feedback and encouragement’ and ‘the overall engagement of students’ as key factors contributing to the effectiveness of the MBA.

2.4 Impact of personal attributes of student

Faculty were asked what were the personal attributes of the most successful students. Self-discipline and motivation rated highest. Further comments provided by faculty, are illustrated in Figure 3 below which combines factors both internal to and external to the student.

Common characteristics of successful students

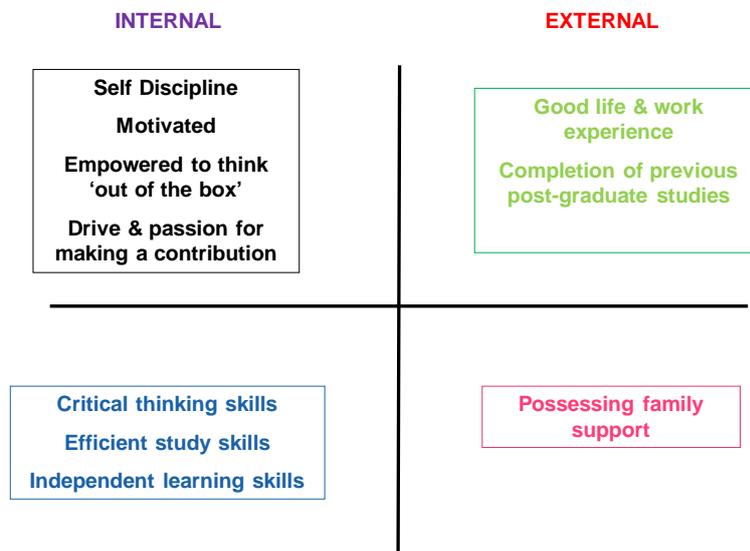


Figure 3: Common characteristics grouped by internal and external orientation from the Faculty Survey

2.5 Identification of those factors that inhibited the learning process (Q10).

The number one factor inhibiting the learning process was clearly the student's lack of time to dedicate to their studies.

Many online students commented on the de-motivational impact of being in classes with students who weren't fully engaged in the learning process, making minimal contributions to team assignments and often posting either poorly referenced or plagiarised material on discussion board topics. The need for faculty to respond strongly in these situations was considered of high importance to ensure the quality of the collective learning process by several students.

It was interesting that half the population of on-line students did not feel that missing face to face lectures and interaction opportunities with other students, impacted on the quality of the learning experience. However, it was important that the faculty had a high online presence and provided detailed guidance and feedback.

Apart from the student's lack of time, the design of the learning process itself is also considered to be any important factor that could inhibit the effectiveness of the learning process.

2.6 What are the indicators of effective knowledge transfer via online learning ?

The literature confirmed that student perceptions are a valid indicator of the effectiveness of a learning process. Many students commented that they were personally aware of how their behaviour in the workplace and thinking processes had changed as a result of the MBA. During the interview, students provided examples of how they had incorporated what they had learnt from the different subjects in the MBA into their current position. The impact was across how they thought about or analysed a situation, how they felt being in this situation and how they communicated. Many students commented on how the way they approached a

situation or problem is now much more structured. They also have new tools and models that they can use to support their decision making processes. Further, many students reported increased feelings of self confidence in the workplace, coming from a greater understanding of business issues. They added that they were now better able to ask more relevant business related questions.

2.7 Evaluation of online learning as an effective way to undertake an MBA

Student survey participants were asked their perception as to the overall effectiveness of the MBA that they had undertaken. Overall there was **no statistically significant difference** between the perceived effectiveness of Online and Face-to-Face MBA programs.

2.8 Evaluation of effectiveness of MBA by typical MBA objectives

Across the two main delivery modes of MBAs, the objectives of ‘Acquiring broad business knowledge’ and ‘Strategic thinking and analytical skills’, were both rated highly.

Face to Face: Perceptions as to how MBA met learning objectives (Q8)

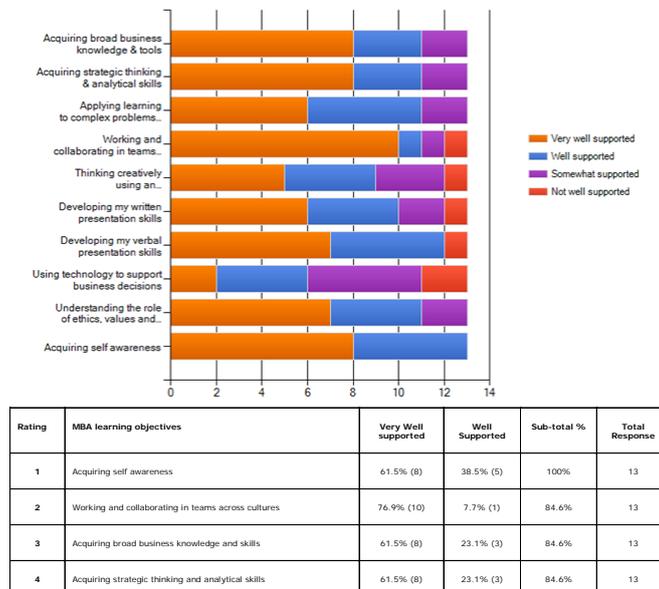
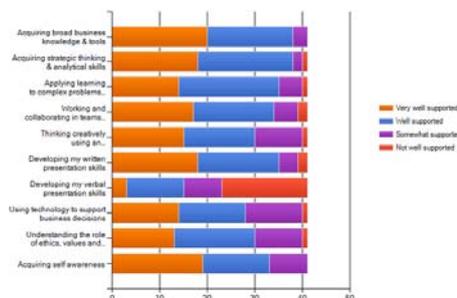


Figure 4: Face-to-face results– re effectiveness of typical MBA objectives

On-line: Perceptions as to how MBA met typical learning objectives (Q8)



Observations:
Developing verbal presentations skills did not rate highly for online MBA students

Rating	MBA learning objectives	Very Well supported	Well Supported	Sub-total %	Total
1	Acquiring broad business knowledge and skills	48.8% (20)	43.9% (18)	92.7%	41
2	Acquiring strategic thinking and analytical skills	43.9% (18)	48.9% (20)	92.7%	41

Figure 5: Online results – re effectiveness of typical MBA objectives

The t-test was used to test that the perceptions between the two learning modes were significantly different. Perhaps not surprisingly, there was a statistically significant difference observed related to the objective of ‘**Developing my verbal presentations skills**’ between the face-to-face and online students. Clearly providing the opportunity for the development of verbal presentation skills is more difficult between 100% online programs and Face-to-Face awareness programs, however it is not impossible with recent Webinar and Video technology and should be explored further in the researcher’s view.

2.9 Relationship of demographic factors to the effectiveness of online-learning

The One-way Anova test was employed to measure the effect of factors such as gender, ethnic grouping, possession of English as a first language and age on perceptions of MBA effectiveness. The analysis revealed **no significant differences** for gender, ethnic grouping and possession of English as a first language on the perceived effectiveness of the online MBA. Thus the null hypothesis for each of the following statements is true:

- H2: There is a significant relationship between nationality and the effectiveness of e-learning;
- H3: There is a significant relationship between gender and the effectiveness of e-learning;
- H4: There is significant relationship between first language of English and the effectiveness of e-learning;

However, there was a **clear difference** observed when the One-Way Anova test was undertaken **by age grouping** with the older students, i.e. those aged 40 – 50, rating the effectiveness of the MBA program significantly higher than the younger students.

2.10 Advice re Aspects of online program that work very well, and should remain

There were many aspects of the learning process that were highly praised by online students. These aspects related to the learning design and included the very clear structure of the

learning process within the three month period of a subject, extensive use of case studies, the final exam format, the structure of the online content with condensed summaries, the discussion board process (when both students and faculty were actively engaged), use of team assignments (although there are several recommendations to improve the process for managing teams) and the online library. A number of professors received praise for their enthusiasm, knowledge, for their skill in facilitating the learning process online, and for the timeliness and quality of their feedback.

Additionally many students valued the opportunity to work with other students across multiple geographic locations and cultures, commenting that this virtual learning process and way of working was increasingly mirroring the way that they worked in a global organisation.

It is interesting that smaller classes are being requested from face-to-face students while a minimum size of 20 students is being requested by online students. The importance of up to date content and of being able to apply theory to real world situations is also clearly important to this group of students.

3. Conclusions & Recommendations

Q1. That a 100% online mode is an effective way to undertake a quality MBA program

Overall, the general response from online students was that **Yes**, a 100% online delivery mode is an effective way of achieving most of the learning objectives of a typical MBA. This finding supports the existing research in this area as reported by Huynh et al (2003), Friday et al, (2006); Kock et al., 2007; Daymont and Blau, (2008); Lapsley et al, (2008).

The only objective which was not perceived to be effectively accommodated in this mode related to 'developing my verbal presentation skills'. Gunasekaran et al (2002) highlighted employers potential concerns in this area regarding an MBA delivered via online learning.

However of critical importance in ensuring the effectiveness of online learning was:

- **The role played by the facilitator** endorsing the views of Shea et al (2006); Swan (2002); Swan (2003); Garrison and Cleveland-Innes (2005), Benbunan-Fich & Arbaugh, (2006); Brower (2003); Coppola et al., (2002); Peltier, et al (2007).
- **The level of engagement and involvement of other** students in discussion boards and team assignments. This finding is supported by Roblyer & Wiencke, (2004); and
- The recency and relevance of all case study materials.

There were many recommendations made to use technology to improve the efficiency of the learning platform and the quality of interactions between students and faculty in the online learning mode. This finding is consistent with the writing of Davis, 1989; Davis, Bagozzi, & Warshaw, 1989 that the perceived usefulness of a technology and the perceived ease of use of technology have the greatest impact on learning.

Through a process of statistical analysis it was identified that older students perceived the online learning mode to be more effective than younger students. Harmon & Lambrinos

(2007) reported that maturity together with motivation and independent learning skills had important effects on learning outcomes.

Q2. What are the indicators of knowledge transfer?

There were many reported indicators of knowledge transfer reported during the interviews resulting directly from the MBA program. Quite a number of these were intrinsic to the student.

From the faculty interviews, several indicators of knowledge transfer were also identified. One of the most frequently referred to was the use of reflective learning journals which sometimes were shared only with faculty, but in other circumstances with all other students within a class. These journals provided insight not only into the students understanding of theoretical frameworks but also of their capacity to generalise the findings into different contexts. Occasionally, positive feedback and indeed promotions were reported as a result of recommendations that had been made. These external actions are also a clear indicator as to the credibility of the students recommendations with a direct link back to the effectiveness of the learning process.

With all the comments taken together, three core categories of indicators emerge. These categories cover factors related to self-awareness, indicators within the assessment process itself, and indicators within the workplace.

Q3. What are the factors that promote or inhibit the effectiveness of the learning process?

Across all modes, the students commented that the effectiveness of the program they participated in was directly related to the amount of time they had to invest in the program. Other factors that can operate to either limit or promote the effectiveness of the learning process include the behaviours of other students, the behaviours of faculty, the learning design itself, assessment process and the technology. These factors that work both for and against the effectiveness of online learning are summarised below in Table 3.

Area	Forces for	Forces against
<i>Student themselves</i>	Positive motivations for undertaking MBA Time available to invest in program Level of commitment Rich prior work & life experience	Students interested in only passing to achieve MBA - rather than in learning Lack of time to invest and/or understanding from employer
<i>Assessment process</i>	Use of recent and relevant case studies Team assignments	When idle team members are not removed
<i>Faculty</i>	Timeliness and level of detailed feedback Active participation in the DB Low level of tolerance for plagiarism and non referenced posts	Long periods of absence from DB Very general feedback with no specific improvement recommendations made
<i>Technology</i>	Makes asynchronous discussions a reality Provides platform for delivering multi-media content in interesting format Gives access to online library Can help fill the gap with lack of Face-to-Face interaction	Latest opportunities through technology have not yet been actively embraced, i.e. Webinars Can be 'buggy' as old versions of Java are used Lack of technical support able to solve problems
<i>Learning design</i>	DBs, Team Assignments & Exams can all be very effective learning vehicles	Face-to-face discussions or equivalent clearly add value to learning process and are not currently available in 100% online program
<i>Other students</i>	Level of motivation, engagement & participation Extent of cultural and industry diversity	High level of inactivity. Late to task Plagiarism Failing to reference

Table 3: Forces working for and against online learning

4. International and Managerial Implications

While the online learning channel has been shown to be an effective way to undertake an MBA there is a clear recognition of the value of face-to-face contact for tacit knowledge sharing and therefore knowledge transfer. With these two realities in mind, the value of a hybrid learning model that combines the efficiency and flexibility of online learning with the knowledge sharing value of face-to-face encounters appears evident.

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