

RURAL LEARNERS' PATTERNS OF ENGAGEMENT IN SYNCHRONOUS ONLINE MENTORING GROUP CHATS TO ADVANCE CONCEPTIONS OF CAREER DEVELOPMENT

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ABSTRACT – Learners in the rural settings are deprived of necessary support mechanism (mentorship, motivation and guidance) for career consciousness and lack sufficient exposure to diverse careers. This study reports on an online-based mentoring programme designed to expose learners to multiple mentors from distinct career fields, institutions and occupations. The online mentoring program was conducted through regular WhatsApp group chats in which mentors (identified as guests) engaged with learners in sharing their social and personal backgrounds, career history and advancement. A group of 35 learners participated in the intervention and data comprised of activity logs of conversations. These were analysed using the Exchange Structure Analysis (ESA) model, and codes were generated pertaining to instances of orientation. The emergent interactional patterns suggest that in greater open and informative conversations, learners benefit from online mentors who assume roles of mediators between unique careers and the real-world situation. These interactional patterns further suggest that synchronous conversations with rural learners need to comprise of more teaching exchanges and less boundary exchanges to allow informal and spontaneous flourishing of conversations. Recommendations for good practice are emphasized for educators striving to narrow the knowledge gap between the learners in disadvantaged and advantaged settings through digital media.

Keywords: Rural learners; career development; synchronous mobile group chats; mentoring

INTRODUCTION

Career guidance is still not given substantial attention in schools and career choices is generally informed by knowledge of more traditional careers such as teachers, nurses, and social workers (Nong, 2016). Not being familiar with alternative careers diminishes learners' optimism to succeed and limit their career perceptions. According to Nong (2016), career guidance and support are crucial in the country's education system to ensure learners' holistic and active participation in the socio-economic growth of South Africa. Urban learners, outside of their school environments enjoy far more exposure to alternative careers opportunities compared to rural learners. Assisting greater knowledge of career opportunities necessitate access to mentors and role-models. Moving from traditional modes of mentoring typified by face-to-face interactions to more online-based mentoring is inevitable in modern day educational pursuits due to the rapid advances in the affordances of Information and Communications Technologies (ICT). Traditional mentoring models are gradually being re-structured to fully exploit the affordances of new technologies placing the rural learner in a favourable position to directly benefit from increased access in a non-traditional modes of mentoring. This article aims to provide some insight into how rural learners can possibly be mentored through using social media in the form of synchronous mobile group chats to gain access to and engage with skilled career professionals (acting as mentors) to shape their conceptions of career development.

BACKGROUND OF STUDY

In the past, the word mentor was associated with senior individuals taking the role of guiding protégé. Traditionally mentoring is conceptualized as a dyadic relationship in which the mentor, the senior person in age or experience, provides guidance and support to the less experienced person, the protégé (Hunt & Michael, 1983). Mentoring was limited to face-to-face relations in which the mentor, an experienced person was assigned a role to guide and support the novice protégé (Hunt & Michael cited in Ensher, Thomas & Murphy, 2001). On *E-mentoring for career development*, Gross (2012) observes that the traditional role of a mentor in a workplace is intended to assist new recruits to learn the dynamics of the working environment. The traditional

definitions seem to limit mentorship to face-to-face relations, thereby only accommodating protégés who are physically capable of interacting with mentors. This marginalizes geographically isolated potential protégés. Politically and traditionally, mentoring in education perpetuates social inequalities by affording mentoring opportunities only to advantaged protégés. The role of a mentor is to provide professional guidance in a working environment. Gross (2012) mentions that a mentor was regarded as a “teacher, guide and father figure” who took the responsibility to advise the protégé. The historical perceptions are restrictive and they assume that only older members (the father figures) can be mentors.

From the traditional perspective, the mentor-protégé relations had its orientation towards the mentee benefiting more from the relations than mentor did. The mentor served as an authoritative figure, or rather dispenser of knowledge. In contrast, Freedman (1992) and Shea (1994) argue that mentor-protégé relationships are reciprocal. The role of a mentor in the reciprocal relationship is to socialize the protégé into the norms of the organization, thereby increasing organizational communication and commitment (Ensher, Thomas & Murphy, 2001).

Due to greater changing needs and expectations in occupational environments, Burlew (1991) suggests that protégés utilize multiple mentors throughout their careers. This is also supported by Thomas and Higgins (1996) who accentuate a greater need to access a diverse network of mentors. Accessing diverse mentors (making reference to traditional model) would be only convenient to protégé living in context conducive for direct physical networking. This further creates a knowledge or a career guidance gap between protégés in urban and those in disadvantaged territories. Hence, the emergence of e-mentoring, online mentoring, and digital mentoring.

Although the term online learning has existed for a long time, it still faces greater challenges against direct generic definition. At times, it is used interchangeably with other terms such as open learning, networked learning, virtual learning and e-Learning (McPherson & Nunes, 2004: 19). Regardless of the multiple synonymous terms used to describe online learning, McPherson highlights that all terms have common characteristic, that is, computer-mediated instructional method as opposed to face-to-face traditional methods. In earlier definitions, before the advent of Web 2.0, online learning referred to the learning and other supportive material available through a computer (Carliner, 1999). In another definition, (which linguistically seems contradictory), Carliner (1999) in the glossary defines online learning as educational material that are presented on a computer. A dilemma arises between deciding whether online mentoring is a process or a type of learning, or in essence, material for learning. Furthermore, Carliner (1999) also indicates the confusion and complexities revolving attempts to define online learning by highlighting that computer-based training, web-based training, computer-based instruction and technology-based instruction are wrongfully utilized interchangeably with online learning. Essentially, these terminologies are forms of online learning and have distinct meanings (Carliner, 1999). In light of the multiple definitions of online learning in this research, I shall refer to it as learning taking place through internet-based medium. This suggests that without internet, there would not be online learning.

Online participation and socialization has improved significantly in the recent years. The advent of smartphones and ubiquitous spread of social networking tools have made it easier for individuals, regardless of their geographical settings, to connect with each other. In fact, social media has altered the way information circulates in users' cultures (Poore, 2013). The media includes tools like blogs, wikis, YouTube, Twitter, Instagram, Facebook, and WhatsApp. In view of the general qualities and characteristics of social media, Poore (2013) asserts; community-building, participation, interactivity, flexibility, sharing and networking, are significant in online mentoring programs. Facebook and WhatsApp applications among South Africans are the most utilized forms of social media (World Wide Wax and Fuseware, 2014).

WhatsApp is a more instantaneous messaging tool compared to Facebook which requires users to log in for delivery of messages. Bouhnik and Deshen (2014) report that WhatsApp, as a synchronous instant messaging application, embraces user friendliness, cost efficiency, availability and instantaneity of delivery of messages. Similarly, Beltran-Cruz and Cruz (2013) report that WhatsApp has educational advantages such as, creating “pleasant environment and

in-depth acquaintance” which results in positive influence on the nature of conversations. Research on the use of WhatsApp in Higher Education and Training Institutions, find that the application enhances accessibility, cooperation and maximises motivation to actively engage others on educational projects or assignment (Rambe & Chipunza, 2013). WhatsApp as a widely accepted and an accessible application, it therefore ideal to assist rural learners to exploit the affordances to enhanced learning as listed earlier.

Due to remote and isolated rural geographic locations, learners in rural schools are generally deprived of career guidance when compared to their counterparts in urban areas (Nong, 2016). Considering the capabilities of social media in expanding, widening and reinforcing social interactions (Sooryamoorthy, 2017), rural learners in particular have much to gain from access to this extended information stream. Gaining insight into how rural learners can possibly be mentored through social media in the form of synchronous mobile group chats can inform our understanding of how they shape their conceptions of career development. Engaging directly with skilled career professionals (acting as mentors), can go far in assisting rural learners in learning more about new career opportunities as well as deepen their understanding careers they are more familiar with.

METHODOLOGY

This descriptive case study uses a qualitative research approach. The research scrutinizes the case of a grade 11 and 12 science learners in a secondary school located in a rural village in northern Limpopo. On a weekly basis, approximately 35 learners of both genders engaged in career development social conversations through WhatsApp group chats with professionals that stem from similar rural areas, but have gained prominence in various careers.

The mentors vary in that they have different levels of study, areas of specialization, occupations and are from different educational institutions. Mentor 1, Charmaine is a biomedical scientist specialising in Molecular Medicine, Immunology and Infectious Diseases (molecular medicine and Tuberculosis) in her early 30s and she has been a researcher for more than 5 years. Mentor 2 was disguised under the name, Chantel. She is an astronomy expert in her early 50s and has been in the industry for more than 15 years. Mentor 3, Mudhi is a mechanical engineer and have contributed to the development of University of Johannesburg’s solar car. He is in his late 20s and has been an engineer for more than 2 years. Mentor 4, Koki is in his mid-20s and studied Organic Chemistry and has been employed for a year.

In this intervention, their role as mentor is to narrate their career journey, and describe the nature of their studies and occupations. During this time, learners can pose questions and engage in digital chat conversations with each other as well as with these mentors to learn more about their particular career. These interactions are scheduled to last between 90 to 240 minutes at a time.

From the weekly or bi-weekly recorded online mentoring conversations on career guidance during the semester, a sample of four separate activity logs with sustained (or longest) duration of social exchanges were selected and analysed. This purposive sample ensures that only data with rich information central and relevant to the purpose of the inquiry are examined (Yin, 2006; Patton, 2015). The five samples of weekly conversations were analysed using the Exchange Structure Analysis (ESA) coding scheme (Kneser, Pilkington, & Treasure-Jones, 2001). Data for the synchronous activity logs was analysed and coded with the aid of Exchange Structure Analysis (ESA) model. This model is employed due to its “widespread use, simple coding technique, and for current and future comparisons” nature (Wishart & Guy, 2009). Having made references from Sinclair and Coulthard’s (1992) transactional analysis as aforementioned; Kneser, Pilkington and Treasure-Jones (2001) developed an adapted ESA model that this study embraced in order to investigate the nature of turns in synchronous online discussions. Data was coded in two significant categories: Exchange Structure (ES) level and Move level (ML). The ES level unveils the structural organisation of the pedagogical chat exchange while ML analysis indicates the communicative intentions underlying the turns constituting the exchange (Lim, 2006).

In ESA, Dawes (2004) identified ‘Initiate Response Feedback’ (IRF) as a mechanism to analyse conversations to establish interactional patterns. IRF codes denoting exchanges (turns) and moves (speech acts) as captured in the synchronous WhatsApp group chats conversations, are

assigned to each exchange between rural learners and weekly mentors that speak to career development. Once different types of exchanges have been identified and coded, a count of the various codes is used to check the different types of “turns” during these learner-mentor exchanges. Although the study is qualitative, some descriptive quantitative data will be used to identify frequencies of exchange types, move levels, elements of Exchange Structure (ES) levels and Off-Topics (OT). The aim is to establish interactional patterns and then describe how learner conceptions around career development are formed

RESULTS AND DISCUSSION

Pseudonyms for mentors and learners are used to adhere to acceptable ethical standards. Each data set was analysed for exchange types, elements of ES level, move level and off topic turns and against frequencies. The next stage of data presentation and analysis comprises of comparison between all four mentors’ data sets. It depicts how each mentor scored against others with regards to different layers of ESA model of results. An overall comparison and analysis of the data sets is provided in Table 1 according to different categories guided by literature on ESA model.

Table 1: Overall counts in all mentor data

		Mentors						
Groups	Categories and patterns	Charmaine	Chantel	Mudhi	Koki	TOTAL	Min	Max
Exchange types	TE (Teaching Exchange)	246	188	171	88	693	88	246
	BE (Boundary Exchanges)	19	3	4	3	29	3	19
Elements of ES level	RC (Response-Complement)	105	58	48	43	254	43	105
	RI (Re-Initiation)	35	22	22	20	99	20	35
	I (Initiation)	5	4	2	1	12	1	5
	R (Response)	73	83	73	24	253	24	83

Groups	Categories and patterns	Charmaine	Chantel	Mudhi	Koki	TOTAL	Min	Max
Move level	FBK-A (Feedback-Acknowledgement)	74	33	27	36	170	27	74
	FBK-E (Feedback-Evaluation)	34	25	19	9	87	9	34
	INF (Informing)	56	47	47	15	165	15	56
	EXD (Extending)	25	7	13	10	55	7	25
	CLA (Clarifying)	6	6	2	5	19	2	6
	JUS (Justifying)	10	0	0	0	10	0	10
	INQ (Inquiring)	7	38	27	10	82	7	38
	REA (Reasoning)	2	0	0		1	0	2
Delayed Response (D)	D	5	2	0	0	7	0	5
Off-Topic (OT)	OT-A (Off-Topic Administration)	39	61	41	2	143	2	61
	OT-S (Off-Topic Social)	43	34	8	18	103	8	43
	Total	784	611	504	284			
	Min	2	0	0	0			
	Max	246	188	171	88			
	Without Exchange types							
	Total	519	420	329	193			
	Min	2	0	0	0			
	Max	105	83	73	43			

The overall analysis of data as depicted in Table 1, shows that Charmaine had the highest number of turns as compared to others. She had 784 counts against Chantel, Mudhi and Koki who had 611, 504 and 284 respectively. Charmaine scored the highest on the TE (n= 246), RC (n=105), FBK-A (n=74). She also had numerous counts on RI, FBK-E, INF, EXD, JUS and OT-S. The mentor with lowest frequencies on majority of levels was Koki, the analytical chemist.

It is also evident that teaching exchanges among all mentors were at greater frequencies than boundary exchanges. For Chantel, Mudhi and Koki, boundary exchanges frequencies were almost closer to none. All mentors scored highest on Teaching Exchanges (TE). This suggests that more of the online conversations in the WhatsApp group constituted the asking of questions and provision of feedback (Cockayne, 2010). The highest frequency having emerged from Charmaine and Chantel hierarchically provides that these mentors were more open to initiating conversations throughout the exchange. Lower counts of BE signifies less mentors' contribution towards signalling learners to move from one section of the conversation to another. Transitions from sections occurred spontaneously.

It is important to note that all conversations comprised of frequent counts of acknowledgment, feedback or evaluation and responding turns. The higher output of frequencies under RC, RI and R among all mentors conveys that learners more responsive and comfortable with continuation of a turn from another participant than initiating their own. It is not astonishing because initiation moves are normally made by the teacher (Hellerman, 2003), who acts as a mentor in this study. This output could be attributed to the mentors' career fields and how the fields were elaborated authentically. Charmaine narrated her personal background to the learners and has grown up from the same area as the learners. Learners related to her background constituents such as losing her parents at a young age, growing up in unstable households with relatives and developing illnesses at the age of 11. Furthermore, Charmaine's career journey is based on familiar illnesses like tuberculosis. This is related to what learners experience at home and it is also curriculum related under Life Sciences in high schools. Hence, learners responded with great interest during the interactions. Chantel's career is not typical to the learners. Astronomy career is frequently seen in the movies and scientific books. Hence, interacting with an expert elicited a lot of interest from the learners. This is also because of how Chantel made the mentorship authentic-how astronomy related to the real life experiences.

Comparing all move levels, there were less reasoning, justifications, clarifications and extensions across all mentor data sets. FBK-A, FBK-E and INF have dominated the conversations. Pilkington (1999) and Lim (2006) describe that the INF move is characterized by provision or description of information or event whereas FBK-A and FBK-E report on the state of the participant and acknowledge understanding of the turn, and validity of correctness of the previous turn. In essence, learners limitedly inquired, sought clarity, justification or extensions from mentors or otherwise. This could either be an indication that prior guidance that was provided to mentors by the administrator was useful such that adequate information was provided to the learners, or that the rural learners were amazed by the unfamiliar careers and hence acknowledged understanding. The amazement could also be proven by the higher frequencies of RC.

Lower frequencies on, CLA, JUS and REA can be attributed to the lack of questioning during the interactions. The WhatsApp intervention was set up in such a way that mentors were briefed on the structure of the group to provide background, talk about the nature of their careers and respond to learners' turns (either questions, comments or request). Question and answer sessions required a different setup; it was aimed at eliciting information more than merely career field exposure.

Off-Topic turns emanated from WhatsApp data sets from all mentors. Chantel's conversations were greatly characterized by OT-A, with very less reflecting on Koki's data set. This can be attributed to more administrative (housekeeping) issues exchanged during Charmaine's interaction. Examples of such OT-A may be the frequent "pinging" and assessment of satisfaction and understanding during conversations. Charmaine had the highest score on OT-S. This means that Charmaine exchanged important social turns that kept the online group conversations going. This is probably one of the reasons the learners were more open to Charmaine and Chantel more than the others. Hence, higher total number of conversation entries in the data logs. Lower frequencies of OT-S on Mudhi and Koki may be attributed to gender. Males generally do not portray social elements as much as females during conversations. The lower frequency on Koki's OT-A is attributed to the readiness of the learners ahead of the WhatsApp engagement. There were very limited housekeeping issues. All mentors interacted with the same group of learners throughout the mentorship program.

Overall comparison Figure 1, provides a brief summary of the overall ESA level group categories against all mentors. All data that was presented individually against every mentor in the previous discussion are brought together for holistic comparison. The following figure 1, places mentors against all ESA levels: TE, BE, RC, RI, I, R, RBK-A, FBK-E, INF, EXD, CLA, JUN, INQ, REA, D, OT-A and OT-S.

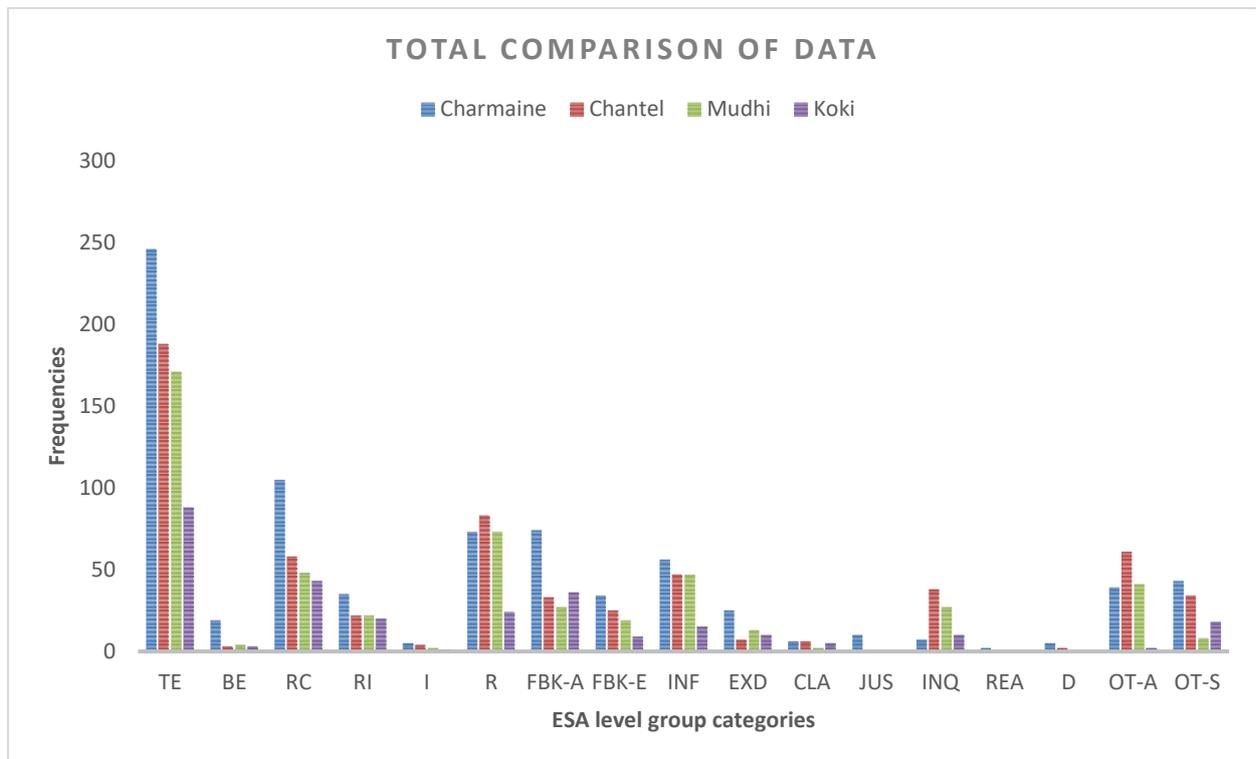


Figure 1: Overall comparison of ESA level categories of mentors

The results presented in Figure 1, portray that Charmaine and Chantel had the highest counts of interactions with frequency of 784 and 611 turns respectively. It is notable that these mentors are all females, against their male counterparts; Mudhi and Koki. Hmelo-Silver, Jeong, Faulkner and Hartley (2017) assert that in computer mediated platforms there may be emergence of unforeseen gender effects such as communication gaps in knowledge elaborations. In this study, the two female mentors had higher frequency outputs on almost all patterns of communications. This means communication gaps in elaborations of career guidance between learners and the female mentors were not as narrow as it is depicted in interactions with the male counterparts.

The assertion concurs with the findings that social conversation enhances (OT-S) such as greetings, social banter and emoticons (Lim, 2006) reported significant emergence on the data logs of Charmaine and Chantel. These OT-S turns support development of social interaction, hence, yielding higher output of turns which lead to prolonged conversations (Lim, 2006). ESA level group categories yielded lowest frequencies were D, REA, JUN, CLA, I and BE. Moreover, the setup of the group did not afford opportunities for learners to initiate conversations as mentors were briefed by the administrator ahead of the chats. Part of briefing required that upon being added onto the group, mentors should introduce themselves, and provide a brief background and can account for the low I count. Also, conversations were not formally structured. They transitioned from one section to another naturally, hence lower frequency on BE. Since the main intention of the intervention was to enhance career conceptions of the rural learners, there was not much opportunities for question and answer sessions resulting in limited EXD, CLA and JUN.

CONCLUSION

Learners enjoy online mentors, who should assume the roles of mediators between unique careers and the real-world situation. This affords learners an opportunity to want to learn more in order to enhance their career conceptions. These patterns further suggest that synchronous conversations with rural learners needs to comprise of more teaching exchanges and less boundary exchanges to allow informal and spontaneous flourishing of conversation.

Synchronous online mentoring mobile group chats can therefore advance rural learners' career perceptions by affording opportunities for spontaneous informative communication between mentors and learners. The nature of the intervention is enhanced by frequent social conversation enhancers (OT-S) throughout the chats so that learners feel comfortable to interact with mentors. Interactional patterns that emerged were mainly informed by mentor-learner relations, the nature of conversation and the gender of the mentor. This study contributes to our understanding of how to go about supporting rural education through the use of social media such as WhatsApp in order to ensure that rural learners receive access to mentors and role models to further advance their conceptions of career enhancement.

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