EMPLOYABILITY COMPETENCIES OF SOUTH AFRICAN HUMAN RESOURCE DEVELOPMENT GRADUATES

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ABSTRACT

Higher education institutions are not properly prepared to meet the expectations of employers regarding the work readiness of human resource development (HRD) graduates from universities. Employers seek to recruit graduates who have pertinent employability competencies. The factors that were determined should contribute considerably to meeting this need. The study was commenced to identify the factors relating to employability competencies for South African human resource development graduates. The sample of the survey comprised 134 professionals from the South African Board of People's Practice (SABPP) in the nine (9) provinces of South Africa. A factor analysis was employed to identify the issues relating to the employability competencies of HRD graduates. Correlation analysis and regression analysis were used to establish the relationships between identified factors. The results confirmed that there were strong relationships between the factors of the current and the expected competencies concerning the employability of South African HRD graduates. The findings served to formulate specific recommendations on employers' expectations regarding the employability competencies of HRD graduates. The intention of the study was to improve graduates' competencies in the world of work.

Keywords: HRD graduates, intrapersonal employability competencies, interpersonal employability competencies, South Africa

INTRODUCTION

Studies have highlighted how the transition from higher education to the work environment and specifically how the process of adaptation to the world of work can be challenging (Herbert et al. 2020). Employers depend on higher education institutions (HEIs) to yield employable

graduates. Once the graduates arrive at the workplace it becomes the employer's responsibility to develop the graduates to succeed in the world of work. Bennett et al. (2019) state that graduate employability has been subject to debate for some time and therefore it is not a new trend. Research shows that it is important to explore graduate employability competencies to ensure that crucial knowledge, skills and positive attitudes are gained by HRD graduates. Employee competencies are utilised to craft effective HRD interventions and to empower employees to accomplish the expected objectives and goals of the organisation (Potnuru and Sahoo 2016). Employee competencies and job supplies are claimed to both enhance employee and organisational performance and lead to greater fulfilment (Tripathi and Agrawal 2014).

HEIs currently are experiencing radical transformation and are not ready to meet the expectations of employers (Ohei and Brink 2019). Numerous graduates have confirmed that graduates may take time to settle and adjust to their profession (Jackson and Bridgstock 2018).

CONCEPTUAL GROUNDWORK

The concept of employability originated in 1955; however, employability was only studied empirically in the 1990s (Van der Heijde 2016). Römgens, Scoupe, and Beausaert (2019) argue that employability is a complex concept that depends on the individual's ability to mix and juggle both generic achievements and those related to a specific context. Römgens et al. (2019) add that employability is a dynamic concept, constantly evolving and linked to the ability to learn from experiences. Employability is studied from different angles and levels (individual, organisational and industrial) across a wide range of academic disciplines, such as business and management studies, human resource management, HRD, psychology, educational science and career theory (Van der Heijde 2016, 6).

Graduate employability competencies

Andrews and Higson (2014) believe that increasing graduate mobility means that employers have an ever-growing pool of highly qualified candidates from which to choose and that the scale of competitiveness within the contemporary graduate recruitment market in a particular country is extraordinary. The overall view with regard to literature is that there is a gap between the skills required by employers and the training provided by academia (Rogan and Reynolds 2016). Wyonch (2020) argues that the perceived benefits of a graduate internship are closely related to future employability. The emphasis is on the application of prospective knowledge and abilities applied in a work situation (Somalingam and Shanthakumari 2013). Nowadays in the services industry, market economy and non-profit organisations (NGOs) the greatest asset is the quality and commitment of the workforce.

Graduates' current and expected competencies

Considering the circumstances surrounding the expected graduate employability competencies, it is appropriate to conclude that the labour market needs competencies that are suitable for the workplace. The dialogue on graduate employability has been around for some time and is not a new trend (Bennett et al. 2019). Tripathi and Agrawal (2014) postulate that the goals of the organisation target human resource strategies, plans and programmes to address gaps such as hiring and staffing; learning; career development; and succession management, which are then designed, developed and implemented to close the gaps.

Moore (2016, 233) suggests that in future and current workplace settings most graduates should have access to collaboration. Graduates in general, including HRD graduates, may have competencies that are essential but not adequate for a manager, leader, or professional to add value to corporations.

Cacciattolo (2015) found that informal education activities helped graduates the most in accruing relevant job-related competencies, thus demonstrating the importance of informal workplace learning. HRD graduates are expected to be multi-skilled and accomplish a variety of tasks that are relevant to their careers.

Employability competency models

The models included in this study are Yorke and Knight's (2006) USEM model, Pool and Sewell's (2007) Career EDGE model of graduate employability and Bridgstock's (2009) conceptual model of graduate attributes for employability.

Yorke and Knight's (2006) USEM model

In Archer and Chetty (2013), Yorke and Knight proposed a USEM model comprising the following elements: D – Deep understanding, S – Skilful practice, E – Efficacious and M – Metacognition. Employees' knowledge and understanding deepen when they become mature and are given more tasks in the business (Plantilla 2017, 194). These include being well-grounded in a disciplinary base and being competent in the field of knowledge. This denotes the understanding of the subject discipline of HRD graduates. Skilful practices should be considered in the context of both the subject discipline and the organisation (Oliver 2015, 59). Thus, interpreting skills avoids the weakness of skill and drill and acknowledges the situated-ness of cognition. Graduates who display efficaciousness, personality, uniqueness and individuality in the language that employers would themselves use, are more likely to be considered suitable for employment (Holmes 2015). Yorke and Knight (2006) found that

metacognition encompassed self-awareness with regard to the graduates' learning. HRD graduates are expected to deal with projects and budgets. Accurate monitoring of new learning strategies empowers graduates with effective metacognition (Nimmi and Zakkariya 2016).

Pool and Sewell's (2007) Career EDGE model of graduate employability

This model is used to offer students opportunities to gain the necessary skills, knowledge, understanding and attributes. It also provides for reflection and evaluation of the learning experiences that have taken place. Nimmi and Zakkariya (2016) and Yorke and Knight (2006) explain "employability" as a set of achievements, practical and personal skills and understanding that help graduates to gain employment and be successful in their chosen career. Graduates who have good self-efficacy (Haerazi and Irawan 2020) will tend to have good motivation to complete any given activity or task. Pool, Qualter, and Sewell (2014) state that the Career Edge model of graduate employability (see Figure 1) suggests that to develop their employability whilst in HE, graduates must have access to opportunities relative to the five factors on the lower level of the model. Pool (2020) confirms that these factors are career development learning; work and life experience; degree subject knowledge, skills and understanding; generic skills; and emotional intelligence. This model focuses on a single structure that allows a graduate to better adjust to the work environment.
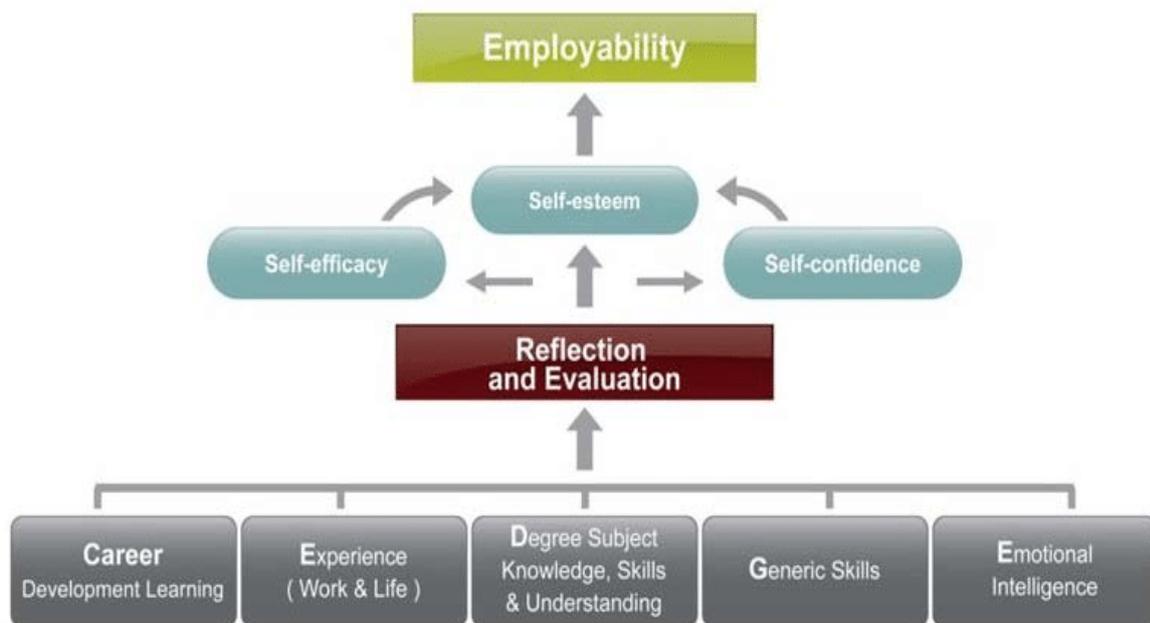
Figure 1: Pool and Sewell's Career EDGE model of graduate employability (2007)

Graduates are expected to reflect on their strengths and flaws with regard to interpersonal competencies (Shek, Yu, and Siu 2015). As much as intrapersonal competencies are important

to HRD graduates, interpersonal competencies are also crucial for graduates in the workplace. Interpersonal competencies involve competencies like communication, trust, relationship building, networking and providing feedback.

Bridgstock's (2009) Career Management model

This model proposes the skills which are essential for the improvement of graduate employability and depicts how career management plays a significant role. Jackson and Bridgstock (2018) highlights that the model permits a perfect understanding of self and making knowledgeable decisions on how individuals' attributes, experiences and capabilities map available employment opportunities. The model consists of the following elements:

Self-management abilities – The career self-management perspective emphasises that the individual has primary responsibility for managing his or her career (Akkermans et al. 2013).

- Career-building skills – Higher education curricula and learning have a potentially significant role to play, helping graduates to develop self-perception and goals which may form part of their wider career development (Tomlinson 2017).
- Discipline-specific skills – Working involvement before graduation provides appropriate experience, which will assist with the transition from the university to the workplace and will support the transference of discipline-specific knowledge and skills to the work environment (Clarke 2018). The discipline of the graduate is revealed by the individual's intrapersonal behaviour and attitude. Research shows that attitude is of great importance to the workplace. Attitude is referred to as a positive or negative perception of people, activities, ideas, objects, events or just about anything in the environment (Al-Nasser et al. 2014).
- Generic skills – Generic skills are defined as transferable, non-discipline-specific skills that may be achieved through learning and can be applied in the study, work and life contexts (Nghia 2017).

Knowledge, skills and personal qualities

Knowledge for graduates consists of generic and specialised competencies which are developed at higher education institutions (Lindner 2014). This knowledge must be relevant and rapidly shared and enacted in the workplace. Moreover, it should be hybrid, integrated, practical and personalised and merge with the formation of principles and models (Brissaud, Frein, and Rocchi 2013).

Succi and Canovi (2020) maintain that HEIs appear to focus mainly on the improvement of graduates' theoretical competencies. During periods of rapid technological changes, like the current one, there will always be skills gaps in the workforce and workers with technical skills only will not effectively function in today's industries (El Mansour and Dean 2016). There is a need for inherent personal qualities, along with the essential learned skills and knowledge (Bohatko-Naismith et al. 2015). Therefore, personal qualities like self-awareness, self-discipline, positive attitude, flexibility and willingness to learn play a significant role in the employability of graduates in the work environment. Most employers consider employing graduates who are willing to learn (Paadi 2014). Graduates who exhibit this at the beginning of their careers are more likely to succeed than graduates who are not willing to learn.

HYPOTHESES DEVELOPMENT

The study explores the employability competencies of South African human resource development graduates. Jackson and Bridgstock (2018) maintain that there are substantial discrepancies between graduates qualifying from universities and the graduate labour market demand in some fields. Employers are compelled to recruit graduates who have relevant employability competencies (Maxwell and Armellini 2019). A set of hypotheses have been formulated to address this crucial issue. According to the research conducted by Connerley (1997), training intrapersonal competence influences self-perceptions of interpersonal competence. Tatnell et al. (2014) found significant relationships between intrapersonal factors and interpersonal factors, while Mikolajczak, Brasseur, and Fantini-Hauwel (2014) established that correlation between two factors suggested that the intra- and interpersonal factors rather depended on one another.

Hypothesis 1

There are positive relationships between the factors of the expected competencies and the factors of the current competencies concerning the employability of HRD graduates.

The cognitive approach helps people judge and reason effectively and have a perception of their surroundings. This means that behaviour is influenced by thinking (Papaliakos 2020). Bulińska-Stangrecka and Bagieńska (2018) consider an interpersonal competency such as trust to be the result of intra-cognitive generic factors; this implies that an intrapersonal competency such as intra-cognitive generic competency has an effect on interpersonal competency. There is a significant positive relationship between intra-cognitive generic competencies and interpersonal competencies (Mohamed and Fahmy 2015).

Hypothesis 2

The intra-cognitive generic competencies predict the expected interpersonal competencies of South African human resource development graduates.

According to Gist, Stevens, and Bavetta (1991), the influence of self-efficacy (intrapersonal competency) on the interpersonal skills is uncertain, while Poortvliet and Darnon (2014) reference Bandura et al. (1996), who established that academic self-efficacy (intra-behavioural competency) fostered interpersonal skills conducive to learning.

Hypothesis 3

The expected intra-behavioural competencies predict the expected interpersonal competencies of South African human resource development graduates.

There is a relationship between interpersonal competencies and employees' understanding of business competencies such as organisational needs (Subhash 2012).

Hypothesis 4

The intra-cognitive business competencies predict the expected interpersonal competencies of South African human resource development graduates. One of the most important functions of HRD is to develop various types of competencies that relate to technical competencies (Subhash 2012). In novice professionals like graduates, sometimes interpersonal competencies are more significant than core technical skills (Dubey and Tiwari 2020).

Hypothesis 5

The expected intra-cognitive technical competencies predict the expected interpersonal competencies of South African human resource development graduates.

RESEARCH DESIGN AND METHODOLOGY

A cross-sectional research design and quantitative research approach within a positivist research paradigm following a deductive approach were used in this study (Bless, Higson-Smith, and Kagee 2006; Saunders, Lewis, and Thornhill 2007; Cohen, Manion, and Morrison 2000). A survey questionnaire was generated and administered to collect measurable data from a specific group of people. Exploratory factor analysis was used to determine the factor structure of the measurements.

Participants

From a population of 707 members of the South African Board of People Practices (SABPP),

134 professionals participated in this study. Most respondents were females (50.7%), while 49.3 per cent were males. In terms of age the highest distribution was 45 to 54 years (32.1%), followed by 35 to 44 years (28.4%). Participants with a high response rate had 1 to 5 years' experience (33.6%) and an honours degree, postgraduate diploma or professional qualification such as a Masters in HRD. The highest occupation distribution was management (39.6%). Most participants in this study reported being in the private sector (57.5%) and based in Gauteng (56.0%), South Africa.

Sampling and data collection

The study followed a non-probability sampling. The selectivity which is built into a non-probability sample derives from the researcher targeting a particular group, in the full knowledge that it does not represent the wider population; it simply represents itself (Cohen, Manion, and Morrison 2007). From the 707 target population, only 134 HRD Professional SABPP members were considered because they were involved with HRD graduates in the workplace.

There are times when a non-probability study is useful, as was the case in this study (Fowler 2013). Non-probability studies are far less complicated to set up, are considerably less expensive, and can prove perfectly adequate. In this study purposive sampling was used to access well-informed and experienced professionals, persons with comprehensive knowledge about specific issues, with a certified role, authority and access to networks, expertise or experience (Cohen, Manion, and Morrison 2007).

Data collection

A survey and a letter of consent were emailed to the HRD professionals via SurveyMonkey. Due to the method of convenience sampling that was used only 197 responded, 134 of whom completed the questionnaire in full.

Measuring instrument

A structured questionnaire was developed as the primary method of collecting data on the expected and the current competencies on which the study was based. The online platform for this study was selected to maintain cost-effectiveness and optimise the speed for data collection together with the response rate. The SABPP professionals were contacted via email, through SurveyMonkey. The questionnaire was based on specific models and theories which indicated theoretical constructs (personal qualities, knowledge and skills). However, in the factor analysis new factors were identified.

The questionnaire of the study was accompanied by a cover letter outlining the research purpose and pledging confidentiality. The questionnaire comprised three sections. Section A was focused on demographic information such as gender, age, the highest level of qualification, occupation, length of service, SABPP professional membership, public and private sector, and province. Section B of the questionnaire addressed expected competencies and Section C current competencies. The questions were grounded in the information drawn from Erasmus, Loedolff, and Hammann (2010) and Plantilla (2017) with regard to the theoretical factors. Ten items were based on graduate personal qualities constituting questions 1–10, followed by 11 items based on graduate knowledge constituting questions 11–21, and finally, 21 items based on graduate skills constituting questions 22–42. The questionnaire employed the 5-point-Likert scale (i.e., 1 – Least developed competency, 2 – Less developed competency, 3 – Moderately well-developed competency, 4 – Well-developed competency, 5 – Very well-developed competency).

In order to ensure the reliability of the questionnaire, the Cronbach's alpha coefficient was used. To confirm the construct validity of the questionnaire, factor analysis was employed. A pilot study with 20 respondents was conducted to ensure face validity.

Data analysis

Exploratory factor analysis (EFA), Cronbach's alpha, correlation analysis and regression analysis were used to examine the data in the study. The data were analysed using Social Science (SPSS) software version 24. On the factor analysis only items with a loading of more than 0.4 remained for analysis. Cross-loaded statements were also deleted. Spearman's correlation coefficient was used based on its appropriateness for ordinal or quantitative data. In addition, regression analysis was applied as it constituted a conceptually simple method to investigate functional relationships amongst variables in the study.

FINDINGS

The purpose of this questionnaire was to obtain views on the expected and current competencies of HRD graduates via SurveyMonkey, amongst specific targeted SABPP members.

Exploratory factor analysis

A factor analysis was conducted to examine the items and their correspondence to the initial theoretical scales. A principal axis factor analysis, with direct oblimin rotation, was conducted on 10 items on the graduates' PQ, 11 items on graduate knowledge, and 21 items on graduate skills scales. The factor matrix with loadings is reported in the paragraphs below.

The Kaiser-Meyer-Olkin measure of sampling adequacy was used in the analysis. KMO value of 0.955 confirms that it was appropriate to use factor analysis. Table 2 shows that the value of Bartlett's Test of Sphericity was significant (p=0.00). Sampling adequacy could therefore be assumed, and also the probable presence of significant relationships between the items.

Table 1: KMO and Bartlett's test of the expected competencies

Kaiser-Meyer-Olkin measure of sampling adequacy		0,955
Bartlett's test of sphericity	Approx chi-square	5615,666
	(df)	861
	(Sig)	.000

It is common practice when interpreting the variables in a factor analysis to "suppress" or ignore items on a factor with a loading of less than 0.4, because these items have less than 10 per cent correlation with that factor (Knafl and Grey 2007). In this study only items with a loading of more than 0.4 remained for analysis, while items with loadings on more than one factor were ignored. As a result of the exploratory factor analysis, the five-factor solution of employability competencies of HRD graduates in SA explained 73.99 per cent of the variance concerning relationships between items. Based on the results of the EFA this study has been successfully achieved with the five-factor solution by deleting one item which cross-loaded on two factors. The item "Knowledge of the work environment" cross-loaded on both factor 1 and factor 4 representing intra-cognitive generic competencies and intra-cognitive technical competencies respectively. The factor structure was initially a six-factor structure with the single item that was categorised with a negative loading in the factor structure. Finally, that was removed.

In addition, the results of this study confirmed the five-factor structure for employability competencies of HRD graduates in SA, the factors being intra-cognitive generic competencies, intra-behavioural competencies, intra-cognitive business competencies, intra-cognitive technical competencies and interpersonal competencies.

Table 2: Factor analysis of the expected competencies

No	Statement	Factor				
		1	2	3	4	5
Q15	Knowledge of different cultures	.668				
Q14	Knowledge on how to interact with people	.640				
Q19	Knowledge of adult learning	.500				
Q3	An understanding of other people's feelings	.447				
Q16	Knowledge of the work environment	.434			.415	

No	Statement	Factor				
		1	2	3	4	5
Q25	Build relationships	.411				
Q8	Willingness to learn		.828			
Q7	Positive attitude towards work		.584			
Q6	Self-discipline		.534			
Q5	Apply ethical principles in making decisions		.460			
Q28	Apply theories such as learning theories		.430			
Q36	Develop assessment activities for attendees			.947		
Q34	Develop learning material			.880		
Q37	Evaluate ETD courses			.872		
Q35	Facilitate training			.778		
Q38	To conduct research			.505		
Q33	Plan learning interventions			.456		
Q13	Knowledge of specific technical knowledge required for the job				.662	
Q12	Knowledge of computer software programs				.651	
Q18	Knowledge of organisational development				.601	
Q29	Manage a budget				.563	
Q9	Understanding instructions for work assignments				.557	
Q17	Knowledge of HRD systems such as recordkeeping				.524	
Q30	Manage projects				.486	
Q24	Provide valuable feedback to the direct manager				.458	
Q40	Share ideas					.514
Q39	Work in a team					.478
Q32	Set personal goals					.440
Q41	Make decisions					.413
Extraction Method, Principal Axis Factoring. Rotation Method, Oblimin with Kaiser Normalisation.						

The Cronbach's alpha was considered to be the appropriate guide to measure the instrument's internal consistency. A reliability test of each factor of the employability competencies of HRD graduates was conducted. According to Lam et al. (2011), the standard for good reliability is 0.7 and 0.9 for group comparisons and individual assessments, respectively. Table 4 displays that the Cronbach's alpha for intra-cognitive generic competencies, intra-behavioural competencies, intra-cognitive business competencies, intra-cognitive technical competencies and interpersonal competencies were 0.906, 0,856, 0,946, 0,928, and 0,842 respectively, as seen in Table 3.

Table 3: Cronbach's alpha for each factor of the employability competencies of HRD graduates in SA

	Cronbach's alpha	Cronbach's alpha based on standardised items	Number of items
Intra-cognitive generic competencies	0.906	0,907	5
Intra-behavioural competencies	0,856	0,858	5
Intra-cognitive business competencies	0,946	0,944	5

	Cronbach's alpha	Cronbach's alpha based on standardised items	Number of items
Intra-cognitive technical competencies	0,928	0,927	8
Interpersonal competencies	0,842	0,846	4

Correlation analysis

The software of SPSS version 24 was utilised for a correlation analysis on the sample and generated a correlation coefficient report. As seen in Table 4, there was enough evidence to suggest that there were positive relationships between the factors of the expected competencies (intra-cognitive generic competencies, intra-behavioural competencies, intra-cognitive business competencies, intra-cognitive technical competencies and interpersonal competencies) and the factors of the current competencies, which include inter- and intra-cognitive generic competencies, intra-behavioural competencies and intra-business competencies. Based on hypothesis 1, the correlation coefficient (Spearman's p-value) was significant at the 0.01 level (2-tailed) and perfectly symmetrical where 1 indicated a perfectly positive linear correlation amongst the variables with the majority of variables/factors portraying medium to large practical effects between variables. The results provide sufficient proof (see Table 5) of positive relationships between all the factors of the expected competencies and all the factors of the current competencies pertaining to the employability of HRD graduates.

Regression analysis

Multiple regression was conducted using expected interpersonal competencies as the dependent variable and the remainder of the factors as independent variables. The assumptions of the linearity and normality of residuals were tested and met. The normal probability plot portrayed a generally linear pattern. This meant that the linearity assumption was not violated. The independent variables explained a total of 72.6 per cent of the variance in the independent variable, as seen in Tables 5 and 6. The overall model was significant (F (4,127) 84.238, $p<0.00$). The histogram of residuals was not far from symmetrical and was bell-shaped. The results proposed that the residuals were approximately normally distributed with zero mean and constant variance. It was realistic to assume that the perceived sample came from a normal distribution. The study found a strong positive significant relationship of 0.852, with a P-value of 0.000, between the expected intrapersonal and the expected interpersonal competencies of HRD graduates (see Table 8). The regression output in Table 7 generally supports hypotheses 2 to 4. The study showed that the three predictors were significant predictors of the expected interpersonal competencies, namely intra-cognitive generic competencies (B=0.265; p=0.004); intra-behavioural competencies (B=0.311; p=0.000); and intra-cognitive business

Table 4: Correlation matrix of the expected and the current competencies (Hypothesis 1)

		Expected_F1 Intra-cognitive generic competencies	Expected_F2 Intra-behavioural competencies	Expected_F3 Intra-cognitive business competencies	Expected_F4 Intra-cognitive technical competencies	Expected_F5 Interpersonal competencies	Current_F1 Inter & Intra cognitive generic competencies	Current_F2 Intra-behavioural competencies	Current_F3 Intra-cognitive business competencies
Expected_F1 Intra-cognitive generic competencies	Pearson Correlation	1							
	Sig. (2-tailed)								
Expected_F2 Intra-behavioural competencies	Pearson Correlation	.732**	1						
	Sig. (2-tailed)	0,000							
Expected_F3 Intra-cognitive business competencies	Pearson Correlation	.695**	.595**	1					
	Sig. (2-tailed)	0,000	0,000						
Expected_F4 Intra-cognitive technical competencies	Pearson Correlation	.803**	.677**	.756**	1				
	Sig. (2-tailed)	0,000	0,000	0,000					
Expected_F5 Interpersonal competencies	Pearson Correlation	.776**	.711**	.720**	.750**	1			
	Sig. (2-tailed)	0,000	0,000	0,000	0,000				
Current_F1 Inter & Intra cognitive generic competencies	Pearson Correlation	.564**	.420**	.646**	.640**	.578**	1		
	Sig. (2-tailed)	0,000	0,000	0,000	0,000	0,000			
Current_F2 Intra-behavioural competencies	Pearson Correlation	.431**	.422**	.512**	.461**	.500**	.891**	1	
	Sig. (2-tailed)	0,000	0,000	0,000	0,000	0,000	0,000		
Current_F3 Intra-cognitive business competencies	Pearson Correlation	.370**	.298**	.668**	.443**	.385**	.832**	.746**	1
	Sig. (2-tailed)	0,000	0,001	0,000	0,000	0,000	0,000	0,000	

**. Correlation is significant at the 0.01 level (2-tailed).

competencies (B=0.187; p=0.002). The regression results in hypotheses 2 to 4 are accepted. As to hypothesis 5, there was no strong positive relationship between expected intra-cognitive competencies (B=0.174; p=0.081) and the expected interpersonal competencies. Consequently, the influence of the expected intra-cognitive competencies on interpersonal competencies was not significant.

Table 5: Model summary of predictors and the dependent variable

Model	R	R Square	Adjusted R Square
1	.852ᵃ	0,726	0,718

a. Predictors: (Constant), Intra-cognitive technical competencies, Intra-behavioural competencies, Intra-cognitive business competencies, Intra-cognitive generic competencies
b. Dependent Variable: Interpersonal competencies

Table 6: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	61,720	4	15,430	84,238	.000ᵇ
	Residual	23,263	127	0,183		
	Total	84,982	131			

a. Dependent Variable: Interpersonal competencies
b. Predictors: (Constant), Intra-cognitive technical competencies, Intra-behavioural competencies, Intra-cognitive business competencies, Intra-cognitive generic competencies

Table 7: Coefficients (Hypotheses 2 to 5)

Dependent Variable		B	Sig.
1	(Constant)		
	Intra-cognitive generic competencies	0,265	0,004
	Intra-behavioural competencies	0,311	0,000
	Intra-cognitive business competencies	0,187	0,002
	Intra-cognitive technical competencies	0,174	0,081

a. Dependent Variable: Interpersonal competencies

DISCUSSION OF THE RESEARCH FINDINGS

Employers vary regarding their satisfaction with the performance of graduates (Iqbal and Zenchenkov 2014). Every employer has his or her preferred competencies for graduates entering the workplace. Khoo, Zegwaard and Adam (2018), however, argue that employers believe that all competencies are vital for graduates who currently enter the workplace, and that they assume that in 10 years all competencies will have become more significant than today.

The findings of this study showed medium to strong effects relationships between factors of the expected competencies and those of the current competencies (H1). In terms of literature, the interpersonal factors such as social support would be impacted by intrapersonal factors such

as emotion regulation, self-efficacy and self-esteem (Erozkan 2013; Tatnell et al. 2014). This study found positive correlations between the factors of the expected and the current competencies. This implies that the factors of the expected competencies are related to the current competencies. It also implies that the expected factors are not far removed from those of the current competencies. Universities will not need to make substantial changes to improve their curricula. The study confirmed that both the expected and the current competencies had a positive effect on graduate employability. The graduate with the current competencies can still be employable but will need to upgrade his or her skills in the workplace; however, a graduate with the expected competencies will enter the workplace with more relevant competencies which will enable him or her to be instantly more efficient and competent in his or her job.

New knowledge has been generated with regard to the employability competencies needed for South African HRD graduates through factor analysis. The results of this study confirm that factors relating to employability competencies are clustered into intra-cognitive generic competencies, intra-behavioural competencies, intra-cognitive business competencies, intra-cognitive technical competencies and interpersonal competencies. These are the competencies that HEIs should focus on when developing the competencies of HRD graduates.

These identified factors will assist HEIs and industry to improve the competencies of HRD graduates while they are still at university and also support industry to develop some competencies in the workplace. The outcomes of the hypotheses are presented in Table 8.

Table 8: Hypotheses outcomes

Hypothesis	Accepted/Rejected
Hypothesis 1: There are positive relationships between the factors of the expected competencies and the factors of the current competencies concerning the employability of HRD graduates.	Accepted
Hypothesis 2: The intra-cognitive generic competencies predict the expected interpersonal competencies of South African human resource development graduates.	Accepted
Hypothesis 3: The expected intra-behavioural competencies predict the expected interpersonal competencies of South African human resource development graduates.	Accepted
Hypothesis 4: The intra-cognitive business competencies predict the expected interpersonal competencies of South African human resource development graduates.	Accepted
Hypothesis 5: The expected intra-cognitive technical competencies predict the expected interpersonal competencies of South African human resource development graduates.	Rejected

Theoretical implications

The intra-cognitive generic competencies (H2) showed positive correlations with other factors of the expected and current competencies. Knowledge of adult learning (intra-cognitive generic competency), which includes competencies such as self-directive, relevant training content and

learning by doing, proved to be the area that required the most improvement, followed by knowledge of OD (intra-cognitive technical competency). Amongst other intra-cognitive generic competencies, HRD graduates are involved with common culture programmes (Wright 2013), such as knowledge of how to interact with people, knowledge of work environment and knowledge of understanding people's feelings, as identified by this study. The study also confirmed that the intra-cognitive generic competencies predicted the expected interpersonal competencies of South African human resource development graduates.

Hochwarter et al. (2006) declare that interpersonal competencies have an advantage over behavioural competencies (H3). However, this study determined that HRD graduates might be required to improve in almost all factors relating to behavioural competencies – such as self-efficacy, self-discipline, learning theories, ethical principles and positive attitude – except the willingness to learn (intra-behavioural competency). This means that HRD graduates are currently showing positive signs of willingness to learn. Paadi (2014) concurs that most employers consider employing graduates who are willing to learn. Graduates who exhibit this in the early days of their careers are given increased opportunities to succeed. The study has confirmed that expected intra-behavioural competencies predict the expected interpersonal competencies of South African human resource development graduates.

Positive correlations emerged between intra-cognitive business competencies (H4) and the expected competencies. There were also positive correlations between the factors of the expected and current competencies.

Most employers of current graduates are aware that the graduates' business knowledge is still at a novice level, and that it needs to be contextualised and developed into the actual professional capability that will benefit both organisation and individuals (Iqbal and Zenchenkov 2014, 102). To facilitate the acquisition of the intra-cognitive business competencies, this study suggests that the following areas need to be developed: financial management, budgeting skills, planning learning interventions, developing learning material, developing assessment activities for attendees, facilitating training, evaluating ETD courses and conducting research. The role of HRD is to add value and contribute by equipping graduates with skills to help improve organisational performance (Erasmus et al. 2010, 113). The study confirmed that the intra-cognitive business competencies predicted the expected interpersonal competencies of South African human resource development graduates. The HRD graduates need intra-cognitive business competencies to improve a factor like communication in the workplace.

Practical implications

The literature disclosed that the correlation between two factors suggests that the intrapersonal competencies and interpersonal competencies slightly depend on each other (Mikolajczak et al. 2014). This means intrapersonal competencies cannot function without interpersonal competencies and vice versa.

Literature also shows that technical skills are very relevant to some professions; for example, Miro (2019) emphasises that it is important to develop the technical skills, personal and interpersonal skills and organisational knowledge of the information technology graduates or professionals to enhance their employability for potential technical jobs. However, it is different with HRD graduates; evidence in this study suggests that intrapersonal competencies have an impact on interpersonal competencies, except for intra-cognitive technical competencies (H5). This implies that the intra-cognitive technical competencies may not be that critical when entering the world of work for HRD graduates in South Africa. This competency may still be developed in the workplace as part of personal development. This also implies that the intrapersonal competencies are more important for HRD graduates in the workplace and therefore it becomes the responsibility of HEIs to focus the syllabi to develop these competencies. The intra-cognitive technical competencies do not predict the expected interpersonal competencies of South African human resource development graduates.

Limitations

There are certain limitations to the study, which the researcher has considered necessary to reveal even though they have not negatively impacted the findings of the study. Not all 707 identified respondents from the target population have been involved with HRD graduates. The distribution of the questionnaire electronically via SurveyMonkey resulted in respondents not responding in the given time frame. The study was cross-sectional.

Recommendations

In South Africa graduate employability competencies fostered by universities contrast in several aspects with the necessities of the existing labour market (Shivoro, Shalyefu, and Kadhila 2018). HEIs are encouraged to improve graduate employability skills while they are still in the university environment. Employers are also encouraged to develop the competencies of HRD graduates once the graduates arrive at the workplace, because it then becomes the employer's responsibility. This will assist the graduates to succeed in the world of work.

Gaining work and learning experience during HE has been denoted as a significant factor in graduates' evolution to the workplace (Monteiro and Almeida 2015). However, certain

competencies are better developed outside HEIs. It is recommended that employers institute graduate development programmes to enhance graduates' competencies in the workplace. Graduates will then have a better chance of reaching their potential and acquiring personal resilience in the workplace. The learning experiences in the workplace will allow deep learning to take place (Pool 2020).

Graduates are encouraged to foster good interpersonal competencies and emotional intelligence. Leach (2015) confirms that industry wants people with good interpersonal skills and emotional intelligence. Although graduates require interpersonal competencies in the workplace, this study has confirmed that intrapersonal competencies impact the interpersonal competencies, which means that HRD graduates need to acquire intrapersonal competencies in HEIs; this will assist them to improve interpersonal competencies in the workplace. It is also recommended that employers nurture the interpersonal competencies of HRD graduates once they have entered the workplace to promote job performance. These competencies will assist graduates to foster and maintain strong working relationships and increase team and organisational productivity. This will also create an overall positive work environment.

Recommendations for future research

A qualitative study should be conducted to gather rich data on HRD employability competencies. The perspectives of HRD graduates on their studies and how they were prepared for the world of work could be researched. A qualitative study may also be conducted to gather rich data on HRD employability competencies. Research is required to identify and rank the most important competencies in the workplace for HRD graduates.

CONCLUSIONS

Exploratory factor analysis demonstrated that five factors had been identified as generated employability competencies of HRD graduates in South Africa. The expected factors are intra-cognitive generic competencies, intra-behavioural competencies, intra-cognitive business competencies, intra-cognitive technical competencies and interpersonal competencies. Intrapersonal competencies of HRD graduates in South Africa need to be developed in HEIs to improve interpersonal competencies in the workplace.

REFERENCES

Akkermans, J., V. Brenninkmeijer, M. Huibers, and R. W. Blonk. 2013. "Competencies for the contemporary career: Development and preliminary validation of the Career Competencies Questionnaire." *Journal of Career Development* 40(3): 245–267.

Al-Nasser, M., R. Z. Yusoff, R. Islam, and A. Al-Nasser. 2014. "Effects of consumers' trust and attitude

toward online shopping." *American Journal of Economics and Business Administration* 6(2): 58–71.

Andrews, J. and H. Higson. 2014. "Is Bologna working? Employer and graduate reflections of the quality, value and relevance of business and management." *Higher Education Quarterly* 68(3): 267–287.

Archer, E. and Y. Chetty. 2013. "Graduate employability: Conceptualisation and findings from the University of South Africa." *Progressio* 35(1): 136–167.

Bandura, A., C. Barbaranelli, G. V. Caprara, and C. Pastorelli. 1996. "Multifaceted impact of self-efficacy beliefs on academic functioning." *Child Development* 67(3): 1206–1222.

Bennett, D., E. Knight, A. Divan, and K. Bell. 2019. "Marketing graduate employability." *Education for Employability: Learning for Future Possibilities* 41(5): 485–499.

Bless, C., C. Higson-Smith, and A. Kagee. 2006. *Fundamentals of Social Research Methods: An African Perspective*. 4th Edition. Cape Town: Paarl Print.

Bohatko-Naismith, J., C. James, M. Guest, and D. A. Rivett. 2015. "The role of the Australian workplace return to work coordinator: Essential qualities and attributes." *Journal of Occupational Rehabilitation* 25(1): 65–73.

Bridgstock, R. 2009. "The graduate attributes we've overlooked: Enhancing graduate employability through career management competency." *Journal of Higher Education Research & Development* 28(1): 31–44.

Brissaud, D., Y. Frein, and V. Rocchi. 2013. "What tracks for sustainable production systems in Europe?" *Procedia CIRP* 7: 9–16.

Bulińska-Stangrecka, H. and A. Bagieńska. 2018. "Investigating the links of interpersonal trust in telecommunications companies." *Sustainability* 10(7): 1–17.

Cacciattolo, K. 2015. "Defining workplace learning." *European Scientific Journal* 1: 243–250.

Clarke, M. 2018. "Rethinking graduate employability: The role of capital, individual attributes and context." *Studies in Higher Education* 43(11): 1923–1937.

Cohen, L., L. Manion, and K. Morrison. 2006. *Fundamentals of social research methods: An African perspective*. 4th Edition. Cape Town: Paarl Print.

Cohen, L., L. Manion, and K. Morrison. 2007. "Observation." *Research Methods in Education* 6: 396–412.

Connerley, M. L. 1997. "The influence of training on perceptions of recruiters' interpersonal skills and effectiveness." *Journal of Occupational and Organizational Psychology* 70(3): 259–272.

Dubey, R. S. and V. Tiwari. 2020. "Operationalisation of soft skill attributes and determining the existing gap in novice ICT professionals." *International Journal of Information Management* 50: 375–386.

El Mansour, B. and J. C. Dean. 2016. "Employability skills as perceived by employers and university faculty in the fields of human resource development (HRD) for entry level graduate jobs." *Journal of Human Resource and Sustainability Studies* 4(1): 39–49.

Erasmus, B., P. Loedolff, and F. Hammann. 2010. "Competencies for human resource development practitioners." *International Business & Economics Research Journal (IBER)* 9(8): 113–126.

Erozkan, A. 2013. "The effect of communication skills and interpersonal problem solving skills on social self-efficacy." *Educational Sciences: Theory and Practice* 13(2): 739–745.

Fowler, F. J. 2013. *Survey research methods*. Sage.

Haerazi, H. and L. Irawan. 2020. "The effectiveness of ECOLA technique to improve reading comprehension in relation to motivation and self-efficacy." *International Journal of Emerging Technologies in Learning (IJET)* 15(1): 61–76.

Herbert, I. P., A. T. Rothwell, J. L. Glover, and S. A. Lambert. 2020. "Graduate employability, employment prospects and work-readiness in the changing field of professional work: Article

100378." *The International Journal of Management Education* 18(2): 1–13.

Hochwarter, W. A., L. A. Witt, D. C. Treadway, and G. R. Ferris. 2006. "The interaction of social skill and organizational support on job performance." *Journal of Applied Psychology* 91(2): 482.

Holmes, L. M. 2015. "Becoming a graduate: 'The warranting of an emergent identity'." *Education + Training* 57(2): 219–238.

Iqbal, A. and M. Zenchenkov. 2014. "Market tested business education: Corporate sector perceptions of Saudi graduates competencies." *Asia-Pacific Journal of Cooperative Education* 15(2): 91–106.

Jackson, D. and R. Bridgstock. 2018. "Evidencing student success in the contemporary world-of-work: Renewing our thinking." *Higher Education Research & Development* 37(5): 984–998.

Khoo, E., K. Zegwaard, and A. Adam. 2018. "Employer and lecturer perceptions of science and engineering graduate competencies: Implications for curricular and pedagogical practice." *29th Australasian Association for Engineering Education Conference 2018 (AAEE 2018).* Engineers Australia: 377.

Knafl, G. J. and M. Grey. 2007. "Factor analysis model evaluation through likelihood cross-validation." *Statistical Methods in Medical Research* 16(2): 77–102.

Lam, E. T., C. L. Lam, D. Y. Fong, and W. W. Huang. 2013. "Is the SF-12 version 2 Health Survey a valid and equivalent substitute for the SF-36 version 2 Health Survey for the Chinese?" *Journal of Evaluation in Clinical Practice* 19(1): 200–208.

Leach, A. 2015. "How to ace the civil service fast stream assessment centres." *The Guardian*.

Lindner, E. 2014. "A framework for an innovative knowledge management system in knowledge-based firms." Masters dissertation, Queensland University of Technology.

Maxwell, R. and A. Armellini. 2019. "Identity, employability and entrepreneurship: The ChANGE framework of graduate attributes." *Higher Education, Skills and Work-Based Learning* 9(1): 76–91.

Mikolajczak, M., S. Brasseur, and C. Fantini-Hauwel. 2014. "Measuring intrapersonal and interpersonal EQ: The short profile of emotional competence (S-PEC)." *Personality and Individual Differences* 65: 42–46.

Miro, A. C. 2019. "Graduate tracer study of University of Cebu Lapu-Lapu and Mandaue College of Computer Studies." *Cebu Journal of Computer Studies* 2(1): 43–55.

Mohamed, H. and T. Fahmy. 2015. "Examining the relationship between emotional intelligence and transformational leadership: A field study of tourism managers." *Journal of Association of Arab Universities for Tourism and Hospitality* 12(2): 109–123.

Monteiro, S. and L. S. Almeida. 2015. "The relation of career adaptability to work experience, extracurricular activities, and work transition in Portuguese graduate students." *Journal of Vocational Behavior* 91: 106–112.

Moore, C. 2016. "The future of work: What Google shows us about the present and future of online collaboration." *TechTrends* 60(3): 233–244.

Nghia, T. L. H. 2017. "Developing generic skills for students via extra-curricular activities in Vietnamese universities: Practices and influential factors." *Journal of Teaching and Learning for Graduate employability* 8(1): 22–39.

Nimmi, P. and K. Zakkariya. 2016. "Developing metacognitive skills: A potential intervention for employability enhancement." *Journal of Contemporary Research in Management* 11(3): 11–20.

Ohei, K. N. and R. Brink. 2019. "Investigating the prevailing issues surrounding ICT graduate employability in South Africa: A case study of a South African university." *The Independent Journal of Teaching and Learning* 14(2): 29–42.

Oliver, B. 2015. "Redefining graduate employability and work-integrated learning: Proposals for effective higher education in disrupted economies." *Journal of Teaching and Learning for Graduate Employability* 6(1): 56–65.

Paadi, K. 2014. "Perceptions on employability skills necessary to enhance human resource management graduates prospects of securing a relevant place in the labour market." *European Scientific Journal, Special Edition*: 129–143.

Papaliakos, S. 2020. "Desired soft skills in modern shipping era. A behavioural competencies assessment system in tanker operations towards a safer and efficient work environment." University of Piraeus.

Plantilla, A. 2017. "Graduates performance in the workplace: Employers' perspective." *Asia Pacific Journal of Multidisciplinary Research* 5(2): 186–198.

Pool, L. D. 2020. "Revisiting the CareerEDGE model of graduate employability." *Journal of the National Institute for Career Education and Counselling* 44(1): 51–56.

Pool, L. D. S. and P. Sewell. 2007. "The key to employability: Developing a practical model of graduate employability." *Journal of Education and Training* 49(4): 277–289.

Pool, L. D., P. Qualter, and P. J. Sewell. 2014. "Exploring the factor structure of the CareerEDGE employability development profile." *Education + Training* 56(4): 30–313.

Poortvliet, P. M. and C. Darnon. 2014. "Understanding positive attitudes toward helping peers: The role of mastery goals and academic self-efficacy." *Self and Identity* 13(3): 345–363.

Potnuru, R. K. G. and C. K. Sahoo. 2016. "HRD interventions, employee competencies and organizational effectiveness: An empirical study." *European Journal of Training and Development* 40(5): 345–365.

Rogan, M. and J. Reynolds. 2016. "Schooling inequality, higher education and the labour market: Evidence from a graduate tracer study in the Eastern Cape, South Africa." *Development Southern Africa* 33(3): 343–360.

Römgens, I., R. Scoupe, and S. Beausaert. 2019. "Unravelling the concept of employability, bringing together research on employability in higher education and the workplace." *Studies in Higher Education*: 1–16.

Saunders, M., P. Lewis, and A. Thornhill. 2007. *Research methods. Business students.* 4th Edition. England: Pearson Education.

Shek, D., L. Yu, and A. Siu. 2015. "Interpersonal competence and service leadership." *International Journal on Disability and Human Development* 1409/01: 265–274.

Shivoro, R., R. Shalyefu, and N. Kadhila. 2018. "Perspectives on graduate employability attributes for management sciences graduates." *South African Journal of Higher Education* 32(1): 216–232.

Somalingam, A. and R. Shanthakumari. 2013. "Testing and exploring graduate employability skills and competencies." *International Journal of Advancement in Education and Social Sciences* 1(2): 36–46.

Subhash, P. S. 2012. "Interpersonal competencies of employees in hospitality industries – A comparative study." *Advances in Management* 5(5): 37–41.

Succi, C. and M. Canovi. 2020. "Soft skills to enhance graduate employability: Comparing students and employers' perceptions." *Studies in Higher Education* 45(9): 1834–1847.

Tatnell, R., L. Kelada, P. Hasking, and G. Martin. 2014. "Longitudinal analysis of adolescent NSSI: The role of intrapersonal and interpersonal factors." *Journal of Abnormal Child Psychology* 42(6): 885–896.

Tomlinson, M. 2017. "Forms of graduate capital and their relationship to graduate employability." *Education + Training* 25(4): 407–431.

Tripathi, K. and M. Agrawal. 2014. "Competency based management in organisational context: A literature review." *Global Journal of Finance and Management* 6(4): 349–356.

Van der Heijde, C. M. 2016. "The measurement and enhancement of employability and career success: Over different life and career stages." PhD thesis, University of Twente, Enschede.

Wright, R. R. 2013. "Zombies, cyborgs, and other labor organizers: An introduction to representations

of adult learning theories and HRD in popular culture." *New Horizons in Adult Education and Human Resource Development* 25(1): 5–17.

Wyonch, R. 2020. "Work-ready graduates: The role of co-op programs in labour market success." *CD Howe Institute Commentary* 562: 1–36.

Yorke, M. and P. Knight. 2006. "Embedding employability into the curriculum." *Higher Education Academy York* 9(3): 339–352.