



MVSSA

Mine Ventilation Society of South Africa

National Conference 27 July 2017

Challenges of junior ventilation and occupational hygiene practitioners. A perspective from a junior MVS member.

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Background

2017 Conference Theme

Meeting the challenges of
21st century mining



Background

Informal discussions and interaction have indicated a general dissatisfaction among junior ventilation/occupational hygiene practitioners around :

- Qualifications
- Training and development
- Lack of knowledge about the changing education system and its effects



Background

- Draft abstract (MVS Council and Marco Biffi)
- Has to be based on facts
- Can't have bland statements
- There must be an objective



Objective

- Get a perspective of the MEC qualification from junior members
- Understand the challenges faced by junior members
- Contribute to solving the possible challenges of the qualification from the bottom



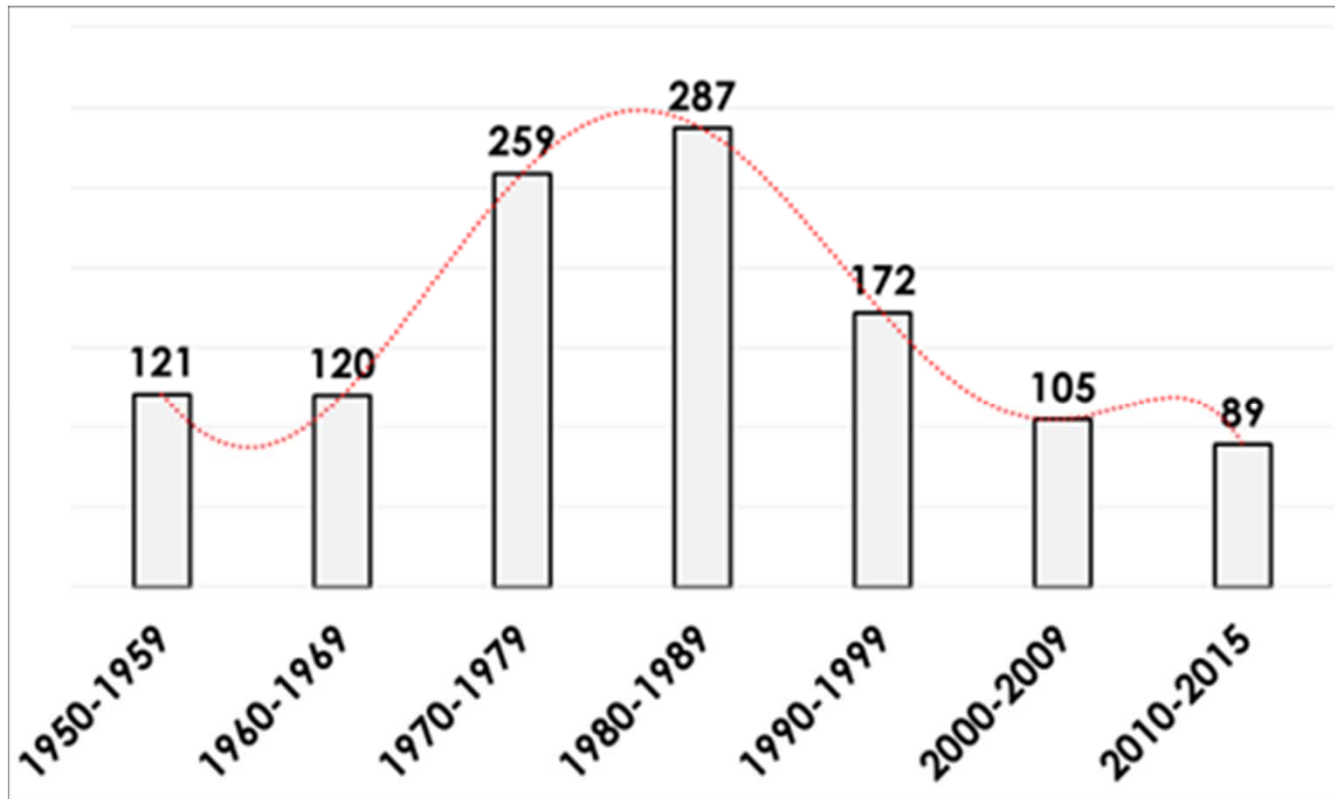
Research background

- Certificate history
- Examination statistics
- Data collection from Juniors



Certificate History

- Highly qualified and experienced ventilation practitioners are being lost to retirement and private consultancy.
- Decrease in the number of people qualifying in MEC



(Van der Bank 2017)



Certificate History

Decrease in certificates

- Can be attributed to many factors
 - ✓ Formal tertiary education
 - ✓ The developments of other fields



Exam Statistics

2012

	May-12			Oct-12		
	Wrote	Passed	%	Wrote	Passed	%
Paper 1	70	13	19%	48	3	6%
Paper 2	30	7	23%	45	8	18%
Paper 3	28	7	25%	32	3	9%
Paper 4	40	11	28%	36	14	39%
Paper 5	46	3	7%	37	7	19%
Paper 6	46	3	7%	37	7	19%
Total	260	44	17%	235	42	18%



Exam Statistics

2014

	May-14			Oct-14		
	Wrote	Passed	%	Wrote	Passed	%
Paper 1	54	21	39%	100	29	29%
Paper 2	71	15	21%	57	1	2%
Paper 3	46	26	57%	36	3	8%
Paper 4	48	31	65%	30	4	13%
Paper 5	40	8	20%	51	6	12%
Paper 6	45	21	47%	43	5	12%
Total	304	122	40%	317	48	15%



Exam Statistics

2016

	May-16			Oct-16		
	Wrote	Passed	%	Wrote	Passed	%
Paper 1	65	13	20%	44	11	25%
Paper 2	79	8	10%	69	8	12%
Paper 3	41	13	32%	37	11	30%
Paper 4	35	6	17%	50	7	14%
Paper 5	52	9	17%	62	25	40%
Paper 6	64	27	42%	46	29	63%
Total	336	76	23%	308	91	30%



Exam Statistics

- Increased number of candidates writing exams
- Irregular pass rate



Data collection from Juniors

- Initial questionnaire handed out at Jnr. Symposium
- Presentation and discussion at MVS
Refrigeration plant visit using perceived challenges
- Revised questionnaire through MVS council



Questionnaires

- Initial questionnaire (15 questions)
- Revised questionnaire (30 Questions + scoring)
 - After feedback from MVS Council

➤ Questionnaire included :

- ✓ commodity
- ✓ mining group
- ✓ position held
- ✓ access to training and training material
- ✓ number of exam attempt
- ✓ support and mentorship from senior
- ✓ the will to continue with the certificate up to the advanced level



Junior symposium

Perceived challenges

- Lack of training material (as indicated in the workbooks)
- The certificates are difficult and or unattainable
- High failure rates
- Lack of exposure to the MVSSA and related associations, including not even knowing that the MVSSA exists.
- Lack of leadership and mentorship
- Little knowledge sharing and transfer of practical skills from the supervisors.
- Mine budget cuts, juniors' attendance to training courses and programs is limited
- Retrenchments and job losses create uncertainty to the junior members where they become less motivated to continue with their studies.



Junior symposium

Response from Junior symposium

- The audience confirmed the perceived challenges
- Represents the different challenges they face.

Comments from seniors at junior symposium

“The challenges you are facing now are the same challenge we faced when we were juniors”



Results from questionnaires

Total of 32 response

- 18 Coal
- 14 Gold
- 0 Platinum and other commodities

Of the respondents

- 96% know about the Mine Ventilation Society
- 61% are members of the society
- 55 % have attended MVSSA conferences and majority have rated the events above average.



Results from questionnaire

Distribution of respondents

- 62% have 1-5 years working experience
- 38 % with more than 5 years
- 80% passed the Int. Paper 1 examination
- 67% having passed first sitting
- 65% candidates have passed Intermediate Paper 2
- 55% first sitting.



Results from questionnaire

Syllabus and training

- Syllabus is sufficient and acceptable
- All respondents have some or all the MVS Workbooks
- 2% have the supporting (additional) text-books and other publications
- 86% intend to study up to the advance certificate, willing to pay for their own study material
- Training courses have been rated above average (mostly 8/10)
- 70% get support from their managers and supervisors.



Results from questionnaire

General comments

- Lack of development strategies in the companies for juniors
- The lack of opportunities despite having qualified
- Examinations are expensive
- The quality of the examinations papers is poor
- Mistakes and charts not clear



Discussion of results

- All responses received were through the MVSSA channels
 - ✓ Indicating the possibility of not having reached people who are not affiliated to the society directly or indirectly
 - ✓ Possibly skewing the results in favour of the better informed juniors, and those already studying or taking examination
- Questionnaires did not identify and/or confirm the perceived problems that the junior ventilation practitioner's face compared to the responses received at the symposium
- Except for the 30% who lacked support from supervisors and had not attended training courses.



Discussion of results

- The training courses and training material is sufficient for individuals to be able to cover the syllabus of the modules.
- There is no link between the responses and the irregular pass rate and the declining number in qualifications in the profession
- All general comments revolved around the lack of development opportunities for juniors in the departments and requested an improvement to this regard.

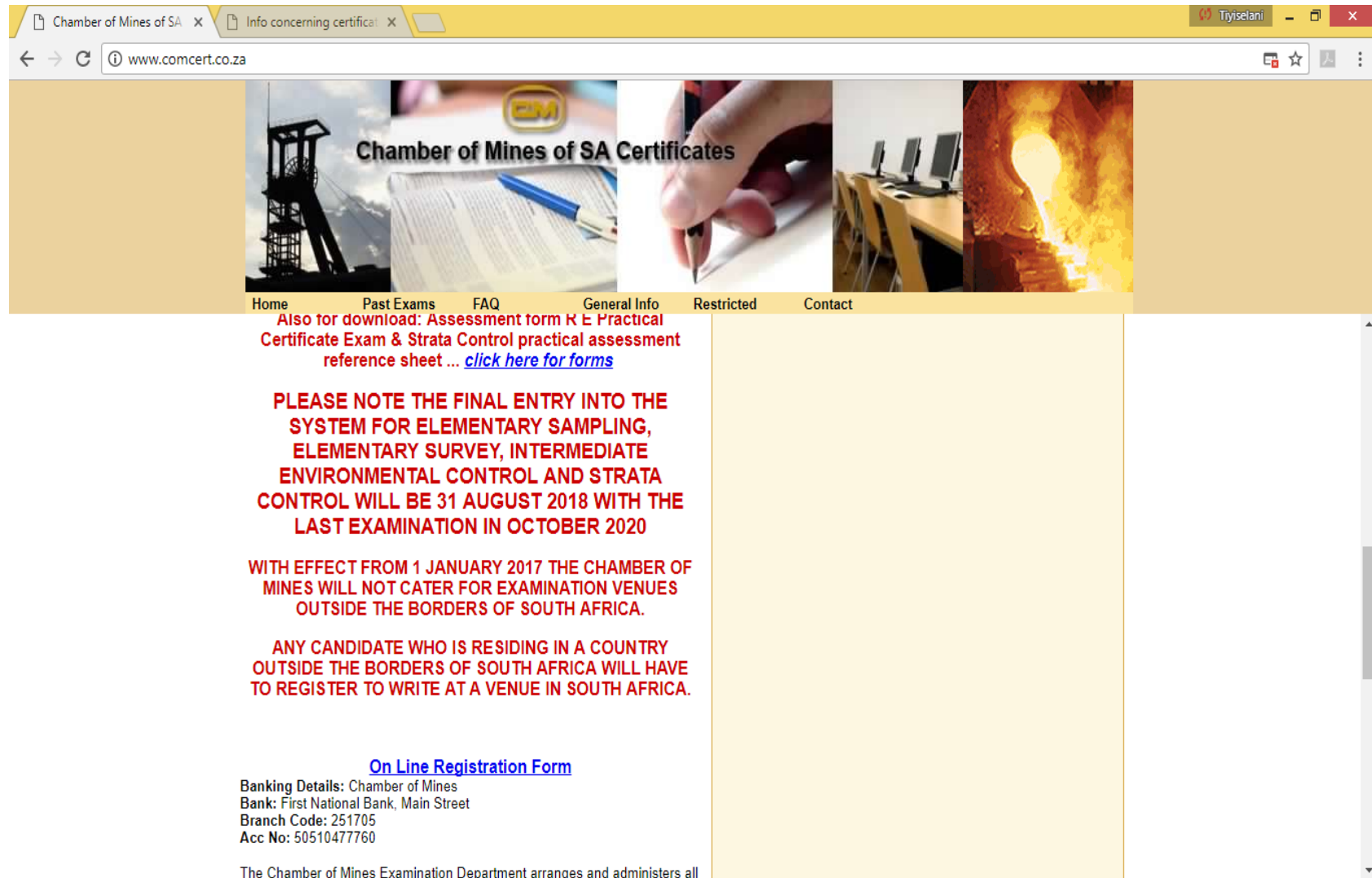


Change in education

- There is still confusion around the changing education programme
- Changes presented in National conference and AGM
- Not on current chamber of mines web pages
- There was no talk on the education feedback/changes at junior conference(Mponeng)
- How much feedback is given to juniors after conference ?
- How many juniors are present today ?



Current information



The screenshot shows a web browser window with the address bar displaying 'www.comcert.co.za'. The website header features a navigation menu with links: Home, Past Exams, FAQ, General Info, Restricted, and Contact. Below the navigation menu, there is a large yellow banner with the text 'Chamber of Mines of SA Certificates' and a sub-header 'Also for download: Assessment form K E Practical Certificate Exam & Strata Control practical assessment reference sheet ... [click here for forms](#)'. The main content area contains several paragraphs of text in red, including a notice about the final entry into the system for elementary sampling, elementary survey, intermediate environmental control and strata control, and a notice about the last examination in October 2020. There is also a section for 'On Line Registration Form' and 'Banking Details: Chamber of Mines'. The footer of the website states 'The Chamber of Mines Examination Department arranges and administers all'.

Chamber of Mines of SA Certificates

Also for download: Assessment form K E Practical Certificate Exam & Strata Control practical assessment reference sheet ... [click here for forms](#)

PLEASE NOTE THE FINAL ENTRY INTO THE SYSTEM FOR ELEMENTARY SAMPLING, ELEMENTARY SURVEY, INTERMEDIATE ENVIRONMENTAL CONTROL AND STRATA CONTROL WILL BE 31 AUGUST 2018 WITH THE LAST EXAMINATION IN OCTOBER 2020

WITH EFFECT FROM 1 JANUARY 2017 THE CHAMBER OF MINES WILL NOT CATER FOR EXAMINATION VENUES OUTSIDE THE BORDERS OF SOUTH AFRICA.

ANY CANDIDATE WHO IS RESIDING IN A COUNTRY OUTSIDE THE BORDERS OF SOUTH AFRICA WILL HAVE TO REGISTER TO WRITE AT A VENUE IN SOUTH AFRICA.

[On Line Registration Form](#)

Banking Details: Chamber of Mines
Bank: First National Bank, Main Street
Branch Code: 251705
Acc No: 50510477760

The Chamber of Mines Examination Department arranges and administers all

Is this the end of the MEC papers?



Where are we now ?

Occupational environment engineering and hygiene training for the future.

Paul Botha

MVS Conference proceedings 2007

Summary

- Challenges of the Environmental Engineer/Occupational hygiene practitioner
 - Supporting the development of skilled, qualified and competent practitioner, to satisfy the need in the need in the mining industry for these skills
 - Mentorship programs for new entrants into the mining industry
- Appealed to stakeholders and management to assist in the following:
 - Consider limiting or eliminating cuts to training budgets
 - Provide appropriate screening of all new incumbents
 - Reintroduce the need to have properly trained and qualified environmental staff on the mines



Where are we now ?

Occupational environment engineering and hygiene training for the future.

Paul Botha

MVS Conference proceedings 2007

Other subtitles

- Development of qualifications and learning processes
- Registration of the qualifications to professional bodies

How much has changed since then 2007?



Conclusion

The profession is not short of people wanting to enter into it; but of people who actual pass and qualify in the reasonable required time frame.

The challenge is to identify the problem behind the irregular pass rate and focus on the career development strategies for juniors to mitigate the challenges of the 21st century in mining



Mitigating the challenges

It remains vital for the leadership in the MVSSA to help change the perception of junior members towards the field and particularly towards the qualification process into an improved one.

This could be achieved by:

- enhancing the relationship between the different mining commodities
- improve exchange of knowledge and information through mentorship
- support career development and growth by providing skill based training courses and programs in conjunction with the already set Chamber of mines certificate program



Mitigating the challenges

The following factors could also be considered:

- Is the decrease in qualified practitioners placing a strain to the mining industry ?
- The layout of the qualification and its relevance to the working individuals
- Relevance of the syllabus to changing technology and regulations
- Development of other studies or qualification related to Mine Environment Control
- The current and future need of the skill in the industry
- The caliber of the candidates (basic mathematics and science requirements)
- How to reach the majority of the candidates who are not members of the MVS



My perception

Recent presidential address AGM 2017

- We need to increase the reach of the society to the large number of people writing the exams, but are not members.
- The society should work and benefit the people especially its members
- I am passionate about the training and development of juniors in the industry.

The MVSSA contribute vastly in the training and development of junior practitioner

- Training material and textbooks
- Junior symposiums
- National symposiums
- Communication on training courses
- Information on their web site



Acknowledgements

- The Junior practitioners
- The MVSSA and its council
- The MVSSA secretaries





Thank you

Q & A

