EDUCATION AND HEALTH STANDING COMMITTEE

INQUIRY INTO CHANGES TO THE POST-COMPULSORY CURRICULUM IN WESTERN AUSTRALIA

TRANSCRIPT OF EVIDENCE TAKEN
AT PERTH
WEDNESDAY, 16 NOVEMBER 2005

SESSION TWO

Members

Mr T.G. Stephens (Chairman)
Dr E. Constable
Mrs D.J. Guise
Dr K.D. Hames
Mr J.N. Hyde
Mr T.K. Waldron
Mr M.P. Whitely

Hearing commenced at 10.15 am

REYNOLDS, MS NOEMI ELEANOR
Teacher, Mathematical Association of Western Australia, examined:

The CHAIRMAN: Welcome to the committee. Thank you very much for making yourself available. I am required to introduce you to a couple of propositions, which I would like you to listen to, and then we will ask you some questions.

The committee hearing is a proceeding of Parliament and warrants the same respect that the proceedings in the house itself demand. Even though you are not required to give evidence on oath, any deliberate misleading of the committee may be regarded as contempt of Parliament. I am required to ask you three questions. Have you completed the detail of witness form?

Ms Reynolds: Yes.

The CHAIRMAN: Do you understand the notes attached to it?

Ms Reynolds: Yes.

The CHAIRMAN: That was part of the first question. The second question is: did you receive and read an information for witnesses briefing sheet regarding giving evidence before parliamentary committees?

Ms Reynolds: Yes.

The CHAIRMAN: Finally, would you now please state your full name, your professional address, and the capacity in which you appear before the committee.

Ms Reynolds: Noemi Eleanor Reynolds.

The CHAIRMAN: Your professional address?

Ms Reynolds: John Curtin College of the Arts, 90 Ellen Street, Fremantle.

The CHAIRMAN: What is the capacity in which you appear before the committee?

Ms Reynolds: As the writer of the Mathematical Association of Western Australia's submission.

The CHAIRMAN: Is it convenient for you to briefly address the committee with a submission, articulating now your assessment of where we are up to with the introduction of the changes to the curriculum for years 11 and 12.

Ms Reynolds: I have a prepared statement. May I read that?

The CHAIRMAN: Yes, please.

Ms Reynolds: The Mathematical Association of Western Australia exists to effect improvements in mathematics education principally in schools, universities, colleges and other educational institutions. MAWA has quite a history of promoting and supporting improvements in mathematics education.

Publications ranging from 100 mathematical problems to the working mathematical series provide evidence to this progressiveness as does the type of professional development MAWA provides and supports. For example, since the introduction of outcomes focused education over 10 years ago MAWA has published support material, such as "Using Student Outcomes Statements in Mathematics: The NPDP Experience" and the "Working Mathematically" series. This has ensured the status of MAWA in the West Australian education community as indicated by representation on the Department of Education and Training panels and the Curriculum Council committees

responsible for the implementation of outcomes focused education. The association continues to be represented on the Curriculum Council committee, such as the assessment review moderation panels dealing with courses of study.

MAWA lobbied the Department of Education and Training to republish the "Knowing What They Know" book and has actively supported First Steps in Mathematics and the Getting it Right strategies. That will give you some indication of where we are coming from. These activities demonstrate MAWA's commitment to improving mathematics education in Western Australia.

I prepared the MAWA submission on behalf of and under the direction of the MAWA committee and I am here to speak on behalf of the committee and members.

Many members are relatively new to outcomes focused education while many, many others including most of our primary teachers have been teaching to and reporting on outcomes for over 10 years, and some even more than that. The latter group of teachers had some early concerns about outcomes. For example, for myself, I was very worried about where content would fit into the outcomes statement. A lot of these concerns are now shared by those beginning to go down that kind of path of engaging of outcomes. However, years of working with these outcomes have enabled the members who have been working with it to resolve most of these issues. For example, I have found that, in fact, there is a syllabus, quite an implied content syllabus. It is just that it is now a longitudinal syllabus as opposed to a cross-sectional one, like we were used to; so that was quite a major change. It is something that most of us who have worked with outcomes have come to grips with.

Over the years of working WAWA members have produced quality outcomes-focused education materials and PD, written and provided by members. Many of these members are positive about the proposed courses of study. They believe that an outcomes focus will be beneficial to years 11 and 12 students, particularly with the increase in retention rates in schools. Things have to change because of that increase.

There is ample evidence that outcomes focused education is workable in mathematics and a lot of our members have indicated they just want to get on with the indication of the courses of study without further delay, especially now that more information is filtering through. Some members are less positive. For some the concern is about the effectiveness of teaching mathematics in an outcomes-focused environment anywhere from K to 12. A number of them have not yet seen evidence that mathematics can be taught effectively under outcomes focus. For a few others who are more comfortable with K to 10 being outcomes focused, the concern is about doing so in years 11 and 12. They are not convinced that it will be beneficial to post-compulsory students.

The full effect of the Make a Consistent Judgment program has yet to be felt in the DET and to fully filter through to the Catholic Education and Association of Independent Schools of WA systems. Many of these members will defer the delay in implementing the courses, while a few want to maintain the current system permanently.

At the time of writing the MAWA submission a significant number of members had concerns about the apparent lack of information about courses. Members were worried they did not know enough about the courses to begin planning, especially as it loomed a fair bit closer. Since then, an extra year has been added to the time line and significantly more information has been distributed. That includes the compulsory courses study PD. A lot of our members have attended the first day of that, or will attend it before the end of this year. Those members I have spoken to have spoken very positively about it. They have said that the first day of PD has addressed a number of their concerns. I have heard, although these people have not spoken to me directly yet, that some members still have some concerns about how assessments in moderation will work and the first day of the PD has not yet addressed that. A number of members have indicated they are still worried about the perceived untested nature of the courses. However, some others have indicated they discovered that the New Zealand model is very similar to that which is proposed here and are

somewhat reassured by that. So there is quite a diversity of thought amongst the MAWA community.

Generally, though, feedback from members at this stage is that they are a little more comfortable with the course of studies, given the developments that have occurred since the writing of the submission. I can discuss those changes with you now or throw it open to questions.

The CHAIRMAN: No, fire away.

Ms Reynolds: For example, in C1.1, there was concern about pathways. That is still the situation about what is happening. Sorry, I did not mean to say that. In C1.2 there was concern about the single model that was being used for the writing of all the courses of study. From my own experience, I understood members' disquiet about this. If you attempt to write every subject into the one model it does not work, because not every subject fits the same thing. However, since the writing of this submission I understand that Norma Jeffery stepped in and said, "No, you need the flexibility to write according to the need of your subjects". In mathematics, the model looks a bit different from those of other subjects and it seems to work. Certainly the writers I have spoken to are a lot more comfortable with it now.

C1.3 is about making fully informed comments on the merits of the proposed changes and that have not been fully articulated. We understand the mathematics terms and data course is due for release on 30 November and we are going to have until 9 June next year to respond to it. When feedback was called for on proposed courses of study, I understand the Curriculum Council received only 25 submissions about it and none of them was from the universities, TAFE or members of People Lobbying Against Teaching Outcomes for that matter. The information is going out there and people are getting the opportunity to respond. Most members are feeling a fair bit more reassured by that. Whether or not they are taking up the option is another story, so perhaps silence is supportive for them.

[10.24 am]

We understand for C1.4 that there are a number of committees still looking at this, using outcomes achievement to determine TERs. The people I know of who received the first day of the compulsory PD have said that they are actually quite reassured. The model looks workable with how the TER will be calculated. It looks mildly reasonable. That is the word at the moment. That is only a first impression. By the time we look at it in further detail and see how it is going to work, it may seem a great deal more reasonable or it might seem unworkable. It is hard to know yet at this stage.

Recommendation 1.1: MAWA has been told that action research strategies are being used now in the trialling, which is reassuring.

Recommendation 1.2: there have been lots of workshops, presentations and school visits made this year. The general feedback is that the three by three by three model has been quite positive. There are still some members with some concerns. Some assessments have been trialled and proved to be more successful than when the preliminary consultation draft went out, so there have been changes in there which have been quite positively received.

Recommendations 2.1 and 2.3: there is now the PD plan in place, the compulsory five days of PD on it, which has been very reassuring. Hopefully that will answer people's questions. We believe that there is still a need for more on top of that.

Recommendation 2.4: given that there has been a one-year extension of delay that has been put in place since this was written, we understand that more staff have been employed to work on the courses of study and further develop support materials and so on, and there is a lot of PD in place. So perhaps that delay is not called for as much, because we certainly hoped for at least one year delay, which has happened.

Recommendation 3.3: again about the writers needing additional resources and time. We understand that Jill Hughes is currently working part-time to write these resources and assessments, so that particular concern has been met to a large extent and I believe most members have a fair bit of faith in Jill Hughes.

Ongoing moderation, C3.4: we understand that has actually also been recognised by the Curriculum Council and the funds have been applied for.

There is just one minor modification in recommendation 4.3. That probably should have said the Catholic head office and AISWA as well, not just the education department. I am not sure why it only said the education department. That was probably a mistake on my part at the time.

The CHAIRMAN: Thanks very much, Ms Reynolds. I wonder if you could just comment on my observations of the flavour of what we are now hearing and from your own presentation. With some unevenness from other witnesses, but nonetheless more of a sense that my original concerns about the changes are by and large being tackled.

Ms Reynolds: I have the good fortune to have access to some members who were very anti it to begin with. Hearing their responses to the new stuff that is coming out, there is an air of a movement towards more acceptance than they had, certainly amongst those who were iffy about it or quite positive about it. They feel that there has been far more progress made.

The CHAIRMAN: Is that a sense that the public debate and the robust engagement of these teachers with the Curriculum Council has started to shake the rollout? Is that why they are more accepting?

Ms Reynolds: I do not know about the public debate, because most people see that as being entirely one-sided and not representative. Even a lot of people who have concerns about the courses of study and the changes have said, "We are not getting the full picture here." So I do not think the public debate side of it has helped, but certainly the additional information that has come from the Curriculum Council is reassuring a lot of people. There were comments made a while back that we were being asked to take a lot of it on trust from the Curriculum Council. There was a little bit of information about the way things would be and so on with little filling in it, which really worried a lot of people. Now there is a lot more substance coming through, which is generally reassuring, yes.

Mrs D.J. GUISE: Ms Reynolds, you made the point that the charts and data course of study is due to be released at the end of this month, I understand, and you will be given until June to respond.

Ms Reynolds: Yes.

Mrs D.J. GUISE: I understand that these courses of study are being tested. However, I want to understand what you envisage in terms of your members further testing in the chalk place with those courses of study next year. What do you see will happen further in testing that particular course of study as an example next year?

Ms Reynolds: I do not know about the testing of it. I do understand the Curriculum Council is testing it in some schools. I spoke to one person involved in that down in Albany some time ago about the situation as it was then. I do not know what the situation is now. I do not know that schools will be testing it on a very wide basis at that time. I do not know what they have planned.

Mrs D.J. GUISE: Some selectively perhaps, do you think?

Ms Reynolds: Hopefully. I do not know what the process is there from the Curriculum Council. You would do better to ask it. However, I do know that we are anticipating a fair bit more PD on it, and there are certainly several days compulsory whereby we actually look at our individual courses of study as well. The interesting comment I have received from the Curriculum Council is that a lot of the content is what they are teaching at the moment. So to some extent there has been some repackaging of the content, but we have also put an emphasis on understanding the content.

Mr T.K. WALDRON: You mentioned content when you were speaking. One of the issues that has been raised with us has been content and sort of a lack of directional syllabus, and you said there was a syllabus. Can you just elaborate a bit more now. Are you confident that there is a syllabus to guide teachers through? Did you just talk about maths there or generally?

Ms Reynolds: No. Generally I have heard this from other subject areas too, but specifically in maths. By tracking each child's progress through the outcomes, there is a very clear syllabus implied for that child. So it is not a case of a cross-sectional syllabus in that, "I am going to go in and teach this one idea at this one level to my class today." Rather, I will go in and say, "Tim there is just about achieving level 6 in algebra, whereas Brooke over there is struggling to achieve level 4 in algebra, and I need to progress them both in the one classroom because they are on their own individual syllabus, they are at different stages." That is far more of a challenge to teachers, but it is doable because a lot of people have been saying that. A lot of our resources, MOWA resources, are based on that. Then with the actual content of things, if you look at, say, the level 6 algebra outcomes, in order to achieve level 6 algebra a maths teacher can look at that and say, "These are the skills they need". They are mentioned in the elaboration but to achieve a particular ability to manipulate, use and so on algebraic expressions, there is a heap of particular skills and understandings that we need to teach them. So it is there.

Mr T.K. WALDRON: In other subjects, do you think that content and that longitudinal syllabus, as you describe it, is present as well?

Ms Reynolds: Yes.

Mr T.K. WALDRON: In the same sort of way? I know it would be different for each subject.

Ms Reynolds: Yes. For instance, when I was at high school, in social studies we all studied Indonesia in Year 8. We might not have all students studying Indonesia in the context of their outcomes, but the outcomes are common across -

Mr T.K. WALDRON: They are common?

Ms Reynolds: Yes.

Mr T.K. WALDRON: An issue there for the teacher is that it is not insurmountable in your opinion?

Ms Reynolds: No, it is not. It takes a lot to learn it. It takes a while.

Mr T.K. WALDRON: Is one of the problems actually learning it? Once you have learnt it, it will become a natural thing for teachers.

Ms Reynolds: Yes, I believe it does, but I think part of the problem is recognising that it is doable and recognising that that is the issue. I think that those who have not engaged with it are struggling with that at the moment. MAWA is looking at how we can help them too, but certainly we provide a great deal of PD to help people do just that.

[10.34 am]

Mr M.P. WHITELY: In the early years - years 8, 9 and 10 - currently at John Curtin, as I understand it, you have pathway 1 and pathway 2 maths in year 8 and then you introduce another pathway halfway through year 9. That is the longitudinal element, is it not - kids who have high levels of competency are in pathway 1?

Ms Reynolds: No, not exactly. I, in fact, teach the pathway 3 class. I like taking that on as part of my regular teaching program. The pathways no longer dictate what will be taught but are a recognition of clusters of kids at similar stages in their personal syllabus, to make it easier to progress them. For example, in my pathway 3 class I have a little boy who cannot deal with numbers. He has not got a clue about algebra because if you cannot deal with numbers you will not get the abstract arithmetic that is algebra. He is not particularly good on chance and data. He is

pretty good when it comes to measurement, but in space he is right up there, hugely high. He is entering level 6 a lot of the time because he has amazing spatial skills. The beauty of outcomes-focused education for me and for a lot of our other members - this has been articulated a number of times amongst our members - is that you can then say to this particular child, "Okay, I am going to take you as far as you can go" and with little twists and extensions to the same activity the class is doing this child can show very high levels and progress his understanding and achieve really well in that, and not just get a B halfway through.

Mr M.P. WHITELY: So in the cross-sectional thing that you were locked in you could not do that because you all have to do the same thing at the same time. Well, a good teacher probably does it informally.

Ms Reynolds: I think that is the difference. One of the reasons a lot of our members are asking what the need is for outcomes-focused education is that they were already doing a lot of what is built into outcomes-focused education, such as developing understandings, developing flexibility in kids and being flexible in your own classroom, but a lot of people thought differently particularly under unit curriculum, that it was lock step - all you do is go into the classroom.

Mr M.P. WHITELY: So when it is working well that kid who is in pathway 3, for instance, might be achieving level 3 in some and level 6 in others and you have got that better method of monitoring and rather than get an average of his performance - the kid actually gets rewarded, "Hey, you are excellent at this" but, you know, "You are not so good at that" sort of thing.

Ms Reynolds: If he wants to go to a job that requires excellent spatial skills with less of an emphasis on other things -

Mr M.P. WHITELY: My son actually goes to your school and, in fact, I was helping him with his homework last night. He was doing linear relationships and it looked exactly like the content I did 30 years ago, so it is not really very different. I mean, it is a syllabus with explicit content in the way it was back then.

Ms Reynolds: Yes.

Mr M.P. WHITELY: So this idea that you are suddenly throwing out any content is just -

Ms Reynolds: Members have found that you do not throw out the content. You have nothing to teach if you do not acknowledge the content. The difference is that under unit curriculum you went in and did the content. Now it is the kid's achievement that you focus on, which is very positive.

Mr M.P. WHITELY: So it is an attempt to match the content of where the kids are at but still give them a content?

Ms Reynolds: Even the content itself can be quite flexible, so with linear relationships the child can solve a problem in a number of ways. The child can solve a linear equation by check, guess and check and that is about level 4, that is fine. Or they can use quite complex algebraic methods, to solve it and then further down the track it is a case of recognising when to use it and other means of solving it.

Dr E. CONSTABLE: It crossed my mind a moment ago that there may well be fewer students studying mathematics in years 11 and 12 with the changes - getting away from list 1, list 2 and freeing up subject choice. Do you think it is likely there will be fewer students studying mathematics in years 11 and 12?

Ms Reynolds: There have been fewer and fewer students studying mathematics in years 11 and 12 for quite some years. In fact, paragraph 1.1 of the submission actually states that we have noticed a massive decline, particularly in the higher level subjects.

Dr E. CONSTABLE: Are you concerned as an organisation that this drift will continue?

Ms Reynolds: Yes, we have talked about it a lot. It is of great concern for us. It is leading to a lack of skilled mathematicians in the community.

Dr E. CONSTABLE: Fewer people available to teach mathematics?

Ms Reynolds: Absolutely. This has been a long-term problem, in fact it is recognised worldwide. The beauty that some members see in the course of study is that there is more reason and more direct application for kids in doing mathematics. For example, at my school, which is a college of the arts, a lot of the kids are planning a career in the arts and a lot of them say that they are not going to do maths because we have not quite got the idea through to them that mathematics is an art. A lot of them say they do not need it for what they want to do. One of the courses in maths is space and movement, so it would make a great deal of sense for us to take that and put it in the context of space and movement in theatre. There is a lot of context we can apply to that and the kids might do one or two semesters of space and movement. I think that we are actually going to have more children studying mathematics.

Dr E. CONSTABLE: In years 11 and 12 you think you might have more?

Ms Reynolds: Yes.

Dr E. CONSTABLE: Overall, though, is there a concern, not just at your school but in all schools, that there will be a further drift away from maths?

Ms Reynolds: Not a further drift away, but we are concerned that there has been a significant drift away.

Dr E. CONSTABLE: So you do not see this as a continuing problem?

Ms Reynolds: Yes, we do, but the courses of study are not necessarily recognised as contributing to completely solving that.

Dr E. CONSTABLE: I was thinking more of the overall system of choice of subjects, though, where at the moment students have to have at least one subject from list 1 and list 2 or whatever.

Ms Reynolds: Some students who would do extra maths will choose not to do any of the lists.

Mr T.K. WALDRON: Is that a problem?

Ms Reynolds: Not for me. It should not be. That would be the shift back to perhaps what it was like a number of years ago when lots of students did study the lists.

The CHAIRMAN: I wonder if I can intervene here and try to get some focus on the way Dr Constable was handling that question to you. If I can summarise the question I think it goes this way - you have articulated the concerns in your submission and you have described the situation in which the study of maths and the availability of mathematicians and maths teachers has been diminishing over the years. There are various submissions before the committee that have argued that the changes will exacerbate that. Is that the view of your association or your own view?

Ms Reynolds: The members I have spoken to about this do not see it as exacerbating the situation.

The CHAIRMAN: Are the changes seen to be helping to turn that situation around?

Ms Reynolds: They seem to have the potential to. Whether or not they will is something that remains to be seen, but if we keep doing what we have been doing then the drift will only continue further.

The CHAIRMAN: Can you just repeat that sentence?

Ms Reynolds: If we continue doing what we have been doing to date -

Dr E. CONSTABLE: "We" being?

Ms Reynolds: "We" being maths teachers, assistants, mathematical association, everyone - we as a community. It is not going to turn around if we just keep doing the same thing, so something needs to change.

Dr E. CONSTABLE: Your new courses of study are due to be introduced in 2008. Is that correct?

Ms Reynolds: That is correct.

Dr E. CONSTABLE: Can you give us some idea of your association's view on when you would need to have completed PD, time lines, sample programs, assessment items, course outlines, syllabus - whatever you want - all the information you would need to implement for 2008? When would be the latest time you would want to have those things in place in order to be ready for 2008?

Ms Reynolds: Do you want a wish list answer or a practical answer?

Dr E. CONSTABLE: No, I want your answer. What would your association think is reasonable for your members to be ready?

The CHAIRMAN: I am going to sharpen that question, if I may, in this way - it is in order for a committee like ours -when does it become a showstopper?

Mr M.P. WHITELY: When is the deadline?

Dr E. CONSTABLE: That is different to the question I just asked. That is not the question I asked. I said, when is it reasonable for your members to have that in place in order to be prepared for 2008?

Mr M.P. WHITELY: Answer any of those questions.

Ms Reynolds: I believe one answer will do the lot. I think most members would be happy to have the stuff at least one year before they have to begin implementing it. I think a good many members with extra support could do it with a six-month lead-in time.

Dr E. CONSTABLE: Now define "extra support"?

Ms Reynolds: Okay. In 1992, when we implemented the new mathematics subjects, we had resources from the SEA, as it was then. There were booklets with lots and lots of examples of assessments, proposed programs and so on. We did not have texts. A couple of the texts were rushed off the press very quickly so that we could work with them, although they were fairly faulty. I think that is seen as less of a problem this time because not much of the content has changed. The kind of support we need to be given is lots of examples of what we can use and example programs. We need lots to choose from.

[10.45 am]

Dr E. CONSTABLE: Generally speaking, would a year out give you sufficient time to be prepared for 2008?

Ms Reynolds: It would be comfortable, yes. By the way, that extra support would include lots of extra PD as well. I believe that nine days PD is now being talked about. It is five days at the moment, but they are now talking about nine days of compulsory PD. When we were facing changes in 1991, a lot of concerns were raised about how ready people would be, what was involved and so on. However, once we started engaging in the PD, it kind of fell into place and became a lot more comfortable. There was some learning on the job, as we actually taught the staff.

Dr E. CONSTABLE: When would you want to have completed the PD - during 2006 so that you can then be preparing 2007, or as you are preparing it?

Ms Reynolds: Quality PD, in the form of actual research, would include the preparation as part of the PD. That would happen through 2007. In that way, we would actually be preparing the stuff at least three months before the end of 2008.

Dr E. CONSTABLE: Given the shortage of maths teachers, is there a concern that if the PD does go to nine days, it will be difficult to find competent people to take your classes while you are doing the PD, especially if teachers will be missing from classes for year 12 students?

Ms Reynolds: I guess there is, but at the moment -

Dr E. CONSTABLE: I mean, that is nearly two weeks out of a year 12 course, if most of it is done in -

Ms Reynolds: At the moment, the PD is done on our own time, so it is not a case of reliefs taking over our classes. There is always a concern about quality relief teachers; about people who can continue the program.

The CHAIRMAN: Do not feel obliged to reply to this, but a lot of the critique on these changes to the system has come from individual maths teachers. That is my observation. There is something about that particular discipline, which has produced some loud noise and critique. Is there any explanation for that? Is it something about the discipline?

Ms Reynolds: We have had some conversations about this among MAWA members and some committee members.

The CHAIRMAN: I am going to be blunt - is it that mathematicians do not like change?

Ms Reynolds: One of our subjects is called change.

Dr E. CONSTABLE: Good answer!

Ms Reynolds: Maths teachers generally embraced the unit curriculum fairly well, so it is not an anti-change thing. I think a lot of the concern was that the original outcome statements and things were written in ways that more obviously suited to other learning areas. Maths teachers are very used to having content explicitly stated, and perhaps underestimate their ability to recognise implicit content. When the outcome statements - the curriculum framework - came out, it would have suited the style of the English teacher and the drama teacher really well. There was a fair bit more of a gap for the maths, physics and, to some extent, chemistry teachers to link that in. It is far more of a change for the maths, physics and chemistry teachers than for any other learning area. I think that is what we are seeing. It is not anything negative about maths teachers. When the courses of study were originally written, drama was originally written with those kinds of outcomes. The way in which they were meant to be written was, again, very suited to that kind of style. Maths teachers have to interpret it a lot more than perhaps they do. So, yes, it is a hard call, I believe, for maths teachers.

The CHAIRMAN: Thank you.

Mr M.P. WHITELY: You mentioned the three-by-three-by-three model in your opening remarks.

Ms Reynolds: Three subjects and three levels, so we come up with a nine-square grid.

Mr M.P. WHITELY: Was it only three-by-three?

Ms Reynolds: It says here three-by-three-by-three, but I think it probably means three-by-three. I can get back to you on that.

Mr M.P. WHITELY: No, it is all right.

The CHAIRMAN: I think we can wrap up. Thank you very much for taking the opportunity to make a detailed submission on behalf of your association.

Ms Reynolds: Thank you.

Hearing concluded at 10.50 am